

# CUTTING-EDGE SCIENCE 2020

# INTERNATIONAL Scientific and practical conference



# International scientific and practical conference CUTTING EDGE-SCIENCE

July, 2020 Shawnee, USA Conference Proceedings

> Primedia E-launch Shawnee, USA

### **PRIMEDIA E-LAUNCH**

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Science editor: G. Kolne

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# AGRICULTURAL SCIENCES

### EFFECTIVENESS OF SHAPING PROCEDURE AND TIME IN ESTABLISHING NUTRITIOUS BUSHY MULBERRY GROVES FROM CINCTURED CUTTINGS IN THE CONDITIONS OF KHOREZM REGION.

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Abstract. The article reveals data on the study of high effective cultivation of qualitative mulberry leaves on the base of organizing intensive bushy mulberry groves in a proper scheme and producing productive mulberry seedlings by cincturing hard shoots of mulberry varieties regionized in the condition of Khorezm region.

Key words: mulberry variety, hybrid, shoot, cinctured, hard cutting without leaves, intensive, bushy mulberry groves, productive mulberry seedling, formation, time, method, regionized, leaf yield, nutritional value, feeding value.

Introduction. At the present an extensive work is being carried out in our country to develop feed base of silkworm, to expand intensive mulberry groves with high nutritional value, to create and introduce into production varieties of mulberry that are suitable and nutritious for silkworm hybrids. At the same time, it is required to increase scientific research and to pay greater attention to the implementation of new advanced elaborations and technology into the practice through the study of the adaptation of cuttings, saplings and varietal seedlings cultivated from mulberry varieties to natural climate of different regions of the country, their rooting, germinability of varietal mulberries, growth dynamics and the mechanisms that can affect leaf yield.

In this regard, in the decree of the President of the Republic of Uzbkistan from March 20, 2018 numbered PD-3616 "About additional measures on further development of sericulture sector" and Presidential decree from January 17, 2020 numbered PD-4567 "About additional measures on the development of feed base of silkworm in sericulture sector", a number of tasks have been set forth on the introduction of new innovation techniques and technologies to sericulture sector, establishing new mulberry plantations, extension of mulberry groves throughout the republic, using water-saving irrigation technologies in mulberry growing, construction of buildings and facilities designed for silkworm breeding, reviewing and reconstructing present facilities completely and submitting them for silkworm breeding practices in the future.

The place and purpose of the research: It is aimed to cultivate high-yielding mulberry varieties with high farm valuable traits through increasing varietal seedlings and intensive shrub mulberry groves in the condition of Khorezm region, at the expense of cincturing hard shoots of regionized mulberry varieties with high productivity.

Table-1

The research experiments were carried out on mulberry varieties such as, farmsuitable SANIISh-5, Kokuso-70, Kinrew, Uzbekistan, Pioner, Oktyabr, Kishki-1, seedless Tajikistan and Jararik, in the open field area of Hazarasp district of Khorezm region by planting hard leafless cuttings made of annual twigs of cinctured nursery mulberries and biennial twigs of mulberry seedlings grove at a slope of 450 C and laying (horizontally). The methods and data were used from scientific and practical research work of K. Rakhmonberdiev [1] (1960), Sh.A. Mukhammadjonova [2] (1969), A.S. Didichenko [3] (1972), U. Abdullaev [4] (1989), U. Kuchkorov [5] (2002) conducted on the study of cultivation of varietal seedlings through the formation of independent roots of cuttings and establishment of bushy mulberry groves.

Results of research: In general, it is recommended to strictly follow the methods and time of shaping mulberry seedlings and nutritious mulberry groves propagated from hard cuttings with their own roots.

Consequently, in order to form an intensive bush mulberry groves with high nutritional value and yield, mulberry seedlings that retain the hereditary parental characteristics are emerged from the cuttings and are cut by the roots and planted in a new mulberry tree grove. In this case, according to the methodology specified in the experimental program, a scheme of  $0.5 \times 4$  m is selected for establishing bush mulberry grove. Then, depending on how many seedlings per hectare planted in the plowed field, the soil is dug in the scheme 40x40 cm.Damaged and additional side roots, and the tips of the core roots are cut with garden shears.

It is also soaked in fungicides to prevent fungal infections and buried to the root collar, leaving it deep. If seedlings are planted to create a special nutrient bush mulberry grove, their trunk (branch) is cut, leaving 2-3 buds and placed in the designated place, depending on the method of planting.

The number of selected cuttings and grown shoots in establishing bush mulberry groves

| Nº | Number of<br>shoots in the<br>mulberry<br>bush                               | Shoot growth, cm | Diameter of shoot base,<br>cm | Mean length of cinctured<br>part of a shoot, cm | Used part of shoot<br>(length) % | (length) %<br>A ring made on a shoot,<br>pcs | Cincture           | d cuttings |
|----|--|------------------|-------------------------------|---|----------------------------------|--|--------------------|------------|
|    | C USA  | Shoo             | Diamete                       | Mean lei<br>part c                              | Used<br>(1)                      |  | 1 running<br>meter | 1 hectare  |
| 1  | 3 pieces   | 277,<br>6        | 2,38                          | 200,7   | 72,5                             | 5,1  | 30,6               | 437800     |
| 2  | 4 pieces   | 255,<br>2        | 2,25                          | 188,0   | 72,1                             | 4.8  | 38.4               | 549120     |
| 3  | 5 pieces   | 244,<br>4        | 2,08                          | 184,6   | 72,0                             | 4,6  | 46,0               | 657800     |
| 4  | Naturally<br>emerged<br>shoots per<br>bush, average<br>8-9 shoots<br>control | 228,<br>3        | 1,92                          | 150,4   | 65,7                             | 3,3  | 52,8               | 755040     |

2

According to this table data, the activity and health of woody cuttings are of great importance in their rooting process and subsequent development, and shaping mulberry trees in the nurseries leaving 4-5 shoots on each bush will allow to cultivate annual shoots of the same thickness of which are equal to the length of the cuttings. By the experimental work on the shoots it has been revealed that it is important to study the procedure, methods and time of shaping mulberry seedlings with their own roots derived from cuttings. In this case, all the new twigs sprouting from the cuttings on the surface of the soil are left if they have grown to a point. If a new twig sprouts 3-4 times from the cuttings, the strongest of them are left to form a body, and the rest are removed.

This means that the earlier the seedlings start to grow taller, the less nutrients the weak seedlings in the soil will be able to absorb and the better the rest of the seedlings will grow. Shaping seedlings is carried out from June 1 to June 10, (in the territory of North Khorezm region) annual side shoots are cut off in order to thicken the seedlings. As a result of the shaping method carried out to thicken the seedling body, it can be observed in the data of the table below that the main nutrients are spent on thickening the seedling body rather than on the side branches.

| The results of shaping method and procedure to thicken the see | dling body |
|--|------------|
| Table-2  |            |

| ₽ | Mulberry<br>varieties or<br>hybrids | Sown<br>time | Growing<br>seedling<br>by height | Thickening<br>the body | Forming<br>branches<br>of<br>seedling<br>and then<br>cutting | Cincturing<br>leaving 3<br>branches |
|---|-------------------------------------|--------------|----------------------------------|------------------------|--|-------------------------------------|
| 1 | Uzbekistan                          | 10.04        | 1.06-5.06                        | 30.06-<br>10.07        | 25-30 VII<br>15-20<br>VIII                                   | 1-10 IX                             |
| 2 | Kokuso-<br>70xPioner                | 10.04        | 1.06-5.06                        | 30.06-<br>10.07        | 20-25VII<br>15-20VIII  | 1-10 IX                             |
| 3 | Kinrew                              | 10.04        | 1.06-5.06                        | 30.06-<br>10.07        | 25-30 VII<br>15-20<br>VIII                                   | 1-10 IX                             |
| 4 | Pobeda x<br>Pioner                  | 10.04        | 1.06-5.06                        | 30.06-<br>10.07        | 25-30 VII<br>15-20<br>VIII                                   | 1-10 IX                             |

Based on the analysis of the data presented in table 2, it can be said that shaping of the seedlings leads to thickening of the body at the expense of basic nutrients in the formation of intensive shrub mulberry groves and to increase high leaf yield and nutrition.

Conclusion

In the conditions of Khorezm region, cincturing shoots of regionized varietal mulberry

varieties with high productivity and nutritious leaf features plays an important role in the reproduction of intensive bush mulberry groves and strengthening the nutrient base of silkworms under the schemes recommended for production.

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### SALT CONDITIONS AND CHANGES OF SOILS OF JIZZAKH REGION

### **O.Jabbarov**

Soil composition and repository, quality analysis center

Abstract. This article provides information on the reclamation of irrigated lands in Jizzakh region and the level of salinity. The type of salinity and its variability in irrigated soils in Zamin, Dustlik, Arnasay, Zafarabad districts are shown. Keywords. Soil, salinity, melioration, degree, climate, type

Soil formation processes in the territory of Jizzakh region take place in multifaceted lithological - geomorphological and climatic conditions. Efficient use of irrigated lands has been established, and their reclamation status is moderate, ie, when viewed in terms of districts, salinization has not completely occupied the territory of the district. The problem of salinization of irrigated soils is more common in Zamin, Dustlik, Arnasay, Zafarabad districts. The results of the study show that the situation with the salinity of soils is different in the districts, which is the result of reclamation measures carried out in these areas.

Saline irrigated land in Zafarabad district 17,502 hectares, which is 63.4% of the irrigated land. In particular, weakly saline soils make up 8215.8 hectares of irrigated lands of the district, which is 29.8%. The salinity type of weakly saline soils in the district is chloride-sulphate and sulphate. Weakly saline soils are prevalent in all regions. The average salinity of soils is 8696.3 ha. This is 31.49% of the district's irrigated land. The salinity type is mainly chloride-sulphate and sulphate. Moderately saline soils are also prevalent in all areas of the district. Strongly saline soils 251.9 ha. This district accounts for 0.91% of the irrigated land. The salinity type is mainly chloride soils amount to 338.1 ha. This district accounts for 1.22% of irrigated land.

Saline irrigated land in Arnasay district 28445.4 hectares, or 89%. In particular, weakly saline soils make up 15216.8 hectares of irrigated lands of the district, which is 47.6%. The salinity type of weakly saline soils in the district is chloride-sulphate and sulphate. The average salinity of soils is 10,165.6 ha, which is 31.8% of the district's irrigated land. The salinity type is mainly chloride-sulphate and sulphate. Moderately saline soils are also prevalent in all areas of the district. Strongly saline soils are 3053.1 ha, which is 9.55% of the district's irrigated land. The salinity type is mainly chloride-sulphate and sulphate. Very strongly saline soils are 10.0 ha. This district accounts for 0.30% of irrigated land.

Saline irrigated land in Dustlik district 24355.5 hectares, which is 71.55%. In particular, weakly saline soils make up 9694.4 hectares of irrigated lands of the district, which is 28.5%. The average salinity of soils is 13270.8 ha, which is 38.98% of the district's irrigated land. The salinity type is mainly chloride-sulphate and sulphate. Strongly saline soils amount to 1218.3 ha, which is 3.58% of the district's irrigated land. The salinity type is mainly chloride-sulphate. Very strongly saline soils cover 172.0 hectares, which is 0.51%.

There are 24663.2 hectares of irrigated lands in Zamin district, the reclamation condition of which is unsatisfactory, ie almost all irrigated lands are saline to varying degrees, which is 1.05% less than in 2003. The area of non-saline soils is 899.7 hectares, which is 3.60% of the total irrigated land. Weakly saline soils make up 8256.89 hectares in the district, or 33.5%, while the salinity type of weakly saline soils is sulphate and chloride-sulphate. The average saline soils in the district are 13,342.8 hectares, which

is 54.10%, which shows that more than half of the irrigated soils in the district are moderately saline. Salinity type is sulfate and chloride-sulfate. Strongly saline soils occupy 2163.8 hectares of the district area and make up 8.80%, the salinity type is chloride-sulfate. Strongly saline soils are distributed in "Galaba", "Guliston", "Iqbol", "Mustaqillik", "Yangi Hayot" estates of the district. Very strong saline soils are not found in Zamin district.

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### THE INFLUENCE OF EARLY VEGETABLES, RE-SOWING CROPS AND WINTER WHEAT ON THE MICROBIOLOGICAL PROPERTIES OF THE SOIL IN VEGETABLES-GRAIN CROP ROTATION

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The socio-economic policy pursued in our country, aimed at liberalizing all spheres of public life, requires the regulation of land relations and the creation of favorable conditions for increasing the level of efficient use of land resources. In recent years, in order to further increase the efficiency of agriculture, work is being done to optimize farms and arable land, and clusters are being established in the country. Because the land, its fertile layer of soil, is an invaluable resource of our country and will remain the main source of agricultural production in the future. Regularly high crop yields and increased labor productivity depend on soil fertility, as well as on crops. Soil fertility is the natural property of a plant that is able to meet its requirements for nutrients and soil moisture to the maximum during the entire growing season. The more fertile the soil, the more the plant is saturated with nutrients and moisture, the higher the yield [6]. Restoration and increase of soil fertility is achieved through the introduction of sciencebased crop rotation systems in the enrichment of soil organic matter, the effective use of mineral and organic fertilizers. It also aims to improve the reclamation of lands, irrigation systems, as well as the prevention of wind, irrigation erosion and the correct determination of the structure of crops in maintaining and increasing soil fertility [3]. The role of microorganisms in the soil is invaluable in increasing soil fertility, the formation of humus, the transition to a state in which the plant can absorb the chemicals necessary for the plant. From the complex organic compounds of nitrogen in the soil, various amino acids are formed under the influence of microorganisms, some of the amino acids are broken down by the activity of microorganisms in the soil, releasing ammonia.

Ammonification process. Plant and animal wastes contain large amounts of organic matter. Their conversion into minerals is important for the nitrogen nutrition of plants. The process of decomposition of proteins is called ammonification because NH3 is formed. The decomposition process continues under aerobic and anaerobic 188 conditions, but accelerates under aerobic conditions. An example of a group of putrefactive microorganisms is a variety of bacteria[5]. The process of decomposition of organic matter in the soil can vary depending on climatic conditions, soil sample and applied agronomic methods. For example, in the gray soils of Central Asia, ammonification proceeds very rapidly because the temperature is much higher and the humidity is sufficient in the spring. On the contrary, these processes are very slow due to the low temperature in the Northern regions. Decomposition of organic matter is also slower in black and chestnut soil zones. The optimum temperature for the decomposition of proteins should be 25-30°, as well as sufficient moisture in the decomposed product [6]. Decomposition of urea. Urea is broken down by urobacteria, a separate group of ammonifiers.

These bacteria were discovered in 1862 by Louis Pasteur. Urobacteria break down urea to form H2O, NH3 and CO2. [6] Some of the ammonia formed during ammonification is assimilated by plants, while the rest is oxidized to nitric acid during nitrification. Bacteria involved in the nitrification process were discovered in 1889 by Vinogradsky. Along with nitrifiers, other bacteria are also found in the soil, which absorb organic matter and form microzones for nitrifiers. [2]. Nitrifiers are sensitive to the acid reaction of the medium, and if the pH is below 6.0, the process stops, and if the pH is from 6.2 to 9.2, the bacteria grow well. As a result of the nitrification process, 300 kg of nitric acid per year are accumulated per hectare. When you consider all over the world, this is an incredibly large number. Therefore, in agronomy great importance is attached to this process [3]. The nitrification process is closely related to the ammonification process: the faster the ammonification, the more intense the nitrification. Nitrificators are found in all soils except marsh. If swampy soils are dried and lime is added to them, and the pH is changed, nitrifiers will begin to develop there as well. This process is also intensive in the tillage layer of black soils. Bacteria involved in the nitrification process can be found even at a depth of 50 cm. In the gray soils of Central Asia, the nitrification process is very rapid and large amounts of nitrates accumulate in the soil. But in saline soils this process goes weakly and ends with the accumulation of nitric acid, because in saline soils nitrobacteria are not found. V.L.Isachenko (1914) did not find these bacteria even in salt water. In newly developed saline soils, the nitrification process begins mainly in the topsoil, especially when sulfate salinization has a negative effect on bacteria. Nitrifiers are also sensitive to soil moisture, they do not grow well in dry soil or under conditions of excessive moisture. [4]

Denitrification process. The denitrification process is the opposite of the nitrification process, in which the bound nitrogen is returned to the atmosphere freely. This process occurs directly and indirectly, as extremely different processes can result in the formation of molecular nitrogen from nitrates [2]. In direct denitrification, nitrates are returned due to the vital activity of a particular group of bacteria denitrifying, while in indirect denitrification, only nitric acid interacts with amino acids. This also results in the formation of molecular nitrogen. The process of direct denitrification occurs due to the vital activity of denitrifying bacteria, which are common in nature, mostly in soil, manure and water bodies: 4HNO3 = 2H2O + 5O2 + 2N2. [1] The air contains 78-80% nitrogen, but it cannot be assimilated by green plants and animals. Nitrogen is involved in the biological transformation of substances in two ways. In the first way, during electric discharge (when there is a strong lightning), photochemical oxidation occurs, in which N2 ? N02 converted. The resulting NO2 is reoxidized in water and soil to HNO3. In one year, 30 mg of NO3 per 1 m2 of land is collected in the same way. Secondly, molecular nitrogen is absorbed by nitrogen-fixing microorganisms. They are divided into two groups: 1. Nodule bacteria live in symbiosis with legumes and absorb molecular nitrogen. 2. Free-living nitrogen fixators absorb molecular nitrogen [6]. Nodule bacteria. M.S.Voronin (1886) discovered the presence of microorganisms in the roots of legumes [5]. German scientists G. Gelrngel and G. Wilfart (1886) planted a legume in heated sand (i.e., all bacteria were killed) and observed that no nodules formed at its root. From their experiments, they conclude that: 1. In terms of nitrogen nutrition, legumes are very different from other plants. 2. Legumes themselves, unable to absorb atmospheric nitrogen, use for this purpose the activity of bacteria that live in symbiosis at their roots. These bacteria were later separated in their pure form by the Dutch scientist M. Beyerink (1888) and named Bact. radicicola. Now these bacteria are part of the Rhizobium family. These bacteria grow well in an artificial environment. But he does not assimilate free nitrogen, but only assimilates nitrogen when he lives in symbiosis with legumes [5].

Nodule bacteria found in the soil accumulate around the root hairs of legumes and dissolve their skin, pass into stem cells and begin to multiply, filling the cells. The plant, in turn, accelerates the division of stem cells and envelops the bacteria inside the tuber. Physiologically active substances produced by bacteria additionally accelerate the division of stem cells and allow a large amount of sugar to penetrate the root. Bacteria feed on sugar and supply the plant with nitrogen [5]. The absorption of atmospheric nitrogen by microorganisms has a significant effect on the total number of crops that biologically accumulate on Earth. The total amount (mass) of nitrogen in the earth's crust is 0.04%, and 78% of molecular nitrogen, or 4? 1015 tons, is present in the air. But neither humans, animals, nor plants can assimilate nitrogen in a molecular state. It is estimated that plants on earth require 100-110 million tons of nitrogen a year. With mineral fertilizers, only 30% of nitrogen falls into the soil. According to Mishustin (1973), in the former Soviet Union, all legumes accumulate 2.3 million tons of nitrogen a year, while nitrogen-fixing bacteria accumulate 3.4 million tons. Thus, the amount of nitrogen accumulated biologically is 5.7 million tons. This means that nitrogen is always circulating in nature [5].

Scientific research is carried out in order to meet the food needs of the population by selecting crops that maintain and increase soil fertility in short-crop rotation systems, growing high-quality crops in light gray soils of Andijan farms specializing in the cultivation of cotton, grain and vegetables. The soil of the experimental field is light gray, the mechanical composition is moderately sandy, irrigated from the old, not saline, groundwater is located 4-5 m below the ground. The amount of humus in the topsoil is 0.8-1.0%, total nitrogen 0.079-0.081%, phosphorus 0.150-0.153%, volume weight 1.40-1.43 g/cm3.

# Table 1.Experimental system 1(Short-term (1: 1) vegetable-grain crop rotation system, 2015-2018)

| 9  | Potato           | Soybeans             | Winter wheat  |
|----|------------------|----------------------|---------------|
| 1  |                  |                      | Winter Winter |
|    | (NPK             | (NPK 60:90:60 kg/ha) |               |
|    | 200:140:100      |                      |               |
|    | kg/ha)           |                      |               |
| 10 | Cabbage (NPK     | Soybeans (NPK        | Winter wheat  |
|    | 150:105:75       | 60:90:60 kg/ha)      |               |
|    | kg/ha)           |                      |               |
| 11 | Cucumber         | Soybeans (NPK        | Winter wheat  |
|    | (NPK             | 60:90:60 kg/ha)      |               |
|    | 150:105:75       |                      |               |
|    | kg/ha)           |                      |               |
| 12 | Carrot (NPK      | Soybeans (NPK        | Winter wheat  |
|    | 200:140:100      | 60:90:60 kg/ha)      |               |
|    | kg/ha)           |                      |               |
| 13 | Potato           | Com                  | Winter wheat  |
|    | (NPK             | (NPK 200:140:100     |               |
|    | 200:140:100      | kg/ha)               |               |
|    | kg/ha)           |                      |               |
| 14 | Cabbage (NPK     | Corn (NPK            | Winter wheat  |
|    | 150:105:75       | 200:140:100 kg/ha)   |               |
|    | kg/ha)           |                      |               |
| 15 | Cucumber<br>(NPK | Corn (NPK            | Winter wheat  |

| Variant Early vegetable |              | Resowing crops       | Main crops   |
|-------------------------|--------------|----------------------|--------------|
|                         | crops        |                      |              |
| 1                       | Potato       | Re-sowing is not     | Winter wheat |
|                         | (NPK         | carried out          |              |
|                         | 200:140:100  | (control)            |              |
|                         | kg/ha)       |                      |              |
| 2                       | Cabbage      | Re-sowing is not     | Winter wheat |
|                         | (NPK         | carried out          |              |
|                         | 150:105:75   | (control)            |              |
|                         | kg/ha)       |                      |              |
| 3                       | Cucumber(NPK | Re-sowing is not     | Winter wheat |
|                         | 150:105:75   | carried out          |              |
|                         | kg/ha)       | (control)            |              |
| 4                       | Carrot (NPK  | Re-sowing is not     | Winter wheat |
|                         | 200:140:100  | carried out          |              |
|                         | kg/ha)       | (control)            |              |
| 5                       | Potato       | Lentil               | Winter wheat |
|                         | (NPK         | (NPK 60:90:60 kg/ha) |              |
|                         | 200:140:100  |                      |              |
|                         | kg/ha)       |                      |              |
| 6                       | Cabbage (NPK | Lentil (NPK 60:90:60 | Winter wheat |
|                         | 150:105:75   | kg/ha)               |              |
|                         | kg/ha)       |                      |              |
| 7                       | Cucumber     | Lentil (NPK 60:90:60 | Winter wheat |
|                         | (NPK         | kg/ha)               |              |
|                         | 150:105:75   |                      |              |
|                         | kg/ha)       |                      |              |
| 8                       | Carrot (NPK  | Lentil (NPK 60:90:60 | Winter wheat |
|                         | 200:140:100  | kg/ha)               |              |

|    | 150:105:75<br>kg/ha)                 | 200:140:100 kg/ha)              |              |
|----|--------------------------------------|---------------------------------|--------------|
| 16 | Carrot (NPK<br>200:140:100<br>kg/ha) | Corn (NPK<br>200:140:100 kg/ha) | Winter wheat |

Note: The norms of mineral fertilizers NPK 200: 140: 100 kg / ha were applied in the cultivation of winter wheat.

Field experiments were conducted on the lands of "Ming urik osmoni" and "Victoria Asaka" farms located in Asaka district of Andijan region. The soil of the experimental field is light gray, the mechanical composition is moderately sandy, irrigated from the old, not saline, groundwater is located 4-5 m below the ground. The amount of humus in the topsoil is 0.8-1.0%, total nitrogen 0.079-0.081%, phosphorus 0.150-0.153%, bulk density 1.40-1.43 g/cm3. The studies were conducted in the vegetable-grain and vegetable-cotton systems of short-rotation (1: 1), and both experimental systems were as follows:

Experiment 1 consisted of 16 options, the total area of each option was 240 m2 (length 50 m, width 4.8 m), of which the accounting area was 120 m2 and was carried out in 3 repetitions, with a total area of 1.15 ha.

Experiment 2 consisted of 12 variants, the total area of each variant was 240 m2, of which 120 m2 was taken into account, and the experiment was carried out in 3 repetitions, with a total area of 0.8 ha.

The study was conducted in the vegetable-grain and vegetable-cotton systems of short-term (1: 1) crop rotation, both experimental systems were as follows: potatoes on the 1st background, cabbage on the 2nd background, cucumbers on the 3rd background and carrots were planted on 4th background. After the main crops were harvested, resowing of soy, lentils and corn were planted in each agricultural background. In 2016, according to preliminary data from Experiment 1, the number of microorganisms-oligotrophs that convert carbon to humus in the experimental field amounted to 3.14 million/g CFU, the number of nitrogen-absorbing microorganisms-ammonifiers was 0.68 million/g CFU, the number of microorganisms containing organic compounds - oligonitrophils - 2.52 million/g CFU, the number of microorganisms causing nitrogen loss in the soil is denitrophic. 3.74 million/g CFU, the ratio of oligotrophs to ammonifiers, i.e. interaction of carbon with humus in weakly assimilated nitrogen. the isbatini pedotrofik index determination is 4.61.

According to the data obtained at the end of the application period of resowing crops, it can be observed that the microbiological process in the soil is accelerated. Indeed, it was observed that the amount of all types of microorganisms in the soil increased, except for the denitrifier type microorganisms. For example, in control variants 1, 2, 3, and 4 of the experiment, the amount of oligotrophs increased from 10.2 times to 12.7 times, the amount of ammonifiers increased from 2.5 times to 6.9 times, and the amount of oligonitrophils increased from 2.2 times to 3.3 times.

We can observe an increase in variants 5, 6, 7 and 8, where lentil was planted after early vegetables, these figures were 6.4-10.3; 18.3-21.9; 7.0-12.3 times, In variants 5, 6, 7 and 8, where lentil was planted after early vegetables, these figures were 6.4-10.3; 18.3-21.9; 7.0-12.3 times, in 9, 10, 11 and 12 variants, where soybean was planted 4,5-

7,5; 17,2-20,7; 10,0-15,6, and in options 13, 14, 15, and 16 where corn was grown, 9.4-10.7, 1,9-3,5; 3,0-6,2 times.

The data show that oligotrophic microorganisms, which rapidly decompose humus and cause wastage, are 18-20% more abundant than in the control and soybean-grown variants of the experimental control and corn-grown variants, whereas the amount of ammonifiers is 35-40. %, the amount of oligonitrophils that accumulate organic compounds was found to be 20-25% less. In the experiment, it was found that the amount of denitrifier microorganisms that cause nitrogen loss in the soil in the gaseous state decreased by 1.4-1.9 times compared to the initial amount in the control variants of the experiment, and by 6.9-17.8 times in the mosh and shade cultivated variants.

The same patterns were observed in the remaining years of the study. Similar data were obtained in an experiment conducted on vegetable-cotton rotation systems.

From the data obtained, it can be concluded that in vegetable-grain and vegetablecotton crop rotation systems, the amount of oligonitrophilic microorganisms increases by 20-25% compared to control when cultivating moss and soybean crops after early vegetable potatoes and cucumbers, which increases the amount of carbon-containing organic compounds. The reduction of pedotrophic index and denitrifying microorganisms by 18-20% leads to less loss of nitrogen-containing compounds. In general, the planting of legumes and soybeans as a secondary crop creates a favorable environment for microorganisms and favorable conditions for maintaining and increasing soil fertility. Due to the cultivation of these crops, the accumulation of nitrogen in the form of organic compounds and humus is reduced to a lesser extent. A decrease in the decomposition of humus and nitrogenous organic substances in the soil is due to a decrease in the number of oligotrophic and pedotrophic indices and denitrophic indicators in the soil, and an increase in the number of bacteria, ammonifiers and oligonitrophilic microorganisms that assimilate mineral nitrogen, leading to a greater accumulation of carbon and nitrogenous organic substances.

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### EXPERIENCE IN THE CULTIVATION OF MEDICINAL PLANTS MILK THISTLE (SILYBUM MARIANUM L) IN THE CLIMATIC SOUTHERN ARAL SEA REGION

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Abstract. The article provides extensive information on the distribution of the medicinal plant milk thistle (lat. Silybum marianum L), its medicinal properties, methods of use and the most commonly used in the treatment of various diseases.

Key words: area, medicinal, compounding, jolly, introduction, Virgin Mary, thistle, homopaths, parachutes, pruning shears;

This is especially important in the treatment of diseases of bile, cirrhosis, shortness of breath, hypertension, allergies, and urinary incontinence, which are widespread among the local population. To test and grow milk thistle, which has valuable medicinal properties in the conditions of the southern Aral Sea region, we presented a brief overview of the materials obtained in 2019-2020 by monitoring on the experimental sites of the faculty and the innovation center located in Nukus, on the experimental site allotted by the international innovation center located in the city of Nukus where thistle was grown medicinal plants. And it was possible to get ripened seeds, which were sown on the same site in 2020. The main result of obtain milk thistle seeds in the climatic conditions of the southern Aral Sea region in 2020.

Milk thistle is a spotty-herbaceous plant 60-150 cm high with competent cultivation reaches two meters higher. Its upright stalk is clothed in dark green or silver-pearl spots. In addition, the leaves of milk thistle have long yellow spines along the edges. The inflorescences of the plant are collected in lilac baskets with a diameter of 5-6 cm. The thistle fruit is a seed of gray, light brown or black color. The leaves that surround the basket are also equipped with asharp spine. Each seed has acrest of hairs that are 2-3 times the length of the achene. The seeds are odorless, but at the same time they have a slightly gaudy taste.

Milk thistle is widespread throughout the world; it grows in Mediterranean countries, in the UK, Africa, the American continent, and Asia. It is found in Russia in European regions, in the mountains of the Caucasus and in Siberia. It prefers fertile soils, well-lit, sunny places. Quickly fills wastelands, fields, roadsides. In some countries, milk thistle is planted with whole plantations to obtain medicinal raw materials. In the Legend, milk thistle is called the gift of the Virgin Mary, this is also explained by some popular names for the plant, Marina thistle, Marina thorn. It was Our Lady who informed people about the healing power of milk thistle. White spots on the variegated leaves of milk thistle are a symbol of the Mirgin Mary.

In ancient Greece and in ancient Rome, milk thistle broth was used for treatment. In the books of the famous doctor and botanist, milk thistle is described as an effective remedy for various diseases - in disrupting the liver. For a long time it has been used in oriental medicine and its healing properties are described by Indian doctors and homopaths. The Russian herbalists and reference books also repeatedly mention the various medicinal effects of milk thistle. Beekeepers noticed that honey, which bees collect from milk thistle flowers, also has healing properties and has a beneficial effect on the liver, kidneys, digestive organs, and facilitates the outflow of bile. Seeds (fruits). Milk thistle preparations are used for diseases of the liver, kidneys, thyroid gland, spleen, alcohol and pepper poisoning, and an excellent prophylactic in the use of ecologically unfavorable regions by residents, which is necessary for use by the population of the southern Aral Sea region.

The leaves of plants are used as a mild laxative diuretic, choleretic and diaphoretic. The root in the form of the drug is mainly used in the treatment of: Catarrh of the stomach: diarrhea, radiculitis, toothache, urinary retention. In addition to this, milk thistle is used by people as seasoning seeds, fresh roots, leaves and shoots as a component of salads and side dishes. When used as a dietary supplement, it is used all day.

Collection and storage. Both underground and aboveground parts of the plant have medicinal properties, they are seeds. Milk thistle seeds are collected from August to October, since its seeds ripen unevenly, so the collection is carried out during the time when parachutes with seeds begin to fly and the baskets turn yellow. The main ripening signal. Seed is the formation of a white cannon in the baskets themselves. The baskets with seeds are cut with a pruner.

The roots of the plant are dug up in the fall (after seed ripening) and washed under running water, preparing for drying. The leaves of milk thistle are prepared at the same time. Cut baskets are laid in a thin layer on a sieve, under which paper and fabric are pre-grown. It is important that the room in which the baskets will dry, ventilate, but strong drafts should be avoided, otherwise the parachute with the seeds will fly apart. After drying, scissors must be cut from the baskets by drying, then break them and shake the seeds. For drying, the seeds are laid out in a thin layer on paper. Moreover, thistle baskets can be collected in a bag and threshed with a stick well. The seeds are stored in a carefully ventilated room in cloth bags. The roots are like leaves, chopped and dried either indoors or in an oven, the temperature of which should be about 40-50  $^{\circ}$  C. Milk thistle roots and foxes are kept in closed glass containers. Meyan - 3 years, roots and leaves-year.

The composition of milk thistle includes a huge number of biological active substances: Silymarin: fatty and essential oil, resins, mucus, lignans, flavonoids, saponins, organic acids, proteins, alkaloids, vitamins of groups B, C, K, E, selenium.

Forms of use of the plant. In folk medicine, almost all parts of the plant are used in the form of powder and cake, fruit oil and leaf juice. In addition, infusion 1, 2; seed oil 1 and 2; broth, honey, milk thistle tea, syrup and juice, extract, powder, tablets.

Milk thistle is widely used in the treatment of diseases common among the local population. Alcoholism - due to the high content of glutathione, milk thistle is used for alcoholism, since excessive consumption of alcohol leads to a deficiency of this substance. Seeds of this herb are a life-giving source of micro and macro elements that the body needs for health and active life. They contain magnesium, manganese, iron, potassium, zinc, calcium, chromium, selenium, aluminum, copper, vanadium and boron.

For treatment; Take a teaspoon of seeds, powdered, pour 1 cup boiling water and insist for 15 minutes. After filtering, take it 3 times a day for a third of a glass half an hour before breakfast and lunch, as well as before bedtime, etc. there are 5 different receptions and blanks of different concentrations. Allergies, arthritis, arthritis, asthma, atherosclerosis, bronchitis, atrophic climacteric vaginitis, chronic varicose veins, gastritis, hemorrhoids, gingivitis, pressure, etc. there are 19 types of diseases.

Since 2019, we have been studying the technology of growing a thistle medicinal plant in the territory of the international innovation center of the southern Aral Sea region located in Nukus as an experience in hot and low soil mineral conditions on a dedicated plot measuring 5.3 m in length and 5.2 m in width. Agrotechnical work (watered on May 14th, cleared of weeds and garbage, undermined, leveled) on May 18th planted seeds

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of milk thistle, which after 8 days appeared on the earth's surface with two leaves. Before that, the plot was not watered, it was constantly cleared of weeds, on May 26 all seedlings appeared on the ground and all agricultural technical measures were taken to care for plants. On June 5 thistle growth reached 10 cm. Further monitoring of plants continued throughout the summer (watering, drought, clearing of weeds, etc.). The summer was very hot, the air temperature reached 43-45?C, with a lack of irrigation water; due to late sowing, the vegetative growth of milk thistle did not change 80 cm. And it bloomed on August 12, fruiting was noted on 22 August, incomplete ripening of seeds and their collection was carried out on September 26. By word we were able to collect milk thistle seeds in the harsh climatic conditions of the South Aral Sea region.

In 2020, planting was delayed due to quarantine from coronavirus infection until May 25. At the same site, seedlings of which were noted on June 4 and monitoring of plant development continues.

The main result of the work is to obtain milk thistle seeds in the climatic conditions of the Southern Aral Sea region in 2019.

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# **BIOLOGICAL SCIENCES**

### "QIZILMIYA" PLANT AND ITS MEDICINAL PROPERTIES

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Abstract: The growth and medicinal properties of licorice plant, its widespread use as a primary substance in the pharmaceutical industry. It is an important medicinal herb in medicine and the root has a strong healing effect.

Keywords: Licorice, Rhizome, Gastrointestinal, Sweet Glycyrrhiza, Plant Flowers, Glycerisin, Flavanoids, Steroids, Essential Oils, Fruit, "Scythian glycea" ("sweet root"), Cholesterol.

Licorice is a perennial herbaceous weed of the legume. Poyasisershokh, rough, 40-150 cm tall, grows erect. The leaves are complex, oddly oblong, oblong. The flowers are purple, in clusters. The fruit is an elongated pod. It blooms from April to June. Propagated by seeds and rhizomes. The root system develops strongly and penetrates to a depth of 3 meters. The rhizomes form surface branches, the seeds are hard-shelled, germinate at 30-35 °. They are distributed in all Central Asian countries, including Uzbekistan, Tashkent, Fergana and Kashkadarya regions. It is found in all legumes, especially alfalfa and cereals, and grows along irrigation canals, ditches, orchards and vineyards.



loss of root remnants when plowing; deep tillage between rows after seedling emergence; Scientists have found many useful substances in this herb. Licorice can prevent and eliminate gastrointestinal ulcers. It also cleanses the colon, helps with heartburn, and boosts the immune system. Shirinmiya Glycyrrhiza glabra is a perennial, well-developed underground plant, belonging to the legume family, which includes 13 species of turquoise, 12 of which are distributed in our country. The licorice plant is found mainly along rivers, streams and ditches. Due to its well-developed root system, it grows in deep deserts, mountain slopes, as well as in low mountains and saline soils. In terms of distribution, licorice occupies the largest area compared to other species in this category, and is most common in the Amudarya and Syrdarya basins. Sweets are warm-loving plants, and the best growing season for the above-ground part is during the

### **CUTTING- EDGE SCIENCE**

hot summer months. By the end of the first year, it can grow up to 50-60 cm in height and produce 15 to 25 lateral branches and leaves per plant. The stems of the licorice are woody and dry in the fall, and in the second year, 1 to 4 new aboveground stems grow from the licorice plant. The wet weight of a biennial plant stem in the wet state ranges from 150 to 245 quintals per hectare, with an average of 187 quintals, and its yield in the third and fourth years is 300, 360 quintals, respectively (Saidov, Pauzner, Shamsivalieva 1975) The healing properties of the licorice plant have been known and popular since ancient times and are widely used as a remedy. The flowers are whitepurple, forming clusters, the fruit is elongated, straight or slightly curved, the seeds are almost round, small, darkbrown, smooth. It flowers in April-August and ripens in May-September. Glycerin, flavanoids, steroids, essential oils, leaf sugars, some sugars and pigments are found in the roots and underground parts of the plant. Flavanoids, coumarins, saponins, isolated in the upper part.



The licorice family includes several herbaceous plants, the flowers of which are very important in beekeeping, and their flowers provide nectar pollen to bees throughout the summer. The flowers of licorice secrete nectar of 0.10-0.15 mg /, the concentration of nectar is 40-50%. Sweetness is one of the best honey plants of the tugai forest and should be used in a timely manner. Shirinmiya is found in mountainous and foothill areas of the country, along canals and canals. Licorice is an ancient source of health. The properties of this plant were known in ancient Egypt, India, Tibet. He is portrayed by Hippocrates and Avicennain his works. For its sweetness, the plant is called "Scythian glycea" ("sweet root"). The range of diseases used to treat licorice root is wide and varied.In medical references, licorice also has the names licorice or yellow root. It contains vitamin C, sucrose, flavonoids, essential oils, pectin and mineral salts. Such beneficial substances determine its therapeutic effect. The presence of glycyrrhizin in this plant makes rosemary root a cough suppressant. When taking anise-based drugs, the secretory function of the upper respiratory tract is improved, which provides an expectorant effect. Flavonoid compounds help relieve spasms. Licorice is also used as an antiinflammatory agent. Saponins irritate the mucous membranes of the organs, which allows the use of this plant in drugs that have a diuretic and laxative effect. Licorice is also beneficial for the cardiovascular system. Lowers blood cholesterol, thereby reducing the risk of plaque formation on the walls of blood vessels.

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### IN THE ORGANIC WORLD - THE APPROACH OF TYPES

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Abstract: The unique adaptation traits present in all living organisms allow them to survive in the environment in which they live, to win the struggle for survival, to pass on their traits to future generations, leaving a normal offspring. because adaptations between species in the organic world are important. Because adaptation

is the adaptation of the internal and external structure of organisms, organ function, behavior and lifestyle to the conditions of a particular living environment.

Keywords: Physiological adaptations, normal reproduction, competitiveness, ethological adaptations, protective color, camouflage

Adaptation, in turn, is closely linked to certain units. That is, adaptation is inextricably linked to normal reproduction, competitiveness, and the viability of organisms. So let's take a closer look at what they mean:

Reproduction is the process by which organisms reproduce normally. In doing so, they strive to take care of their offspring in every way possible, and thus to continue their offspring.

Survival refers to the ability of an organism to live normally in its environment without abruptly changing its genotype. Inorganic factors have a significant impact on the development and survival of organisms shows. With the onset of autumn, all annual plants, as well as perennial herbaceous plants, die, and their seeds, roots, tubers, and bulbs remain underground. Many animals, such as aquatic and terrestrial ones, reptiles, birds migrate, and mammals hibernate. These are the principles of survival.

Competitiveness is the ability of organisms to overcome resistance to the dead and the living, including finding food, mating, and occupying habitat.

These three components of adaptation are interrelated and are the result of evolution through natural selection.

### ADJUSTMENTS IN THE ANIMAL WORLD

- Morphological adaptations
- Ethological adaptations
- Physiological adaptations.

Morphological adaptations. As a result of the influence of external environmental factors, the body structure of organisms develops properties corresponding to this environment. For example, the body shape of birds helps them to live in the air, and the body shape of fish helps them to live in the water. Morphological adaptation is also manifested in several ways.

1.Warning color.

2.Protective color

3. Masking

4. Distracting color

5.Mimicry.

Warning color. Some animals look different and is conspicuous. Usually, animals with such a warning color have additional means of protection from enemies. Their special protective equipment includes body odor, poisonous liquids, body hair, spears, and so on.

Protective color. In most cases, the color of the animal's appearance is less noticeable because it matches the color of the environment in which it lives. If the color of the

environment changes with the seasons, then the color of the animals also changes.

Maskirovka. In some cases, the shape and color of the animal's body resembles the leaves, twigs, buds, and plants around it.

Distracting color. The body of such an animal is covered with spots and bumps. These spots, the dirt roads, distract the enemy.

Mimicry. In some cases, the color and shape of the body of animals that are often killed by their enemies mimic "warning color" organisms.

Physiological adaptations salt, moisture, movement in a constant environmental environment to study the private lives of organism keeps them from applying for qualifying jobs and medical type. Matters, properties and storage of them in water to be under normal conditions from the winter dormancy period, the concentration of solutes increases. The use of hemoglobin in the intake of oxygen in the blood of parties who exercise for a long time under water deals with myoglobin. Carefully look at the physiological adaptation to the loading of severely damaged fatty substances in the body of desert animals.

Ethological adaptations. This type of adaptation is reflected in the behavior of animals. Through special actions, animals are protected from their enemies, find and store food, adapt to the seasons, choose and mate, and protect their offspring. Animals hide or engage in frightening behavior to avoid the enemy. Caring for offspring is important for the survival of a species important.

### ADJUSTMENTS IN PLANTS

Plants, like animals, have a number of adaptations to environmental factors. For example, plants adapt differently to moisture deficiencies.

1.Pollination-related adaptations in plants

2.Adaptation to the distribution of fruits and seeds in plants

3.Adaptations of water evaporation in plants

4.Adaptations related to the accumulation of nutrients in plants

Adaptation of organisms to environmental conditions has been the result of natural selection over a long period of time. Here are a few adaptations: The color of the reed's feathers is reminiscent of reeds. However, if there is a danger, he immediately stretches his neck and raises his nose and does not move. In such a situation, the enemy will not notice him. typically desert turtles, lizards, snakes are sand-colored, northern animals - bears, kuropatka, foxes are white, kvaksha, cradle tervatar, dragonflies live among the green leaves, cabbage butterfly worms feed on its leaves. ladi.

In short, all living organisms in the organic world, regardless of how and under what conditions they live, are always adapting to the unfavorable conditions of their inorganic nature. Appearance not only for the unfavorable conditions of the inorganic nature, but also for the lack of food for other species; change shape, color and adapt to the conditions that are comfortable for them. This means that through adaptation, living organisms continue to develop through reproduction and reproduction. Individuals who do not adapt will die.

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# ORGANS USED IN MEDICINAL PLANTS AND METHODS OF PREPARATION

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Abstract. Medicinal plants are a guarantee of human health. Keywords: bud, rhizome, nodes.

Various organs of medicinal plants are used in the production of new early buds, leaves, flower seeds, roots, stems and stems of various medicinal plants used in the treatment of various diseases. The potency of medicinal plants depends not only on the amount of biologically active and various complex compounds in them, but also on its classes in many respects. The potency and quality of medicinal plants begin with the flowering and fertilization of plants. At this time, the surface of the plants is harvested. When the seeds and fruits are fully ripe, the roots, rhizomes and stems are harvested at the end of the growing season (before the plant goes to sleep) or in early spring. Buds: at the time of sinking are now harvested before the growth of henna, ie in early spring. If the buds are picked after they start to grow, they lose their medicinal properties. They must be collected very carefully. Bark: perennial diseased branches of the plant are removed. In addition to the rapid and easy separation of the sap at the onset of strong action, this period is a period of high potency of action of biologically active substances. Leaf: Harvested when the plant is in full bloom. Harvested leaves should not be eaten by uninfected insects. One third of the leaves can be harvested. When picking leaves, move the hand from top to bottom and collect the leaves with a bandage. Collected leaves are quickly brought to the covered areas. Leaves prepared for the raw material should be well covered, crushed, not discolored and have a specific odorFlowers: Picked at the end of the growing season and at the beginning of the opening period. At this time, the petals of the collected flowers do not shed much, the color of the prepared raw material is almost unchanged, the smell is retained. Flowers collected for raw materials should not be crushed by uninfected insects. Collected flowers are brought to the drying areas in baskets or dried on a tarpaulin in the rooms. If there are always used fields, it should be paved. Drying raw materials should not be exposed to direct sunlight. Otherwise, the force of action is almost lost. If the above-ground organs of plants, ie stems, branches, leaves and flowers, are picked together, the picking time coincides with the time of flowering. It should be pruned mainly from a height of 7-8 cm, not under perennial shrubs and shrubs. Raw shade areas prepared for drying are dried in special areas and rooms. They should be rotated 2-3 times a day. At this time, the doors and frames in the rooms should be ventilated. To determine if the raw material is dry, its stalk is bent if the stalk is crushed by squeezing the leaves of the sinus between the fingers. Fruits and seeds: are harvested several times, depending on the time of ripening. Seeds of some plants are shed immediately after ripening, resulting in reduced yields. The ball is collected together with the balls of the seeds of flowering plants and divided into small balls. The seeds are dried in the shade. The seeds of the dried plants are cleaned. Fruits are harvested in the morning and in the open air only when they are well cooked. .Does not pick up when the air is too hot. The reason is that the picked berries rot quickly on a hot day. They should be picked carefully without crushing. The fruits are picked in baskets. Every 5 cm between the fruits, a plant leaf or young branches are placed and the fruit is picked again. When fruits and seeds are harvested, the fruits and seeds of other weeds are not mixed, and the remains of diseased fruits are removed. Roots, rhizomes and stems: After the seeds and fruits are fully ripe, they are ready for hibernation at the end of the growing season. At some point in the spring the plant is dug up before the start of vegetation. When digging the roots, rhizomes and stems will need a sharp shovel and layer of others. Excavation is carried out to ensure that the surface of the plants is not completely broken or burned. Excavated roots, rhizomes and stems are removed from the soil and placed in a basket and washed in warm water. After the water is broken, it is dried and sorted in special areas. At the same time, of course, rotten worm-eaten roots and other plant residues are removed and dried in special areas. It should be borne in mind that the excavation of the underground organs of flowering plants is strictly prohibited. Failure to collect medicinal plants at the appointed time will lead to a decrease in the amount and quality of biologically active substances in their composition when the raw material is reduced as a prepared raw material for noncompliance with the rules of preparation and drying. Drugs prepared from them do not have sufficient efficacy. A good dose of these substances in certain doses is beneficial to human health. It was considered toxic if the dose was exceeded. Biologically active substances are not found in the same amount in all plant organs. They may or may not be more or less present in the organs of plants. When collecting medicinal plant organs, it is necessary to know the medicinal properties of wild medicinal plants growing in natural conditions, to know the types and forms of plants, to be fully aware of the information provided in the literature. Prepared raw materials can not be dried in the sun. Therefore, they are recommended to cover in shady places, exposed to wind at low temperatures, and stored in dry rooms. Restoration and protection of medicinal plant resources: The demand for medicines made from plant raw materials is growing from year to year. In order to fully meet this demand, it is necessary to pay more attention to the proper and rational use of plant resources and the production of more medicines. Improper and unfair use of medicinal plant resources, without taking into account their biological properties, failure to harvest them in a timely manner, causes great economic and social damage to the extinction of plant species and the restoration of their wealth. For this reason, in the preparation of medicinal plant raw materials, it is necessary to fully comply with the measures and rules developed on a scientific basis. In the preparation of plant raw materials it is necessary not only to pay attention to its size and overfulfillment of the plan, but also to increase its quality and requirements. To do this, employees and specialists of plant raw materials should be fully acquainted with the morphological and biological properties of plants. The rules of preparation and methods of harvesting must have information about the chemical composition and use, and they must be able to completely differentiate between plant species. Although species belonging to the same family are very similar, they differ radically in medicinal properties. If medicinal plants are prepared carelessly it can lead to unpleasant consequences.

The following conditions must be met for the restoration and protection of medicinal plant resources:

-Good knowledge of all the signs and properties of plants:

-Do not break the plants, pull out the roots and rhizomes and tubers:

-If the roots or bulbs of the plants are being prepared, they should be dug up, not in a row:

-Seeds should not be harvested during the lactation period without ripening:

-Collecting adult seeds and fruits without leaving a single one:

-General harvesting of flowering or fertilized plants:

-Replacement of harvesting areas every two to five years:

- To take measures to control diseased plant species without picking them.

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# **CHEMICAL SCIENCES**

### **KERAMZITE BASE CATALYST PRODUCTION**

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Abstract. This article reveals about a new method of vinyl acetate production technology. In order to produce vinyl acetate, keramzite base catalyst has been researched. Keywords: vinylation, keramzite, hydrogenation, decontamination, absorption;

Vinyl acetate (VA) is one of the most important monomers (a component for the preparation of polymers of organic synthesis in industry). Vinyl acetate monomer is a widely used substance. VA-based polymers and copolymers have good adhesive, optical, electrical insulation and fiber-forming properties, so they are widely used not only in everyday conditions, but also in industry: engineering, construction, medicine and other fields.

The main application of VA monomer is in industry. It is an integral part of polyvinyl acetate, which is used in the manufacture of water-based paints and varnishes, various types of adhesives, impregnations, floor coverings, acrylic fibers, paper coatings and non-woven materials. In addition, VA monomer is used as an integral raw material in the production of polyvinyl alcohol - packaging film and laminated glass. A small portion of the VA monomer is used to produce polymers based on ethylene vinyl acetate, ethylene vinyl alcohol, and barrier resins made from this type of polyvinyl.

This research was carried out in accordance with the research plan of the program MLO, approved by the Chairman of the Board of JSC "Navoiazot".

The aim of the research was to conduct an experiment on the production of vinyl acetate by vinylation of acetic acid in the vapor phase with acetylene in the presence of zinc acetate catalyst.

VA synthesis was performed in workshop 007 at laboratory settings, setting from 0.00 to 650, following instructions 33-PC-7 for the operation of the periodically operated hydrogenation and vining device. Acetylene from the balloon, mixed gas from workshop 007 (recycled gas acetylene concentrate) and acetic acid produced in workshop 011 were used as raw materials. The catalyst was prepared in the following order to carry out the VA synthesis.

The catalyst is the impregnation of keramzite with a solution of 30% zinc acetate, 30% cadmium acetate and 2% zirconium (IV) oxide, followed by heat treatment in a nitrogen stream at 200-400  $^{\circ}$  C and 20-30% zinc acetate and 20- Prepared by reabsorption and drying of 30% cadmium acetate solution.

Decontamination of micropores was carried out by the degassing - "wet" method to increase the volume of activated carbon with a micropore carrier.

The "wet" method of degassing is an aqueous method. The carrier (keramzite) was immersed in distilled water with distilled water and boiled in an electric oven for 30-60 minutes. The dirty water was filtered and the expanded clay was washed with slightly

distilled water. The keramzite was then filtered and dried under natural conditions.

300 g of keramzite in a solution of 1200 ml with the following composition (% by weight):

- zinc acetate 5.0
- cadmium acetate -5.0
- acetic acid 1.0
- distilled water 89.0

Claydite was impregnated at a temperature of 75-85 ° C (in a water bath) for 25 min. The liquid was filtered; the wet catalyst was dried in a drying oven at 105-110 ° C for 35 min. After the initial absorption, the catalyst was heat-treated at 200-300 ° C for 0.5 h at a rate of 30 1 / h (90h-1 volumetric velocity) in a nitrogen stream.

After heat treatment, the catalyst was immersed in 1200 ml of 20% zinc acetate and 20% cadmium acetate solution, and the catalyst was kept in this solution in a boiling water bath for 2 hours. The mass was then cooled under natural conditions, the liquid was filtered and dried in an oven at 120-150 °C for 5 h. It is then loaded into the reactor and dried at 150-180 °C for 2 h in a stream of nitrogen. The content of zinc acetate in the finished catalyst was 16.5% and cadmium acetate 16.5%.

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### EFFECT OF HALIDE ADDITION ON ELECTROLESS SILVER PLATING

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Abstract: We adapted the addition of halide ions which is an important tool in the synthesis of well-defined Ag nanoparticles, to electroless Ag plating. These auxiliary reagents distinctly interact with the seeded synthesis of metal nanoparticles by mechanisms such as oxidative etching, adsorption and complexation Just recently, a more unified and coherent description of shape control phenomena is emerging, which is based upon such general processes, and an inclusion of electroless plating in this perspective is of high interest. As we will show below, the presence of halides severely affects electroless Ag plating. Besides from a drastic reduction of the reaction rate, the nano- and microstructure of the Ag deposits is strongly altered. We will discuss the observed changes within the mechanistic framework of colloidal nanoparticle synthesis, and argue that the underlying rationales can be extended to our system. As an application example, superhydrophobic coatings with multiscale roughness are produced.

Materials. Deionised water was employed in all procedures. Laboratory glassware was cleaned with concentrated nitric acid. Following materials were used as received: 1-hexadecanethiol; AgNO3; ethanol; ethylenediamine; HAuCl4 30% in water; KBr; Makrofol; methanol; NaCl; NH3 33% in water; potassium sodium, tartrate tetrahydrate; SnCl2 dihydrate; tetraoctylammoniumbromide; trifluoroacetic acid.

Galvanic replacement. For galvanic Au exchange, the Ag-coated polycarbonate foils were immersed in an ethanolic solution containing 4 mM HAuCl4 and 10 mM tetraoctylammoniumbromide for 15 min. Subsequently, the films were exhaustively washed with diluted ammonia solution to remove Ag halides, followed by washing with water and drying. The metal films were then coated with a self-assembled thiol monolayer by immersion in a 10 mM ethanolic solution of 1-hexadecanethiol, which was followed by thorough washing with ethanol and drying. Contact angles were measured on dry specimen.

Effect of halide addition on electroless Ag plating and results. However, in electroless plating, precipitation reactions are undesirable, because finely dispersed particles act as potential nuclei for metal reduction in the solution and thus impair the life span and surface-selectivity of the deposition baths. In the case of Ag halide particles, the tendency of Ag nucleation is further increased by the light sensitivity of the materials (compare with Ag photography). Beside these stability issues, precipitates can sediment on the workpiece and be incorporated in the evolving metal film. In order to achieve precipitate-free plating solutions and to allow for the use of relatively high halide concentrations, our bath formulations were based upon a previously established protocol which uses an excess of the complexing agent ethylenediamine. This bidentate ligand effectively binds to Ag(i) and thus reduces the concentration of free metal ions (see e.g. the logarithmic stability constants of 7.64 for the complex [Ag(en)2]+ and 13.15 for the complex [Ag2(en)2]2+). At the same time, the Ag(i) ions are not stabilised to a degree that would prevent their reduction by the mild and non-toxic reducing agent tartrate, which is frequently employed in electroless Ag plating. In summary, all baths used in this study

are based on a standard composition of 17 mM AgNO3, 100 mM ethylenediamine, 120 mM tartrate and 9.5 mM trifluoroacetic acid, which was introduced to adjust the pH to a value of 10.9. The acidification was performed to increase the stability of the solutions against decomposition, which is an issue at high pH. Varying amounts of halides were added to this standard composition, focusing on Cl? and Br? as the most important halide additives in the shape-controlled synthesis of Ag NPs. Polycarbonate foils served as substrates for the Ag deposition, which was conducted at room temperature for 24 h. Prior to electroless plating, the foils were covered with Ag nanoparticles to provide seeds for the plating reaction. This was achieved using a common activation procedure, in which surface-bound Sn(ii) ions react with Ag(i) to form small Ag nanoparticles of mostly <10 nm size. After Ag deposition, the polymer membrane was dissolved to free the structures deposited within the pores. As it can be seen from SEM images of the resulting products, the bimodal Ag film structure is maintained in the case of the new substrate (Fig. 1a). However, the pores confine the growth of the Ag microparticles within the membrane. This leads to the evolution of coarse-grained Ag microwires, which are covered by a porous nanoparticle film located on the former pore wall (Fig. 1b). Such structures are interesting for several application fields. For instance, in surface-enhanced Raman spectroscopy, wire-nanoparticle assemblies provide particleparticle junctions which can act as field-enhancing hot spots. Electrocatalytic applications can benefit from the continuous conduction pathways of the wires and the additional surface area generated by the nanoparticles.

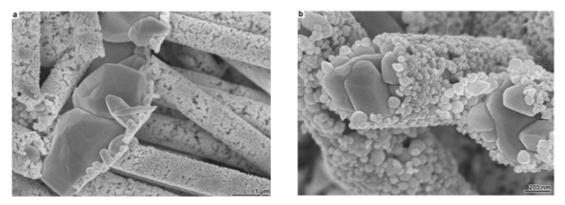


Fig.1 Electron micrographs of Ag structures obtained by Cl? assisted electroless plating using ion-track etched polycarbonate as the substrate. (a) Ag surface film and particle-decorated microwires. (b) Magnified particle-decorated microwires.

Conclusions. The morphological control provided by the outlined approach is relevant for highly structure-sensitive applications such as heterogeneous catalysis, sensing, nonlinear optics or surface-enhanced Raman spectroscopy. As an example for structural tailoring, we subjected an island-like Ag film obtained with moderate Cl? addition to a galvanic replacement reaction. The resulting coating possesses a pronounced roughness on both the nano- and microscale and, as a result, can be used to render surfaces extremely hydrophobic.

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# CULTUROLOGY

### UZBEK COPPER EMBOSSING ORNAMENTS THROUGHOUT THE PERIOD OF ISLAMIC ART

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Abstract: This article presents the factual material of the development "Islamic art" in Central Asia. The branch of Handicrafts, especially artistic metal in the XVIII - early XX centuries, is studied. The article reflects a detailed overview dynamics of the development ornamental systems, copper-stamped products of the Central Asian region, in particular, present-day Uzbekistan.

Key words: Islamic art, copper embossing, metalcrafts, ornament, composition, coiner, coppersmith, islimi, applied art, Uzbek copper embosing

At the turn of the VIII - IX century, with the invasion of the Arabs, Islam is spreading, with a different ideology and values, with a different view of the entire existing world heritage, with a new interpretation of the suspended and only Supreme. The formation of caliphates, the connection of multicultural regions under a single basis, the spread and promotion of Islamic culture in one word "Islamization" fully lasted for a long time, depending on the conquest, location of the cultural, religious, economic and political center of occupation. The Central Asian region including the territory of present-day Uzbekistan that was part of Sogd and Khorezm was captured at the beginning of the IX century. In General, the chronological concept of "Islamic art of Uzbekistan" can be defined by the time frame of the IX - early XX centuries.[1]

The motifs of the ornament of stamped products are traditional for all types of Uzbek decorative and applied art. These are mainly plant, geometric, and zoomorphic patterns. Ostral motifs, calligraphic inscriptions and images of household items are of great importance in the ornament.

Copper embossing uses 6 main compositions of ornamental systems for the decoration of trays :."gardish" - aconcentric arrangement of stripes around acircle displaced in the center of the dish, "davra" - a room in the center of a large circle with small circles rhythmically arranged around it, "turunj" - a similar composition, built not from circles, but from medallions, "mehrob" - a composition of touching arches located around a Central circle, "Sitora" - a composition in the form of a large star that occupies the entire space of the bottom, "ishkalak" or "ishkalak band" - with the restriction of the Central bottom tray borders of the rectangular frame, which fits the leading ornament.

A favorite ornament of Uzbek coppersmiths is - "islimi", patterns of flowers, leaves, climbing stems are performed in the borders and on the Central field of the composition. The most complex compositions consist of plant motifs, they also fill the interior space of rosettes , medallions, and geometric shapes. There are many variants of the "islimi" pattern.the simplest plant patterns used for ornamentation of borders and dividing strips are called "nimislimi". Plant patterns are performed quite realistically, you can easily identify the leaves, flower heads, and wriggling petals in complex plant compositions.

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Many plant patterns are called by masters by specific names "Lola"(Tulip)," Bodom "(almond)," kalampir "(red pepper)," buta " (Bush).

Zoomorphic and anthropomorphic ornaments were very popular in metal products. Under the influence of new ideological ideas that developed during the Islamic art period, realistic images of people and animals disappeared from the Arsenal of artistic means of coiners. Images of animals were used in a highly stylized form, mainly in the border ornament. Only the name of ornamental motives was vydoval their value: it was not the images of animals and their body parts: "chashmi Bulbul" (Nightingale's eye), "kuchkorak" (RAM's horn), "pushti Balik" (fish scales), "Kapalak" (butterfly), "Ilon izi" (trail snakes). Realistic images of snakes, birds, sheep heads and other animals were found only in the details of the forms made by the casters (on the handles and spouts of vessels). Geometric ornament performs a narrow service role in copper embossing: it is used mainly in borders, dividing strips, in the outline of the contours of large figures. The vast majority of geometric patterns have architectural names: "Gisht" (brick), " mehrob "(arch)," zanjir "(chain)," madohil " (medallion).

The art of decoration of copper-stamped products is inextricably linked with the use of certain techniques. Sometimes the technique dictates the design system, in other cases-the chosen ornament obliges the master to apply a certain technique.[2]

In the second half of the XIX century, new features common to all regions appeared in the art of design of minted products, due to expanding social relations. Along with traditional plant motifs, which still retained local features everywhere, the masters introduced story inserts into ornamental compositions. For the first time, this technique was used by the masters of Kokand: the image of architectural structures was minted on trays, most often the Palace of the Kokand Khan Khudayar. In Bukhara this innovation arose somewhat later - from the end of XIX - beginning of XX century, in Samarkand in the 30 years of XX century masters continued to produce traditional products, following the trend in late nineteenth century areas for simplification of equipment, unification of ornament and attempts the introduction of ornamental Stroy artwork story panels. But, along with this, the largest city artels, following the current installations in those years, tried to switch young coiners from the conventional ornamental style to the so-called "realistic", pictorial, which ultimately amounted to the design of products with boring naturalistic drawings [3].

With the advent of the XXI century and the development of the trend of "globalization," the high growth of a market economy would seem to begin to wash away the peculiarity of interregional features. Contemporary applied art has taken a new turn in its development towards market demand. Masters strive not to enrich the heritage that has been functioning for centuries, but against traditional methods and ornaments, in favor of personal interests of both their own and those of consumers. The artistic features of the craft as a reflection of uniqueness and authenticity serve to preserve the national identity of art, passing from generation to generation.

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### THE HISTORY OF KARAKALPAK TRADITIONAL CLOTHES 'KIZIL KIYMESHEK' (FROM THE COLLECTION OF THE STATE MUSEUM OF HISTORY AND CULTURE OF THE REPUBLIC OF KARAKALPAKSTAN)

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Abstract. - The red dress was the cash worn by Karakalpak girls in the 19th and 20th centuries. The front of the bichimini is embroidered on a triangular Simon red cloth, called (onirshe), which comes to the chest. The back is adras, called kurikcha, and the edges are embroidered with silk. She embroidered the red dress herself from the age of 7 until each girl was handed it. He evaluated the aesthetic upbringing of the girls according to the embroidered pattern of the dress. The red dress was worn until middle age when the girls were handed over. And after the wedding, he wore it when he went to a party. Key words: a museum, kiymeshek, applied art, tribe, traditional, pattern.

Like other nations of the world, the Karakalpak people have also created works of applied art that reflect the earliest life of Karakalpak people. Native folk art works handed down as a heritage and became an invaluable cultural heritage of the generations.During the years of independence, Uzbekistan has undergone specific changes in the field of historical monuments, particularly in the field of preservation of valuable monuments of folk applied art and the development of folk arts and crafts.

The renewal of ancient traditions is one of the most important factors in the interest of the interest towards the folk art samples, which is considered to be one of the most important items of our heritage.One of the brightest trends in the development of modern handicraft is the 19th-20thcenturiesconsistent observance of generally recognized norms of the classical law, as well as preservation of traditions and their further development.The roots of the tradition of Karakalpak national applied art go back to ancient ancestry.This type of art is mainly related to the craft industry.Unique pieces of art created by artisans for centuries make up the golden treasury of our culture.In the second half of the 20th century, the applied arts applied to the industrial production system.This led to the removal of craftsmanship to the same pattern, the loss of traditional forms of decorations, dismissal, and the abandonment of some of the working methods.In particular, due to the renewal of national traditions today, the understanding of applied art is historically and aesthetically significant.

Karakalpak folk applied art and development of its national values, traditions are exceptional. There are many myths and legends about the ethnic origin of this nation. According to scientific evidence, the concept of Karakalpak originates from the 9th century. The art of handicraft, folk applied art of Karakalpak people is very rich. There are many kinds of folk applied art and they have developed. They are wooden carving, copper, embroidery, jewelry and carpet weaving.

The most important aspect of the ornamental patterns in the Karakalpak embroidery art is that it reflects the outlook of the people who lived in semi-nomadic conditions under difficult desert conditions.

Decorative ornaments art is a very important aesthetic, as well as magic protection.Each one of these patterns may refer to one of the Karakalpak tribes.There were 12 tribes in Karakalpakas 12 patterns.This principle is based on Karakalpakembroidery.The ornaments on the clothes served as a tool for the Karakalpak girls to tell them what kind of tribe they were on the day of marriage.Therefore, the bridal attire of the bride is symbolized by the emblems of the tribal emblem. There were 12 basic patterns on the front of 'Kizil kiymeshek" (red gown), which is considered to be the Karakalpak wedding jacket. These are: 1) Wool pattern; 2) cotton or large flower (peanut or plum flower); 3) a pattern of a rhomb; 4) eight or ten kings; 5) the king of Khurasan; 6) buckle pattern; 7) a pattern as a snake; 8) Short flower; 9) dog compensation; 10) dog breeding stock; 11) there is a single copy of the camel's compensation right now; 12) the royal decoration underarm.

A.Allamuradov, who made a number of researches about the Karakalpak embroidery, took into account the composition of the central pattern on the front of the red gown. Another interesting aspect is that the front side of the red gown is similar to a "life tree", based on a specific arrangement. It represents the "triad" in the vertical as the origin, development and ending of life. In the lower part of the Kiymeshek, water, zoomorphic, plant motifs, and earth-life are associated with symbols.

An analysis of the meaning of ornaments in Karakalpak national applied art shows that the designs of birds, animals, plants, and geometric shapes served as a protective tool. All of these are highly impressive, combining the general picture of the objects of patterns and expressing their local traditions formed in a long historical process. Decorative patterns represent the system of images and characters that reflect people's perception of nature and their associated world outlook and aesthetic taste.

Kiymeshek is the most important garment of the Karakalpak women.Kiymeshek was obliged to remain at the end of his life.It was a sin to lose it.The traditional gown style and general appearance remind you of the bird that wings the wings.The front part of Kiymeshek ("the front of Kiymeshek"), the shoulder (rib black) and the back ("little tail") - these three parts form the overall look of the dress.

These clothes, like a jacket without sleeve, covered the upper part of the woman's body - her head, shoulders, waist, chest and arms.According to ancient beliefs, these parts refer to the surface of the Earth and the Upper world. It is believed thatSogdian women also used such clothes.There were clothes like kiymeshekon the statues which archaeologists have found.

At the beginning of the 20th century, A.Rossikova, who arrived in Karakalpakstan, describes Kiymeshek as: "To go to weddings and holidays, the Karakalpak women wear a headdress named "kiymeshekeste". It is sewn as follows: any fabric is cut in the form of a triangular triangle, so that the face of the woman is fitted in the middle. A large silk scarf made in Bukhara is sewn on both sides of the triangle. The corner of the scarf should fit the corner of the triangular fabric. The ends of the scarf hang to the ground. Kiymeshek resembles Caucasians' "bashlik". "Kiymeshekeste" wasworn on the head. The front side of it covers the breast side, only face side was open.

All of these are important aspects of the Karakalpak national embroidery, and the Karakalpak girls attained their full secrets at the age of 14-16.Kiymeshek is a masterpiece of rich decorations used by the canvas, and every thread is a pattern of embroidery and color, a girl with a needle and a thread. She prepared a wedding dress that she wore at his wedding.

Karakalpak; embroidery masters have their imagination on the objects that existed in life once.On the embroidery, it was conventional, while on the other hand he meant a religious concept of "preservation" from one's evil eyes, and another in an independent aesthetic.

These sophisticated embroidery samples illustrate the peculiarities of the Karakalpak embroidery art.Also, they have common aspects with the Turkmen, Horezmian, Bashkir, Chuvash, Marines, and even the Western and Eastern Siberian peoples. G. I. Soloveva said: "It's easier to understand decorative language than any other language.This ensures At present, samples of such clothes are kept in the collection of the State Museum of History and Culture of the Republic of Karakalpakstan.

# **ECONOMICS SCIENCES**

# FINANCIAL STABILITY OF ECONOMY AS A MAIN FACTOR OF STABILIZATION OF THE INSURANCE MARKET

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Abstract. In this article, the author considers the financial stability of insurance companies as a factor in ensuring stabilization of the insurance market. Acting as a guarantor for the obligations assumed to policyholders in the event of insured events, insurance companies first of all need to be financially stable.

Keywords: financial stability, solvency, insurance market, compulsory insurance.

In the modern world, the modern insurance market in a volatile economic situation is periodically prone to crises, which indicates the need to maintain a stable financial situation for insurance companies.

Before moving on to financial stability, it is worth considering such an indicator of insurance organizations as solvency. The solvency of the insurer or reinsurer is an objective indicator of its current financial condition by forecasting in the future [1, c. 34].

There is also another definition of the solvency of a company, which fully characterizes this indicator: "By the solvency of an insurance (reinsurance) company, it is understood by its ability to timely and fully fulfill its financial obligations. An indicator of the solvency of an insurance (reinsurance) company is its compliance with regulatory ratios between obligations and assets, taking into account their liquidity. [2, c. 135].

Today we can talk about insurance as a strategic segment of the economy, since insurance:

- provides a significant reduction in the burden on budget expenditures of various levels;

- supports the socio-economic stability of society, being one of the main elements of social protection;

- acts as a source of domestic long-term investment in the country's economy;

- optimizes the activities of economic entities due to which there is a centralization and reduction of compensation funds and is involved in the restoration and updating of fixed assets;

- acts as a guarantor in compensation for compensatory damages.

First of all, we will consider such an aspect as reducing the burden on the budget. Compulsory insurance is one of the effective market mechanisms to increase the level of social protection of the population, which can significantly reduce the budget burden on social needs. [3].

Today this issue is most relevant, since 2020, medical insurance has entered the ranks of compulsory types of insurance in the Republic of Kazakhstan. Compulsory health insurance plays an important role in the social protection of the population. It has long been precisely on the development of health insurance that the healthcare system of foreign countries is built. For this reason, Kazakhstan entered it into the list of obligatory. Equally important are such types of insurance as insurance of annuities, pensions, allowances and other payments of the socially unprotected population of the country. In the case of stimulation of the above types of insurance, the state reduces the social burden on extrabudgetary funds. A sufficient level of development of socially directed products will allow the state to limit the size of socially directed payments to a minimum level, thereby avoiding social explosions among the population. To eliminate the consequences is not only to prevent a natural disaster, since even with the highest quality risk management it is impossible to prevent natural disasters. The main task is the ability to manage risks. Every year in Kazakhstan, damage from natural disasters is increasing, but insurance coverage is not provided at the proper level. Traffic accidents, dangerous industrial accidents, fires, droughts and other disasters are inevitable. The total cost of covering these incidents falls on the state budget. The largest share of these costs is not compensated, and there is no funding for these activities.

And also, the development of insurance in Kazakhstan, namely the types of compulsory insurance, will allow the market to move forward, improve insurance services and the quality of customer service.

At present, the insurance market of Kazakhstan needs to create an effective system for providing such types of insurance as medical, pension and social. According to the author, insurance tools can contribute to the creation of effective medical, social and pension systems. Undoubtedly, the system of providing medical care within the framework of compulsory medical insurance requires serious reform. According to the author, it is possible to increase the efficiency of using invested funds using real insurance as an economic mechanism for compensation for accidental damage, with the help of which budget funds will be released that will be used to develop the material base of the health care system. It is worth noting that the only link in the system that controls the quality of the medical services provided and defends the interests of the insured is a medical organization.

According to the situation described above, an increase in the quality of life and an increase in the well-being of the population can be achieved if insurance instruments in the social security system are improved.

Speaking about insurance as a source of long-term investments, it is worth noting that long-term life insurance in foreign countries is one of the key resources of domestic investment that ensures the independence of national economic systems. Insurance organizations concentrate significant financial resources and pursue an active investment policy, which indicates the important role of insurance companies in the economy. Thereby, the passive money resources received from the insured are transformed into active investments operating in the market. Once, V.K. Reicher noted that "by collecting and accumulating colossal funds, bourgeois insurance nourishes the banking system with its deposits and makes it possible to use insurance capital extensively and for a long time by turning them into stock values for the state's needs" [4, c. 367].

It should be noted that the accumulation of insurance reserves is increasing every year and over the past 5 years this indicator showed an increase of 51%, increased from 376 billion tenge (2015) to 570 billion tenge (2019). Today it's difficult to talk about the potential development of investment activity in the insurance market of Kazakhstan, since a significant lag is observed in comparison with the indicators of foreign countries. However, if we take into account world practice, we can expect that in the near future the accumulation of insurance reserves will reach an appropriate level. Also an important indicator in the investment activity of insurance reserves is the amount of equity. To date, there has been a significant increase in this indicator. In total, for 2019, the total equity of insurance companies amounted to 553 billion, which is 36% more than in 2015 - 406 billion.

Entities interested in financial sustainability information:

- the state (carries out supervisory functions), o insurers (assess competitors, assess the financial stability of potential partners, etc.); o financial manager (monitors financial stability in order to make timely decisions to achieve the goals and objectives; make an independent assessment of the financial situation, evaluating their competitive advantages)

- the insured and the insured (the main participants in guarantee payments);

- counterparties (creditors) for operations other than insurance.

In practice, insurance companies in the implementation of measures to improve financial stability most often face the following problems:

- identification of factors that can have a significant impact on the financial performance of the insurance organization, which, in turn, also requires analysis of the level of influence of the identified factors;

- creating a qualitative model for analyzing the financial stability of insurance companies with establishing the relationship of financial flows, as well as their quantitative assessment;

- development of particularly effective means of increasing the financial stability of insurance companies, their economic and economic-mathematical justification, using planning methods, forecasting the subsequent development of financial activities of insurance companies.

Thus, the proper functioning of the insurance market in Kazakhstan requires insurance companies to be reliable, stable and have high financial potential. Summing up, increasing the financial stability of the insurance company is necessary due to the fact that they act as a market stabilizer, in the macroeconomic aspect, as well as a social guarantor of citizens. In turn, the dependence of insurance organizations on risk factors creates the need for constant monitoring of maintaining financial stability.

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# ISSUES OF ATTRACTING FOREIGN INVESTMENT TO THE REPUBLIC OF UZBEKISTAN

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Abstract. This article considers the current state of the potential of the Republic of Uzbekistan to attract foreign investment, the factors influencing on it and the issues of effective use of attracted foreign investment, and provides opinions and suggestions in this regard.

Keywords: investment, foreign investment, labor potential, raw material potential, labor resources, investment funds, national economy.

Resilience of Manufacturing Companies to Financial Competition supply is of economic and political importance. The reason is that, the country's national income is manufactured in enterprises and they play a significant role in the increase of its economic, political and military potential. In addition, ensuring the financial competitiveness of enterprises, modernization of their services, technical and technological re-equipment is aprerequisite. There are paid a lot of attention to structural changes in the national economy in the context of modernization of the economy implementation, especially the sustainable development of large industries, modernization of production, technical and technological modernization and diversification, widespread use of innovative technologies. They, in turn, require ensuring the financial competitiveness of industrial enterprises.

In one of his speeches, President Shavkat Mirziyoyev said, "Active investment policy is essential for sustainable economic development ".

2019 was marked as the year of "Active investment and social development" in our country. It should be noted that a number of priorities have been identified to increase the efficiency of attracting foreign investment in the economy of the Republic, informing foreign investors about the opportunities and potential of our country due to The resolution of the President of the Republic of Uzbekistan of April 29, 2019 "On attracting foreign direct investment in the economy of the Republic". The authorities are working to improve the coordination of activities. It is worth mentioning that the leading positions have been set.

In his address to the Oliy Majlis in 2020, the head of our state stressed that a significant part of the investments to be made in 2020 will be foreign direct investment and loans, and in order to support investors mechanisms are being introduced to pay taxes in installments and to cover a certain part of the cost of infrastructure construction by the state."

According to the concept of the Regulation "On Investments and Investment Activities" developed by the State Investment Committee for Investment together with experts and representatives of scientific circles, over the past 20 years directly involved in the economy of the Republic of Uzbekistan. The number of investments and loans amounted to 25.3 billion US dollars, of which 11.8 billion US dollars or 47% were attracted in the last 5 years. Over the past 5 years, direct investments have attracted about 6% in the information and communication sector, 2% in the energy sector, and 1% in the light and textile sectors.

The only area that maintaining its potential is foreign investment in the current situation somewhat limited by the possibility of real increase in financing of investments

at the expense of bank loans and own funds.

We highlight two of the most important of the factors that determine income in attracting foreign investment:

First, our country has a rich natural raw material potential. Rich precious, nonferrous and rare metals, deposits of all types of fuel resources (oil and gas condensate, natural gas), several types of mineral raw materials and construction materials - all this can be an important basis for attractting large amounts of domestic and foreign investment.

Secondly, our republic has the necessary labor potential. At the same time, there are more than a million active-age people in the country, and the able-bodied population is growing by more than 200,000 people every year. First of all, it should be noted that the republic has a high level of labor potential, a high level of general and vocational training of labor resources. the literacy rate of the population of the republic has exceeded 99 percent, two hundred per thousand people have secondary special education, and about 150 have higher education. The level of education in the field of material production and services is higher - one in four people have higher or secondary special education.

In addition, it should be noted that active measures are being taken to increase the level of education and professional training of labor resources which creates additional conditions for the effective use of investment funds in the national economy of the republic. It is more efficient to invest in financial support for enterprises.

The effective use of investments in financial support of enterprises should be aimed at:

1. Financial support of new technological lines and production;

2. Reducing the likelihood of financial inequality through the development of production process insurance;

3.To be able to adapt quickly to changes in market conditions and the needs of users, to create the most convenient tool for creating jobs and increasing the income of the population;

4.Satisfaction of the needs of the enterprise by attracting funds from various financial funds and creating their effective use;

5. Provision of enterprise costs with advanced technologies through enterprise investments;

6.Influence on the accumulation of financial resources of the enterprise through the depreciation policy, the degree of renewal of their main effects.

A good result is achieved if we use the above suggestions in practice.

## ESTIMATING EFFICIENCY OF BANKS IN UZBEKISTAN USING DEA METHOD

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To ensure stability of banking system government injected capital into state-owned banks several times since global financial crisis. Currently, the state's share in the Uzbek banks has risen to 86%, and this has led to a significant reduction of the private sector's share in the banking sector. One of the main objectives of the banking system reforms which is accelerated after President Sh.Mirziyoev came to the power in 2016, is to improve the efficiency of banks by reducing share of the state in the banking sector and liberalizing financial market.

We measure the relative efficiency of Uzbek banks according to their ownership structure in the period from 2013 until 2018. In order to analyse the efficiency of banks by their ownership structure, we have divided banks into four groups based on their ownership. We have divided state-owned banks into two groups. First, directly state-owned banks where the share of the state is 100% and state owns shares of these banks directly by the Ministry of Finance of the Republic of Uzbekistan (MFRU) and the Fund for Reconstruction and Development of the Republic of Uzbekistan (FRDRU). There are three such banks: "Milliy bank", "Xalq bank" and "Asaka bank". Second, indirectly state-owned banks where the share of the state is less than 100% or the state owns them through government bodies other than MFRU and FRDRU. We have divided the rest of the banks by their ownership into private and foreign banks.

After evaluating cost efficiency of the Uzbek banking system, it is important to examine cost efficiency of banks based on their ownership structure. Table 1 shows cost efficiency based on ownership of banks under the constant and variable return-to-scale assumptions.

From the results in Table 1, we observe that cost efficiencies for constant and variable return-to-scale present mixed results in terms of rankings of banks with different ownership structure. According to CCR model, efficiency of banks other than foreign banks are less volatile and increasing. Results also show that public banks are more cost efficient on average compared to private banks. However, the average efficiency gap of these banks is narrowing as time passes. As private banks joint stock banks also have experienced steady and significant efficiency gain during the period of analysis.

According to BCC model, while public banks have had significant efficiency improvement on average during the period, foreign banks have gained least average. Average efficiency scores under variable-return-to-scale are greater than average efficiency scores under the constant-return-to-scale. This is due to the fact that the variable-return-to-scale is more flexible and envelops the data tighter than the constant-return-to-scale.

From the efficiency scores of banks with different ownership structure, it can be concluded that banks in Uzbekistan are technically inefficient. High level of inefficiency of banks in Uzbekistan implies that there is a managerial failure to fully exploit resources available to them. It infers that bank managers must ensure that they fully utilize their inputs to generate a maximum level of output to be efficient.

|                    | Part I. CCR model |                   |               |               |  |
|--------------------|-------------------|-------------------|---------------|---------------|--|
| Years              | Public banks      | Joint Stock banks | Private banks | Foreign banks |  |
| 2013               | 0.40              | 0.39              | 0.24          | 0.42          |  |
| 2014               | 0.37              | 0.42              | 0.30          | 0.52          |  |
| <mark>201</mark> 5 | 0.44              | 0.42              | 0.36          | 0.29          |  |
| 2016               | 0.68              | 0.44              | 0.36          | 0.30          |  |
| 2017               | 0.57              | 0.44              | 0.32          | 0.36          |  |
| 201 S              | 0.48              | 0.52              | 0.43          | 0.35          |  |
| Part II.BCC model  |                   |                   |               |               |  |
| Years              | Public banks      | Joint Stock banks | Private banks | Foreign banks |  |
| 2013               | 0.57              | 0.55              | 0.31          | 0.58          |  |
| 2014               | 0.63              | 0.60              | 0.41          | 0.62          |  |
| 2015               | 0.64              | 0.59              | 0.44          | 0.51          |  |
| 2016               | 0.79              | 0.65              | 0.44          | 0.53          |  |
| 2017               | 1.00              | 0.63              | 0.41          | 0.62          |  |
| 2018               | 0.88              | 0.71              | 0.52          | 0.61          |  |

Table 1. Average cost efficiencies based on ownership structure

We used DEA under the constant-return-to-scale and variable-return-to-scale assumptions to analyze cost efficiency of the banks in the Uzbek banking market in the period 2013-2018.

The analysis shows that on average cost efficiency of Uzbek banks has gradually increased in the period of being analyzed. Moreover, the number banks that lie on the efficiency frontier is also increased. In terms of ownership structure, while banks with direct or indirect state ownership have higher relative cost efficiency private banks are least efficient ones. This efficiency difference can be explained by state banks' access to cheap financial resources which are provided to finance some government projects.

# ECONOMIC DIPLOMACY: AS A TOOL FOR PROMOTING BILATERAL TRADE

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Abstract. The article is devoted to the role and influence diplomacy in the development of economy. The author describes how embassies making effort on the promotion of foreign business in countries.

Key words: Economic diplomacy, economic development, promotion, bilateral trade.

Economic diplomacy not only contributes to the development of the state, but also, as necessary and possible, manipulates its external trade and financial relations. Accordingly, economic diplomacy is the main topic of foreign relations of almost all countries. Inside the country, economic ministries, trade and investment promotion bodies, chambers of commerce and, of course, the foreign ministry take part in economic work.

Current trends include increased cooperation between government and informal institutions to pay increased attention to negotiations on free trade and preferential trade agreements, as well as investment agreements, to avoid double taxation, financial services, etc.

Abroad, embassies, consulates and trade missions deal with economic diplomacy. The focus is on promoting, attracting foreign business, investment, technology and tourists. Economic diplomacy is closely linked to political, social, and other segments of diplomatic work.

Nowadays, economic diplomacy is becoming increasingly important within the diplomatic community. All diplomatic missions are trying to actively participate in this important area of cooperation. The Uzbek Embassy in the United States is no exception to this trend. Currently, diplomats are increasingly involved in trade, economic and investment relations, trying to connect companies, foreign enterprises with the Republic of Uzbekistan.

Among the tools for promoting economic diplomacy are high-level meetings between officials, in particular those responsible for the development of foreign economic relations, business forums, seminars, trade shows, bilateral and multilateral commissions, and the unification of companies based on their interests.

The economic department of the embassy is trying to maximize the use of these tools in order to achieve practical results. The philosophy of embassies regarding the promotion of trade and investment is to connect global companies with their potential partners in the Republic of Uzbekistan, using knowledge of the economic system of Uzbekistan, as well as market opportunities and leading sectors of the economy.

The above approach has led many well-known US companies to work in Uzbekistan today, where they are implementing a number of projects: Exxon Mobil, CNH Industrial, Coca-Cola, Hyatt, Hilton, John Deere, Honeywell, Caterpillar et al.

The importance of the economic dimension in our bilateral relations with the United States can also be indicated by statistical indicators.

Since the beginning of 2018, 25 enterprises with the participation of American capital have been created. In January-October 2018, Uzbekistan and the United States increased mutual trade by almost 2 times and brought it up to 332 million dollars. Currently, 210 enterprises with the participation of US companies are successfully

operating in Uzbekistan. The total volume of US investments and loans attracted to the economy of Uzbekistan for the period from 1998-2017 exceeded \$ 1 billion50.

The visit of the President of the Republic of Uzbekistan Sh. Mirziyoyev to the United States of America in May 2018 laid the foundation for new trade relations between the two countries.

On February 16 this year, the delegation of Uzbekistan signed a number of bilateral documents during their stay in the state of Mississippi.

At a meeting of the delegation of Uzbekistan with the Mississippi Commissar for Agriculture and Trade, Andy Gibson, a constructive exchange of views took place on the prospects for bilateral cooperation and concrete practical steps for developing partnerships in the agricultural sector were outlined.

In general, the talks held by the Uzbek delegation in the state of Mississippi made it possible to lay a solid foundation for the further development of bilateral cooperation in areas of mutual interest51.

Uzbekistan and the USA are actively developing trade, economic and investment cooperation, which is a priority in Uzbek-American relations.

The American-Uzbek Chamber of Commerce plays an important role in supporting and promoting business contacts between countries. A special contribution to the development of trade cooperation with the USA is made by the TIFA framework agreement on trade and investment, signed between the United States and Central Asian states.

### PRACTICAL STATUS OF EXTERNAL QUALITY CONTROL OF AUDITS: ON THE EXAMPLE OF UZBEKISTAN AND FOREIGN COUNTRIES

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Abstract. This article is about the current state of external audit quality control and its analysis on the example of the Republic of Uzbekistan and foreign countries. It also includes sources of audit control in Uzbekistan.

Key words: financial statements, audit, audit standards, NAUU, supervision, authorized body, investigation, control over auditors

Introduction. One of the main means of ensuring the transparency of business entities is the financial statements of these entities, approved by audit firms. On their basis, economically important decisions are made.

The essence of the audit profession is characterized by the acceptance of responsibility to the audit client and society as a whole, on the basis of which the issues of monitoring and improving the quality of audit services are very relevant for all foreign countries. It is also important to ensure mutual trust between the CIS countries in the audit results.

The Republic of Uzbekistan has internal and external sources of quality control of audits, which is one of the features of many countries around the world. Hence, the internal source of quality control of audit work is the internal audit standards of audit organizations. Internal audit standards of auditing organizations should show that auditors carry out their control procedures in a clear manner and include specific recommendations that will help auditors improve the quality of their professional activities.

However, in most audit organizations today, the development of internal audit standards is reflected in the formality and the specifics of the audit organization that develops the internal standard, as copies of samples developed by public associations of auditors.

Analytical section. External quality control of audits Today, the website aud.mf.uz of the Department for External Quality Control of Audit Organizations within the Ministry of Finance has been launched. This site submits electronic reports of audit organizations located in the Republic of Uzbekistan and checks the quality of audit organizations on the basis of risk analysis.

The National Association of Accountants and Auditors of Uzbekistan (NAUU) carries out external control of audit organizations.

Differences between the external control over the quality of audit organizations within the Ministry of Finance and the external control of audit organizations of the National Association of Accountants and Auditors of Uzbekistan (NAUU):

At NAUU, only the quality of audits of audit organizations that are members of the association is monitored, and this is assessed in the annual audit rating conducted by the association. In the department of external control over the quality of work of audit organizations within the Ministry of Finance, all audit organizations operating in the Republic of Uzbekistan are selected and inspected on the basis of risk analysis.

In accordance with the Action Plan for the implementation of the third phase of the CIS Economic Development Strategy until 2020 (2016-2020), approved by the CIS

July | 2020

Council of Heads of Government on October 30, 2015, in order to strengthen the protection of investors by serving the public interest and improving the quality of audits. The Coordination Council on Accounting under the Committee prepared recommendations on the control of auditors and audit organizations and introduced the following definitions:Supervision - control (including quality control) and (or) audit organizations and audit organizations in accordance with the legislation on auditing, international auditing standards, ethics and other mandatory documents.

The purpose of control is to ensure the quality of audit services and to ensure the transparency and accuracy of reports to encourage investment activity. Authorized body - auditors and audit organizations to identify violations of the law on auditing activities, international auditing standards, ethics and other mandatory documents, as well as the above-mentioned control and application by the entities.

Activities that are highly valued by the public, defined by the state, public entities, social organizations, community organizations, public companies.

Investigation is the conduct of inspections and audits of the actions of audit organizations. Following a series of financial crises and corporate scandals in the United States, the Sarbanes-Oxleycon law was passed in 2002, creating a global trend of transition from self-regulation in the audit profession to auditing in state-owned companies.

The purpose of the Board is to inspect the activities of open joint stock companies in order to protect the interests of investors and the public interest. The European Parliament and Council of Europe Resolution No. 537/2014 of 16 April 2014 "On the Requirements for the Compulsory Inspection of Public Interest Entities" (external European auditors) is a very important public opinion. The principles of the system of quality control of auditing activities have been published by the International Forum of Independent Auditors, which unites 55 countries, including the Russian Federation, among the CIS countries. The basic principles of IFIA are aimed at developing effective independent oversight through auditing activities around the world, and IFIA's 11 key principles are based on the effectiveness of audit management, quality control and audit systems, some of which are:

- be independent in their activities with the regulatory authorities. Independence refers to the ability to carry out regulatory activities, as well as the ability to perceive and implement regulations without the intervention of law enforcement officials;

- Audit regulators, at least in the case of socially important organizations, are subject to professional standards, independence requirements and other laws,

Audit organizations should be periodically audited to assess compliance with the rules and regulations. The United Kingdom of Great Britain and Northern Ireland (hereinafter referred to as the United Kingdom) is a country with many years of independent oversight experience. Changes are currently taking place in the FRC to ensure independent oversight in the field of auditing. The UK government is looking at attracting investors in the auditing sector, compliance and compliance with the highest standards as a key element of economic growth.

Legal basis for control over auditors and audit organizations conducting mandatory audits of the CIS member states International auditing quality standards Audit quality regulation Auditing of audit organizations and individual auditors, setting standards, quality control of audits and non-compliance with audits including the issuance of a license to take disciplinary action.Nationwide, these functions are usually performed by independent governing bodies or professional accounting organizations, or both.

Thus, today the system of control over auditors and audit organizations conducting mandatory audits in the CIS member states consists of various national systems, and the following models of audit control are used:

the first model is the control of the state body (persons) by the state;

the second model is in the formation of professional (self-regulatory) organizations with control functions, including the task of developing standards;

the third model is a mixed audit performed by professional audit institutions and at a clearly defined level by the state.

# Table 1Control over the audit activities of the CIS countries

|                            | Government or other bodies that oversee<br>audit firms  | State or other<br>bodies that control<br>public associations | Whether<br>auditing has shifted to<br>self-monitoring ?  |
|----------------------------|---|--|--|
| Republic of<br>Azerbaijan  | Republic of Azerbaijan Chamber of Auditors  |  | Yes<br>(Republic of Azerbaijan<br>The Chamber of<br>Auditors is the<br>supervisory body and<br>issues a license) |
| Republic of<br>Armenia     | Ministry of Finance   | Ministry of Finance  | None   |
| Republic of                | Ministry of Finance (except for bank  |  | None   |
| Belarus                    | auditors in accordance with the BR Law on<br>Auditing Activities in relation to audit<br>organizations, individual entrepreneurs)<br>National Bank (auditing organizations<br>conducting bank audits)   |  |  |
| Republic of<br>Kazakhstan  | Ministry of Finance   | Ministry of Finance  | None   |
| Republic of<br>Cyrgyzystan | Government financial market control is a state<br>body  |  | None   |
| Republic of<br>Moldova     | External Quality Control Board of Audit   |  | None   |
| Russia<br>Federation       | The Federal Treasury exercises control over<br>audit firms that conduct mandatory audits of the<br>accounting (financial) statements of socially<br>important organizations. Self-regulatory<br>organizations of auditors conduct external<br>quality control by their members (audit<br>organizations and auditors). | Ministry of Finance  | Yes<br>(mixed control)   |

|                           | organizations of auditors conduct external<br>quality control by their members (audit<br>organizations and auditors). |  |      |
|---------------------------|---|--|------|
| Republic of<br>Tajikistan | Ministry of Finance   | Ministry of Finance                        | None |
| Republic of<br>Uzbekistan | Ministry of Finance (licensing control) and<br>central bank (for bank audit)  | Ministry of Justice<br>(statutory control) | None |

As can be seen from the data in Table 1, the control over the audit activities of the CIS countries is 50% -60% similar. We can see the existence of self-governing audit organizations in the Russian Federation and the Republic of Azerbaijan, which shows that the audit organization and the auditors are able to independently control themselves and make appropriate decisions within their organization. The supervisory body in the Republic of Uzbekistan is the Ministry of Finance, which is a state body.

Table 2External quality control of audits in the CIS countries

|                        | External quality co                           |   | INDEPENDENT<br>ORGANIZATION   |
|------------------------|---|---|-------------------------------|
|                        | SELF-REGULATORY<br>ORGANIZATIONS              | GOVERNMENT BODIES                       | (INDEPENDENT<br>FROM AUDITORS |
| Republic of Azerbaijan | Republic of Azerbaijan<br>Chamber of Auditors |   | 99.<br>19                     |
| Republic of Armenia    |   | Ministry of Finance                     |                               |
| Republic of Belarus    |   | Ministry of Finance<br>And Central Bank | 8                             |

| Republic of<br>Kazakhstan | Professional audit organizations             | (5  |                                       |
|---------------------------|--|---|---------------------------------------|
| Republic of Kyrgyzystan   | <u></u>                                      | Government financial<br>market control is a state body  | <u>e</u> 2                            |
| Republic of Moldova       | 1  |   | Public<br>Oversight Board on<br>Audit |
| Russia<br>Federation      | Self-regulatory<br>organizations of auditors | Federal Treasury  | 51 0                                  |
| Republic of Tajikistan    |  | Ministry of Finance, National<br>Bank (in relation to financial<br>institutions)  |                                       |
| Republic of Uzbekistan    |  | The Ministry of Finance in<br>conjunction with public<br>associations of auditors and the<br>Central Bank (for bank audits) | <u>0</u> 0                            |

As can be seen from Table 2, the external oversight bodies for auditing in the CIS countries are the Ministry of Finance in Armenia, Belarus, Tajikistan and the Republic of Uzbekistan. In other CIS countries, external control over auditing activities is carried out by self-regulatory organizations and independent organizations.

Conclusion. In short, it is necessary to establish a separate body for external control over the quality of work of audit organizations in our country, which conducts mandatory audits. This body should be an independent organization based on normative documents that do not report to anyone and ensure the objectivity and transparency of its activities. This organization needs to ensure the transparency of its data, similar to the FRC in the UK.

### **CRITERIA AND INDICATORS FOR EVALUATION OF EFFICIENCY OF USE OF LABOR RESOURCES IN SERVICES**

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Abstract: The article analyzes the criteria and indicators of efficiency of economic and social efficiency in enterprises in the service sector. The importance of correctly understanding and calculating its essence, criteria and indicators in the study of economic efficiency in the service sector has been studied.

With the expansion of the service sector in developed countries, special attention is paid to the study of performance appraisals in the labor process. Criteria and indicators of efficiency in service enterprises, such as certain sectors of the economy, are divided into criteria of economic and social efficiency. In the study of economic efficiency in the service sector, it is important to correctly understand and calculate its essence, criteria and indicators. If economic efficiency is not qualitatively calculated and measured, it is impossible to carry out the prescribed measures to increase it on a regular basis.

Socio-economic efficiency of labor in service enterprises is the reflection of the balance of social and economic efficiency through labor relations in achieving a high level of consumer satisfaction through the sale of goods and services through low labor costs and high quality of service.

Successful management of service enterprises, based on the characteristics of their formation, requires systematization of areas, criteria and indicators of complex assessment of the efficiency of the use of labor in the industry, as well as grouping and classification by individual characteristics. This will create conditions for the effective use of the real and potential capabilities of its quantitative and qualitative indicators, based on the development of conclusions and recommendations for improving the efficiency of labor resources in the service process, the optimal assessment of the work of service personnel. The study of the main factors and conditions that determine the effective use of labor resources in service enterprises allows to determine its main criteria. They are one of the main directions of socio-economic improvement of service efficiency. A comprehensive analysis of labor efficiency will make it easier to cover its key criteria and form a system of indicators. This is because the indicators of efficient use of labor resources in the activities of service enterprises, on the one hand, are indicators of socio-economic efficiency, which represent the service process, and on the other hand, are the final indicators of the industry.

There is currently no single approach to setting general criteria for the efficiency of service enterprises. According to some economists, the criterion for the effectiveness of economic activity is the full satisfaction of the needs of the population with a high level of service and the rational use of all resources. While many economists say that the level of satisfaction of consumer demand for consumer goods is a general criterion of service efficiency, others say that the efficiency of the service process should be determined by a system of interrelated key indicators, the amount of gross income generated by this system; fully reflects the amount of services provided to the population.

In our opinion, the main criterion for the effectiveness of trade activities is to achieve high efficiency in service enterprises on the basis of full and quality satisfaction of the population's demand for services through the efficient use of material, financial and labor resources (Figure 1).

Criteria and indicators of efficiency in enterprises of the service sector, such as certain

sectors of the economy, are divided into criteria of economic and social efficiency. In the study of economic efficiency in the service sector, it is important to correctly understand and calculate its essence, criteria and indicators. If economic efficiency is not qualitatively calculated and measured, it is impossible to carry out the prescribed measures to increase it on a regular basis.

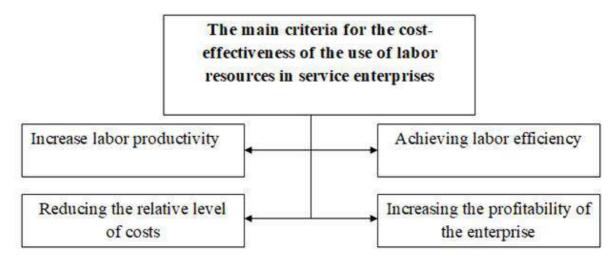


Figure 1.Diagram of the main criteria of economic efficiency of labor resources in service enterprises

In our opinion, static indicators of social efficiency in service enterprises and organizations can be divided into the following groups:

1. Statistical indicators of consumer demand satisfaction;

2.Indicators of reduction of service time;

3. Statistical indicators of improvement of working conditions and nature.

If one of the above indicators is used, it does not show the overall effectiveness. Because a certain indicator characterizes a small direction of social efficiency. If these indicators are implemented together, it will be possible to adequately assess the social efficiency of service enterprises.

In the system of indicators of social and economic efficiency of service enterprises, the indicators of efficient use of labor resources have a special place. Accordingly, the system of indicators representing the efficiency of labor resources in service enterprises was classified on the basis of increased labor productivity, reduced labor capacity of the product and static indicators of social efficiency.

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# THE DIGITAL ECONOMY IS A KEY FACTOR FOR THE GROWTH OF THE COUNTRY'S ECONOMY

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Abstract: This thesis highlights the importance of the role of the digital economy in the development of the country's economy and the well-being of the population, as well as current issues in the development of the digital economy.

Keywords: Digital economy, information society, information technology, technological development, economic efficiency.

The digital revolution, which is emerging as a new stage of economic and technological development, has dramatically changed the lives of human beings and created a wide range of opportunities, as well as a period of intensification of international competition.

The term "digital economy" was first coined in 1995 in Don Tepcott's Digital Economy: Promises and Risks in the Age of Network Intelligence. This publication highlights the key components of the digital economy: fundamental innovations (semiconductors, processors), key technologies (computers), and connective infrastructure (Internet and telecommunications networks).

Digital economy is used to express two different concepts. First, the digital economy is a modern stage of development characterized by the predominance of creative labor and the benefits of information. Second, the digital economy is a unique concept, the object of study of which is the information society. In today's fast-paced global economy, the digital economy is in its infancy, and the transition to the digital information age is only a few decades away.

In general, the digital economy is a digital environment that allows you to significantly increase the efficiency of storage, sales and delivery of various industries, technologies, equipment, goods and services, based on the use of the results of process analysis and large-scale data processing. The data in the view is the activity that is the main factor of production.

It is estimated that the digital economy will bring unprecedented changes in more than half of the existing sectors. In particular, according to World Bank experts, a 10% increase in the number of high-speed Internet users will increase the GDP of national economies by an average of 0.4-1.4% annually.

The growth rate of the global digital economy is almost 20% per year. In developed countries, the share of the digital economy in GDP has reached 7%. They are already reaping the benefits of the digital economy. In particular, the United States exports more than \$ 400 billion a year in digital services. More than 5 percent of the country's gross domestic product is directly related to the Internet and information and telecommunications technologies. By 2025, the U.S. will receive an additional \$ 20 trillion from the digitalization of industry. dollars is expected to earn. Such economic efficiency is particularly high in consumer goods production (\$ 10.3 trillion), the automotive industry (\$ 3.8 trillion) and logistics (\$ 3.9 trillion).

According to various studies, the share of the digital economy in the world economy ranges from 4.5% to 15.5%. The United States and the People's Republic of China account for nearly 40 percent of the value added in the global ICT sector and 75

percent of blockchain technology patents.

According to statistics provided by President Shavkat Mirziyoyev at an event dedicated to the development of information technology on February 13, 2020, the share of the digital economy in GDP is 10.9% in the United States, 10% in China and 5.5% in India. In Uzbekistan, the figure is less than 2%.

To assess the growing importance and impact of digitalization, it is enough to look at the share of capital in the global market of several major technology companies and digital platforms over the last decade. In particular, according to the UN Conference on Trade and Development, this figure rose from 16% in 2009 to 56% by the end of 2018.

In the process of such rapid changes in the world community and the intensification of competition, it is true that without the widespread introduction of innovations and digital technologies, we will not be able to sustainably develop the economy and ensure its competitiveness in the near and long term. In turn, requires the intensification of scientific and practical efforts.

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# PROPER RISK MANAGEMENT IN BANKS IN THE CONTEXT OF A PANDEMIC

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Abstract. The Government of the Republic of Uzbekistan, the Central Bank and local government authorities are implementing a large-scale package of measures to combat the COVID-19 pandemic and to socially protect citizens, industries and economic sectors that find themselves in the most difficult situation. The banking sector is actively involved in the implementation of these measures, ensuring the uninterrupted functioning of the national payment system and customer service around the entire perimeter of financial services in the face of increased risks. This article is devoted to the management of banking risks in a pandemic. The current issues of the impact of the coronavirus pandemic on bank risk management are analyzed.

Keywords: COVID-19, high-risk groups, post-tandem environment, financial advices, customer care

The uncertainty in the world reaches a fantastic level. This applies not only to healthcare but also to the economy and business. The IMF forecasts that the global economy will decline by 3%, which is an even larger percentage than during the great depression. However, many experts are quite optimistic and believe that everything will be restored in 2021. The only problem is that at this stage, despite the announcement of data, forecasting is extremely difficult and unpredictable. The same IMF says that it is very difficult to make forecasts because these are times of extreme uncertainty.

The consequences of the pandemic will play a big role in the further development of retail banks, according to McKinsey. Analysts of the company released an article with recommendations: what banks should do now to function successfully in the future.

What will change? The measures taken by banks with retail and small business customers will have an impact on the economy as a whole. In such banks, citizens place the most deposits, they are guarantors of loans and make payments.

The virus changes the behavior of clients. Digital technologies, video conferences, and online translations are becoming more popular. This can accelerate the transformation of the banking sector and give banks new opportunities. For example, in China and Italy, the number of users of digital banking technologies increased by 10-20% four weeks after the outbreak. If the experience of these clients is positive, they can keep the new habit after the end of the pandemic.

Protection of employees. Retail banks are already taking measures to protect the health of employees. They tighten sanitary standards in departments, import thermometers, antiseptics and other personal protective equipment. Some of them also impose additional restrictions: for example, workplaces must be located at a certain distance from each other.

Chinese banks were hosed down with cash to avoid infection, and their example was followed by several South Korean banks.

JPMorgan temporarily closed about 20% of its branches in the US and reduced staff in the rest. Some banks are open only in the morning. Major Canadian banks have announced that they will work together to temporarily shorten the schedule. Banks should think strategically to ensure that employees work remotely, rather than losing them to illness, McKinsey said in an article.

The coronavirus pandemic also requires a review of the work schedule. The Bank can

send only half of the usual number of employees to work or introduce rotation when a third of employees are absent, a third is located in branches, and other third works remotely.

Customer protection. Banks restrict the flow of customers. For example, a visit to the offices is possible by appointment only. This helps limit the number of customers and maintain a safe distance.

Banks allocate special hours for servicing clients from high-risk groups. So, Nationwide Building Society (a financial institution in Britain) will open about 100 branches an hour earlier, so that the elderly and clients with health problems can be served in a safer environment. Retailers in the US, including Target Brands and Whole Foods Market, are taking similar steps. Customers can also contact managers and cashiers at banks by phone or via video call. Banks need to understand which processes can be switched to this mode in order to serve customers most effectively.

Employee training. The number of customer requests and problems is growing against the background of the epidemic, and banks can not cope without increasing staff. Most of the employees work from home, where they face problems such as low Internet bandwidth, having to take care of children and do other chores. To optimize performance, banks can implement some of the practices:

- Cross-training and re-profiling of employees. In the next few weeks, the number of requests to change the repayment schedule for loans and credit holidays will increase. The activity of scammers will also grow. To cope with the growing number of mortgage refinancing requests, JPMorgan and Quicken cross-trained and reassigned employees from other departments within the Bank.

- Revision of demand forecasts. This will allow banks not only to respond quickly to the growth of requests in the current environment but also increase their resilience to future shocks. Better data will increase employee flexibility and allow the Bank to cross-train employees in exactly the right positions.

- Providing infrastructure for remote work. Banks can help employees set up their home office, provide adequate VPN bandwidth, and provide remote access to applications. Video conferences, file sharing, real-time communication, and collaborative editing can also help you work remotely.

Customer care. It is critical for banks to declare their concern for customers and simplify interaction with them as much as possible. Unlike the 2008 crisis, when banks were seen as the source of the problem, they are now seeking to be part of the solution. Banks take measures to minimize negative financial consequences for customers, but they should take additional steps to Express their concern:

- Offer credit holidays and deferrals. Clients face financial stress. In response, most banks are beginning to waive interest payments and cancel late fees for customers affected by the coronavirus.

- Provide additional support. Banks should actively interact with customers. Someone just wants to discuss their problems, and someone will need help in making remote (mobile or Internet) transactions.

- Help beyond financial obligations. Many Chinese banks began responding to the non-financial needs of their customers during the epidemic. For example, China Construction Bank has launched a digital platform that tracks the number of infected people in different regions.

New communication channels. Clients are starting to manage their finances differently. Banks need to improve digital communication channels to respond to the needs of vulnerable groups:

- Encouraging digital migration. Banks should encourage more customers to use

remote channels and digital products whenever possible. To do this, they can extend remote support and current digital offerings, for example by increasing online transaction limits and simplifying the password reset function.

- Customer engagement in digital media. This will help to alert customers about the closure of branches, to promote the products and to reduce risks of fraudulent transactions. Banks in China have integrated branch status information into their mobile apps.

- Serving vulnerable populations. Older people are not active online users. Banks began delivering paper messages to their homes. German Bank Sparkasse has created special mailboxes for direct transfer without communication between the customer and the courier.

- Control of infrastructure, systems, and processes. This situation may expose technical problems. Banks need to address technological gaps to ensure smooth customer service in the digital space.

Revision of operating models. The coronavirus pandemic affects the economy and the banking sector. A forced abrupt switch to remote work may have long-term consequences for the banking operating model. What banks can do in this situation:

- Use digital opportunities to increase customer engagement. The pandemic will be a catalyst for the use of digital banking tools, as well as change the way customers interact with banks. Banks should continue to invest in the development of digital technologies and transfer information from paper to digital.

- Financial advice to clients. Banks can expand their range of services: launch investment services, advise clients remotely, and offer accounting and tax services.

- Customer support in a post-tandem environment. Banks can develop solutions to support customers, restructure loans, and promote alternative products.

Why do you need to know about it? Due to the coronavirus pandemic, the needs and expectations of customers are changing dramatically. In order to function successfully in the new environment, banks should review their operating models, increase customer focus, and expand the scope of digital communication channels.

### WAYS TO ADAPT THE MOVEMENT OF COMMODITY RESOURCES TO THE REGIONAL COMMODITY MARKET (On the example of Samarkand region)

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Abstract. This article examines the possibilities and ways to adapt the movement of commodity resources to the regional commodity market on the example of Samarkand region.

To adapt the movement of inventory to the regional commodity market, the following is proposed:

Given the high share of food, textile, paper and furniture production in the region compared to the total volume of the country, it is proposed to support these sectors through government programs in the strategic period.

The development of the above-mentioned industries is also associated with the development of agriculture in the region, the development of animal husbandry is characterized by the development of milk and dairy products, meat products, cotton and silkworms to the development of textiles, forest growth in furniture.

The development of these industries will allow the development of the commodity market, as well as the need to apply the marketing system in the adaptation and placement of the movement of commodity resources in the region (in the strategic period throughout the country).

Keywords: Samarkand region, commodity resources, commodity market, marketing, consumer market, industrial production.

Introduction

The modern development of economic relations means that the economic operations faced by independent economic entities in the course of their current activities will become more complicated and competition in all commodity markets will increase. In such circumstances, ensuring the economic development of the enterprise becomes a difficult task. Its successful operation depends on the ability of each enterprise leader to accurately assess the processes taking place in the market, the dynamics of its development, to formulate an appropriate strategy and apply it effectively in practice.

Today we are witnessing achange in the relationship in some product markets: they are changing their structure, creating strong conditions for interaction with counterparties and separating large players from product manufacturers, retailers, creating a single product distribution system. Depending on the extent to which regional wholesale organizations can adapt to these changes, the dynamics of further development of the regional economy will be determined.

Also, one of the important tasks of the region is to provide the commodity market with commodity resources, to prevent the emergence of food risks in the region.

In particular, Samarkand region is one of the largest regions and consumer markets with a population density of 230 people per 1 km2, with 1849 rural settlements (the largest among the regions of the country), consisting of 14 districts and 11 towns. (6th place in the republic). [1]

However, in Samarkand region there are also problems with the placement of the movement of goods and materials in the commodity market:

- Despite the fact that the region is one of the largest in the country, the volume of industrial output per capita is not high compared to other regions;

- In regulating the movement of goods and materials in the country, including in the region, the possibility of adaptation to the regional market of raw materials, the demand of the population for consumer goods is not taken into account;

- uneven dynamics of consumer goods production;

- Lack of analysis of the potential of commodity markets (consumption and trade), etc.

The solution of the above-mentioned problems in the region will allow to correctly direct the movement of commodity resources, taking into account the specifics of commodity markets.

Level of study of the topic

Given the growing activity of local authorities in the independent regulation of commercial and economic activities in this area, the study of the process of formation and development of the mechanism of municipal management of trade determines the relevance of the study.

As the first foundations in the study of the economic laws of the development of trade and its regulation by the state, F. Kuesnay, F. Liszt, T.; Man, D. Ricardo, A. Smith et al. Their activities will be the basis for the development of public policy in the field of trade regulation in a developing market economy. [2-5]

Theory and practice of organization and management of commercial activity Economists of the CIS countries L.I. Abalkina, Yu.A. Avanesova, A.G. Aganbegyan, M.I. Bakanova, V.G. Burmistrova, I.A. Blanka, T.P. Danko, V.V. Lukashevich Z.M. Okruta, F.G. Pankratova, F.G. Pambuxchiyantsa, T.K. Seregina and a number of other scientists. [6-9]

Issues of Theory and Practice of Municipal Administration V.P.Bezobrazova, A.I. Vasilchikova, L.A. Velixov, R. Gneist, A.D. Gradovskiy, G. Ellineka, N.I. Lazarevskiy, K. Manner, N. M. Korkunova, B.N. Chicherin, L. Stein, as well as A.N. Alisova, Yu.P. Alekseeva, A.L. Gaponenko, N.A. Emelyanova, S.B. Melnikova, T.G. Morozovoy, V.V. Kotilko, V.F. Ukolova, F.I. Researched by Shakhmalov and other researchers. [10-13]

Fundamentals of the marketing approach used in urban sales management I.Richter, P.S. Zavyalova, F. Kotler, I.V., Korneeva, Ya.S. Krulis Randa, A.M. Lavrova, J.J. Lamben, A.P. Pankruxin, R. Purcourt, B.C. Surnin et al. The study of these publications has enabled municipal authorities to use methodological concepts that are able to perform management functions more effectively in the field of trade. [14-17]

However, in the process of formulating and managing consumer policy, there is a lack of comprehensive scientific developments on issues related to competencies at different levels of public administration. For this reason, a comprehensive study of this topic will allow a broad study of the characteristics of the commodity markets of Uzbekistan, in particular Samarkand, and the correct placement of inventories.

Research methodology

The research topic and object is comprehensive and requires the use of various scientific research methods in the research process.

In particular, economic-mathematical methods and comparative analysis were used to study the specifics of commodity markets and regional consumption in Samarkand region, and marketing methods were used to study the movement of commodity resources, ways to adapt to the regional commodity market (including cabinet method).

Analysis and results

Samarkand region is one of the regions where large companies are located. Including Uzbat, Siyob, Agro Bravo and others. The region ranks fourth in the country in terms

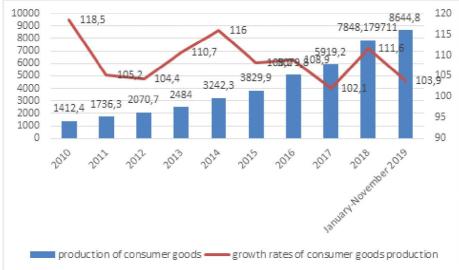


Figure 1. Production of consumer goods in Samarkand in 2010-2019, billion soums and % [18]

In Samarkand region in January-November 2019 amounted to 8644.8 billion soums. This figure is 103.9% higher than in 2018. However, the volume of industrial and consumer goods production varies in the regions.

They can be divided into the following groups according to the volume of industrial production or specialization in agriculture in the region.

| Table 1   |    |
|---|----|
| Industrialized and agricultural priority areas in the regio | )n |

| Industrialized districts | Agricultural priority<br>areas in the regional<br>division of labor | Areas where<br>agricultural and<br>industrial production<br>are available |
|--------------------------|---|---|
| Samarkand                | Jomboy  | Bulung'ur   |
| Urgut                    | Toyloq  | Samarkand district  |
| Pastargom                | Aqdaryo   | Ishtikhon   |
|                          | Paxtachi  | Kattakurgan   |
|                          | Nurobod   | Bulung'ur   |
|                          | Koshrabot   | Poyariq   |
|                          | Narpay  |   |

\* Table author's development

Samarkand, Urgut and Pastdargom districts of the region are industrialized regions, where the share of enterprises with foreign investment is predominant. In 2019, the city of Samarkand also dominated in terms of retail sales, with a share of 28.7% in the region. Another industrialized district is Urgut district, where the share of retail trade is also high, at 12.4% (Figure 2).

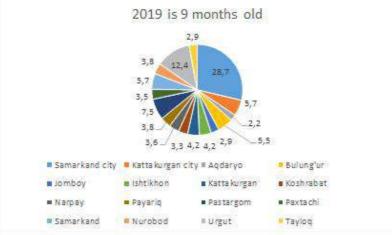
As we can see, the higher the level of industrialization, the higher the share of retail trade and, conversely, the lower the share of retail trade in the areas where agriculture is a priority.

The volume of industrial production of the region in the country in 2019 amounted to 4.8%. The volume of industrial output per capita is 3759.2 thousand soums (in 2019).

Due to the high share of agricultural-dominated districts in the region, the volume of industrial output per capita was ninth in the country in 2019. However, in some sectors of industrial production, the region dominates.

In particular, it ranks first in the country in terms of tobacco production, accounting for 93.9% of the total. In the production of food products - 12.3%, textiles - 6.8%, leather and leather products - 8.2%, paper and paper products - 6.3%, furniture - 7.2%. percent (Figure 3). [20]





Picture 2. Share of cities and districts in retail trade turnover, (%) (2018-2019) [19] As we can see above, we can see that the production of food products, textiles, paper products, furniture in the region has a relatively high share in the republic.

Ways to adapt the movement of commodity resources in the Samarkand region to the

#### regional commodity market

Samarkand region is one of the regions of the country with high foreign and domestic trade potential. However, the low share of the region in industrial production makes it necessary to regulate the movement of goods and materials. Adaptation of the movement of inventory to the regional commodity market is a complex and time-consuming process, mainly due to the following factors:

- Coordination of the movement of commodity material resources to the commodity market by the state and the region through various programs and legal documents. It should be noted that the state should develop opportunities and benefits for the production of goods and materials, but within the law should not impose bureaucratic barriers to wholesale trade processes that coordinate the movement of goods and materials to the market. Bureaucratic barriers and government intervention, including the availability of public procurement, may negatively affect the adaptation of the movement of commodity resources to the regional commodity market;

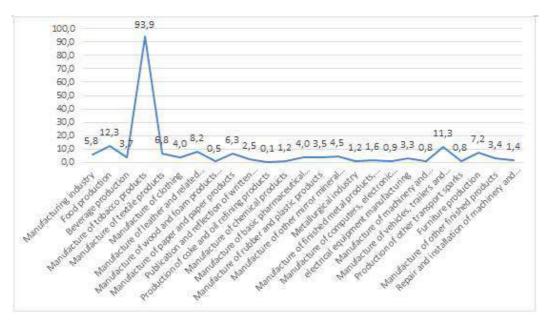


Figure 3. The share of Samarkand region in the structure of the republic's manufacturing industry,% [20]

- taking into account the level of labor resources, knowledge, skills and abilities in the process of regulating the movement of goods in the commodity market and their proper use;

- In marketing, the role of counterparties, wholesalers and retailers, which play an important role in the coordination of the movement of goods and materials in the commodity market, as well as their placement in the market, is of particular importance. Therefore, it is necessary to strategically plan not only the production of products, but also their proper placement in commodity markets.

Conclusions and suggestions

Based on the above, in order to adapt the movement of inventory to the regional commodity market, the following is proposed:

Given the high share of food, textile, paper and furniture production in the region compared to the total volume of the country, it is proposed to support these sectors through government programs in the strategic period.

The development of the above-mentioned industries is also associated with the development of agriculture in the region, the development of animal husbandry is characterized by the development of milk and dairy products, meat products, cotton and

#### **CUTTING- EDGE SCIENCE**

silkworms to the development of textiles, forest growth in furniture.

The development of these industries will allow the development of the commodity market, as well as the need to apply the marketing system in the adaptation and placement of the movement of commodity resources in the region (in the strategic period throughout the country). In particular, the development of methods for wholesalers and retailers, their activities, the placement of the movement of goods and materials resources based on the supply and demand of the commodity market will be very effective.

In addition, marketing plays an important role in increasing the region's foreign trade potential.



According to the study of market demand, production planning is carried out through marketing research and forecasts, forecasting the volume of production, marketing plays a key role in the adaptation and placement of goods on the market after production, from advertising to delivery and after-sales service. will have its place.

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### **DIGITAL ECONOMY: EXPERIENCE OF FOREIGN COUNTRIES**

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Abstract. In this dissertation, the experience and strategies of foreign countries in the development of the digital economy, the results of these strategies in the state and in the world are analyzed on the basis of research and make clear, direct proposals based on international experience.

Keywords Digital economy, digitalization, world practice, strategy.

Digitization of the economy is one of the most important global trends. All politicians and economists understand that digitization of the economy is an objective and irreversible process. At the same time, it is obvious that successful digitization of the economy is not possible only on the basis of private initiative. This requires effective and efficient participation at all levels of the state. In particular, the role of the digital economy in the development of the state is still at the forefront. It goes without saying that the demand for new ideas, startups and innovative projects in this area will grow.

The focus on the economy and the media and, of course, the digital economy in the country is growing, aimed at developing new measures and new strategies for its rapid development and improvement in all areas, as well as its implementation in practice. Of course, such actions will have a positive impact on both sectors of the economy, especially in the service sector. In particular, the need to transition to a digital and innovative economy is likely to grow.

Today, we are witnessing the policies of the world's leading countries moving towards a comprehensive digital agenda. The main tasks are digital transformation of public administration, development of information and communication infrastructure based on new technologies, strengthening of information security, development of digital skills and competencies. Special attention will be paid to regulatory aspects related to the construction and operation of a wide system infrastructure, access to radio frequency spectrum, market regulation, and many others. In addition, strategies are being developed for the implementation of individual digital technologies with high potential impact in various sectors of the economy (for example, the national strategy for the development of artificial intelligence in Germany, 2018).

Therefore, scientific and analytical research in this area is based not only on the territory of Uzbekistan, but also on world experience, strategies, scientific and practical projects developed and implemented in the development of the digital economy. It would be appropriate to study and, accordingly, make new proposals based on the analysis that will have an impact on the development of the digital economy in the Republic of Uzbekistan.

The transition to digital technologies will help strengthen the competitiveness of the national economy. In particular, the French international Digital strategy (2017) aims at a closer approach to regulating the introduction and use of digital technologies, cyber security, and inclusion of countries in the common digital agenda. Taking into account the international spread of digital platforms, special attention will be paid to the rules

and regulations that guarantee various technological solutions and equal conditions for the competitive environment. The digital agenda, policy measures and impact on the digital economy are being actively discussed on the world's leading platforms.

Digitization of the economy in the United States.

The United States is one of the world's leaders in the digital economy, which is understood as an economy largely driven by digital technologies, especially electronic transactions over the Internet.

Active implementation of information and communication technologies in the United States began at the end of the twentieth century, but the work was carried out mainly at the micro level, that is, the state program called the "digital economy Agenda" in companies was developed only in November 2015.

12 departments participated in the program, four of which are the National telecommunications and information Agency (NATI), the national Institute of standards and technology (NIST), the U.S. Patent office, and the Bureau of international trade. In order to establish inter-Agency coordination, an eight-level economic group was established in 2015 with the support of the working group on Internet policy.

The digital economy Council was established in March 2016 to provide recommendations for accelerating economic growth and building capacity in the digital age. It includes representatives of a number of major American companies (General Electric, Electric) and electronics (Microsoft). , Silicon valley Bank, YouTube, McKinsey Global Institute, home improvement store Chain, etc.), Civil society, and academia. Since March 2016, it has been implementing a pilot program to create "digital certificates" in U.S. overseas sales offices responsible for selling digital products and services. The database also contains information that in January 2017, the us Department of Commerce published a "Green book" containing proposals for the development of the "Internet of things".

In the course of our research, we also learned that the us digital economy program provides:

- Promotion of free and open Internet (promotion of free and open Internet worldwide);

- promotion of trust and security on the Internet (promotion of online trust);

- providing Internet access for employees, families and companies (providing access for employees, families and companies);

- Promoting innovation through the promotion of intellectual property intellectual property rules and next-generation technologies.

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# HISTORICAL SCIENCES

# THE SPIRITUAL AND SOCIAL POLICY OF TSARISM IN TURKESTAN IN THE LATE XIX – EARLY XX CENTURY

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Abstract. This article discusses the policy of the scepter government in the spiritual and education areas. In this article is used not only literature but also collections of materials. Keywords: Turkestan, tsarism, social policy, spirituality, enlightenment.

As you know, after the capture of the Turkestan Territory by the Russian Empire, the policy regarding Islam was built in stages. The first Governor General von Kaufmann chose the way consistent ignoring of Islam, that is, "neither persecution nor patronage." It doesn't mean- It is noteworthy that the religious question in Turkestan was left to chance and fell out of sight of the Russian- power. Major General M.G. Chernyaev was an opponent of ignoring and believed that in the future it will not lead to anything good. After the Andijan uprising of 1889 General Dukhovskiy presented to Nicholas II a report in which the task was set to mercilessly fight against Islam throughout empire [1]. The famous Turkestan missionary and orientalist Ostroumov believed that Russian hell the ministry had to make plans for the local religion. Achieve this tried through the education system [2].

At the beginning of the twentieth century. in Turkestan there was a Muslim education system. People's Education represented two areas: madrassas and Russian schools. In the madrasah The knowledge was based on memorization, and knowledge of a suitable Muslim direction was given. AT Higher school also observed the dominance of religious scholasticism. Along with this, there was a process Reforming the traditional school by the Jadids. They began to open new method schools in which, along with the religious sciences, they began to teach knowledge in medicine, chemistry, physics, stories etc. Jadids of Turkestan fought against absolutism, they were supporters of young people abroad. The leaders of the movement were Behbudi, Abdullah Avlani, Munavwar Kara.

Enlighteners sought ways out of the regression of society through education and science. Behbudi Utaffirmed that "The right is taken, not given!".

At the same time, the population of Turkestan suffered from emptyideas about progress and development. Along with progress and development, Nicala European culture [3]. The Government of Russia for the full implementation of its plans tried to bring the Russian and local education systems closer, creating Russian-native schools [4].

Turkestan Jadids argued that reform of public education is vital, as many local schools started to empty. Validi was deeply convinced that over the past forty years, an advanced culture, progress did not reach the peoples of Turkestan, and what went into their lives was aimed at destroying the fundamental foundations of lifestyle, consciousness, culture, everyday life of peoples Turkestan Territory [5].

Representatives of the Turkestan intelligentsia linked the progress of their people not only with education, but also with fundamental changes in his political position, with the acquisition of non-dependency. In 1916 in order to increase and strengthen patriotic

#### sentiments among the indigenous

The Ministry of Defense decided to establish the publication "Turkestan-indigenous newspaper "in the Turkic language. The conditions of Turkestan were considered so peculiar that to consider its Muslims From the point of view of the population, the Russian population seemed very risky. On the eve of World War I, the question of the mindset of the population of Turkestan was acute, because Turkey is in World War I Yene was an adversary of Russia. The government began to suspect the Turkestan population of feelings of Turkey. According to one of the eyewitnesses, the tsarist government took danger to the side by suppressing the uprising, but did not completely destroy it, but national liberation ideas then became more intrusive than before [6].

The policy of ignoring inevitably brought the clergy closer to the mass of ordinary people and set him at the head of all kinds of hidden and overt anti-government movements. In most cases, the local population would be attracted to the state ranks by the local population otherwise. Colonial attitude to the population of the Turkestan Territory, especially during the war in Russia led to a massive uprising in Turkestan.

Although there were attempts when the tsarist government called on Turkestan Muslims to to nick Russian citizenship. The tsarist administration of the Turkestan Territory only in 1915 began to take some steps to revise the relationship, especially the consideration of religion, May, what dangers threaten a possible explosion of discontent of the indigenous population, especially in war conditions.

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# LITERATURE SCIENCES

# NAVOIY - AS A GREAT POET, SELFLESS STATESMAN AND A VERSATILE PERSON

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Abstract: This article tells about the life of the great Uzbek poet and his creative path. There is talk of such great people in history, of their versatility and exemplary maturity. This article seems to be a drop in the ocean of the legacy of this person whose literary legacy has yet to be explored.

Keywords: poet, literature, childhood, education, epics, features of the Turkic dialects, bilingual, Uzbek language, world

The great poet and thinker Alisher Navoiy is an incomparable figure in the history of world literature. The immortal legacy left to us by the great poet which we should explore fully. He is unique in terms of the glory and depth of his talent, his high position in society as a people's statesman, and his patronage of science, culture, art and literature. When the name of this great man is mentioned, he is involuntarily a great figure, for he is a sharp-witted artist, a pro-people minister, a true friend who protects the king from evil eyes and ways, was a passionate citizen who fought against the cheater workers.

The great son of the Uzbek people, the great thinker, poet, scientist and statesman Mir Alisher Navoiy was born on February 9, 1441 AD in the Garden State House area of Herat, the largest city of the Khorasan state. From an early age, Alisher stood out among his peers for his sharp wit, intelligence, good manners and kindness. From the age of three or four, Alisher became interested in listening to poetry, reading and memorizing poetry, and fell in love with poetry. A four- or five-year-old child memorizes the ghazals of the Tajik poet Qasim Anwar, memorizes Farididdin Attor's philosophical epic Mantiq ut-tayr at school age, writes poems at the age of seven or eight, and amazes the great poet Lutfi with two lines of poetry. Alisher Navoiy's rise to fame and prestige at the age of three was a sign that he would be a great man in the future. Alisher was orphaned at the age of twelve (1455) and entered the service of Abulgasim Babur, king of Khorasan. Abulgasim Babur loved literature and art, appreciated artists, and wrote ghazals in Uzbek and Persian. The enlightened ruler adopted Alisher. Respecting his talents and abilities, he focuses on his education, creativity and poetic skills. He studied logic, philosophy, and mathematics. At the same time, he wrote beautiful poems in Uzbek and Persian, and became known among the people as a great poet. Alisher uses the nickname "Navoiy" in his Uzbek poems and "Foniy" in his Persian poems. Navoiv met Abdurahmon Jami at the age of 18-19. Satisfied with Navoiy's level of knowledge, ability, and poetic talent, Jami valued him as both a child and a student. Later, the mentoring and discipleship relationship between the two great poets became stronger and more cooperative. Alisher came to Samarkand in 1466 and initially lived there in financial difficulties. Nevertheless, he studied in Samarkand madrassas and got acquainted with science, literature and art. He soon gained prestige and attention with his talent and ability. When Navoiy's childhood friend Hussein Boykaro ascended the throne in 1469, he invited Navoiy to Herat. Navoiy writes the poem "Hilaliya" on the occasion of the accession of Hussein Boykaro to the throne. Hussein Boykaro becomes very happy about this and appoints him as a seal. He was later appointed Prime Minister and given the title of "Grand Minister." Navoiy cherished his noble and lofty aspirations, no matter how hard and responsible he was, such as serving the people, maintaining peace, strengthening power, developing science and literature, and a culture of prosperity. He built the Ikhlosiya Madrasa, the Khalosiya Khanaqah, the Shifoiya Hospital, the Mosque, the Dorul-Huffoz (reading room) and dozens of other buildings, rabats, and dug canals every year. He gathers and sponsors some of the most famous scholars, artists, builders, painters, poets, and calligraphers of the time. He regularly consults with them on cultural development and even government affairs.

The great Uzbek poet, great thinker, enlightener and great scientist Alisher Navoiy attached great importance to the issue of education. He wrote great and immortal epics, advocating knowledge and enlightenment, serving the people gratefully on the basis of this knowledge. Education, according to Navoiy, was the greatest task of a child, he was the leader in the construction of schools and madrasas in his country, and he was able to show this idea in practice and set an example for others.

"Gather knowledge in your youth, spend it in old age"

This valuable idea belongs to Hazrat Navoiy, and we see that it is the opinion of a farsighted person, even in our time. After all, a child who has not learned science, profession, or labor at a young age will never enjoy it in old age. The great poet Alisher Navoiy says that special attention should be paid to the power and strength of upbringing in the development of a child. He believes that as a result of upbringing, a child will grow up to be intelligent, faithful, useful and mature. The need to educate a young child from an early age is emphasized in many works, epics, ghazals and rubais. Disci pline helps a person develop good habits and qualities. He argues that upbringing is one of the key factors in bringing up a person in relation to individuals, especially as a result of the spiritual influence of people on each other. Navoiy always thought of his people, worked hard for their knowledge and enlightenment.

Fans of Navoiy collected his poems and composed the First Devon (1464-65), followed by the Badoyiul-bidoya (The Beginning of Beauty) and the Navodirun-nihoya (The End of Rareness). The lyrical heritage is concentrated in four devons (1491-1498) called "Khazoinul-maoniy" with a total volume of more than 50,000 verses. Navoiy's poetry has a wide range of themes, a wide range of genres (sixteen genres). In his poems, human love is glorified in harmony with divine love, and the doctrine of "metaphor - the bridge of truth" is followed. It is possible to understand the inner qualities of Alisher Navoiy's poetry only by studying their inner meanings.

Khamsa's five epics, such as Hayrat ul-abror, Farhod and Shirin, Layli and Majnun, focus on children's education, the difficulties encountered along the way, and ways to overcome them. He writes about his valuable views on science, education and ethics. He thougt that it is necessary to bring up ayoung child from avery young age. Discipline helps a person to develop good habits and qualities.

In the epic Hayrat ul-abror, the great poet expressed his philosophical and educational thoughts and glorified such qualities as generosity, respect for parents, humility and honesty. In this play, he honors parents and compares them to the "moon" and the "sun," telling children that it is a great happiness and bliss to perform parental service gratefully. Navoiy has always glorified and promoted the most noble qualities in his works. Not only Navoiy's epics in "Khamsa", but also ghazals, rubais, educational ideas can always be found. In conclusion, Navoiy's rare works have not lost their significance, on the contrary, they are very important for our time.

It is no exaggeration to say that Navoiy created his ideal in "Farhod and Shirin". The protagonists of this epic define man's role in history and the future through love adventures.

In the epic Layli and Majnun, the philosophy of love was expressed in a unique way, which became the spiritual basis for the later epics of Fuzuli, Andalib, and Sayqali. The epics are distinguished by their socio-political character and originality in the tradition of Hamsanavism.

"Khamsatul-mutahayyirin" ("Five Wonders", 1494) tells amazing stories about his teacher and friend Abdurahman Jami, his life stories, teachings, correspondence and works.

"Munshaot "(1498-99) is a collection of Navoiy's letters (88 letters in total), which are in the form of letters of condolence, Navruz greetings, condolences, political advice, truce and others. They are dedicated to Hussein Boykaro, Badiuzzaman and other historical figures.

Majolisun-nafois (1490-91; 1497-98) was the first tazkira written in Turkish, in which the poet gave information about 459 poets and writers in eight sessions. , the fourth session contains information on Khorasan in the fifth session, Movaraunnahr, Asia Minor and Iran in the sixth session, and creative kings and princes of the Timurid dynasty in the seventh and eighth sessions.

The poet's work "Muhokamatul-lug'atayn" is devoted to the comparison of lexical and grammatical features of the Turkic dialects, speech of intellectuals, artistic and scientific works of that time with the features of the Persian language. Walking among the common people, he learned the words they used and used them in literary language. He established the grammar of the Uzbek language after Mahmud Kashgari. It helped to expand the artistic and aesthetic potential of the Uzbek language. He studied the largest and most important works in Persian and Turkish.

Navoiy's last work was Mahbubul-qulub (1500-01), which reflected the life-long observations and rich experience of the great thinker and writer.

In conclusion, Hazrat Navoiy lived a life that in all respects is an example for our generations, and no one has yet created such a literary heritage in the Turkish language. Thanks to the great poet Navoi, the Uzbek language has gained a place among the languages of the world, united the Turkic peoples living in different parts of the world, and the nation's spiritual heritage has taken a strong place in the world treasure. After independence, the study of Navoiy's heritage in the Republic of Uzbekistan rose to the level of state policy and awards were established. One of the largest regions of the country and its center, the State Prize of Uzbekistan, the Institute of Language and Literature of the Academy of Sciences of Uzbekistan, the University of Uzbekistan, Samarkand State University and hundreds of other cultural and educational institutions , collective farms are named after the great poet.

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# CHINGIZXONNING OQ BULUTI" INTERPRETATION OF NEGATIVE AND POSITIVE IMAGES

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Abstract. This article describes the positive and negative images in the story "Chingizxonning oq buluti" in the example of the fate of the heroes, the places of worship for the students are given, and the positive and negative images are considered on the basis of the table. Keywords: image, character, hero, story, positive images, negative images.

The rise of the work's artistic significance is determined by the fate of the characters in it, the character of the protagonists and the intensity of the events. While reading the work, you can see that the character of the protagonist is fully revealed in the story "Chingizxonning og buluti" by Chingiz Aitmatov. The fate of the protagonist, an ordinary teacher - Abutalip Kuttibaev, urges every reader, every reader to think deeply, to observe more deeply the feelings of slander and truth, justice and dishonesty. The protagonist of the story, Abutalip, is taken prisoner on charges of participating in a guerrilla movement in Yugoslavia and collecting the literary heritage of the ancient people. He is also being held in a prison in Almaty. At the beginning of the work, the course of events is in a knot, and in the end it is resolved. Does not neglect. We can see this story as an example of "bringing a work within a work". The story tells of the brutality of Chingizkxon and the law he introduced, and the execution of innocent lovers. He issued a stern decree to Chingizxon family troops not to give birth to women until the end of the war. But the desree did not stop the love between the centurion, Erdane, and the embroiderer Dogulang. They will have children. They call him Gunon. But as fate would have it, the two lovers were hanged by a rope on both sides of a camel's back. Gunon stayed in the desert with Dogulang's servant Altyn, with a white cloud above him.

Image is a landscape and character in art and literature that reflects life in a unique artistic way. The term image is used in literature and art in a more limited sense-only in relation to man. Images are divided into positive and negative images, depending on whether the correspond to the aesthetic ideal of the creator, whether the writer likes or dislikes the image he wants to portray, and whether he rejects or confirms the image. [B.Sarimsokov, N. Khatamov. Literary terms. 1979, 206-207].

Both in real life and in fairy tales, there are positive and negative characters in this story. If we taken the characters in the play as positive and negative characters, the following table is an example:

| T/r | Heroes             | Place in the play  | Negative or positive |
|-----|--------------------|--|----------------------|
| 1   | Abutalip Kuttibaev | An ordinary teacher,<br>the protagonist of the<br>work                         | Positive image       |
| 2   | Zaripa             | Abutalip's wife  | Positive image       |
| 3   | Ermek              | Son of Abutalip  | Positive image       |
| 4   | Dovul              | Son of Abutalip  | Positive image       |
| 6   | Tansikbaev         | Investigator   | Negative image       |
| 7   | Chingizkhon        | Invader  | Negative image       |
| 9   | Erdane             | Capitan of the army  | Positive image       |
| 10  | Dogulang           | An embroiderer<br>embroil-dering flowers<br>on army flags and<br>Erdane's wife | Positive image       |
| 11  | Gunon              | Child of Erdane and<br>Dogulang  | Positive image       |
| 12  | Altyn              | A friend of yours  | Positive image       |

The table above shows that there are more positive images than negative ones. But even so, the actions of negative images are active, and many suffer because of them. If you look at the negative images - Tansikbaev, you can see the most ugly person in his character. He had different plans and ideas. What for? Of course, out of jealousy of those who reseive the next titles, are awarded orders and medals, reseive large cash prizes, and hear thank-you notes in orders for exemplary performance of the task. Not only did he slander Abutalip, but he also asked who his accomplices were, as if to take his life by beating, and torturing him, telling him that he would be bad if he did not confess. Abutalip, on the other hand, will not give up or sell others despite torture. He sees his children and wife for the last time trough the train window, finds solace, says goodbye to his family and throws himself in front of a moving train. His death will save the lives of many innocent people like him.

Characters in a work of art are of two kinds, depending on their position in the work and the function they perform. If the character is at the center of the events, plays a leading role in resolving the conflict of the work, expresses the creative idea, such a character is the main image of the work.[B.Sarimsakov, N.Khatamov. Literary terms, 1979, 207].In this story, Abutalip, Tansikboev, Chingizkhan, Erdane and Dogulang

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are the main characters. In conclusion, it should be noted that in the centuries created and studied, the character of positive and negative images should be relevant to the plot, to reveal the conflict in it, to attract the attention of the reader, and in their memory it should be able to leave the notion of a negative image and that of a positive image. Delivering this in full will place even more responsibility opn scientists in scientific research.

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# THE IMAGE OF SLAVERY IN THE NOVEL "UNCLE TOM'S CABIN" BY HARRIET BEACHER STOWE

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Abstract. The article deals with the life of a slave as called Tom, according to this article the main hero was a victim of slavery in the life of Americans. In this article there is given some detailed facts and clarifications about the novel.

Therefore, the author analyzed the novel's main idea with clear assumptions. Key words: legal situation, segregation, racial segregation, slavery, slave, African-American people, patrons, cabin, racial discrimination.

The dramatic impact of the novel "Uncle Tom's cabin" was heightened by the conditions under which African-Americans were living in the deep South, the emerging changes in their legal situation, and the turbulent relationship between the races at the time of its publication.Desperately, the novel appeared within segregation of the most dramatic events in civil rights history.In that times, racial segregation had always been a way of life in the South. blacks and whites went to separate schools, separate churches, and separate hospitals; they lived in separate neighborhoods and separate housing complexes. even, the slaves were treated by separate doctors and separate dentists.Furthermore, hey had separate waiting rooms in all offices and bus and train stations, separate rest rooms, and even separate water fountains.

White people had access to restaurants, motels, hotels, parks, and other recreational facilities that black people were not allowed to use. It was rare for an African-American to be able to find a place to sit down and eat or sleep away from home. Facilities like the YMCA, YWCA, and public swimming pools were for whites only. African-Americans were usually restricted to one blacks-only car on the train. on buses, they sat in a few designated rows of seats at the back. If all the seats were taken in the back half of the bus and seats were available in the white sections near the front, the African-American passenger had to stand. If a white passenger boarded the bus and no seat was available, the African-American passenger nearest the front was expected to rise, give her seat to the white passenger, and stand.

If she did not do this voluntarily, the bus driver ordered her to, calling out from his seat at the front. Furthermore, every African-American in that row of seats on both sides of the aisle was expected to get up and stand so that the white passenger would not be sitting in the same row as black passengers.

Therefore, African-American patrons sat in segregated balconies only. occasionally black servants in white households attended the weddings or funerals of the families for which they worked, but they always sat in the back of the church. African-Americans did not as a rule shop in clothing stores operated for whites, primarily because they were not allowed to try on clothing that they might expect to buy.

African-American women who worked as maids, cooks, or nurses in the houses of whites were usually provided toilet facilities separate from the rest of the had been cleared away. For the most part, African-American men were not allowed to eat in the houses of whites at all. Food was handed to them out the back door in pans and jars kept for that specific purpose. Therefore, they work as a slave, the impact of the slavery.

According to the novel 'Uncle Tom's Cabin,' Mrs. Harriet Beecher Stowe has done

more to diffuse real knowledge of the facts and workings of American Slavery, and to arouse the sluggish nation to shake off the curse, and abate the wrong, than has been accomplished by all the orations, and anniversaries, and arguments, and documents, which the last ten years have been the witness of.

In the South, no athletic teams of African-Americans played teams made up of white Americans. Racial discrimination in hiring was open and aboveboard, applications often being stamped "whites only." Jobs for African-Americans were largely restricted to those involving common labor or those servicing the black community only.

The only professions open to African-Americans in any significant numbers were the ministry and teaching. So that in most southern cities and towns, African-Americans were only hired as hard laborers and garbage men; they were specifically barred from supervisory positions and jobs as firemen, policemen, and bus drivers. As one sees in 'Uncle Tom's Cabin,', the African- American characters are field hands, maids, and garbage collectors. only two of them have ever been taught to read.

Accordingly, Uncle Tom's Cabin depicts the story of uncle Tom, devoted that as a saintly, dignified slave. While being transported by boat to auction in New Orleans in this novel uncle Tom saves the life of little Eva then her grateful father then purchases Tom. Eva and Tom soon become close friends. Always frail, Eva's was ill and unfortunately her health begins to be worse rapidly, and on her deathbed she asks her father to free all his slaves.

He makes plans to do so but is then killed, and the brutal Simon Lee Tom's new owner, has Tom whipped to death after he refuses to divulge the whereabouts of certain runaway slaves. Tom maintains a steadfastly Christian attitude toward his own suffering, and Stowe imbues Tom's death with echoes of Christ"s.Stowe's depiction of slavery in her novel was informed by her Christianity and by her immersion in abolitionist writings. Stowe also published a lot of works around this topic A key to Uncle Tom's cabin (1853), that she used to prove the truth of her novel's representation of slavery.

A careful look reveals that most of the elements would-be censors object to can be found in Uncle Tom's Cabin -. 1) references to the sex act, 2) slang and ungrammatical speech, 3) curse words and obscene words, 4) racial slurs, 5) descriptions of rebelliousness or challenges to authority, 6) unfavorable portrayals of the establishment, including organized religion and the government, 7) questioning of absolutes, and 8) the imposition of values.

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# **MEDICAL SCIENCES**

# MDCT-CISTERNOFISTULOGRAPHY IN THE DIAGNOSIS OF NASAL LIQUORRHEA.

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Nasal liquorrhea is the leak of cerebrospinal fluid into the nasal cavity due to congenital, traumatic, non-traumatic causes leading to the formation of defects of the dura mater and bones of the base of skull. The rarity of this pathology and the similarity of the clinical picture with other ENT diseases leads to incorrect diagnosis, inappropriate treatment, which in turn can cause the development of local meningoencephalitis, brain abscesses and other dangerous complications. The success of the surgical treatment depends on the accuracy in location of the liquor fistula. Despite the widespread use of high-tech radiological research methods, it is not always possible to visualize the fistula.

The aim of the research is to study the possibilities of MDCT- cisternofistulography in the diagnosis of nasal liquorrhea.

Research methods. To determine the efficiency of MDCT-cisternofistulography, 26 patients - from 14 to 61 years of age - were examined, who were on inpatient treatment at the Republican Specialized Scientific and Practical Medical Centre of Neurosurgery from 2016 to 2019. The research was conducted on a spiral CT scanner MX16EVOCT ("Philips", The Netherlands).Contrast substance Unigexol-350 was injected endolumbally at the rate of 0.3 ml per 1 kg of body weight. The scanning was performed in an axial plane with a1 mm thick cut.Multiplanar reconstructions and image enhancement filters were used to identify and study in detail the liquor fistula.

Results of the research. Single fistulas were found in all cases. In 18 (69.2%) cases the liquor fistula was localized in the projection of the anterior cranial fossa, parasagittally. In 5 (19.2%) cases the defects of the inner wall of the frontal sinus were visualized. In 1 case, the contrasted liquor flowed into the cavity of the frontal sinus cyst through the defect of its posterior wall. In 3 cases, the liquor fistula was visualized in the projection of the sella turcica's floor. In 1 case, an irregularly shaped bulky mass was visualized in the pineal area of the brain, with a concurrent marked enlargement of the lateral and third ventricles of the brain. The presence of liquor fistula in the projection of the anterior cranial fossa in the case described above was considered as compensation for intracranial hypertension. In 1 case, a bone defect was detected in the projection of a cribriform plate of the ethmoid bone on the right, 10x12 mm in size, with the presence of meningoencephalocele. In 6 cases there were severe traumatic brain injuries in the anamnesis. In 4 cases, the subjects linked the occurrence of nasal liquorrhea with previous colds. In 8 cases, the occurrence of nasal liquorrhea was spontaneous. In 1 case, the nasal liquorrhea occurred after transnasal-transsphenoidal removal of the bulky mass in the chiasm-sellar region. In the other two cases of nasal liquorrhea with liquor fistula in the projection of the sella turcica's floor, there was a tumor destruction of the latter. In all patients, the diagnosis was confirmed during the surgical intervention. The tactics to the choice of approach during a surgical intervention depended on the localization of the liquor fistula. At localization of the liquor fistula in the projection of the sella turcica's floor, surgical intervention was performed by transnasal-transsphenoidal approach. Liquor fistulas, which were located in the projection of the anterior cranial fossa, were removed by cranial bifrontal approach or frontal craniotomy on the lesion side.

Conclusions of the research. MDCT-cisternofistulography is a highly accurate method of research in the diagnosis of nasal liquorrhea. Accurate localization of liquor fistula allows us to determine the optimal approach in the surgical intervention. Visualization possibility of liquor spaces allows to prognose changes in liquorodynamics after the treatment of nasal liquorrhea and choose the right tactics of surgical treatment.

#### THE STATE OF THE HEMOSTASIS SYSTEM DURING ENDOPROSTHETICS OF THE JOINTS OF THE LOWER EXTREMITIES OPERATED ON UNDER CONDITIONS OF GENERAL ANESTHESIA IN PEOPLE WITH HIGH ANESTHETIC RISK

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Endoprosthetics of the joints of the lower extremities is considered one of the most successful orthopedic procedures and more than a million such operations are performed every year in the world (4). It is predicted that by 2020, arthroplasty of the joints of the lower extremities will exceed more than one million per year in the United States alone (2). Historically, general anesthesia has been the gold standard in orthopedic surgery. At present, in research practice and in discussing the timely prevention of cardiovascular diseases, especially coronary heart disease, which occupies the first place among the causes of population death worldwide, it is necessary to take into account age-related changes that occur in the anatomical structures of the heart and the vessels supplying it. In the literature there is evidence of age-related changes in coronary vessels. According to (1), in people of the second period of middle age and the elderly, age-related changes in the vascular wall are noted. According to (5), there is a direct correlation between the degree of tortuosity of the coronary vessels and the age of the patient.

Vascular changes (including tortuosity) can lead to a deterioration in the hemodynamic conditions inside the vessels, and possibly to a change in the hydrodynamic parameters of the blood flow. An increase in the load on certain sections of the vascular wall can lead to chronic inflammation and the deposition of atherosclerotic plaques, which is the main link in the pathogenesis of IHD. This can contribute to rupture of the atherosclerotic plaque tire and blood clots due to turbulence in the bloodstream. One of the formidable problems of the postoperative period when performing orthopedic surgery is bleeding. Total blood loss can be significant, reaching 50-60% of the volume of circulating blood, with the development of a complex of negative processes that accompany massive blood loss, which exacerbates an already traumatic intervention (3.6).

**Objective:** to study the state of the hemostatic system in elderly and senile patients operated on under conditions of general anesthesia, to identify its side effects.

#### Material and research methods.

We analyzed the postoperative period in 50 patients. Patients were hospitalized in the trauma department of the multidisciplinary clinic TMA. All patients underwent total joint replacement (39-THA and 11-TKA). Men - 22 (44%) 28 - women (56%). The age of patients in this group was in the range of 68-81 years, i.e. it is mainly elderly (78%) and senile age (22%) with a physical status of ASA 3 or higher. The right side of the lesion prevailed (54%) according to the Ketle index indicator, trophological status fell within the framework of normal elderly and senile age, which were operated on for degenerative-dystrophic and traumatic injuries of the joints of the lower extremities.

Induction in anesthesia was carried out with propofol at the rate of 1-2 mg / kg, fentanyl (2-3 mg / kg), midosalam (dormicum) (0.1-0.2 mg / kg), relaxant-pipecuronium bromide (arduan) (0.06 -0.08 mg / kg). After tracheal intubation, anesthesia was maintained by inhalation of 1.3-1.8 vol.% Isflurane and propofol infusion of 2.5-3.5 mg / kg / hour. Fentanyl was administered at times. The total amount was 4-5  $\mu$ g / kg.

In the preoperative period, an infusion program was carried out in the range of 6-8 ml / kg (5% glucose solution and electrolyte solutions). In order to prevent thrombotic-embolic complications in all patients, 10-12 hours after admission, heparin (7,500 IU) was administered subcutaneously twice a day. In patients receiving anticoagulant therapy per os, the latter was

canceled, before surgery, 5 mg of vitamin K (Vikasol) was administered intravenously, followed by a triple administration of heparin (7,500 IU) sc daily.

Anesthesia was monitored by us using the bispectral index (BIS) for a thorough titration of the anesthetic.

At values (BIS) exceeding 60 (tracheal intubation, traumatic stages of the operation), fentanyl infusion was increased to 0.5-0.7  $\mu$ g / mg. All studies in the GA process were performed at (BIS) values up to 40-60 recommended for elderly patients.

In cases of the development of arterial hypotension, it was assessed as: "moderate", when the systolic blood pressure decreased to 20% of the initial level, "pronounced" - a decrease in systolic BP was more than 30% of the initial, and the mean BP (MBP) became less than 100 mmHg In such cases, vasopressors (ephedrine, dopamine) were used, as well as fluid infusion until restoration of the MBP.

In cases of the development of bradycardia, defined as a decrease in heart rate <50 per minute, atropine 0.5 mg was administered intravenously.

Indicators of systemic and central hemodynamics, BIS, SpO2 and pressor consumption were monitored every 5-10 minutes during the operation and up to 120 minutes after it. Surgical blood loss was compensated for by the infusion of crystalloid and colloid and, if necessary, blood products.

Surgical blood loss during hip and knee arthroplasty was determined by the gravimetric method. During the operation, changes in systemic BP, DBP, MBP, heart rate, SpO2 were observed. Stages of registration of these indicators: before, during anesthesia, 30, 60, 120 minutes after the operation is completed.

Clinical and biochemical blood tests (erythrocytes, Hb, Ht, lymphocytes, total protein, electrolytes, glucose, transaminases, nitrogenous slags, bilirubin) were performed before the operation and 1.5.10 days after the operation. Before surgery and on day 10, coagulogram data were analyzed with a focus on: fibrinogen, prothrombin time, platelets, APTT. To assess the functional state of the components of the hemostatic system and fibrinolysis, the hemocoagulography method was used with the help of the blood rheology analyzer of the portable ARP Mednord (Tomsk). At the same time, duplex scanning of the deep veins of the lower extremities was performed on both sides. Research stages: 1) upon admission to the operating room, 2) after tracheal intubation, 3) joint implantation, 4) end of operation and anesthesia.

| Indicators                      | GA (n = 50)      |                     |  |  |  |
|---------------------------------|------------------|---------------------|--|--|--|
| Indicators                      | Before operation | After operation     |  |  |  |
| Red blood cells, $10^{12}/1$    | $4,19 \pm 0,31$  | $4,11 \pm 0,42$     |  |  |  |
| Hemoglobin, g/l                 | 13,2± 0,4        | $12,8 \pm 0,5$      |  |  |  |
| White blood cells, $10^{9}/1$   | $5,32 \pm 0,64$  | $5,79 \pm 0,71$     |  |  |  |
| Neutrophils, 10 <sup>9</sup> /1 | $3,23 \pm 0,41$  | $3,\!69 \pm 0,\!39$ |  |  |  |
| Lymphocytes, 10 <sup>9</sup> /1 | $1,62 \pm 0,27$  | $1,44 \pm 0,31$     |  |  |  |

#### **Results and discussion**

Table No. 1 Indicators of a general blood test in patients operated on in conditions of GA before and after surgery.

From the data presented, it can be noted that initially all peripheral blood parameters were practically within the physiological values. But, given the age of patients in this group, we can talk about some initial hemoconcentration, as evidenced by high rates of red blood cells and Hb. Despite the fact that during the operation 21 patients (42%) underwent transfusion of 200 ml of erythrocyte mass, because blood loss exceeded 500 ml and averaged 625 ml, by the end of the operation these parameters were lower than the initial ones by 2.1 and 2.3 % (p> 0.05). As for the indicators of white blood, by the end of the operation there was a slight tendency to increase

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significant. At the end of the operation, the number of lymphocytes decreased relative to the initial data by 11.2%, which was also a trend (p> 0.05).

| Table No. 2 Indicators of hemostasis in patients operated on in conditions of GA ( $n = 50$ ) |
|---|
| before and after surgery  |

| Indicators                    | GA (n = 50)      |                    |  |  |
|-------------------------------|------------------|--------------------|--|--|
| Indicators                    | Before operation | After operation    |  |  |
| Fibrinogen, g/l               | 3,84 ± 0,32      | 3,61 ± 0,27        |  |  |
| Platelets, 10 <sup>9</sup> /1 | $162,3 \pm 4,7$  | $176,4 \pm 3,9$    |  |  |
| Prothrombin time, sec         | $11,8 \pm 0,5$   | $11,\!4 \pm 0,\!4$ |  |  |
| APTT, sec                     | $28,9 \pm 0,3$   | $30{,}9\pm0{,}2$   |  |  |

Initial indicators of blood coagulation in this group of patients also did not go beyond physiological values. There was only a tendency towards a decrease in fibrinogen levels by the end of operations by 6.4% (p> 0.05) and an extension of APTT by 6.9% (p <0.05).

Despite the fact that the vast majority of patients have suffered from hypertension for a long time, we did not note a special spread of blood pressure indicators upon admission, in all likelihood due to the systematic use of antihypertensive drugs. The level of blood pressure in them was within 160/90 - 125/70 mm. Hg, averaging 138.9 / 87, 7 mm Hg.

The table below shows the indicators of systemic hemodynamics and pulse oximetry in the implementation of GA.

|                      | Study Stages (GA)   |                    |                  |                  |                  |                  |                      |  |
|----------------------|---------------------|--------------------|------------------|------------------|------------------|------------------|----------------------|--|
| Indicator<br>s       | Before<br>operation | After<br>operation | Joint<br>implant | End of operation | In 30<br>minutes | In 60<br>minutes | In<br>120<br>minutes |  |
| Syst BP.             | 138,6±              | 142,8±             | 151,5±           | 137,7±           | 145,4            | 150,3            | 127,4                |  |
| (mm. Hg)             | 11,4                | 9,3                | 10,4             | 9,1              | ± 9,2            | $\pm 11,2$       | ± 7,6                |  |
| Diast BP             | $87,9 \pm$          | 90,1±              | $92,4\pm$        | $89,4 \pm$       | 87,1             | $90,6 \pm$       | 82,4                 |  |
| (mm. Hg)             | 5,0                 | 4,3                | 3,7              | 5,5              | ±3,9             | 4,1              | $\pm 3,7$            |  |
| MBP                  | 104,9±              | 107,6              | 112.0±           | 105,5±           | 106,5±           | 110,5±           | 97,4±                |  |
| (mm. Hg)             | 8,2                 | $\pm 6,8$          | 7,1              | 7,0              | 6,5              | 7,0              | 5,6                  |  |
| HR (per              | 76,3±4              | 80,2±3             | 89,3±2,          | 84,0±3           | 87,2±4           | 88,4±3           | 78,4±                |  |
| minute)              | ,4                  | ,0                 | 1                | ,2               | ,3               | ,1               | 2,3                  |  |
| CVP (cm              | 7,4±0,              | $10,2\pm0$         | 10,1±0,          | 8,7±0,           | 9,1±0,           | 8,8±0,           | 7,9±0                |  |
| H2O)                 | 4                   | ,3                 | 2                | 3                | 4                | 3                | ,4                   |  |
| SPO <sub>2</sub> (%) | 92,4±1              | 93,6±0             | 92,9±1,          | 93,7±0           | 92,4±0           | 92,1±0           | 93,0±                |  |
|                      | ,0                  | ,9                 | 2                | ,7               | ,5               | ,5               | 0,4                  |  |

Table No. 3 Indicators of systemic hemodynamics at the stages of GA (n = 50).

Of the data presented in the table during GA, the studied circulatory parameters underwent changes, especially at the stages of tracheal intubation, joint implantation, and also, an hour after the operation, when patients began to complain of pain in the area of the surgical wound. So for intubation and for the most traumatic stage of the operation - implantation of joints BP increased by 2.5% and 8.6%, and Diast BP - by 2.5% and 5.1%, respectively, although these changes indicated only a tendency to increase and are not statistically significant (p > 0.05). As for heart rate, according to averaged data, we did not observe bradycardia or bradyarrhythmia. It increased during the traumatic stage of the operation and 60 minutes after the operation by 17.0 and 15.8%, respectively. In both cases, p < 0.05.

The table below provides data on the magnitude, operational blood loss, and temporal parameters in patients operated on under conditions of GA.

Table No. 4 The volume of blood loss, ITT and temporal parameters in patients operated on in conditions of GA (n = 50).

| Indicators                             | 1 <sup>st</sup> patient group |  |  |  |
|--|-------------------------------|--|--|--|
| Indicators                             | GA                            |  |  |  |
| THA blood loss volume, ml              | $518,6\pm 67,6$               |  |  |  |
| TKA, ml                                | $668,8\pm 88,4$               |  |  |  |
| Total blood loss (ml)                  | $593,7\pm78,0$                |  |  |  |
| The volume of ITT, ml                  | 2588,4± 120,6                 |  |  |  |
| Erythromass, ml                        | $386,7\pm 63,0$               |  |  |  |
| Time to surgery, min.                  | 34,1±3,2                      |  |  |  |
| Operation time, min                    | $132,7\pm 6,1$                |  |  |  |
| Postoperative time, min.               | $44,9 \pm 10,2$               |  |  |  |
| Harness application time, min.         | $85,7{\pm}2,7$                |  |  |  |
| Extubation time, min                   | 14,3±3,2                      |  |  |  |
| Cognitive function recovery time, min. | $38,4\pm 2,6$                 |  |  |  |

The data presented indicate that the total blood loss during joint replacement of the lower extremities is on average 7-8 ml / kg body weight (with THA-6.82 ml / kg, with TKA-8.8 ml / kg). The volume of infusion-transfusion therapy in the operating room is within 34-35 ml / kg body weight; The volume of red blood cells is 5.1 ml / kg. In GA, perioperative time intervals are quite long. The recovery time of cognitive functions was within 30-50 minutes after extubation, averaging  $38.4 \pm 2.6$  minutes.

Conclusions

1.Changes in the homeostasis system during arterial hypertension were revealed, manifested by activation of the fibrinolysis system and an increase in the level of antithrombin III, indicating latent hypercoagulation.

2. The use of NSAIDs in combination with narcotic analgesics makes it possible to obtain adequate analgesia, but due to the pronounced reotropic effect due to the side effects of NSAIDs, the degree of postoperative bleeding also increases.

3.In elderly and senile patients, a physiological decrease in fibrinolytic activity develops, an increase in the level of the natural anticoagulant of protein C.

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# ROLE OF CLINICAL - DIAGNOSTIC ALGORITHM IN ARTHROSCOPIC TREATMENT OF KNEE JOINT OSTEOARTHRITIS

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Purpose of current investigation was to improve the arthroscopy technique of patients with osteoarthritis of knee, by introduction of complex clinic and diagnostic algorithm. Materials and methods. The investigation was carried out on the basis of 189 patients data of the clinic of Sport traumatology department of Republican Scientific and practical medical Centre of Traumatology and Orthopedics during 2015-2019 yy. with osteoarthritis of knee of different degree (0-IV st.) by Kellgren and Lawrence classification. All patients were carried out 5 types arthroscopic operations depending on the stage o morphologic alteration, that based to development of clinic and diagnostic algorithm. Results were studied at nearest (3-6 months) and long term (6 months - year) periods. At postoperative period to patients medications, early rehabilitations and physiotherapy were recommended. In our data, in 96,5% were positive results. Conclusion. Arthroscopy with using of clinic and diagnostic algorithm is allowed to rise of share good results, to activate of patients and to begin of early rehabilitations at postoperative periods.

Key words: osteoarthritis of knee, arthroscopy, clinic and diagnostic algorithm.

The aim of the study was to improve the results by introducing a comprehensive clinical diagnostic algorithm for arthroscopic treatment of patients with osteoarthritis of the knee joint.

Materials. The study was conducted on the basis of data from 189 patients with osteoarthritis of the knee joint of varying degrees (from 0 to IV degrees) according to the classification of Kellgren and Lawrence in the Department of Sports Traumatology of the RSSPMC Traumatology and Orthopedics for 2015-2019. Based on clinical complaints, goniometric, radiological, MRI, X-ray densitometric analysis, a clinical diagnostic algorithm has been developed for the treatment of knee OA.

Methods, we recommend 5 types of arthroscopic operations, depending on the severity of morphological changes. The first type of operation - local debridement with meniscectomy was performed in 27 (14.3%) patients, the second type of operation - local debridement with subchondral tunneling was performed in 38 (20.1%) patients, the third type of operation - partial debridement with standard subchondral tunneling was performed in 43 (22.8%) patients, the fourth type of operation was complete debridement with standard subchondral tunneling in 47 (24.9%) patients, the fifth type of operation was complete debridement with deep subchondral tunneling in 34 (17.9%) patients .

Results. The treatment results were studied in the immediate (from 3 to 6 months) and long-term (from 6 months to 1 year) postoperative periods. In the postoperative period, patients are recommended exercise therapy, medications, early rehabilitation and physiotherapy. According to our data, in 87.6% of cases, positive effects were noted.

Conclusion The proposed new clinical diagnostic algorithm allows you to choose the right type of arthroscopic treatment, thereby hanging the proportion of good results in patients with osteoarthritis of the knee joint.

Recommended operations allow us to simultaneously solve several problems, including improving nutrition and remodeling of cartilage and reduces pressure in the subchondral zone, increases bone density, improves arthro-kinematics of the patella-femoral and femoral-tibial joints, and normalizes the regulation of synovial fluid formation.

# INFLUENCE OF PHYSICAL CULTURE ON CHILDREN OF PRIMARY SCHOOL AGE

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Abstract. This article analyzes the impact of physical education on the body of children of primary school age. In this paper, the importance of physical education and health measures, the forms of such activities, the volumes of various types of physical activity for primary school children and its importance in the functionality of the child's organs are examined in detail.

Key words: physical culture; physical education; training; exercise; sport; activity

# Introduction

In our time, the vital activity of many younger schoolchildren, especially those who live in the city, proceeds in conditions of reduced physical activity. The result of this is an increase in the number of students with various deviations not only in health, but also in physical development. Some have muscle weakness, impaired posture, curvature of the spine, while others have a lag in the development of cardiovascular systems. One of the most realistic ways to support students in these conditions is through intense physical education. Physical development forms motor skills and qualities such as speed, flexibility, strength and stamina, and also fosters a child's determination, confidence, and perseverance.

The actuality of this topic is that the problems of physical education in recent years more and more attract the interest of the pedagogical and medical community, as well as parents. And this is not at all accidental. It is known that properly organized physical education is of great importance for strengthening the health of children, harmonious sports development, increasing the ability to work of their body and expanding multifunctional abilities. In particular, it is very important in 7-10 years. The creation of differentiated physical development is not an easy and painstaking process, requiring, first of all, the accumulation of enormous theoretical material and a substantial enrichment of our knowledge about the characteristics of the growth and formation of the body of children, adolescents and youths. In order to improve each student, it is necessary to constantly monitor the lessons of sports training, physical development, health and create certain recommendations on how to improve physical education.

The aim of the article: to determine the importance of physical education for children of elementary grades.

#### Main part

Modern society strives to ensure that every child, starting from a very young age, grows up healthy, strong, strong and harmoniously developed. Physical culture is a major factor in improving a person, strengthening his health.

The basis of physical culture is movement, the motor process, sports training, physical exercise. Under the influence of various exercises, the state of health is strengthened, physical development is improved, motor skills are formed, physical

qualities are developed and conditions are created in order to realize intellectual, moral, aesthetic and labor education.

Physical education is such a kind of education, the content of which reflects the training in physical exercises, the development of physical qualities, the development of special physical knowledge and the formation of the conscious need for familiarization with sports. In physical education of students, the main role belongs to basic gymnastics, the procedures of which make up a large part of the school curriculum in physical education. The essence of the exercises provides the general physical formation of students and the formation of relevant skills for work and life (moving in the appropriate direction, controlling the movements of the arms, legs, body, head, working poses). All kinds of exercises are designed for strength, endurance, speed.

Sports and recreational activities activate the motor mode during the school day, support children of primary school age in tone during mental activity, have a beneficial effect on the body.

Forms of such classes:

1. Early exercise - has a great impact on increasing work capacity, improves health status.

2. Physical exercises in the classroom - remove fatigue, increase intellectual activity, and are carried out when fatigue occurs.

3. Games and exercise during breaks - a useful means of intense relaxation, better health and a return to the learning process. In order to comfortably perform games and physical exercises during breaks, you must first arrange aplace, the necessary equipment. As a rule, younger students participate in similar classes of their own free will and express great interest in such events.

4. Daily physical education classes in extended groups solve the following problems:

- health promotion;

- hardening of the body;

- improvement of physical and mental disability;

- improvement of physical skills;

- education of the habit of practicing on an ongoing basis and without the help of others.

In extended groups, physical education classes take place in a freer form than physical education lessons can be conducted in the fresh air. The lesson consists of 3 parts:

- preliminary (warm-up, warming up muscles);

- main (sports games, cross, etc.);

- final (training to restore breathing, low-intensity exercises).

5. Extracurricular forms of organization of classes. The main form of extracurricular activities in physical education and sports outside school hours are:

- circles of physical education;

- sections of general physical training and "Ready for work and defense";

Physical education have a beneficial effect on the psyche. Increased blood circulation and deeper breathing contribute to the best supply of blood and oxygen to the brain. Also increases the student's ability to concentrate. Movement over time removes nervous tension. Because of this, there is pleasure: nothing hurts, there are no ailments, all organs function in accordance with the norm. This feeling of joy, in turn, creates a good mood .

At the end of the article, we came to the conclusion that:

1) Stable physical culture classes contribute to the healing of the child, strengthen their nervous, cardiovascular and respiratory systems, significantly expand the capabilities

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of the musculoskeletal system;

2) Physical education is the key to healthy well-being, development and growth of the child.

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# **EVALUATION OF PHYSICAL-CHEMICAL INDICATOR OF BREAD ENRICHED WITH SOY FLOUR**

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Abstract. The article provides information on the assessment of the physical and chemical indicator of bread enriched with soy flour. The objects of the study were bread "Boyitilgan" from 5% and 10% soy flour produced under the form and shape. Based on the results of the work, it is recommended to use 5% soy flour in the formula of bread of functional purpose and developed technological instructions and technical conditions for new bakery products bread "Boyitilgan" with enrichment of 5% soy flour. Soy flour when used as an additive to wheat flour does not affect the physical and chemical indicator of bread. Kevwords: bread, soy flour, wheat flour, physico-chemical indicator.

Soy is a valuable universal crop. Its seeds contain 17-26% fat, 36-48% well-balanced amino acid composition of protein and more than 20% carbohydrates. Soybean oil is semi-drying (iodine number 107-137), it is characterized by a high content of physiologically active essential fatty acids (linoleic, oleic, linolenic, etc.). Soy protein quality is significantly superior to many other plants, including oilseeds and cereals [4, 5]. Soy protein is well absorbed by the body and its biological value is close to animal proteins, which are equivalent in composition to animal protein.

In recent years, new types of additional raw materials have been used to improve the consumer properties of bakery products. In bakery, this is an unconventional type of raw material that will increase the nutritional value of bread and improve the physicochemical parameters of manufactured products, as well as replace traditional additional raw materials in the future [1]. Soy protein is well absorbed by the human body and has healing properties for cancer, diabetes, allergies, as well as reduces cholesterol in the blood and increases immunity [3].

Purpose of research - evaluation of the physical and chemical index of bread enriched with soy flour.

Material and research methods. The objects of study was the bread "Boyitilgan" produced and hearth piece weighing from 0.4 kg to 1.1 kg - bread "Boyitilgan" made of 5% soy flour (sample 1), 10% soy flour (sample 2), bread without the addition of soy flour (control), and deodorized soybean poluobnazhennaya flour of first grade flour of wheat baking flour for making bakery products. Preparation of raw materials for the production of bread "Boyitilgan" was carried out in accordance with the relevant hygiene requirements for the production of bakery products [2]. For bakery products with the addition of soy flour, studies were conducted to establish physical and chemical indicators. In the samples of control bread and enriched bread, a comparative determination of humidity indicators according to GOST 21094-75 "Bread and bakery products. Method for determining humidity", acidity according to GOST 5670-96 "Bakery products. Methods for determining acidity" and porosity according to GOST 5669-96" Bakery products. Method for determining porosity".

Result of research. The study of the influence of soy flour on the quality of bread "Boyitilgan" prepared with the addition of 5% and 10% soy flour showed that the physical and chemical indicators of bread from 5% soy flour practically does not differ from those of bread without additives, except for such indicators as humidity (45.0% vs. 44.5% of the control group), specific volume (2.8 cm3/g vs. 5 cm3/g of the control group) and H/D - 0.42 vs. 0.5. When preparing bread with the addition of 10% soy flour,

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such physical and chemical indicators as humidity, porosity, specific volume, volume yield differed from those of the control sample. With respect to bread, where 5% soy flour was used, differences were determined in all indicators except for acidity (see the table).

#### Table

|                             |                              | Physical and chemical indicators of bread quality |                |                 |   |      |                                 |  |
|-----------------------------|------------------------------|---|----------------|-----------------|---|------|---------------------------------|--|
| Name of the bread<br>sample | Dosage<br>of soy<br>flour, % | humidi<br>ty, %                                   | acidity,<br>pH | porosit<br>y, % | specific<br>volume,<br>cm <sup>3</sup> /g | H/D  | volumetr<br>ic<br>output,<br>cm |  |
| Control (no<br>additives)   | _                            | 44,5  | 2,2            | 77              | 3   | 0,5  | 401                             |  |
| Bread with soy              | sample 1                     | 45,0  | 2,2            | 77              | 2,8                                       | 0,42 | 401                             |  |
| flour added                 | sample 2                     | 45,0  | 2,2            | 74              | 2,4                                       | 0,2  | 361                             |  |

Introduction of 5% deodorized semi-skimmed soy flour of the first grade improves the plastic properties of the dough making it easier to work with the dough, increases the elasticity of the bread crumb and the period of preservation of its freshness. With the addition of 5% soy flour, you can get high-quality bakery products with an extended period of preserving the freshness of wheat bread. The use of soy flour in the form of polishtamm ferments obtained by fermentation improves the quality of bread and indicators of structural and mechanical properties of the crumb, which characterize its freshness, lengthens the period of preservation of its freshness. This is due to the transformations that soy proteins undergo during the preparation of sourdough. Starter cultures are obtained by exposure for 24 hours to a mixture of soy flour and water in a ratio of 1: 2.

The resulting product (bread "Boyitilgan") with the addition of soy flour have good physical and chemical properties (at the bottom of the bread crumb moisture content of not more than 44,0%, acidity crumb is not more than 2.5 deg, porosity crumb not less than 70.0%; the molded – moisture content of the crumb not more than 45,0%, acidity crumb is not more than 2.5 deg, porosity crumb not less 72,0%).

Thus, in the conducted studies, it was found that the introduction of soy flour in the recipe of wheat bread does not affect the physical and chemical index of bread.Based on these data, developed technical specifications and technological instruction for bakery products bread " Boyitilgan".

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#### VAGINAL MICROFLORA IN PROLAPSE OF WOMEN'S GENITALS

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Purpose: To assess the value of the microflora of the vagina during prolapse of the genitals in women.

Relevance: The frequency of various types of genital prolapse in women under the age of fifty in Uzbekistan is varied and ranges from 15 to 30%. And by the age of fifty, this figure increases to 40%. Among older women, prolapse and prolapse of the genitals are even more common. The frequency of them reaches up to 50-60%.

Normal vaginal microflora is a unique and balanced ecosystem. Performs the role of natural protection of female genitals from pathogenic microorganisms. The anatomical and functional state of the reproductive system plays a role in maintaining the normal microflora of the vagina. The anatomical features of the protection of the vagina include: a closed sexual gap,hair in the pubic and perineal areas,and a complete cervix. Other natural mechanisms of antimicrobial protection include the vaginal secret, which has a PH of 4-4. 5; the mucus of the cervix contains a high concentration of local immunity factors - the mucous plug, as well as an important role is played by monthly cleaning of the uterus and vagina when the endometrium is rejected - menstruation.

Material and methods: 46 patients of the regional perinatal center with pelvic organ prolapse were examined for violations of the vaginal microflora. To do this, smears from the vaginal mucosa were examined for abnormal bacteria, pH abnormalities, the presence or absence of white blood cells and lactic acid bacteria. The age of the patients was in the range of 30-45 years. Results: it was found that 17 (37%) patients had grade II cleanliness, 19 (41%) patients had grade III cleanliness, and 10 (22%) patients had Grade IV Heurlein vaginal cleanliness.

Conclusions: Thus, the loss of women's genitals can be affected by many factors, including violation of the vaginal microflora.

### ANALYSIS OF THE EFFECTIVENESS OF ANTIBIOTIC TREATMENT SCHEMES IN CHILDREN WITH EXTRA-HOSPITAL PNEUMONIA

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The study of extra-hospital pneumonia in recent decades, both in our country and abroad, has significantly changed the understanding of many aspects of the problem and optimized diagnostic and treatment tactics. Thanks to the successes achieved in the diagnosis and treatment of ER in children, the course of the disease has changed, the number of severe forms of the disease has been significantly reduced, and mortality has decreased. Leading paediatricians are making efforts to improve the diagnosis and introduction of rational antibacterial therapy (ABT) for EP into the general paediatric practice. For this purpose, clinical practical guidelines for pneumonia, based on the principles of evidence-based medicine, have been developed and are regularly updated in many foreign countries. The agents of infection in ER can be both typical bacterial agents (Streptococcus pneumoniae) and SARS (Mycoplasma pneumoniae, Chlamydophila pneumoniae) and respiratory viruses.

The aim of our studies was to evaluate the efficacy of antibacterial therapy in children with established etiology of extra-hospital pneumonia taking into account C-reactive protein and cytokine levels.

Research material and methods. Under our supervision were 65 children with extra-hospital pneumonia aged 1 to 10 years, who were treated in the pulmonology department of RSSPMC Pediatrics of the Ministry of Health of Uzbekistan. The control group consisted of 20 practically healthy children of the same age. The diagnosis was established on the basis of the classification of the main clinical forms of bronchopulmonary diseases in children approved at a special session of the XVIII National Congress on Respiratory Diseases (2009). In 100 per cent of cases, the diagnosis of extra-hospital pneumonia was verified by X-rays of the chest organs. The following observation groups have been formulated, depending on the therapy used:

Group I (control) - 28 EP patients who received basic therapy (BT): age-appropriate diet, antibacterial, antiviral, antihistamines according to indications, muco regulators and expectorants, symptomatic treatment and physical procedures;

Group II (main) - 37 EP patients who received BT, antibiotics according to the established etiology (protected cephalosporins of III generation during 10 days) + Ismizhen (1 tab. Once a day, sublingually, on an empty stomach for 10 days. Preventive course includes 3 cycles of 10 days with 20-day intervals between them. Preventive course should be conducted no more than 1-2 times a year).

In the process of comprehensive clinical and laboratory examination of children used biochemical, microbiological and immunological methods of investigation. Biochemical studies: the serum content of DRB was determined on the automatic immuno-chemilu-minescent analyzer Immulite 2000 (Siemens, Germany). Immunological studies: the cytokine concentration - IL-1 $\beta$ , IL-4, IL-6, IL-8, FNO- $\alpha$  and IFN $\gamma$  were determined by immunoenzyme method using the Vector-Best test systems (Novosibirsk, Russia, Institute of Immunology of the Academy of Sciences of the Republic of Uzbekistan).

Research results and their discussion. The main complaints at hospitalization of patients were coughing in 63,1% of cases productive, in 36,9% - dry. The increase of body temperature during the first days of the disease to febrilic numbers was recorded in 50.8% and subfebrilic in 15.4% of observations. Complaints of reduced appetite, weakness and fatigue were made by children in 55.4% of cases. CNS pathology was registered with the highest frequency (47.7%). Biochemical studies conducted showed that the level of serum DRR in children with EP in the initial period of

the development of inflammatory process spread. High cytokine IL-1 $\beta$ , IL-4, 6, 8 and TNF- $\alpha$  indices were characteristic for the control group (P<0.01). Our studies on the level of interferon - $\gamma$  in EL patients showed a deep deficit in its content. Thus, the level of serum IFN $\gamma$  in children with EP was on the average - 24,6±1,4 that is 1,3 times lower than in the control group (34,3±2,7 pg/ml), P<0,01.

Thus, in children with extra-hospital pneumonia in the therapy scheme it is reasonable to use cephalosporins of III generation in combination with immunocorrective drugs. Rational use of antibiotics prevents the development of resistance, reduces the duration of the disease and prevents the development of complications. Inclusion of immunocorrective drugs in the complex therapy is not only reasonable and effective, but also safe, as well as enhances the effectiveness of the basic means, reduces the duration of the acute period of the disease, reduces the severity of the pathological process, promotes the restoration of disturbed parameters of the immune system in children with extra-hospital pneumonia.

Conclusions: Microbiological studies have shown that in children with non-hospital pneumonia S. Pneumonia and constitutes in 41.5% of cases, in 29.2% - S.aureus. The tendency to increase the resistance of pneumococcus to macrolides and metronidazole has been established; high sensitivity of pneumococcus to injectable cephalosporins of III generation remains. At inclusion of cephalosporins of III generation into the complex treatment and their combination with immunocorrective preparation leads to the reduction of frequency, repeated ARI and their complications in 2,2 times, frequency of recurrent bronchitis and pneumonia in 1,7 times that testifies to the high therapeutic efficiency of the offered treatment.

# CARDIAC RHYTHM FREQUENCY IN CHILDREN

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Abstract: The information on the most reliable instrumental data on heart rhythm disorders is given in this paper. Cardiac rhythm disturbances in children are on the average the third most frequent after arterial hypertension and heart defects, and are not always the leading cardiological diagnosis. Heart rhythm disturbances in children are often detected by accident. The incidence of severe arrhythmias reaches 1:5000 children. According to Holter monitoring, from 50 to 90% of conditionally healthy children have some kind of heart rhythm disorders.

Keywords: heart rhythm disorders, arrhythmia, children, EchoCG.

Introduction. Heart rhythm disorders are an important part of pediatric cardiology. Arrhythmia is a pathological condition that results in changes in heart rate and regularity of heart beats. This pathology is found in 28% of cases in young children and very often has an adverse outcome. According to different authors, only 32-47% of children with HPC are functional, caused by extracardial disorder of heart innervation. Various factors contribute to the development and progression of the disease: the duration of arrhythmic history, rhythm frequency and the electrophysiological mechanism of arrhythmia. Basically, the clinical picture is not specific. The complaints are of a general nature: cardiac contraction, a sudden increase in heartbeat in the chest, the feeling that the heart is jumping out of the chest, fainting, dizziness, shortness of breath, chest pain, loss of consciousness and sleep disturbances. It is important to note that in young children, the heart may develop without clinical symptoms and manifest severe heart failure or end up with sudden cardiac death.

Target. To analyse the prevalence of heart rhythm disorders at different ages of the child population.

Research material and methods. 40 stationary patients with heart rhythm disorders without organic cardiovascular pathology were examined at the cardioreumatology department of Children Clinical City Hospital No. 4 in Tashkent city. Of these, 21 (52.5 per cent) were boys and 19 (47.5 per cent) were girls. The age composition of children examined was from 1 to 17 years, among them children aged 1-3 years - 3 (7,5 %); 3-7 years - 8 (20 %); older than 7 years - 29 (72,5 %). The survey included a study of anamnesis, clinical manifestations of possible arrhythmias, instrumental studies, namely, electrocardiography (ECG) in 12 common deductions, daily Holter ECG monitoring, and traditional echocardiography using two-dimensional, one-dimensional Doppler mode using color Doppler mapping.

Results. When performing a standard ECG and daily Holter ECG monitoring of this category in children were found: sinus tachycardia in 9 (22.5%), sinus bradycardia in 19 (47.5%) children, ventricular extrasystole in 8 (20%), the phenomenon of shortened PQ interval in 4 (10%). Sinus bradycardia was more frequently registered at the age of 10-17 years (73.7%), in 1 (5.3%) cases it was a manifestation of sinus node weakness syndrome. In children with sinus bradycardia, a decrease in heart rate variability was recorded, with predominant bradyarrhythmia at night and a decrease in circadian index to 1.15ë0.03(p<0.05) according to the age norm. According to EchoCG, an increase in global contractility, stroke volume (p<0.05) without changing the size of the heart chambers was found in children with sinus bradycardia. In children with sinus tachycardia,

daily Holter ECG monitoring confirmed in most cases the vegetative genesis of existing disorders. Ventricular extrasystole was observed more often in children aged 11-16 years without indications of organic heart pathology according to ECG data. In 2 (25%) children there was a frequency of registration per day (over 20% of the total number of complexes), which required prescription of antiarrhythmic therapy to prevent arrhythmogenic cardiomyopathy. It should be noted that the described rhythmic disorders were more frequently observed in the older age group (from 10 to 17 years). Regardless of the form of heart rhythm disorders, the following complaints were detected: cardialgia 12 (30%); fatigue 12 (30%); headaches 8 (20%); heart rate 7 (17.5%); air shortage 3 (7.5%); fainting 1 (2.5%).

Conclusion. Rhythm disorders occur in different age periods of childhood, more often in the pre-pubertary and pubertary periods, which may be a manifestation of immunobiological changes of an adult organism and require dynamic observation.

# **PEDAGOGICAL SCIENCES**

# THEORETICAL FOUNDATIONS OF THE INTEGRATION APPROACH IN PRIMARY EDUCATION

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Annotation: The article discusses integration educational technologies, which discusses the methodological requirements for organizing integration lessons, what to look for and how to create integration lessons, an algorithm for creating an integrated center, an integrated educational process model in general, and didactic models of integrated learning technology.

Keywords: integrated learning, integrated learning technology, didactic model, integrated system, integrated lessons, integrated center, integrated lesson methodology, integrated lesson model.

According to scientists, the main goal of the integration of education is to provide students with a holistic view of nature and society at primary school age and to integrate the student's attitude to the laws of development. However, today there is a mismatch between the CRP and the curriculum.

However, today there is a mismatch between the CRP and the curriculum. If the first document indicates such areas of knowledge as "Native language", "Mathematics" and "Nature", then the second document includes 10 subjects.

The effectiveness of the optimization of the educational process by integrative programs and textbooks and the use of various degrees of integration are recognized by a number of scientists: a) presenting the topic in sequence, paying particular attention to completing the previous one; b) finding common ground in the curriculum and ensuring intersubject communications; c) systematization of knowledge and supporting concepts that should be obtained in the study of related subjects through the use of modular integration; d) interdisciplinary integration (that is, achieving acommon goal by combining training materials; acquiring the necessary skills) when merging topics such as "Fundamentals of Economic Knowledge", "Mathematics", "Native Language", "Natural History", " Reading "using various texts, exercises and tasks.

We present an improved didactic model for the use of integrated educational technologies (see Figure 1).

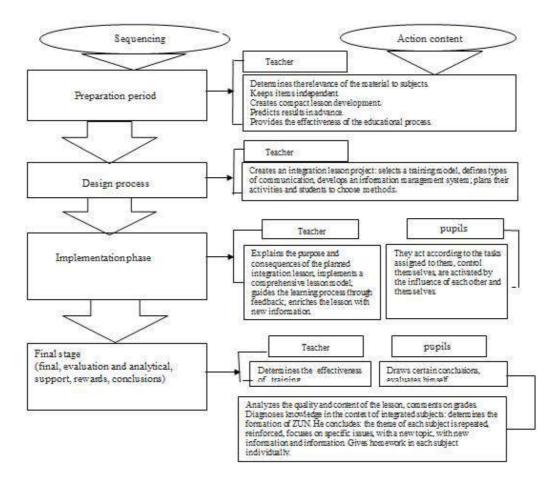


Fig. 1. Didactic model of the use of integrated educational technologies

Indeed, the use of educational integration creates favorable conditions for the implementation of pedagogical and psychological goals; general educational requirements are met continuously; saving time and energy of students; excessive psychological and physical stress is prevented, the effectiveness of training is increased. Using a combination of teaching materials, students will be able to gain deeper knowledge and develop the necessary skills. The integration of the content of educational material is carried out in three forms: intra-subject integration, inter-subject integration and trans-subject integration.

The subject of the subject, basic concepts, knowledge, skills, learning objectives (educational, educational, developing) and pedagogical tasks as elements of the system are combined and systematized with integrable topics and concepts. For example, if the "World" is the main integration center, the implementation of the process will look as follows: (see Figure 2)

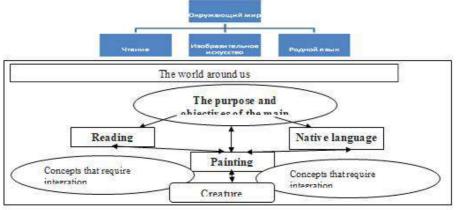


Fig. 2. The algorithm for creating an integration center

It is obvious that the integrated lesson is very effective, since the whole world is represented in the student's imagination as a whole. This, in turn, helps the student to think logically and consistently, to think about the world as a holistic picture of the world.

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#### **LEARN! WHAT TEACHERS TEACH?**

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Abstract. In this article is given several advices for young teachers and wrote about how to teach pupils effectively and organizing English lessons. Successful lessons to give chance for teachers can feel more confident that what they are doing fits their particular pupils. In this article we'd want to tell about how to teach "difficult student" which don't interested in for their activities. In communicatively oriented classrooms especially, as English teachers have pointed out, we can neither control nor know all the language that is being produced in pair work.

Key words: learning, organizing, guessing, teaching, logging, advantages, classroom activity, interaction between teacher and student.

Аннотация: В этой статья дано несколько советов для молодых учителей и написал о том, как преподавать ученикам эффективно и организации английских уроков. Успешные уроки, чтобы дать шанс для учителей могут чувствовать себя более уверенными, что то, что они делают, соответствует их специфическим ученикам. В этой статья мы хотели бы сказать о том, как преподавать "трудному студенту", которые не делают заинтересованный для их действий. В общительно ориентируемых классных комнатах особенно, поскольку английские учителя указали, мы ни не можем управлять, ни знать весь язык, который производится в кооперативное работе.

Ключевые слова: изучение, организация, предположение, обучение, заготовка леса, преимущества, деятельность классной комнаты, взаимодействие между учителем и студентом.

Before writing this article we remembered about unsuccessful Negro teacher which didn't find way to the students' heart. This story titled after "To Sir with Love" by E.R. Braithwaite and we teach this story for the third course students of the foreign faculty. In this article we'd want to tell about how to teach "difficult student" which don't interested in for their activities. In communicatively oriented classrooms especially, as English teachers have pointed out, we can neither control nor know all the language that is being produced in pair work. Still, teachers tend to do a day-to-day guessing as to where students are and what they need. To find out if they have learned, they had tested them. This guesswork and testing often result in a frustrating inefficiency in classes that just don't work. There are better ways than guessing to bridge the gap between the different perceptions and expectations of students and teachers. So, if students don't learn what teachers teach, let's do the next best thing: learn what learners are learning. One powerful way to do this, at least in part, is through action logging. The procedure is simple: a) Ask students, as homework after every class, to write down briefly in a notebook what they think they did in class and how they liked it, with a date for each entry; b) Then collect and read them every few weeks, writing comments where appropriate. Note that this is not your normal diary in which students write about things totally unrelated to class. Rather, they are sharing their valuable perceptions of their learning and of what is happening in class. You've been pleasantly surprised for a year and a half with the gold yours that you have discovered in their logs.

Advantages for the students: 1. Having to write an account of what happens in class and a reaction to it makes students more attentive to what's going on, rather than simply passively existing in class. 2. When they write their reaction, they are reviewing what was covered and what they think was learned, thus deepening the learning process. They are recycling the content one more time and increasing their retention by again focusing on what happened in class. 3. With action logging, students consciously evaluate whether or not a certain activity is useful for them, thus increasing their awareness of the learning process. 4. By contributing their feedback, students will have an impact upon instruction that gives them an opportunity to feel involved in the running of the class. 5. Action logging also takes "in search" one step further. Instead of continuously giving our students information, teachers go through the process of eliciting information from the students. Thus, what is already inside our students is the principal content for the input in a language course [Murphey, 1991: 8]. Asking them to provide their own perceptions of what is happening in the classroom is further giving value to their perceptions. If we also use these perceptions as the basis for making tests [Murphey, 1990:67], we strengthen the rapport and amount of learning immensely.

Advantages for the teacher: 1. Teachers can become aware of what works and what doesn't, what students find more or less useful, unrealistic, difficult, pleasurable, etc. (See action research below.) 2. Teachers can become aware of those points and activities that they deem important but that are not perceived or mentioned in the feedback. These then can be clarified or changed. 3. Individual students with particular desires, regrets, questions, or interests can sometimes express themselves more easily in writing than in speaking. Teachers have the opportunity to become aware of these many different perspectives. Teachers can then individualize the feedback and also attend to the emotional ups and downs in students' learning [Murphey, 1991d]. 4. With less guessing, teachers can feel more confident that what they are doing fits their particular students. From action logs, teachers can more or less know how things are working, and adjust appropriately. This cuts down on the before-class stress of wondering if what they have planned will work with this particular group. Through the logs, a rapport can be established that allows for less stress in a relaxed and exciting learning environment.

5.Because the log entries are short and only about the class and the assignments the teacher gives, they make for interesting reading for the teacher. They are about shared experiences but with unique perspectives.

### JUGGLING IN CLASS

I teach them how to juggle in English as well. This is an activity in which pairs of students also teach each other. Not only does the learning of juggling have parallel processes in language learning, but the activity involves students who may be very kinesthetic learners and has them teaching and learning from each other. The student comments further show that doing action logging allows students to take their learning beyond the classroom and influence their learning out of class (although this was partially due to the nature of the activities). And finally, and perhaps most importantly, action logging enriches the student- teacher rapport so vital to motivated learning.

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## "THE FOLLOWING FEELINGS OF FEAR IN SCHOOL- AGED CHILDREN, THEIR TYPES AND THE ROLE OF THE TEACHER IN ELIMINATING IT"

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Abstract. What is fear in an article? About the circumstances in which this happens, and the role of parents and teachers in the emergence of fear in school children. The article also describes the types of fear that are most common in children, and how to solve them, and discusses them throughout the life of children. There are different ways to overcome children's fear. For example, they can paint a picture of what they fear.

Key words: fear, danger, emotions, children, parents, teachers, school, parenting, home, criticism, primary education, causes of fear, punishment, class, elimination, strict control, rebuke, conflict, lesson, strict teachers, angry.

Introduction: Russian psychologist L.S. According to Vygotsky, "If a child's fear are replaced by self-confidence or self-power, the child will always try to emphasize that he is superior to others."

It is well known that fear is one of the most dangerous of all emotions. The problem of fear and anxiety in children in preschool and primary school age is a much more relevant topic today. Today, we can see different types of fear in 75% of children.

"What is fear?","When does fear arise?" Fear is a negative state of the human spirit that is triggered by real or imaginary danger. Everyone has experienced this feeling several times in their lives in different situations. In the first years of life, a child is afraid of all new, strange things. Some babies develop fear during pregnancy. The reasons for this are that the mother is anxious or violent during pregnancy, or that the mother is pressured and conflicted by the father, all of which gives birth to the child in a state of fear. Criticism and strict control over the upbringing of children can also be a source of fear. Observers have found that the most common types of fear in children's lives include darkness (Nyctophobia), spider (Arachnophobia), altitude (Acrophobia), thunder (Brontophobia), animals (Zoophobia), and transportation. means (Amaxophobia), loneliness (Autophobia), and water (Hydrophobia). It is important to note that teachers and parents also play an important role in the development of children's fear. There are many reasons why some children master primary education textbooks, and some do not master them well, despite the strict guidance of teachers. For example, some teachers tell a tutor during a lesson that if the child does not write well, "put both hands on the desk, and then the child will slowly put his hand in fear. and the tutor hits the child's hand. These were the first buds of fear that caused phobias in primary education. After this situation, the child learns to write beautifully, unfortunately the child does not write voluntarily, he writes in fear that my teacher will not reprimand him again, will not be ashamed in front of everyone. If teachers teach beautiful writing in a different fearless way, then children will be able to write voluntarily and get rid of some kind of fear. However, parents also have a role to play in the onset of fear in children aged 3 to 4 years. For example: "When a child is sick, if he does not take his medicine, the mother threatens him by saying things that the child is afraid of, "The mother is coming and will inject you now, "or" If you take the medicine If you don't drink, the cat will eat you". Sometimes mothers force their children to eat by using similar methods, even if the child does not eat.

The causes of fear vary, and are largely related to the social environment in which the child grows and develops. It should be noted that one of the main reasons for the formation of fear in children at school remains the child's teacher or tutor. We know that children memorize the "multiplication table" in elementary school, and the teacher asks after class or during class. If a child is unaware or misguided, the coach may punish the student in front of the whole class as a punishment or give him or her a "two" grade. And the next before class, the child also remembers the predominance of fear and shyness around his classmates, and this memory is temporarily stored in the child's memory. Because in front of the whole class, he remembers with the thought that our teacher should not be embarrassed again. One of the fear of another child is the teacher's attitude towards him and the height of communication. This is one of the most frightening things a child can do. If the teacher teaches rudely during the lesson, or speaks loudly, then the child will not be able to express himself / herself clearly. Another common situation today is when a child writes an issue or example in front of a blackboard, and if he writes incorrectly, the teacher severely reprimands the child instead of explaining the mistake, and as a result, the child confronts his classmates. he is afraid to go out and speak, or to comment on something in public. As a result, the child develops a fear of public speaking, or eclectic phobia. This is one of the most complex and common types of fear.

When it comes to children's school days, those who cause fear are both teachers and teachers who help them get rid of it. According to Will Smith, "If you ask me to tell you something that everyone has to struggle with every day, I'll tell you it's a fear." Fear can be fought, and it is necessary for the child's future. One of the easiest ways for children to lose their fear is to draw pictures of what they are afraid of and hold on to it as much as possible to convince them that it is not really scary. In many cases, tutors increase children's fear, and in some, they radically change a child's attitude toward existence and life by using methods that lift their spirits and engage them in the lesson. Another effective way to overcome fear is to listen to the child and explain to him that what he is afraid of is not as important as he actually thinks. Children spend most of their time in school while in the teaching area, such a responsible task will of course be assigned to the teacher. The main task of the teacher is to study the child's mental state and guide him to inner peace by giving him positive ideas.

In conclusion. We quote the European psychologist J.Kenbelt: "Fear is a feeling that ends with your hand, just reach out to someone to end it." From the above, it is clear that we can help our children get rid of this condition. May this fear not overshadow their future and development.

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# PROSPECTS OF USING THE SCORING MODEL IN THE PROCESS OF MINIMIZING THE RISKS ASSOCIATED WITH THE LOAN PORTFOLIO

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Abstract. This article discusses a scoring model aimed at studying the financial condition of borrowers and the possibility of a comprehensive assessment of their solvency. The article also discusses the specific features and advantages of the scoring model.

Keywords: Scoring system, financial scoring, credit scoring, scoring model, application scoring, collection-scoring, behavioral-scoring, fraud scoring.

The scoring system represents a mathematical model of the probability of timely repayment of loans received on the basis of the credit history bureau of bank customers. Scoring has the ability to determine the level of confidence of a potential customer, and in a sense incorporates a modern integrated system of customer credit risk assessment (financial scoring, credit scoring) to protect against the possibility of bankruptcy.

Financial scoring is a special system used by banks to assess the ability to lend to a customer, as well as potential risks and their solvency.

Credit scoring is the process of evaluating a borrower by a credit institution. Scoring is performed using a "scoring model" called a "measurer" of mathematical descriptions that affect a potential borrower's (client's) ability to pay on a loan. If the borrower does not have a set score during this process, he or she will not be given a loan or will be offered an offer with lower terms.

A scoring model is a quantitative method that uses financial, statistical, mathematical theories, and credit risk assessment approaches, and is based on the input of a series of data consisting of qualitative and quantitative information.

Scoring was originally developed and proposed in 1941 by American economist D. Duran (credit scoring). Duran's proposal was developed because of the need for a comprehensive credit rating system to minimize credit risk during the Great Depression in the United States. Duran's proposal mainly incorporates a scoring system for assessing the creditworthiness of individuals. [1]

There are different approaches to assessing a customer's creditworthiness and overall financial condition:

1. Quantitative models. 2. Forecasting models. 3. Quality models.

As one of the types of quantitative items, Scoring evaluates the customer's creditworthiness in points equivalent. In particular, if we look at this process in terms of the introduction of value into the valuation system, the Scoring model of value analysis is an integral indicator of a number of financial or non-financial ratios. For example, in Altman's five-factor model, the constants in the regression equation for 5 indicators are set in a differential approach based on empirical studies, i.e., the weights of the indicators in a single integral indicator are different. In scoring, the weight of the selected indicators in the integral indicator is evenly distributed, and points are calculated on the basis of these indicators. It is divided into classes and divided into four types of points: [2]

1.Application scoring (English translation - "Scoring applications, applications") - This is the most common method of assessing the creditworthiness of customers. In doing so, the employee collects information about the customer, the program processes it and displays the result of the loan or denial;

2.Collection-scoring - Designed to work with outstanding loans. In practice, the program helps a financial institution employee to be notified of a non-performing loan and to work on financing the repaid loan.

3.Behavioral-scoring - this type allows you to properly assess the financial condition of the borrower. The employee can analyze the dynamics of the solvency provided by the client program and change the limit set for it.

4.Fraud scoring - this determines the likelihood of fraud by the client applying for a loan. Often these types of scores are used in conjunction with other analysis methods. This method is required due to the increase in cases of fraud related to non-repayment of loans.

Comparative analysis of some models in the system of financial analysis

### Table-1

Comparative analysis of some models in the financial analysis system

| Model<br>types                   | Advantages of the model   | Disadvantages   |  |  |
|----------------------------------|---|---|--|--|
| Method<br>of<br>coefficient<br>s | Has the ability to<br>comprehensively assess the<br>financial situation.  | It does not take into account<br>the statistics and quality<br>indicators of previous years. A<br>non-automated system requires<br>constant interpretation of<br>individual indicators. |  |  |
| Rating<br>model                  | Has the ability to<br>automate the method of<br>coefficients by calculating<br>the integral exponent. It<br>is characterized by<br>simplicity and ease of use | It does not take into account<br>last year's statistics. Only<br>financial indicators are taken<br>into account. Requires<br>performance in different<br>approaches for different.      |  |  |
| Scoring<br>models                | In the equivalent of<br>points, divided into<br>classes, it has the ability to<br>assess creditworthiness,<br>financial condition. Easy<br>and simple to use. | It is that it does not have a<br>universal description. The<br>need for a system of indicators<br>and reorganization of scores<br>for individual species                                |  |  |

The scoring model has several advantages over other assessment methods due to its objectivity (minimal human impact), high degree of automation (availability of large amounts of information processing in real time) and adaptability (ease of calculation in accordance with national and international financial reporting standards). has

Another positive feature of the scoring model is that the rating is calculated based on the results obtained and the object is divided into classes based on it (see Table 1).

In turn, the disadvantage of the Scoring model is that it does not have a universal description and the need to reorganize the system of indicators and scores for individual types.

The scoring system of value analysis includes the improvement of the standard lending mechanism of banks. Forecast indicators on the potential annual demand for real estate

sales, car loans and leasing services, professional participants in the real estate market, insurance and (providers of car loans, real estate and property services), the public sector to assess the value of objects in the mortgage and car loans services listed. From the traditional methods of value assessment, the possibility of saving services in the introduction of a scoring model, speeding up the valuation process has been proven.

Using scoring models, the probability of bankruptcy of enterprises is assessed. This, in turn, allows you to predict the level of viability of the enterprise in attracting long-term loans.

Despite some shortcomings of scoring valuation technology, it is widely used in Russian banks and is very effective for quickly studying a customer's credit history, determining their level of financial reliability and solvency. This gives the client an additional opportunity to quickly review his or her application and make a quick decision. Today, it is very important to answer customer questions correctly and provide the most accurate information. This, in turn, further increases the chances of the bank (organization) to make a positive decision on the loan.

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# WAYS AND STRATEGIES TO TEACH CHILDREN WITH INTELLECTUAL DISABILITIES

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Abstract. The explanation behind this article presented for educating for understudies with insightful insufficiencies in preparing. This article in like manner reacted to the request 'How to show a youth with insufficiencies'. Use legitimate techniques with learning weakened understudies.

Key words: intellectual disabilities, reading, education, teaching, school practices, learning disabilities, inclusive classroom, preschool period, participation, young children, qualitative research, hopelessness, disabled child, infrared, interactive.

Introduction: It is assessed that around 93 million youths live with a 'moderate and outrageous' insufficiency. Adolescents with insufficiencies are one of the most limited and socially banished get-togethers of all children routinely standing up to division and negative mindsets that prevent their ability to get to preparing. Children with handicaps are increasingly unwilling to go to class, and youngsters with failures are fundamentally bound to not go to class.

All youths need love, reassurance, and support, and for kids with learning failures, such elevating criticism can help ensure that they create with a strong sentiment of confidence, sureness, and the affirmation to prop up regardless, when things are exceptional.

In filtering for ways to deal with help kids with learning handicaps, review that you are scanning for ways to deal with help them with helping themselves. Your movement as a parent isn't to "fix" the learning handicap, yet to give your youth the social and excited instruments they need to work through troubles. As time goes on, standing up to and beating a test, for instance, a learning powerlessness can empower your child to turn out to be more grounded and more grounded.

Constantly remember that the way where you act and respond to challenges bigly influences your youth. A good aura won't deal with the issues related with a learning handicap, anyway it can give your adolescent desire and sureness that things can improve and that they will over the long haul succeed.

Tips for dealing with your adolescent's learning inadequacy. Keep things in setting. A learning handicap isn't ridiculous. Exhort yourself that everyone faces impediments. It's up to you as a parent to tell your child the best way to deal with those obstacles without getting dampened or overwhelmed. Do whatever it takes not to let the tests, school organization, and ceaseless work area work redirect you dependent on what's incredibly noteworthy-giving your youth a great deal of enthusiastic and great assistance. Become your own lord. Do your own assessment and remain educated concerning new headways in learning handicap undertakings, medicines, and educational techniques. You may be lured to look to others-teachers, pros, masters-for plans, especially from the beginning. In any case, you're the primary ace on your child, so accept accountability with respect to finding the instruments they need to learn. Be an advertiser for your adolescent. You may need to make some commotion on various events to get remarkable help for your child. Clutch your activity as a proactive parent and work on your social capacities. It may be bewildering once in a while, yet by remaining cool and reasonable,

yet firm, you can have a giant impact for your child. Review that your effect surpasses all others. Your child will follow your lead. In case you approach learning troubles with confidence, troublesome work, and a hilarious tendency, your child is likely going to get a handle on your perspective-or if nothing else consider the to be as an impediment, rather than a hindrance. Focus your essentialness on acknowledging what works for your child and completing it too as can be normal.

Each adolescent is exceptional, and each child can learn. Look past a child's insufficiency or mark, and become progressively familiar with her as a person. Watch children to discover what interests each one and to get considerations with respect to what may prod her. Talking and playing with youths gives noteworthy opportunities to building trusting seeing somebody. Set learning destinations, pick philosophies, and assess children's headway. Also, comparatively as you achieve for all children, have high-anyway sensiblewants for kids with inadequacies or developmental deferments.

While there are various frameworks to help kids with insufficiencies. Condition sort out the homeroom products so all adolescents-joining kids with visual or physical failures-can move and move around the room and learning centers without any other person. Guarantee materials are sufficiently close. Watch for homeroom wreckage and insecure ground surface (territory mats that move viably) that make the examination corridor space far off for specific children. Calendars the best timetables have a foreseen start, focus, and end. Use visual support, for instance, pictures or props, to show kids plans, help them with outstanding attracted, and help them in changing between different activities. Companions peers who don't have ineptitudes can show positive prosocial and social capacities and show customary timetables that little youths with insufficiencies can reflect. Partners can in like manner help kids with making social associations and addition their motivation to be a bit of homeroom works out. Upheaval administering noise in the examination lobby expect a noteworthy activity in both learning and lead. Boisterous homerooms impact an adolescent's ability to see logically complex language. Floor covers and other sound-immersing materials, like inside embellishments, considerable window hangings, felt, and seats with tennis balls on the base of metal legs, all help reduce study corridor uproar. Materials-adjusting materials in the investigation corridor can bigly influence opportunity. Add pencil handles to hued pencils and markers to make them more straightforward for youths with motor difficulties to hold. Adhering little handles to interconnecting pieces make them less complex to pick up. Create and open entryways for dislodged individual gatekeepers to share their shows.

Conclusion: Teaching aptitudes can be altogether incapacitating and may take a huge amount of time and industriousness. So before you start to show your child, it's a brilliant idea to consider what you're mentioning that your adolescent do. Kids with remarkable prerequisites should not go to an alternate school. They should have confidence in that they are customary and can achieve anything like others. By sending them to an alternate school, gatekeepers are endeavoring to degenerate their assurance and soul.

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## THE ROLE OF PEDAGOGICAL TECHNOLOGIES IN TEACHING

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Abstract: the article deals with the technologies in teaching process. Pedagogical technology is as an essential element of training students. In other word, pedagogical 56 technology is the innovative form of teaching, methods and tools help to improving the condition in educational process. To create new pedagogical technology is very difficult. One of the important part of improving teaching is to practice and working hardly. Teacher skills and key issues of pedagogical dtechnology. Article analyses the developing of classroom technology to get result in education.

Keywords: teacher, pedagogical, create, teaching, student, developing.

The report is aimed at the main problem with the learning in education is the process of teaching. Teachers work with their colleagues and participating in retraining courses, conferences the main aim is to find solutions to emerging challenges and to share their skills and teaching methods. It will give effect to formation of a younger generation. A comprehensive system of teaching has been developed day by day and at every stage of the continue improving in education process.

We have investigated that to elaborate subjects are comprehensive way to improve process because with authentic material, learner can practice with reading and speaking and it very efficient in teaching process, it will provide the future professionals for occupation. For example, students who specialize in economics need to be taught terms and terminology in the future as well as educated staff in their field of study. These terms should be enriched with dialogues and situations. That is why to use from pedagogical technologies demand very much attention from teacher. By the way, in developing the student's skills, it is necessary not only to create free communication, but also to learn key elements of subject that are used in the life-spheres. Of course, all students have not same ability to catch each details of topics. At the same time, the professor-teacher must find appropriate way to whole class, it is very common controversial topic for today, the innovative form of teaching, methods and tools helps to improving the condition in educational process, to develop communicate, creativity and advanced educational technologies is active keys of teachers.

In our study we have adopted that most traditional pedagogical technologies are characterized by specificity for example, a pen or pencil is for writing, chalkboard methods but in recently times, they are useless and old and serve only for wasting time. In this case teaching with technology are three core components, they are content, pedagogy and technology, plus the relationship among and between them. Nowadays, reforming and improving the continuous education system of country, which it has been on the path of independent development, it has led to a level of state policy that promotes the introduction of advanced pedagogical and information technologies, increasing the effectiveness of education.

We cannot imagine education without technologies and there are a lot of reasons to create new technologies. For example, the aim of accelerating and increasing the effectiveness of the teaching in developed countries, the organizational, scientific and methodological foundations of the system of continuous education have been created in each developing country. At present, many methodologists and pedagogues are intending to educate students that it is a guarantee of achievement of the goal. But that's it is impossible to accept the ideas, the technology doesn't key of successful education. Because pedagogical technologies are only way to help improving the process of teaching. Therefore, educational process of modern pedagogical technologies is purpose of teacher, who is the mentor or he or she will be the main guarantor of achievement.

The results of the study show that pedagogical technology is main tool of teaching processes. Teaching successfully with technology requires continually creating, maintaining and re-establishing.

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## A-LYA PRIMA METHOD OF STUDY ETUDE

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Once you have done a few sketches of the head step by step using coloring, it will not be so difficult for you to do etude in the a-lya prima method.

The A-lya prima method was common in nineteenth-century European and Russian art. In this way, vital, truly beautiful works of art are created. To work on an A-lya prima, you need an eye that has the experience to feel nature as a whole. It is necessary to be able to see the cases of integrity, interdependence, as well as contrast in the color image. Having mastered these things, the artist consciously works on the principle of color-image etude "from the general to the parts, from the parts to the general."

How to apply this principle in your own creative practice.Imagine you have amodel in front of you where you have to do a head etude. A light is falling on the human head from the front. There is a dark green fabric in the background. In such a place the shape of the head is clearly visible. The light was particularly strong on one side of the face, with the other half in the shade. The model is dressed in a dark, almost black dress. We emphasize the main part of his face: the cheeks, the shape is clear, the area around the chin is cold, the eyes, eyelids are deep, that is, in partial shade.So a little dull from the forehead light. The brightest spot is the illuminated part of the forehead and nose.

You followed the model closely. Now choose a place to work. Try not to work in profile (side) view. Because of the lack of experience in this view, you will have a hard time making an expression of bulge.

After drawing the image on the charcoal in the plane of the fabric, the excess lines are removed and fixed (reinforced) using a varnish.

The palette includes the preparation of the necessary paints, various brushes, thinners, rags and other work equipment.

It is best to start from the darkest places to achieve dark, vibrant colors. Find the color of the black dress in the palette and fearlessly put the necessary grease on the fabric. On a white fabric, it looks very dark, but the image falls into place after you work around it. This grease will serve as a "tuning fork" for you.

Using a "tuning fork", immediately find the shadow areas of the head and the background color in the palette and place them on the fabric. But let them maintain a state of slight transparency. After painting a few large areas of the shadow parts of the etude, you prepare a mixture in the palette for the illuminated part of the head. Once you have clearly found the shadow and background part of the head, the highlighted part should be put in place the selected colors for the forehead, cheeks, chin.

So, apply the grease in sequence: on the forehead, cheeks, half-shaded part of the nose, hair, background, and so on.

For the illuminated part of the head, prepare the dyes dark and leave them thick. As if making a relief of the head. If some greases do not fit in place, do not put other colors on them. The excess color is removed from the mastic and replaced with a new one. The result is a mosaic of large colors. While this mosaic is a bit rough, it accurately represents the color shape of the head in space.

Such mosaic quality work seems very rude to someone. As if unable to express the soft shape of the head. You will want to take a large brush and flatten the sharp-edged greases. If this is done, an error will be made. A well-started painting etude loses its artistic character and becomes an artificial 'sweet portrait'.

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The right way is to "build" the shape more finely, finding the intermediate shades between them without grinding the "mosaic". It is also processed by comparing the shapes of eyebrows, eyes, squash with the help of greases with a small brush.

It is good to keep in mind that it is wrong to work the eyes one first and then the other separately.

It would always be right to work them together. If a single grease is placed on the right lid, immediately paint the left side as well. It is necessary to ensure that the gaze is always the same in the eyes.

Try to find the color of the nose relative to the cheeks, forehead, chin. In men, the nose is usually darker than the face, cheeks, color. When coloring the nose, you can put a dark color grease with your finger, not with a brush. Blik (shola) is placed on top of the paint dries. But don't put the blade in pure white paint! It also has its own color and shade. Make the lips amuch softer "lip". There will never be aline between the lips. So when separating the upper and lower lip, depending on the shape, settle as lightly and gently as in nature. Thus, if you do the study from the largest color planes to the smallest shape, always paying attention to the point of view of color, relativity and integrity, you can achieve a complete, perfect shape and surface expression.

In paints that have not yet dried, it is convenient to shape the transition areas from one color to another. Even if the dark paint is coated with greases, it is possible to use this feature of the oil paint, which has not yet dried.

It is best to keep it in a cool, dark place after each session so that the dyes in the etude do not dry out too quickly. Unusual areas can be wiped off with arag, wiping off the mastic without leaving it for the next session. It will be interesting to work on the cleaned areas in the next session, finding the right color and shade.

After several studies have been performed in the A-lya prima method, it is clear that positive results will be obtained. In subsequent studies, it is possible to work the shape directly on a small brush, liquid umbra, or volkonskoit paints without the use of charcoal sticks. If dark, shady areas are marked with a cloth or cotton swab, the work efficiency will increase even more.

## EXAMINING THE ORIENTATION OF WOMEN IN THE FIELD OF PSYCHOSOCIAL SERVICE FOR THE FAMILY AND THE EMPIRICAL ANALYSIS OF PSYCHOLOGICAL QUALITIES

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Abstract. The main purpose of providing the family with psychological services is to preserve the strength of the family. At the same time, all members of the family, including spouses, mother-in-law and daughter-in-law, are not only concerned with the upbringing of children, but also to determine the place of women in the family.

Keywords: families, psychological service, orientation, recipients, housewives, spiritual maturity, important signs;

In this article, we explore the role of family housewives in providing psychological services to families. The role is seen directly both in people and in relationships as well. To solve the next task, we used the method of "Identification of personality", studied by V. Smyokol and M. Kuchera. This survey was attended by over 100 respondents. The family questionnaire consisted of 27 questions, the answers to each question were given three and the text of the test is given in the appendix. They are asked to answer each of them separately.

The proportion of respondents between the ages of 25 and 35 is 29.95%. This indicator show that the person is self-directed, that is, the relative attitudes towards happiness, childbearing and comfort. In the same direction, housewives aged 40-45 years showed a slightly different result that is 22%. It means that self-esteem is lower.

Family orientation of 25-35 year olds showed result 24%. Women of this age have a high desire for loneliness, peace of mind, peace, equality and family happiness. Women aged 40-45 years in this area showed 29% of the results. That means that they have a lot of aspirations, sympathy, support, satisfaction with their success, and empathy. Response rates were 28% for 23 to 35 year olds and in the category of 40-45 year olds showed 29 ball. There is a high level of focus on the activities of the housewives of both age groups that is the persistence, their commitment to the well-being of their children, the well-being of their families and their high responsibility.

From the results, it is clear that the orientation in women is more likely to be high at any age. This is mainly because the great work of women in the family formation, the way of life, in upbringing the younger generation, in the state, public and culture construction is praiseworthy. For example, the 51% of the population of our Republic consists of women, to accomplish the work in the field of agriculture 39%, in the field of healthcare 73%, in the field of public education 59% women are working.

Regardless of how a woman works, in any practice, women are admired. These positive qualities dictate the qualities of women.

From this point of view, we asked about the rankings of 10 of the traits that were typical of women and housewives.

| Women's traits | housewives' traits |  |
|----------------|--------------------|--|
| Polite         | cooking            |  |
| Sincerity      | devotion           |  |
| Kindness       | loyalty            |  |
| Sophistication | endurance          |  |
| Hard work      | saving             |  |

| Humility                         | creativity       |
|----------------------------------|------------------|
| Modesty                          | spiritual wealth |
| Hospice, hospitality             | hospitality      |
| Patience                         | kindness         |
| Sweet word of mouth              | sociability      |
| We had this even anion on in man |                  |

We had this experience in rural and urban women. More than 100 women participated in the experiment. The results showed the following results for both groups.

As you can see from this table, the results obtained are quite different. The difference is inevitable. This is because the differences in living conditions in both regions make a significant difference in the characteristics of women. Respondents in the urban areas ranked first on feminine qualities, while rural women indicated modesty.

Second place was given by urban respondents, while rural respondents indicated kindness. The reason for this is that the presence of indigenous people in the countryside compared to the city is very low in emigration and migration. Urban respondents ranked third, while respondents living in rural areas indicated diligence. In fact, it is possible to say that the urban population is poorer than the village, the low level of familiarity among the people, the greater number of nationalities in the city, the small differences in the dress of men and women, and the reason for the quality of fantasy. 65% of the population of the Republic lives in rural areas. The amenities here are slightly different from those in the city, and the rural women have a high regard for hard work. City residents ranked fourth with good quality, while rural respondents rated the quality of their imagination.

Fifth place was marked by urban respondents, while respondents from rural areas stated that they were sweet.

On the sixth place, respondents from the city noted poor quality, while respondents from the village noted the quality of delicacy.

In the seventh place, both urban and rural respondents ranked themselves as eccentric. This is one of the most important qualities that women possess. Our people say that the house of worship is an angelic house. If awoman is crude, she will be blessed at home.

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## USE OF THE CORPUS OF LANGUAGE IN MOTHER TONGUE EDUCATION - AS A FACTOR IN INCREASING EDUCATION EFFICIENCY

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Annotation. The article highlights some of the tasks that need to be done in this regard, as the establishment of the Uzbek language is an urgent task facing modern Uzbek linguistics. In particular, it emphasizes that the use of the language corpus in mother tongue lessons is an effective method.

Key words: method, using corpus in education, efficiency, searching system.

It is overlooked that the root of all the evils, crimes, wars, socio-political and environmental crises that are taking place around us today must be traced to the spirituality of the individual, and the solution of existing problems is embodied in this concept. In the reality where the concept of cosmopolitanism threatens our consciousness, the notion that spirituality and enlightenment are much more outdated and of the values of previous years has already taken shape. In fact, there is no doubt that the approach to development, not blindly to world standards, but in a way determined by our science and enlightenment, will yield better results than we expected.

Language is a phenomenon that develops with society. Paying attention to language, keeping abreast of the latest developments in world linguistics is a modern requirement. The essence of this work is to introduce the people to the world and to spread the essence of their policy to the world through language. Therefore, it is important to apply to our language areas that are evolving with the times. The development of corpus linguistics, which is new in our linguistics, provides a number of conveniences and benefits for language learners and linguists in the use of language.

The corpus of language and the science associated with it, that is, corpus linguistics, is a new trend that has entered the field of linguistics and language teaching in the late twentieth and early twenty-first centuries. The creation of the language corpus and the development of corpus linguistics is one of the most pressing issues in the field of linguistics and language teaching methods. Corpus linguistics is a branch of linguistics that deals with the development of text corpora. With the development of corpus linguistics, programs will be created that will allow AI to "understand, read, re-edit, and respond appropriately" to the Uzbek language (an urgent task for linguists and programmers). If the Uzbek language bridge is created, Google will create an Uzbek language search engine. Online translation (internet translation) or automatic translation software will be developed. This will increase the possibility of creating various electronic dictionaries of the Uzbek language and bring the language to the world stage.

In addition, the promotion of the national language - teaching it as a foreign language - is one of the most active propaganda activities in the world. Corpus linguistics also plays an important role in this regard. Because one of the problems in teaching a second (foreign) language today is the lack of adequate pedagogical text materials. As a result, language teachers have to spend a lot of time doing day-to-day work, such as preparing new materials that help motivate students. In this case, the problem can be solved using the methods of corpus linguistics. A corpus is a large, largely structured set of linguistic

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data in electronic form, with special electronic symbols, philologically comprehensive, and designed to solve specific linguistic problems.

In language education, corpus methods are also considered to be highly effective innovative methods incorporated into traditional teaching technologies. This method has aspects such as interdisciplinary communication, empirical adequacy, authenticity, flexibility, flexibility to specific tasks and objectives, the ability of students to acquire independent knowledge, the use of "invention" in education.

Foreign experience shows that with the advent of electronic language corporations, the opportunities to demonstrate the diversity of language and to study linguistic material have grown significantly.

If the search criteria are correctly indicated by the researcher or language teacher or language learner in the process of working with the corpus, the various characters listed above will be used directly to collect factual material, analyze it, and teach the lesson. simplifies and speeds up the process of performing a number of tasks, such as preparing material, checking the practical application of the learned language units.

The issue of variability of language units is very important in language teaching today. If linguistic variability is not taken into account in language teaching, that is, regional, social, professional, physiological, sexual, individual differentiation of language is not taken into account, the results of research or language teaching will not be objective. In this regard, the existence of a perfect body of language can be a ready source to keep in mind the variability in linguistics.

The practice of using corpus data as an empirical component of lecture courses, student projects is becoming commonplace in the world's leading higher education institutions. It was found that the corpus-based approach is the best way to study aspects such as historical, geographical and social variability of language, as well as changes in the language system. At the same time, there is a real opportunity to master the corpus methods of linguistic analysis, to understand their basic principles.

Nowadays, corpus linguistics is becoming more and more popular in the collection and analysis of practical (factual) material. This is a natural phenomenon in linguistics as a result of the rapid development of information technology.

The user of the corpus can independently study the authentic material entering the corpus and make assumptions about the essence of this or that language unit, its importance in speech formation, and its possibilities. The knowledge acquired by this inductive method is stored in the student's memory for a long time.

For example, a second language learner should explain the difference between two similar words, using existing corpus materials to instantly find 20-30 sentences involving the above words and use them in the context analysis process. Understands the semantic difference of similar words. Today, computerized education is moving away from the method of providing teaching materials and towards more creative methods.

For example, Carol Chapel points out that in the process of grammatical analysis, we involve the student in the analysis of the computer corpus, which in turn helps students acquire the skills of independent analysis, as well as how they themselves will learn grammar rules in the future. they realize that they need to be explained .

At a time when the issue of raising the culture of independent learning is relevant, it is very useful to carry out the above-mentioned tasks. Consequently, the user (student) will have the opportunity to find answers to specific questions, to see the real natural state of the language being studied, to prove its historical, geographical, social variability.

From the above, it can be concluded that the development of corpus linguistics as a network of computer linguistics is one of the most urgent areas. Creating and updating the electronic form of a language provides a great opportunity not only for language owners and researchers of the language, but also for foreigners studying it as a foreign language. This will increase the efficiency of the use of time, the transition to a new stage of education, as well as expand the opportunities to bring the language to the world stage. Also, in native language classes, students have the opportunity to develop practical language use skills using language corpora. One of the main tasks of development of speech in mother tongue is also occurred noticeably.

#### **ONLINE TUTORIALS: SUCCESSES AND CHALLENGES**

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Abstract. This scientific article is devoted to the achievements and challenges of organizing online courses in the distance learning process at all stages of education and reveals the main characteristics.

Keywords: online learning, synchronous, asynchronous, virtual classroom, visuals memory.

The best technology is the one whose results are obvious (BoqijonTokhliyev. Uzbekistan. Doctor of Philology, Professor)

As in all areas, the educational process is undergoing dramatic changes as a result of scientific and technological progress. For example, the distance learning process has been in great demand due to the pandemic that has occurred around the world today, which has led to the emergence and development of a new stage of education in world education. The online teaching process has spread to a wide audience.

There are synchronous and asynchronous learning processes in online learning, and these processes are very different from each other and complement each other. "When we say online synchronous, it means online or distance learning done in real time, asynchronous learning is done through online channels without real-time interaction". So, online synchronous teaching method includes video conferencing, teleconferencing, live lectures, telegram group teaching methods. We will analyze the successes and problems of these methods. Simultaneous learning is a process of communication between all participants in acertain virtual place, through acertain tool for acertain period of time. Due to the pandemic, strict quarantine measures were put in place in Uzbekistan at all levels of education: pre-school education, general secondary education, secondary special education, new requirements for higher education. As a result, distance learning processes began. The Ministry of Education has launched an online school system. It is organized not only for preschool education, but also for vocational colleges, academic lyceums and universities. From my personal experience, the followings were achieved in this process:

1.A student can connect with an educator from anywhere in the world via a computer or mobile device connected to the Internet (at home, on the street, in a shop, in the mountains, even when busy other work);

2. It saves travel expenses and time to get the necessary education (for example, in the city of Navoi, a fifth-grader can spend 6,000 sums on a taxi to go to school or 45-50 minutes on foot);

3.In addition to being able to get acquainted with a new lesson 24 hours a day, 7 days a week in virtual classrooms, there is also opportunity to review previous lessons, their analysis, mistakes and achievements of each student recorded by the teacher;

4. The student was able to ask questions and get quick answers to these questions, to exchange ideas freely with those in the virtual classrooms;

5.New psychological processes have given rise to new creative ideas;

6.Computer literacy has increased (processes that were not understood on the computer were researched and studied independently);

7.Before expressing one's opinion on a given task, the opinion of others was also read

and analyzed, resulting in a new personal idea;

8.Discriminatory factors such as age, appearance, dress, disability of the learner in the online environment almost disappeared, the main focus was on the content of the discussion and debate, the level of accuracy of the given answer and the person's response remained important (There is no embarrassment due to any defect in appearance, clothing, writing or voice, atmosphere is relaxed)

9.Any observer can be freely included in online lessons, for example, scientists, lesson observers, parents. Parental involvement, especially in small school classes, shows how much achild is interested in and how to treat achild. If scientists participate with their lectures, it will lead to an increase in interest in the field.

10. When the traditional method is abandoned, the student's visual memory increases, and when animation methods were used student's interest in the field rises.

In addition to these achievements, the following shortcomings can be noted:

1. First of all, there must be a device that can connect to the Internet;

2.You need to know how to use the device on the Internet; computer literacy is prerequisite

3.You must be online for a specified period of time

4.Some students may not receive the attention that is important to them

5. Non-verbal vocabulary (body language, gestures) cannot be used;

6.Impartiality may be lost while doing tasks: copying from someone, use of external source.

In conclusion, today the main requirement of education is the comprehensive improvement and formation of the online education system.

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# THE ECONOMIC COMPONENT OF PUBLIC-PRIVATE PARTNERSHIP IN EDUCATION SPHERE

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There are several significant expenditures of budget to develop infrastructure of social sphere, however analysis of budget expenses corrected on the rate of inflation allows to draw a conclusion on its steady reduction. At the same time, demand of high quality services is increased by population. The only possible way to solve this problem is to provide alternative sources, in particular, the use of the public-private partnership (PPP) for the creation and development of social infrastructure. The "social infrastructure" means a set of infrastructure facilities related to the sectors of health care, education, social protection of the population, culture, tourism, physical culture and sports. The "social sphere" implies to tourism, physical education and sport.

According to INDEM, people invested more money in education sphere than medical care. Most of them rotated unsystematically in the educational process and return of them was insignificant. As a result, public and private education were divided. Particularly, there was no public-private partnership in the field of education. The investment from private sector has not supported education sphere as it should have been. Therefore, in order to solve the main strategic task of professional education - the ability to respond in a proactive format to the future needs of an innovative economy - the cooperation of the business community and educational institutions, teamwork and unification of efforts of government and management, employers and educational institutions on the principles of public-private partnership is necessary. Without direct involvement of competencies and investments of the private sector is indispensable.

Therefore, the public-private partnership in education is not a craze, but a harsh necessity.Nowadays, world and domestic practice suggests that public-private partnership in the field of education is developing more and more intensively. The state and business are interested in this interaction in solving the most complex tasks in the socio-economic sphere. Especially, it is important in economic crisis conditions. The stats data shows that the number of applicants who want to be enrolled to universities are being increased twice in Uzbekistan.

The activity of PPP in education is regulated by a number of legislative acts. They define the basic principles of public-private partnership:

- equality in relation to the resources, investment in the public-private partnership program;

- equal responsibility of the state and business for project implementations;

- presence of equivalent levers of influence and control mechanisms on the part of business and the state over the implementation of the PPP program;

- effective use of resources invested by partners in the education system.

Currently, the public-private partnership in education is often limited to construct, repair buildings and structure educational institutions, implemented in the framework of public procurement. In the framework of public-private partnership, banks and professionals that developing infrastructure have been building and carried out reconstruction of educational facilities. At the same time, it is slowly developing in the field of services, including the management of buildings of educational institutions, the provision of material resources, equipment of educational institutions and etc.

There are two reasons for this. Firstly, there is no demand for the public-private

partnership from the state in the field of education and secondly, there are no offers from the private sector.

A major obstacle to the development of public-private partnership in education is the weak regulatory framework for this area, including financial mechanisms for regulating this activity. Legislation is still imperfect and does not comply with generally accepted foreign instruments that have proven their effectiveness. In it one can often find the ambiguity of formulations and basic concepts, the inconsistency of some legislative acts, there are no mechanisms for the implementation of laws and other legislative acts. Determining the essence of public-private partnership in education, it is necessary to consider the most important factors such as: stage of development market relations in this field, importance of education sphere, national peculiarities and etc. Peculiarities of educational activities are manifested, first of all, in the fulfillment of the following mandatory conditions: a) compliance with the priorities of the socio-economic policy of the state in the field of vocational education: ensuring quality education and its equal accessibility to all citizens of the Republic and fulfilling the entire volume of social objectives facing higher education institutions, timely and adequate satisfaction of the needs of society and the economy in highly skilled labor resources; b) consideration of each public-private partnership mechanism as a holistic project, which should be defined and recorded:

- goals and mechanisms of public-private partnership;

- order of formation and management of partnership activities;

- settlement of conflicts of interest;

- system of internal control and risk management;

- the procedure for the use of revenues and the distribution of expenses incurred as aresult of the implementation of public-private partnership.

Analyzing the above signs and features of public-private partnership in education, it is easy to see that its distinguishing feature is that with this type of state interactions in the face of its authorized bodies it does not exercise authority, but acts as a partner when achieving socially important goals together with business representatives. Therefore, it is impossible under the public-private partnership in education to "fit" anything, all forms of cooperation between business and educational institutions.

## METHODS OF TEACHING LITERARY MATERIAL AT ACADEMIC LYCEUMS ACCORDING TO THE PROGRAM

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Annotation: The article is devoted it from the teacher of literature a great methodical qualification on teaching Karakalpak poetry the types of lessons, the using og methods and lectures correctly in the academic lyceums. Among them, one of the most important issues is to trach students about poet's creative works through the methads of lectures and its types. One of the most importanat metodical problems in achieving students kkowledge, theoretical conceptions, practice is to teach materials of literary schemes in academic lyceums trough various tupes of lessons.

Key words: the process of the lessons, literature, specialist in literature, poetry, poem, character, creative work, style, method, writing, genres, language, training.

In pedagogy according to the teaching methodology, several scientific studies, educational and methodological textbooks have been published. These include monographs, dissertations, methodological works of C.Gronroos [1], S.Dalimov [2], K.Yuldashev [3], B. Tukhliev[4], A.Pakhratdinov [5], K.Yusupov [6]. An analysis of the research work of scientists of the countries of the Commonwealth of Independent States on the issue under research showed that in the studies of scientists S. Matzhanov, K.Khusanbaev, K.Yusupov along with the traditions of education and upbringing, the organization of new educational forms, attention is also paid to pedagogical thoughts.

Over the years of independence, came to the firm conclusion that in the country a new system of training teachers was developed, professional, spiritual and moral training of future teachers determines the quality and effectiveness of teaching in lifelong education. The development of curricula, programs, textbooks of teaching aids in accordance with the requirements of the state educational standard, teaching literature in accordance with the new curriculum and the requirements that the scientific, theoretical, aesthetic and methodological foundations of changes in literary education are facing before literary education through new technologies, ensure the effectiveness of practice at academic lyceums and obtaining deep scientific and practical knowledge, as well as studying the content of technology and the need to develop content.

A number of studies are being conducted around the world aimed at studying the development of educational thought, including in the following priority areas: determining the territorial and regional features of the development of pedagogical thought; development of historical and methodological principles and criteriafor determining the content of education; modeling of the historical path of development and prospects of training scientific and pedagogical personnel.

Consists of parts that pay attention to such methodological problems as forms of teaching Karakalpak literature and curricula for teaching Karakalpak literature at academic lyceums. All teachers are required the legal organization of the educational process, to have a creative attitude to each lesson. In order to draw up a curriculum, literary programs, educational standards in accordance with the requirements of the law, the main direction of the study was to achieve the improvement of the results and quality of education.

Analysis of works of art and requirements for them, discussion of the text, types of analysis and methods will be studied in the course of classes under the program intended

for academic lyceums. By analyzing the works of art, the students are explained the educational, moral, aesthetic, spiritual tasks of upbringing, that each people is strong in its high culture and spirituality. These program materials will be studied with the help of new types of classes: seminar, game, competition, test, conference and discussion. Teachers will need pedagogical and methodological abilities while teaching Karakalpak literature. Each lesson in literature should be held in connection with philosophy, linguistics, literary criticism, history, aesthetics, pedagogy and psychology. In the process of organizing training sessions as the main type, it is necessary to identify the tasks and problems of teaching. Similarly, when teaching Karakalpak literature, in order for the lesson to be of high quality and effective, the following methodological requirements must be preserved:

- the textbook of Karakalpak literature, intended for students, must comply with the state educational standard and program and provide students with a knowledge system;

-exact definition of goals and objectives, their methodological problems in accordance with the state educational standard and the teaching program and the need to preserve the educational, pedagogic and developing goals and their unity in the teaching of Karakalpak literature;

- the need to consider the education of students in the spirit of respect for human and national values, the implementation of the national idea and the idea of national independence in the teaching of Karakalpak literature; connecting the past of the people with the present day by teaching Karakalpak literature, it is necessary to form in the students' minds a sense of pride in their homeland and people.

Also, during classes it is necessary to observe an individual approach with each student, it is necessary to conduct individual work with capable, talented and poorly performing students, it is necessary to instill the habit of independent work, to independently acquire knowledge, to develop the consciousness and ability of students.

Teaching Karakalpak literature with the help of new educational lessons, conferences, disputes are considered the most important methodological task. We considered it necessary to dwell on the methodology of the conference. The methodologists reasonably determined the purpose and objectives of the conference: "A lesson-conference is one of the types of classes in and out of the lesson. We study the materials of the lesson-conference for the following purposes. It's necessary to have a concept of the material being conducted, a deep knowledge of scientific and theoretical materials, and the development of an understanding of the topic being studied. " There are few methodological opinions on this type of lesson. Therefore, attention is paid to the content of the lesson conference and the way they are taught, to the problem and the peculiarity of teaching the materials of the lesson conference presented in the program.

Conducting lessons increase interest in the lesson through the various types of activities given in the program. Also methodological suggestions and opinions on the conduct of the lesson are given, an exchange of views, the purpose and objectives of the lesson, the organization of the lesson, and ways to assess the knowledge of students in the lesson. Exchange of views lesson develops the ability of thinking, the opinions of students and increases interest in literature.

At secondary schools and academic lyceums there are features of the use of lesson forms. Firstly, at schools during the lesson it will be advisable to use such types of lessons as a blended lesson, a joint lesson, introducing students to a new educational lesson, an introduction lesson, a repetition lesson, and a game lesson. Secondly, you need to take under the guidance the age-specific features of students, the time of each lesson, and the principles of compiling materials from an easy level to a difficult one. Thirdly, at academic lyceums such types of lessons as a conference, an exchange of views lesson, a lecture, and a seminar increase the students' thinking ability and interest in the lesson. As a result, a spiritual, philosophical, aesthetic feeling and a sense of beauty are formed in the students' minds.

By analyzing works of art under this literature program, students can familiarize themselves with its ideological content, images, and genre qualities. Along with this, one must be guided by the main principles of the analysis of awork of art. Studying the topic, the idea of a work of art. The event described in it and what period they relate to, it is necessary to pay attention to the writer's view of the present.

It is necessary to study prose works in academic lyceums according to the number of hours allocated for the program, as well as to train students in prose works according to the following requirements:

-To educate students on prose works and develop their scientific thinking;

-To study the characteristic features of the period described in the prose work;

-To study the features and importance of the main images in prose works;

In the course of analysis of an artwork, students form such knowledge and skills as mastering the form and content of the work, determining the genre variety and the main problems posed in the work, knowledge of its plot, compositional elements, and world of images, artistic and ideological features. Studying by students of such works given in the program as "Akdarya" by K.Sultanov, "Amudarya boyinda" by J.Aymurzaev, "Dastan about Karakalpaks" by T.Kayipbergenov and Sh.Seyitov's novels are one of the necessary methodological tasks.Therefore, it is necessary to know the content and ideological orientation of the work, to determine its plot, to understand and fully reveal the characters of the heroes, to determine the portraits of the heroes, to know the landscape and art details, to determine the figurative world of the work of art, to reveal the composition of the work.

A methodological study was conducted on the organization and content of extracurricular activities in Karakalpak literature. It notes the need to study some literary materials in extracurricular activities due to the fact that studying the material in the program is not enough. On this issue, opinions are indicated on the methodological importance of the methods of organizing and conducting extracurricular activities to improve the knowledge and skills of students in the methodological studies and works of T.R. Niyazmatov, M. Mirkosimov, Safo Ochil.

Conducting extracurricular classes in literature makes it possible to consolidate the knowledge gained, to further develop the students' worldview. From this point of view, it will be correct to conduct extracurricular activities in accordance with the program, not limited to regular classes in literature. In terms of purpose and content, extracurricular work on Karakalpak literature is divided into several varieties.

The necessity of paying special attention to extracurricular activities while improving students' knowledge, while educating them with worthy citizens of the homeland is noted. Extracurricular activities at academic lyceums: circles, organization of shows, literary travels, literary magazines and newspapers, literary conferences develop spiritual qualities and interest in each student.During extracurricular activities, students should study folklore materials, the history of Karakalpak literature of the ancient period, Karakalpak literature of the 21st centuries.

Wall newspapers and magazines published in academic lyceums are considered to be a creative center that provides information about news in the community, literary news, and articles written by students on various topics, stories and poems.

If the organized corners of shows on Karakalpak literature increase the aesthetic feelings and research abilities of students, then wall newspapers and magazines form their ability to express their thoughts and creativity in writing. Defines the results of

experimental and practical work on Karakalpak literature conducted at academic lyceums as follows: were studied the possibilities of organizing experimental work, their analysis, and indicators of the level of effectiveness of their results were examined. The organization of experimental work on the basis of a certain order and program ensured their effectiveness. The program of experimental work defines the criteria, indicators and development methods, the results of the study of fiction during the lesson.

As the study showed, positive results in the implementation of the tasks were achieved by highlighting the communicative skills and abilities, and therefore, special attention was paid to ways of improving the culture of oral and written speech, the types of essays and assessment criteria. At the same time, the organization of systematic and focused work on improving the formation of key concepts and skills, such as building a definition in a given form, evaluating and maintaining one's own position, evaluating and fixing the position of the interlocutor, reaching a general conclusion remained as the most important reserve for the development and improvement of skills for analyzing literary text.

Research prospects are thought in creating a series of special educational tools that form linguistic and communicative competence and educational tasks.

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## **PROLIFERATION OF SHADOW EDUCATION IN THE WORLD**

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Abstract. This article describes the private tutoring phenomenon which is escalating rapidly all over the world. It discusses the reasons of its abnormal expansion globally and also raises the issue such as privatization of education in the form of private tutoring.

Key words: private tutoring, shadow education, supplementary tutoring, Confucian tradition, mainstream education, privatization, formal schooling, economic recession, decentralization of education;

Millions of children around the world are attending private supplementary tutoring and demand for it has increased in recent decades. Many people perceive it as a normal practice; however, it creates social inequity in society. Some people can provide private tutoring for their children, but for others it is extra spending.

Private tutoring t is also known as "shadow education" because it mimics the formal schooling process and its size and shape changes according to school mainstream (Bray, 2009). This metaphor was successfully employed by professor Bray in 1999 to give a proper explanation to the phenomenon where he noted that private tutoring is a hidden form of privatization education. Stevenson and Baker (1992) defined it as "a set of educational activities that occur outside formal schooling and are designed to enhance the student's formal school career" (p.1639). Later Bray and Lykens (2012) regarded it as a shadow of a sundial which can tell observer about the time, however, the shadow of education reflects the features and practices of the regular school system (p.1). The terms like "private tutoring", "private supplementary tutoring", "private tuition", and "shadow education" denote the same meaning only in some literatures these terms can have small variation.

In a few decades, shadow education turned into an industry and became a billiondollar business in some countries particularly in Japan, Hong Kong, Korea, and China. Its rapid proliferation throughout the continents: Africa, North America, Western and Southern Europe, Asia, has drawn considerable attention of scholars and led them to investigate its triggering factors. A number of scholarly studies describe the expanding nature of shadow education in East and South Asia indicating its strong connection with people tradition and culture.

According to Bray in East Asia, shadow education has a long root and it is connected to Confucian tradition which puts efforts on knowledge. On the other hand, in South Asia, particularly, in Sri Lanka, Bangladesh, India and Pakistan education has become a valuable asset for people, therefore, people's spending on private tutoring has increased considerably (Bray, 2009). In some European countries PT has been existed for decades, the highest rate was detected in Greece, Cyprus and Malta (Bray, 2015). As Bray et al. (2015) stated in Western Europe, North America and Australasia private tutoring is modest but recently has grown due to the increase of competition among schools. African countries are also affected by shadow education because of weak regulating system in education. Significant growth of private tutoring occurred in Latin America, particularly, in Argentina and Brazil and among Arab countries such as: in Egypt, Jordan, and United Arab Emirates (Bray at al., 2015, pp. 7-10).

There are various reasons that shadow education is expanding globally. Mori and Baker (2010) gave two reasons; firstly, because people's perception of education has changed due to increase of demand to knowledge. People began to value education more

than before and it shaped "schooled society"-who see its perspectives and well-being in education. Shadow education is expending across the world because the number of "schooled society" is increasing across the world (Mori and Baker, 2010, pp, 40-41). Another reason is, as Mori and Baker (2010) indicated private tutoring has become a private business; many companies and entrepreneurs established chain markets of private tutoring and started to advertise them similar to their products.

Bray (2009) claimed that the reason for the intercontinental expansion of shadow education closely related to economic, social and educational factors. In some countries, for example in Post-Soviet countries and Cambodia, teachers' low salary make them seek additional income, therefore, conducting private lessons can disperse their financial problems (Bray et al., 2015, p. 241). Despite economic factor, educational factors also impact on the growing nature of shadow education. One of them is dissatisfaction of parents with mainstream schooling. Other factors are to catch up with the school curricula and to do well in exams (Bray, 2009, p.39). There are also social factors such as others perception and attitude, for example, in Korea "if a kid is not very good and does not attend a private institute, people say the mother must be either crazy or poor" (Bray 2009, p.32). Most East Asian countries are influenced by cultural factors and it is dominated in Japan, China, Korea and Hong Kong. Following Confusion tradition, people believe that effort is the main determinant to achieve success.

In Central Asia and Eastern Europe, shadow education has expanded after political transition in 1990 after collapse of Soviet Union (Silova, 2009b). Newly independent countries (Tajikistan, Kazakhstan, Kyrgyzstan, Turkmenistan and Uzbekistan) started changing their policy in all sectors by moving to the market economy (Silova, 2009b). The most urgent step for those countries was to manage and modify their education system because recession in economics and insufficient budget allocation, particularly in Tajikistan and Kyrgyzstan, significantly reduced investment in education (Bray et al., 2015). Silova (2009b) claimed that due to the post-Soviet transformation process, Central Asian countries faced a bunch of issues and one of them was financing education. It was also noted by OSI (2002) that a dramatic decline of state expenditure reduced the quality of education. Demand for higher education was evolving but the quality of education in schools did not reach the international norms. The Soviet-Union examination system for higher education could not survive any longer as corruption in admission reached its highest level. Therefore, countries implemented a new examination system, which requested extra knowledge out of school program (Silova, 2009b). Hence, parents' dissatisfaction with mainstream schooling elevated and made them seek supplementary tutoring that can cover school curriculum. Where the government services decrease as a rule private sectors take advantage.

Furthermore, other factors such as delay of teachers' salary positively affected on PT growing nature because it became main income for teachers at that period (OSI, 2002; Silova, 2009b). Due to insufficient investment in education during the first decade of independence, Central Asian countries attempted to decentralise education and encourage schools to raise their own revenue (Silova, 2009b). One of the reforms was to establish a formal fee for PT in schools (Silova, 2009b). This reform built up an opportunity for many teachers, even for students of higher institutions or IELTS certificate holders, to open tutoring centres and to start their business as private entrepreneurs.

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## IN THE PSYCHOCORRECTION OF PARENT-CHILD RELATIONSHIPS FORMED TRADITIONS

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Abstract: The article discusses the traditions formed in the psychocorrection of parentchild relationships. The communicative approaches proposed by representatives of popular, various scientific schools in the psychocorrection of parent-child relationships are analyzed. Keywords: parent-child relationship, behavior, psychocorrection, group, training, psychological counseling.

A large part of the events that occur in the life of modern man and have a negative impact on his mental activity are associated with disorders in family relationships, according to their etiology. One of the distinctive features of the family as an institution of socialization is that no other institution can influence its harmful effects, which can lead to human mental development. Even in the ranking of the most common stressogenic factors compiled by Western scholars, whose family value has been interpreted more freely than in Eastern peoples in recent times, it is noteworthy that half of the top ten stressors are directly related to family life [2; 639-p.]. Regardless of the theoretical and methodological approaches of family researchers, they agree on one thing: the human child needs a safe, emotionally supportive, and at the same time self-active environment for development, which is naturally provided by the family.

In our opinion, it is the unconditional importance of the family in psychological and especially socio-psychological development, on the one hand, and its favorable environment for various destructive situations (conflicts, psychological traumas, emotional tensions), on the other hand, are central to family psychotherapy in modern psychological care causing it to occupy one of the seats.

An analysis of the literature on the problems of methodological support of psychotherapy of direct parent-child relationships shows that the communicative approach, group work prevails in psychotherapy courses focused on this area. Indeed, the group form of psychological work is becoming more and more entrenched not only in family psychotherapy, but also in the practice of psychological care in general, as it is more effective than individual form work in a number of situations. Adler was one of the first to apply this form of work in the practice of psychological assistance to parents in modern family psychotherapy in his consulting work. Drawing on his ideas about the disability complex, A. Adler aims to teach parents to respect the uniqueness, individuality and inviolability of the child during group work with parents. To this end, Adler goes through psychological training aimed at imparting to parents the need for self-confident support in their children, giving them as much freedom as possible, showing the inappropriateness of parental fear [5; 9-11-p].

Based on A. Adler's idea that man is a social being, and his behavior and basic desire to belong to a group, the tradition of organizing discussion groups from neighboring parents was founded by R. Dreykus. R. Dreykus's initiative is based on the idea that it can be helpful for parents to be aware of each other's experiences, to be able to ask others questions that interest them, and to get approval from the group. R. Dreykus In the parent training group, to improve their relationship with their children, the child's negative behavior is focused on one of four goals - demanding attention and comfort, demonstrating his dominance and overt disobedience, revenge, and emphasizing his own shortcomings

2

and weaknesses. based on the idea that it is necessary [5; 12-p.].

The model of group psychological counseling proposed by H. Jainott is based on the idea of developing the emotional sphere of parents by helping them to understand their true feelings, values and expectations. He considers it a priority to develop such qualities as training parents to strive to support the positive image of "I" in the child, to avoid personal negative assessments in its assessment, to try to be a initiator of cooperation in communication [5; 13-15-p].

T. Gordon's "Effective Parent Training" program is based on the idea of a humanistic approach to the upbringing of children and aims to teach parents to listen and understand their children [5, 16-p]. The task of the training is to provide parents with three basic skills - active listening, comprehension of what the child wants to say, the ability to express personal feelings in away that is understandable to the child and the principle of "we are both right", the party is defined as the development of negotiation skills in away that creates satisfaction. [3]. Research confirms that parents who participate in these trainings are able to easily change their parenting style, increase their level of mutual understanding with the child, and children develop the ability to solve personal problems independently.

All training sessions based on the different types of group activities described above combine a number of common principles: group discussion, discussion, common theme - organized around the problems of children and parents' relationship with them, all members of the group express themselves freely in the discussion will have the right [6]. We appreciate the effectiveness of a work method based on such principles, based on the traditions of humanistic psychology, from the point of view of our authorship. Indeed, we strongly believe that by teaching parents to listen to their children, not to be indifferent to their feelings, to accept the principles of humanity, openness and sincerity as the highest values, it is possible to increase the level of constructiveness in the parent-child relationship.

In our view, the limited possibilities of a communicative approach to the psychocorrection of "parent-child" relationships can be filled by encouraging cognitive activities aimed at broadening perceptions of the child by teaching him to decentralize his relationship with the child. Our conclusion is based on the results of anumber of scientific studies, according to which the main mechanisms in the technology of psychocorrection of parent-child relationships are projection, identification and reflection, that is, the processes associated with self-placement [4]. During socio-psychological trainings, it was found that people who are moderate in the processes of concentration and decentralization are more likely to expand their perceptions of themselves and reduce the perception of someone as a difficult interlocutor [1]. Accordingly, in our opinion, helping a parent to understand the perceptions formed in the child about various things in the world and, above all, about himself can be one of the effective ways to further strengthen the positive emotional background in the relationship with the child. Because in this way, firstly, the level of parental understanding of the child increases, not only the level of need to understand, secondly, changes in parents occur not only in external practical behavior, but primarily at the level of imagination, and thirdly, the parent self-child learns to critique with his eyes, to be open to learning anything more. In our view, these changes will ultimately increase the level of constructiveness in the parent-child relationship, reaching alevel that provides emotional satisfaction to both parties.

The methodology, which we currently recommend to be used as a complement to widely and deeply scientifically based advanced approaches, has been implemented in the "Maternal and Adolescent Child Psychocorrection Program" developed as part of our research. This methodological solution not only covers a number of advanced aspects of the traditions formed in psychology in this field, but also has its own original aspects. Of course, with any mentally healthy person, it is natural to look at it from a different perspective, to encourage what seems normal to be an unusually attentive approach to events, to make some changes in the system of his personality and attitude. However, for these changes to be effectively managed with external artificial intervention, the practical work must have a clear general idea and integrated execution technology.

The following conclusions can be drawn from the issues discussed.

1. The field of psychocorrection of parent-child relations has a number of relatively general principles and traditions, despite the fact that it is undergoing evolutionary changes.

2. There are various forms of practical psychological work with the participation of parents to help solve problems in relationships with children, among which group training is especially popular.

3.In the practical psychological work with parents in a group form, a specific communicative approach is preferred, in which the main focus is on the development of constructive communication skills in the training participants.

4. The limited possibilities of the popular communicative approach in the psychocorrection of parent-child relationships can be supplemented through training aimed at developing the ability to decentralize.

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## PROSPECTS FOR TEACHING THE CONCEPT OF MS WORD TEXT PROCESSOR ON THE BASIS OF INSERT TECHNOLOGY

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Abstract. This article explores the topic in depth through the method used to increase students' creativity in the educational process, and the issues of making it visually understandable and interesting for students to visualize all its parts

Keywords: word processor, text processing, text editing, method, technology, software

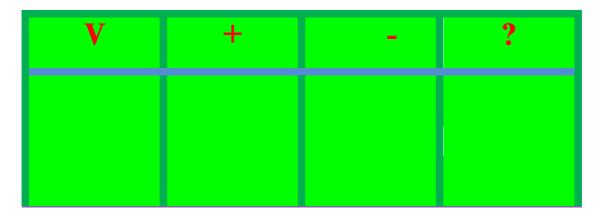
Today, modern methods are widely used to further improve the quality of education. Such methods are interesting and convenient for students and independent learners, and most importantly, the result is guaranteed. It is a very convenient and effective solution to cover the same topic in the educational process or to work as a group or individually for independent learners. The organization of the learning process has become a requirement of the present day. That is why many modern methods are used in the educational process. One of such technologies is the "Insert" technology.

Stages of implementation of Inser technology

Step 1. Give students an initial understanding of INSERT technology by dividing them into groups and dividing the topic into parts.

Step 2. Give a group of students a table like the one in Table 1 to explain and give an example of how to complete it.

Table 1



(V)- I know; (-) - It didn't work; (+) -new information; (?) - I do not understand Step 3. Students study the topic independently and begin to fill in the INSERT table based on what they have learned.

Step 4. First they write what they know about the topic in the column (V) on the basis of a logical sequence, then in the column (+) they write the new knowledge about the topic, in the column (-) there is a gap in the topic. They wrote down the sides, (?) in the column marked the information that they did not understand and caused misunderstanding on the topic, and at the end a general conclusion is made.

An example of a table for studying the topic of MS Word word processor using insert technology can be as follows

| V  | +   | -  | ?  |
|--|---|--|--|
| I knew about the<br>word program<br>from school<br>textbooks. I also<br>knew about<br>WordPad from<br>school and college<br>textbooks from<br>Word and other<br>types of other text<br>editors | I learned<br>about the<br>new features<br>of MS Word.<br>I looked at<br>its<br>opportunities,<br>which are<br>improving<br>every year | In order to work<br>perfectly in Word, you<br>need to know English,<br>Russian or other<br>languages, otherwise it<br>will lead to<br>misunderstandings. I<br>did not like the fact<br>that it does not have a<br>sample in Uzbek. | I'm<br>interested<br>in what<br>Word will<br>have in the<br>future and<br>what the<br>latest<br>features<br>are. |

At the end of the technology, all the ideas are summarized and the group that can come up with the best ideas is encouraged

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## EDUCATIONAL OF LEARNING LESSONS IMPORTANCE AND FUNCTIONS

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Abstract: In the classroom reading lessons, educational tasks are solved in a complex way, about the environment around children, as well as the formation of positive moral qualities of students, they develop mentally and aesthetically, independently. learn the basics of learning. The analysis of the leak book confirms our opinion. The content and methodological materials of these books (assignments and questions for text analysis, system of independent work, etc.) are interrelated. In order to carry out educational tasks together, it is important not only to read the text in reading lessons, but also how to work on the text.

Keywords: Homeland is not only land, water, forest, cotton fields, mountains, but, first of all, adding wealth to the wealth of the people with a little work, creating a happy, free life.

The knowledge of the people of our Motherland on the theme of the works included in the flowing books is deepened as students move from class to class. The homeland, its glorious eighties and heroism are now in the leaking books. The teacher told the students that the homeland is not only the land, water, forest, cotton fields, mountains, but also, first of all, people who add wealth to the nation with a little work, create a happy, free life, protect their homeland from enemies. understand. A prerequisite for combining the educational function of reading lessons in the classroom is the teacher's instruction to teach students to appreciate the social nature of a work of art during the comprehension and analysis of a work of art or popular science article. "Psychologist ANLeontyev: It is not enough not only to memorize and understand the word, but also to know the idea and feeling in it; this idea, this feeling should help to determine the inner world of the person. So, the main thing is that the thought and knowledge we give , let the feeling we have nurtured in the child belong to the person we have awakened in him, - he emphasizes.

The most important thing for a teacher is that the child understands that the less knowledge he receives, the emotion that is formed in him is necessary and important in life. Leakage lessons have a special place here.

The purpose of leakage lessons in the classroom:

1.Improving reading skills. Good flowing qualities in students: formation of correct, fast, conscious, expressive flowing skills.

2.To instill in children a love for books, to teach them to use books, to get the necessary knowledge from them, that is, to cultivate book-loving, thoughtful, thoughtful readers who know how to work with books.

3.Expansion and deepening of students' knowledge of the environment, the formation of elements of the scientific worldview.

4. Educate students morally, aesthetically and in the spirit of love for work.

6.Formation of elements of literary imagination.

There is a clear way to accomplish each task, but one task is interrelated with the other in the course of leak lessons and extracurricular activities. The qualities of a good flowing skill are the correct, conscious, expressive flow of the skill; Improving the quality of flow and improving their skills means improving the formation of good reading skills in students. Leakage qualities are interrelated, and conscious leakage is key; if the reader reads fast and does not comprehend, neither he nor others will understand the content of the text; the right flow also serves the conscious flow; correct, rapid, and conscious flow is the basis of expressive flow.

Good fluency is an important condition for successful fluency in all subjects taught in school. Leakage is a major type of activity that engages students in ideologicalpolitical, mental, aesthetic, and speech; creates a great opportunity for development in terms of These underscore the need for regular and purposeful work on raising and improving leak skills.

True flow means flow without error, that is, the sound flow of the word. without distorting the grammatical forms, without dropping any sound or syllable in the syllable, without adding extra syllables or syllables, without changing the position of the letters, pronouncing the syllable correctly and emphasizing the syllable. Elementary school students make mistakes in reading because they do not have a thorough synthesis of pronunciation and comprehension of the text.

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# THE IMPORTANCE OF NEW TEACHING METHODS IN SECONDARY SCHOOLS

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Abstract: It is obvious that the twenty first century is an era of technics and technologies. Now it is a requirement for every modern teacher to teach their students using various teaching tools and modern methods. Applying modern teaching methods is a key to delivery efficient classes and a way to make learning easier.

Key words : active participation, ability to hold discussions, role playing, solving problems within a group, develop creativity and reasoning skills.

The importance of modern teaching methods to bring up knowledgeable, highly intellectual young generation: to effectively apply to modern teaching methods plays a key role in meeting objectives like increasing pupils' ability to discuss the theme being taught, think independently, be able to work in pairs and groups be actively engaged in group discussions, role playing, to think about ways to find solutions to problems in groups, develop creativity and reasoning skills as well as a way to introduce innovations. The main objective of today's education system is to approach towards methods that help to grab the attention of the whole class , increase their interest in the subject , encourage students to come up with new ideas as well as how to avoid boredom. Therefore implementing teaching techniques that does not cause learning difficulties but instead inspire the class towards further studies requires the teachers qualification, a set of skill and investigation. Pointing out the role of these methods to increase the efficiency of your lessons, below I am going to suggest a few of them that I found really helpful during my teaching experience.

"Who is that? What is this?" method.

This is an illustrative method and it enables pupils to think independently, generalize the learning outcomes and express them successfully and provides active class participation. A teacher can usually utilize this method in order to identify the levels of students. In this process pupils will be given a chance to quickly respond the questions, demonstrate their range of vocabulary as well as turn to their political and scientific background knowledge.

To be able to apply this method during class a teacher should prepare illustrations and posters relevant to the topic and predict and evaluate the students' current levels. It can be used both in primary and secondary classes with the suitable content and create a good environment and memorable learning experiences.

In math classes, the teacher can make use of this method to introduce class with the authors of the schoolbook(Who is that?) or to explain the relation between Al - Khrazmi and numbers or number zero.

In classes about natural world the teacher can connect the names of people with different items in nature like making students familiar with the farmers as a person who grow plants crops, fruit or vegetables.

While teaching chemistry in high schools a famous scholar, Russian scientist Mendeleev can be linked to discoveries in chemistry like the invention of the periodic table of chemical elements. In physics we heard about a famous story about Newton (Who is that?) and the story about an apple falling on his head (what is this) which was resulted in the finding of the theory of terrestrial gravity. And all of these new concepts would be easily comprehended by students as long as the instructions and explanations are sent

through the right method.

To conclude, explaining new and complex notions with the help of illustrations using the right method willing help students to create mental images of these concepts and retain information longer. So modern teaching staff should be fully equipped with the latest teaching tools and be aware of highly effective teaching methods and strategies to accomplish a great mission on their shoulders and churn out well-educated, intelligent youngsters.

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## CULTURAL TOURISM AS A FACTOR OF DEVELOPMENT OF SOCIAL AND CULTURAL COMPETENCES OF STUDENTS IN TOURIST ACTIVITY.

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Abstract: This article describes the content and essence of cultural tourism, prospects for the development of cultural tourism in Uzbekistan, the positive impact of tourism on youth education, the development of student tourism culture, as well as opportunities for cultural tourism in Uzbekistan.

Keywords: Key words: Tourism, tourist culture, cultural heritage, domestic tourism. Introduction.

Uzbekistan, on the way of strategic development, pays great attention not only to the economic, political and legal reforms, but also to the social life, culture and enlightenment of the people. The cultural heritage of Uzbekistan is invaluable in upbringing the sense of national pride, patriotism, devotion and humanism of contemporary generation. Introducing cultural wealth to the world public, attracting tourists, to reach it to the youth' consciousness, and get them acquainted with the holy pilgrimages.

Cultural tourism is more developed than other types of tourism in Uzbekistan. The development of cultural tourism is more profitable, since other types of tourism are more difficult to reach in the near future In Uzbekistan. The yield is higher in the provinces that offer cultural tourism than the regions offering recreational tourism,. Recreational tourism is a popular form of tourism for many countries. Tourists usually travel to Spain, Italy, France, and Austria for leisure. Leisure travel is diverse and includes entertaining programs (theater, cinema, festivals, etc.), hobbies (hunting, fishing, music, art, etc.). It may also include ethnic tours related to the study of the national culture of the host country.[1]

People are interested in tourism at their early ages. For instance, young people in Uzbekistan travel to nearby cultural sites and health resorts with friends, classmates or parents.During the tourist trips to the mountains, young people will be able to exercise in the field, improve their physical condition, and develop their knowledge and skills. In the course of these tourist activities, adults will be able to strengthen their work skills and provide cultural time-out.

- Tourism is driven by the desire to discover new sites, to look for changes in the environment and to experience impressions, and this term was originally come from French. Tourism mainly involves the entertaining activities of people. In addition, tourism includes meeting with old friends and get relaxation during such trips. Tourism plays an important role in educating the younger generation and its impact on the youth mentality should not be forgotten:

- Tourism contributes to upbringing the youth with the patriotic sense! Anyone who travels in his or her own country learns what natural and cultural resources his country owns;

- People are proud of their homeland, realizing its historical cultural heritage.

The travel will strengthen the young people, develop their world-outlook, prepare them for independent life, strengthen their love for the country, and prepare them both physically and mentally for the protection of their country.[2]

At the beginning of the 20th entury, the "Traveling Students" movement was emerged in countries such as Germany, Denmark and Belgium. Its charter emphasizes the need for heavy-duty travel to educate the younger generation. Taking into account the political situation of the time, the purpose was to train young people to train their future soldiers by teaching them tourist exercises.

The World Tourism Organization later established in 1967, issued the following slogan:

"Tourism is a global way of providing effective meetings and dialogues between members of various faiths and religions, atheists, and people who are interested in learning about religion."[3]

So, the tourism promotes human values. Therefore, it should be considered not only in physiology, but also as a factor of recreational recovery in the development of the individual and his or her dignity.

Tourism is not only an activity associated with everyday life, recreation and leisure, but also a symbol of the unity of people and the environment. Article 21 of the WTO Declaration signed in Manila emphasizes that psychological factors in tourism must be prioritized over technical and material factors. These factors include: unlimited expansion(from Latin expand, spread), education, superiority of human dignity, recognition of each culture's uniqueness, and preservation of the psychological characteristics and mentality of peoples.

Cultural tourism refers to the activities of tourists interested in the culture, history, ethnography, archeology, folklore, and lifestyle of other peoples. During cultural tourism, people travel to local theaters, national art and folk arts venues to gain a deeper understanding of the cultures of different nations. Even some tourists do not refuse to visit the homes of the locals, which is considered the best way to get acquainted with the culture of the resident.

By the specialists of 'Uz-tour-service' Republican Foreign Trade Economic Unitary Enterprise, established in September, 2000 by the National Company 'Uzbek-tourism' it was noted that the main purpose of tourists is to get acquainted with the world, to get acquainted with the history and culture of the peoples of the world, to further strengthen the ties. According to these experts, the purpose of tourism is to study the world culture; to get acquainted with human values and architectural monuments created in different regions, to be inspired by the man-made miracles; comparative study of cultures of different peoples; visiting sacred places of worship, performing human duty; and further develop and strengthen cultural and educational ties between people through it.

Cultural tourism lovers are interested in the population of tourist destinations, history (archeology, ethnography, and local history), living conditions and national crafts. However, no matter how strong their desire to get to know the local life, these tourists may likely to abandon their hope, iftravelling cause discomfort, difficulty or danger for them. While some of the cultural tourists like to travel in groups of other tourists like themselves, others prefer solo or smaller groups. Some tourists make their own decisions about planning their own journey, such as where to go and how long to stay there. They may also obtain a temporary interpreter from the local community. Some other tourists entrust their travel arrangements to tour administrators.

In short, cultural tourism introduces students to the cultural monuments of the nation and increases their interest in learning about other peoples' cultures.

Materials and methods

In order to travel, there must be tourism resources first. There are a lot of resources that can be used to promote cultural tourism in Uzbekistan. For example, there are over

4000 architectural monuments in the Republic. Most of the monuments offered to tourists are of the 12thand 20thcenturies. The students may be invited to visit the ancient cities of Samarkand, Bukhara, Khiva and the Nurata mountain range. As well as, the results of archeological excavations in many ancient cities, familiarity with the unique animals in our nature reserves can make a great impression on cultural tourism lovers.

Secondly, the resources for the development of cultural tourism (like other types of tourism) are not sufficient. In other words, the local tourism infrastructure must be well developed. In order to develop tourism infrastructure, Uzbekistan Airways has become the best airline in Central Asia to develop touristic infrastructure; the service on the route Tashkent - Bukhara has been improved, the high-speed train Tashkent - Samarkand has been launched, besides, the Navoi - Karakalpakstan railroad has been built, and soon the railroad from Karakalpakstan to Khorezm through the Amu Darya is built. The bridge was built and commissioned. Also, a number of new modern hotels have been built and many airports modernized in Tashkent, Samarkand, Khorezm and other regions.

Thirdly, it is necessary to train specialists who will pursue the right marketing policy for promotion of cultural tourism products of Uzbekistan in the international and domestic tourism markets. Since, in the case of intense competition, finding and working with consumers who are interested in our products to attract tourists to our country can only be achieved by a well-known marketing expert who knows the tourism industry well. In order to solve this problem, the Faculty of International Tourism was established at the Tashkent State Economic University, where qualified specialists for the tourism industry are trained.

Conclusion

In conclusion, one of the most important tasks of today is to develop the tourism culture of the students, to conduct scientific research in this area, to use innovative pedagogical technologies in the educational environment, to develop positive attitudes towards the preservation of our cultural heritage.

It is clear from the foregoing that Uzbekistan has the potential for further development of cultural tourism and its development will promote international relations. The development of international relations brings our people closer to other nations, enhances cooperation among them, and increases the foreign investment and the touristic culture of the youth. Develops socio-cultural competencies of students in tourism, enhances the tourist culture

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# IMPLEMENTING INTERNATIONAL EDUCATIONAL SYSTEMS IN UZBEKISTAN, NAMELY IB MENTIONED.

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Abstract: Aforementioned article theme constitutes acknowledgement of IB mission statement, its historical perspectives, informations about curriculum, concepts and its acceleration trans disciplinary skills of preschool, primary and middle school children in diverse ages. Fulfilling IB PYP and MYP in internal schools with the aim of realization play based learning and rising global citizens for our country.

Key words: of schools, aiming to create a better, more peaceful world

The concept of "Development of the system of public education until 2030" was approved by the Presidential Decree No. PF-5712 of April 29, 2019 in the system of public education of the Republic of Uzbekistan. The concept identifies retraining and retraining of system leaders and teachers as a sustainable direction. With this in mind, the article provides information on the IB education system, which has been endorsed by educational associations around the world and has been in use for many years. The International Baccalaureate Organization (known as the IB) offers four high-quality and challenging educational programmes for a worldwide community of schools, aiming to create a better, more peaceful world. In curriculum framework the Aim of the IB PYP to create a curriculum that is engaging, relevant, challenging and significant, is achieving through structured inquiry and the development of five essential elements: knowledge, concepts, skills, attitudes and action. In educational research while the PYP acknowledges the importance of traditional subject areas ( language, mathematics, social studies, science, personal, social-physical education and arts), it also recognizes the importance of acquiring a set of skills in context and of exploring context which transcends the boundaries of the traditional subject and relevance for students concept.

The aim of all IB programmes is to develop internationally minded people who, recognizing their common humanity and shared guardianship of the planet, help to create a better and more peaceful world with following profile :

As IB learners we strive to be and rise -

- " Inquirers
- " Knowledgeable
- " Thinkers
- " Communicators
- " Principled
- " Open-minded
- " Caring
- " Risk takers
- " Balanced
- " Reflective candidates

The IB learner pro?le represents 10 attributes valued by IB World Schools. Surely these attributes, and others like them, can help individuals and groups become responsible members of local, national and global communities. As well as, using different approaches to learning in early years and how teachers support skills development by thinking skills, research skills, communication skills, and social skills. The role of the teacher

In the PYP early years, teachers take on many roles and identities, including:

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July | 2020

- facilitator
- researcher
- participant-o provocateur
- navigator
- observer
- documenter
- reflective practitioner.

Through these flexible lenses teachers plan, facilitate and scaffold, as well as reflecting on students' learning and their own teaching. Teachers carefully balance the planning and documenting of the learning and progress of the group by monitoring and responding to the learning development of individuals. PYP early years teachers create stimulating learning spaces, listen deeply to students and craft exciting avenues for inquiry. They ensure a balance between listening to individuals, shaping shared investigations and ensuring overall intentions for learning. Using a repertoire of strategies, tools and understandings, teachers work closely with students to co-construct inquiries and reflect regularly on their practice. Teachers also support children in developing social-emotional competence because this connects to children's emotional well-being and their ability to adapt in new environments and to form successful relationships throughout life.

Mixing and fulfilling this type of international level educational systems will undoubtedly broaden and accelerate our education institutions, and create valuable candidates.

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## PHILOLOGICAL SCIENCES

## THE IMPORTANCE OF LEARNING FOREIGN LANGUAGES

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Abstract. In this article I gave information about the importance of leraning foreign languages and its features.

Key words: foreign language, speaking, learning, linguistics

Knowing a foreign language has evolved to be extremely useful. Being able to communicate in a foreign language helps to make real connection with people and provides a better understanding of this language. Learning a foreign language opens up employment opportunities. For business, it is essential to develop and sustain a strong footing in the global economy. Most companies therefore, look for candidates with foreign language skills. Apart from the financial gains leaning a foreign language can offer a unique experience to travelers. People, who love to explore different parts of the world, know about diverse cultures, places and lifestyle, knowing the local language can offer a life changing experience. We can easily find the places, ask for directions and even order food.

Speaking foreign language gives us a better understanding of the country's culture. We can interact with people more freely providing a greater scope of meeting new people, making new friends. Another reason why we should learn a foreign language enhances our analytical abilities. Learning a foreign language involves a lot of mental exercises. On the individual level, it improves personality and increases our sense self-worth. The need of language faculties has increased due to the growing interest of students to learn any foreign language. The ability to speak in a foreign language enables us to communicate and serve people better. Whether we learn a foreign language will lead to long-term success. It will open up new opportunities. The more language we know, the better we can express our ideas.

Learning a foreign language is such a key aspect to setting up children for success in their future professional endeavors that high school across the nation and in almost every country requires at least two years of a foreign language. Most institutions offer opportunities to learn a foreign language at even earlier ages. In recent years, psychologists such as Agnes Kovacs have studied the intelligence and mental capacity of young bilingual children in comparison to monolingual children. Furthermore, by studying foreign languages at young age, parents put their children miles ahead of future competitors.

Learning to communicate clearly in multiple languages provides additional job security and advancement opportunities in uncertain economic times.

In order to prepare our nation's children to be the next generation of future entrepreneurs, doctors, scientists, engineers or whatever influential job they choose, we must foster an environment from a young age that promotes learning. Though this we are setting up ourselves. Therefore, it is up to us to create a warm, comfortable environment in which our children learn to build the foundation for their communication abilities in the future. I have always been interested in learning foreign languages. Our language is the most important part of our life. I think it is important to learn other languages, other forms of communication besides our own because it helps us to learn about other people and cultures. We will learn the second language in exciting new ways, using new technologies and focusing on communication. Learning a foreign language is not just learning grammar and vocabulary, it is learning new words, sounds and expressions. Learning several foreign languages is not difficult as some of them are somehow similar, so people do not have to waste their time and effort. Knowing the second language seeks out opportunities to use it in native country or abroad. More and more structures work closely with companies of other countries. They need many different kinds of workers who can communicate in different languages and understand other cultures.

No matter what career we choose, if we have learned a foreign language we would have a real advantage. A technician who knows English or German, the head of company who knows Japanese or Spanish, or a salesman who knows French or Chinese can work successfully with many more people and in many more places than someone who knows only one language. In conclusion, most people in the world are multilingual and everybody could be; no one is rigorously excluded from another language community except through lack of wish and effort.

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## LEARNING STYLES IN ENGLISH LANGUAGE

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Abstract. This article describes different language learning styles, that is various ways of processing information. There is a variety of classifications for them but here is a generalized version of the most common one. There are no learners that are not able to learn - there are either ones that haven't got into the right learning setting, or this kind of setting was not provided for them. Language learning becomes way more efficient if students' language learning styles are taken into consideration.

Keywords: learning styles, journalistic style, oratorical style, styles English, information, interactive, method, techniques, effective lesson, teaching methods;

The scope of human activities is extensive. Perhaps that is why the new field of knowledge is inexhaustible. Ever since man was faced with the need to communicate, he concluded that in all situations the usual way of communicating to him, or rather, what he says (language tools), can fully convey the desired information to the recipient. Since that time, we can talk about the appearance of speech styles. From a historical point of view, to indicate the exact date, we cannot, because even prehistoric man in his speech tried a completely different words (or sounds) when dealing with the family and with the head of the tribe, if he really was reasonable at the time.

Style - is the choice of linguistic means by which you want to convey information. The choice of style depends on the scope of rights and the ultimate goal of informative messages.

Learning Styles in English study science, which is called "Stylistics". Styles of English varied. Those or other styles, as well as the need to use them, arose with the development of mankind, or rather, with the spheres of its activity.

Newspaper style (a kind of journalistic style). The purpose of the newspaper style - to inform the reader. In the English - language newspaper style of English, referred to as a newspaper style, does not contain the author's assessment. He is represented in news reports, informational purposes only. Copyright assessment contains articles commentators, editorial columns. These materials contain a subjective point of view. For English language newspaper style characterized by the use of political and economic terms, as well as newspaper cliche, abbreviations and neologisms.

Scientific style. Scientific style of English for professionals with relevant expertise. In connection with the foregoing, the transfer must be made with the conventional system of translation of technical texts (link to the article about the technical texts). The syntax must be coherent and stereotyped. Each paragraph in the text begins with a key proposal carrying the main idea.

Oratorical style (option journalistic style). Styles of English language study and suggests a monologue, a notable example of which is the oratorical style. The main purpose of this style - check correctness of the provisions put forward. Stylistic feature is the use of all kinds of repeats.

Conversational style. This style originated in the English language - based speech. This style is characterized by speech compression, truncated form (is not, will not), abbreviations (ad, PC).

Officially - business style. This is the style of official documents and correspondence.

Using this style allows you to ensure clarity of information. The stylistic character - an abundance of cliches and stereotypical cliches.

Artistic style. This style of English used in the literature. Unlike newspaper style, the art style is intended to express the thoughts and feelings of the author. Characterized imagery, emotionality. Using this style of various linguistic means: metaphor, epithet, anaphora, inversion.

What are learning styles? Learning styles refer to the different ways that different people are best able to learn new information. The idea of different learning styles has come from extensive psychological research, determining how people receive new information, code that information mentally for storage, and then recall that stored information at a later time. While traditional forms of education have only focused on one or two different learning styles, newer approaches to education have introduced a greater focus on utilizing multiple learning styles to ensure that different students can learn as effectively as possible.

Though different schools of thought may consider different learning styles, there are five general styles, with two other social styles, that people commonly fall into. The five major styles are visual, aural, verbal, physical, and logical. Along with these five styles, there are also social and solitary learning styles as well. These are not necessarily mutually exclusive styles, and people commonly learn in multiple ways within these different styles.

Visual, or spatial, learning refers to people who learn most effectively through what they can see. People who are visual learners often prefer to be toward the front of a classroom so their view is unobstructed, and seeing the facial expressions and body language of a teacher can also be important to their learning. Visual learners also typically benefit a great deal from visual aids such as graphs, charts, pictures, and diagrams. Aural, or auditory-musical, learners are best able to learn through hearing material. These types of learners benefit from oral lectures and often read aloud to themselves when covering material in a textbook.

Verbal, or linguistic, learners typically learn best through language, both through listening and reading. These types of learners benefit a great deal from language and often excel in classes where language is stressed, such as English and reading. Physical, or kinesthetic, learners often learn best through doing things physically. These types of learners may do well in science classes with a great deal of lab work, or in sports and other physical activities. Physical learners also tend to learn well while moving, and little movements such as tapping a pencil, tapping their toes, or shifting in their seat can sometimes enhance their learning.

Logical, or mathematical, learners tend to learn through logical understanding of how things work and relate. These types of learners often make lists and tend to excel at math and science; in other subjects they may often ask how things are connected or relate to each other. Social learners learn well in groups, either in full class or small group discussions. Solitary learners tend to learn best through self - study or by working alone.

So what are the practical implications of this information for people learning a new language? Firstly, it is useful to put yourself into one or more of the categories that have been identified above. Most people will not find it difficult to identify themselves as a particular kind of learner (although some may feel that their style varies according to the learning situation and the language task). Awareness of your preferred learning style may help to explain why some aspects of language learning seem to come easier than others or are more enjoyable. If you are an analytic learner, you are unlikely to feel comfortable doing a language activity which involves a lot of unstructured, spontaneous

speech without any concern for grammatical correctness.

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## TABOO AND EUPHEMISM IN THE LANGUAGE OF KARAKALPAK FAIRY TALES

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Abstract. In this article, the meanings of taboos and euphemisms in the language of fairy tales have been proven to be a means of expressing the semantic nature of the language of a work of art, providing a culture of speech.

Keywords: folklore, euphemism, taboo, linguistic features of fairy tales, forbidden words

One of our invaluable heritage which has come down to us from centuries, is the examples of folklore. These examples of literature tell us about our past, our national traditions, our culture that sets us apart from other nations.

Fairy tales, which are considered to be folklore, differ from other types of folklore by their linguistic features and methods of word usage. The lexicon of fairy tales reflects the ethnic structure of the Karakalpak people, their relations with fraternal peoples, living conditions, customs, knowledge of the world and the environment in different periods.

In the past, there was a notion in the minds of people that there is a natural connection between an object and its naming because it does not fully understand the environment.

With the development of Islam in Central Asia, women's rights were generally restricted, and they were forbidden to name their husbands, their parents, cousins, or even people of that lineage [1,99]. For example: He began to tell his secret to his neighbor so that he would not hide it (Kingdom of Abat, p. 41). Then mullah's wife... (Esim boyrashy, p. 448). Sister, if your husband has a snake-like appearance, he will not let you show it (Nanbay's son, p. 52). My brother-in-law, we are sitting in a palace called palen... (Esim boyrashy, p. 266).

Several taboo words are given in the examples.

Some of the taboo words found in the language of fairy tales are related to people's religious understanding, expressing in a second phrase that they have children in the sense of "touching the eye." For example:... I gave a wedding for three days because I was pregnant... (Bad Snake, p. 136). Similar taboo words are now used as a folk custom, not according to an old superstition, a religious concept. Fearing the truth of the words, "He was imprisoned, he was imprisoned," he said in a taboo way: When the khan sinned, when he committed the White Ring... (Three advice, p. 381).

The word "carrying the house" also has a taboo meaning:.. Both the younger brother and the younger brother go about their business (Truth, p. 173).

Thus, the number of synonyms in our language has increased due to the words that are forbidden to say, and they are used for different purposes in the context.

Naming things and events with a second term without naming them by their own name is not just about taboo words. If the meaning of the word is rougher and touching, it is worth mentioning the euphemisms in conveying it softly to the listener.

We see the use of euphemisms in the language of fairy tales in the following examples: The father tells his brothers that his brother, who was deceived, is wise and that he has saved himself (Father and children, p. 217). ... The boy gave birth to a baby boy (Princess is also an orphan, p. 42).

It was a dream come true... (Leave today's item for tomorrow, p. 370). Sister, my shortcoming is that I have asthma at night... (Guy a lot of share, p. 115). If the flower has

withered, know that I did not bend my leg (Flower Memorial, p. 353). Then the farmer's stick was in his hand (Guest Pants and Unexpected Gift, p. 180). You will fall into the acidic water of the sea, go to the mountain and the wind will blow, and then the ear in your work will fall to the ground (Listen, p. 413).

Examples of euphemisms can be explained as follows: "Stepfather" - stepfather, "sonin-law" - a captive child, "dream of my dream" - a note, "understatement" - inability to hold a small need, "footsteps" - betrayal, "steal" - theft, "favor" - to go to the toilet.

Also, in the language of fairy tales, there are several euphemisms meaning to die: to die suddenly /356/, die /365/, to die /322/, pass away /324/, mortality /371/, death /255/, give up /230/, decease /50/, give up the ghost /241/, gasp out one's life /387/, dying /42/, demise /482/, eternal peace /175/, sleep that knows no breaking /173/, last sleep /417/, etc.

Due to euphemisms, the imagery of thought emerges in both the language of the author and the language of the protagonists [2,60].

The conclusion is that euphemisms have their place as a means of expressing the semantic nature of the language of a work of art, providing a culture of speech.

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### **GRAMMAR GAMES IN TEACHING ENGLISH**

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Abstract. This article presents the pedagogical experience of forming grammar skills of schoolchildren. To teach grammar, explain a new concept to your students and then give them a variety of examples so they can see the rule put into practice. Also, build off of grammatical concepts that your students already know when you're introducing a new concept.

Keywords: grammar games, teaching, activity, ability, motivation, communication

Grammar is one of the most important aspects in learning any language, since without grammar knowledge, there can be no question of full communication. The vocabulary itself is not a language - it only serves as a building material. The vocabulary becomes an effective tool when it is placed at the disposal of the grammar. This is why it is so important to teach children grammar from the very beginning of language learning. The most natural for primary school students are game moments of activity, direct communication with adults and object visibility. The ability to rely on gaming activities allows you to provide natural motivation for activities in a foreign language, make interesting and meaningful even the most elementary statements.

Actvity 1. Make a diagram of the offer. To determine the structure of a simple sentence using visual material, the teacher writes a simple sentence on the Board, for example: "He drinks". Two students come to the blackboard with "HE" and "Vs"cards. To complicate the game, the teacher suggests making schemes not only of affirmative sentences, but also of negative and interrogative ones. To compose question sentences, the game introduces training cards with question words (What, Where, When).

Activity 2. Write my verb correctly. The teacher writes sentences with omissions on the blackboard. For example:

He ......eat.We ......dance......she run?.....they skip?

What ...... he like? Students complete the task in writing. The task of learners (4 people with learning cards verbs ( DO, DOES, don't doesn't ) check the job from the other students, after receiving advice from the teacher.

Activity 3. Make five sentences! The teacher distributes cards with printed verbs to all students. A student comes to the Board with the pronoun "He". This pronoun will be subject to student-made sentences. Each student makes 5 sentences (affirmative, negative, General question, 2 special questions), but only with their own verb. For example:

(+) He drinks.

(-) He doesn't drink.

(?) Does he drink?

(Wh-q) What does he drink?

Who drinks? This exercise can be performed orally or in writing. The task of a student who has a pronoun is to assist the teacher in verifying the correctness of the task.

Activity 4. Make up questions. The teacher reads out the sentence. Shows question words. Students ask questions to the sentence starting with these question words. This game can be played orally or in writing. For example:

He drinks milk every day. Question words (Who, What When)

Activity 5.The "When" Clause. One day the teacher decided to puzzle the children with a lot of questions: Karim, when will your pen-friend answer your letter? Jamila,

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when will you learn the poem I gave you? Mashhura, when will you have your hair cut? Lola, when will the wall newspaper about London be ready? You are silent, you don't know the answers. I thought as much, that's why I've prepared a new game for you. The teacher takes out two sets of cards prepared in advance - "A" and "B", which are distributed to the participants of the two teams. Set A contains main clauses, set B contains subordinate clauses with the conjunction when.

| Α   | В   |
|---|---|
| Main clauses  | When-clauses  |
| My pen-friend will answer my letter<br>I shall learn the poem<br>I shall have my hair cut<br>The wall newspaper about London will<br>be ready<br>The weather will be good<br>I shall be glad<br>Our team will win | <ul> <li>when we play three years<br/>together.</li> <li>when I get only fives.</li> <li>when the spring comes.</li> <li>when I find the necessary<br/>postcards.</li> <li>when my teacher tells me to<br/>do so.</li> <li>when I write to her.</li> <li>when I finish my composition.</li> </ul> |

Team guys A read the main sentences. Team B searches for the meaning of the corresponding subordinate clauses. For each correctly chosen phrase, the team gets one point. One point is deducted for an error. When all offers are read, the teams change roles.

These games allow the teacher to correct students ' mistakes quickly, along the way, make the learning process easier and less tedious, and this increases the motivation to learn and contributes to the solid assimilation of knowledge about the English verb.

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# TRANSLATION STUDIES IN THE CONTEXT OF INTERCULTURAL COMMUNICATION

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Abstract: Today, in conditions of intensive interaction of all countries and people in various fields and spheres of human activity, the question of high-quality communication, which assumes complete mutual understanding and, as a result, one hundred percent achievement of communication goals, is particularly acute. According to this, there is a kind of "language boom": firstly, the desire of an increasing number of people to learn foreign languages, secondly, an unprecedented demand for professional interpreters, which explains the significant increase in specialties in Uzbek universities aimed at training linguists, interpreters, intercultural communication specialists ... The phenomenon of translation in the framework of social and cultural theory and the opinion that translation is not only an act of translingual communication, but also a phenomenon of intercultural communication are considered and expressed by this article. Translation is a synthesis of languages and cultures that complicates the process of an adequate interpretation of reality. The main purpose of this article is to consider translation as a means and variety of social and intercultural communication.

Key words: text, translation, original language, language of translation, intercultural communication, text encoding, adequate interpretation, language boom.

Translation is a complex process in which the translator needs to encode the text from one language system to another. At the same time, a lot of difficulties arise regarding both form and content. Any use of a linguistic sign in speech, including translation as a special type of speech activity, is potentially or directly communicative. First of all, translation is intended for intercultural communication. In order to make communication take place, a qualitatively recoded text is required that is understandable for the native speaker of the target language, reflecting the main content of the source text. It is important that the encoding should be as close as possible to the original language, taking into account the whole range of criteria for appropriate translation, including:

1) equivalence - is a high degree of semantic proximity of the translation to the original;

2) genre-stylistic correspondence of the texts of the original and translation;

3) the pragmatic value of translation - the ability of a text to produce a communicative effect, which is achieved by taking into account the conditions for generating the source text, the conditions for the perception of the translated text, the social status of the communicants, the speech situation, and various related phenomena.

The listed parameters are relevant, first of all, for linguistic and communicative concepts of translation, interpreting translation as an act of interlanguage communication. However, from the point of view of the theory of intercultural communication, when translating, not only two languages are compared, but also two cultures in the broad sense of the word, and the situational context of communication is perceived as part of the cultural world. [1]

The speaker / writer, creating a text (message) in his own language, unconsciously focuses on his system of cultural values, the listener / reader, perceiving information, relies on his own culture. Thus, in intercultural communication, interlocutors belonging to different linguistic cultures decode statements in different ways, which means that the communicative function of a language, which consists in conveying meaning, does not

always or not fully achieve its goal.

Therefore, an appropriate translation involves not only the use of knowledge of the native and foreign languages, but also the consideration of the system of cultural values of the participants in communication. This means that translation is not only alinguistic act, but also a cultural one, in other words, an act of communication on the border of cultures.

Regardless to intercultural interaction (communication between representatives of various linguistic cultures), the authors focus on the significance of the psychological, social and cultural contexts of communication. Moreover, the cultural context is the most ambitious and includes all other characteristics that affect communication.

Consequently, the main objective of translation is, on the one hand, the selection of equivalent correspondences for the transmission of a communicative attitude, on the other hand, the provision of explanations which is necessary for understanding a foreign language text, contributing to the full perception of the national-cultural implication of the message.

Translation is the literal transmission of information into a foreign language and the cultural rethinking of all the facts that come from two communication participants in interaction with a translation specialist.

The translation can be presented from the point of view of the participants communication:

| <b>Communicant 1</b> | Translator       | Communicant 2 |
|----------------------|------------------|---------------|
| Builds and           | Conversion of    | "Receives" -  |
| "Transmits"          | source text      | perceives and |
| Objectifies in       | origination new, | interprets    |
| sound or             | transfer         | information   |
| writing              | of information   | "removing" it |
| information          |                  |               |

In translation sphere, it is important to take into account the correct interpretation of not only specific words and phrases, but also the content of each sentence as a whole in the context of the general meaning of the material. The linguist must study the cultural aspects of the target language, be aware of the specifics of working with a specific audience, and clearly define the purpose of the information presented in written or oral form. It is important to consider that there is a difference in the semantic meaning of various cultural terms, and a competent translator in most cases can only approximately interpret what has been said in another language, avoiding rude errors, inaccuracies and interpreting concepts in the opposite sense. [2]

Intercultural communication is a communication carried out under conditions of such significant culturally determined differences in the communicative competence of its participants that these differences significantly affect the success or failure of a communicative event. The main functions of intercultural communication are to ensure an intercultural exchange of material and ideal values, as well as cooperation between representatives of various ethnic groups, nations, states, etc. in solving various problems of local and global levels. The concept of translation as intercultural communication follows from understanding the language as a component of culture, as a single sociocultural education. The works of domestic and foreign scientists emphasize the special role that translation plays in the development of culture, science, economics, literature and the language itself. From the moment when the process of dividing people into

groups using different languages began to take place in the history of civilization (due to geographical, historical and cultural background), the problem of speech decoding for communication has arisen. Since different people entered and enter into trade, military, political, economic, cultural, scientific relations with each other throughout the history of mankind, then, of course, translation is one of the oldest forms of intelligent human activity. And since ancient times, translation has been performing the function of interlanguage and intercultural communication between people, both between states and on the territory of multinational states. Examples are Ancient Carthage, Ancient Egypt, the states of Ancient Greece, the Roman Empire, the states of Central Asia, India, Iran, which include multilingual tribes and nationalities. The more multinational the state was, the more honorable the place was occupied by translators. One of the important milestones in the development of translation was the emergence of writing. Firstly, this gave a powerful impetus to the intercultural exchange of values and achievements in various fields of human activity, and secondly, a new type of translation practice was formed, namely, written translation, functioning from that moment along with interpretation. Not only oral statements, but also written texts began to be translated. Nowadays, we have witnessed a translation boom in science and technology. More than 70% of translators work in this area. The largest volume of translations falls on business correspondence: consumer information texts, scientific and technical documents, various kinds of contracts, technical descriptions.

The human tendency to generalize what is happening in the world, the accumulation of vast experience in the course of translation practice, prompted translators to synthesize existing knowledge and create a translation theory. The modern theory of translation as a scientific direction appeared in the middle of the XX century. The impetus for its emergence and development was the sharp expansion of translation practice to meet basic needs. The Second World War and the subsequent political events and changes directly or indirectly related to it, the Nuremberg trials, the collapse of the colonial system, the emergence of international organizations of the UN, UNESCO and NATO military blocs, the Warsaw Treaty involve more and more people, new national languages. As a result, the number of translators is growing, the number of languages from which they translate and into which they translate. [3]

Serving as a means of communication between people of various nationalities, translation is a means of interlanguage and intercultural communication. Translation is a type of language mediation. Abstracting, annotation, retelling, resume are also included into types of language intermediation. They differ in the volume and form of information transmitted. Translation differs from abridged exposition, retelling and other forms of text reproduction in that it is a process of restoring the unity of content and form of the original. "To translate means to express correctly and fully by means of one language what has already been expressed previously by means of another language."

So, if we talk about translation as a part of intercultural communication, then to the question "understand someone else's culture or adapt someone else's to your own?", I think we should answer "both." The translation must be understandable to the native speaker of another culture. At the same time, you need to carefully handle the unique style, features of the source text and color. Only then we can talk about successful intercultural communication, in which translation is one of the most important components.

In conclusion, it should be noted that the uniqueness of national linguistic pictures of the world and the multiplicity of cultures are not an obstacle to mutual understanding of people and are overcome during translation. The theory and practice of translation has developed many technical methods and strategies that contribute to the optimal solution of translation problems. However, it should be remembered that intercultural communication appropriately and successfully proceeds only when the communicants who are carriers of different cultures and languages are aware of the fact that each of them is a representative of a different culture. Familiarization with the culture of other nations is one of the most important social functions of translation.

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### **TRAGEDIES OF ANCIENT PERIOD**

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Annotation: The article deals with the playwrights of the ancient period and their work. It analyzes the differences and commonalities of the works of playwrights such as Aeschylus, Euripides, Sophocles.

Keywords: tragedy, idea, genre, drama, monologue, playwright, hero, image, character, repertoire, theater.

The first tragedies in world drama were created by the Greeks and Romans. The evolving period of ancient Greek tragedy is marked by the names of three great tragic playwrights, Aeschylus, Sophocles, and Euripides, who lived in the 5th century BC. Along with these artists, other playwrights of that period also created tragedies. But from their works to date only a few fragments and the names of their works have preserved. For example, information about the tragedies of Thespis [5:16], mentioned as the first tragic in history, is almost non-existent.

But his work in this field gives us the right to speak not only of the genre of tragedy, but also as the founder of drama, theater. The first tragedy of Thespis (sixth century BC) (name unknown) was played on the feast of Dionysus the Great in 534 BC. This year is considered to be the year of the birth of world theater. [4:12] Although Thespis's works have not preserved, he is considered to be the first playwright to express his views on contemporary issues.

In the works of Aeschylus, mainly the gods are involved. In the tragedies of Sophocles, though some are exalted, lavish (King Oedipus), people are involved in them. That is why Sophocles was described as "the owner of the pen who brought tragedy down from heaven to earth." In the tragedies of Sophocles, it is often said that human knowledge is limited, and therefore it is clear that he makes mistakes and suffers from suffering. The works of Euripides are different from the tragedies of Aeschylus and Sophocles. In a number of his tragedies, religious beliefs have been criticized.

In it, the gods are portrayed as more cunning and merciless than humans. For example, in the tragedy "Hippolytus" Aphrodite, in the tragedy "Iphigenia in Aulis" Artemis is depicted in cunning, evil images. Euripides advanced the ideathat humanity is determined not by the nobility and wealth of man, but by his particular qualities. These ideas are especially reflected in the tragedy "Electra".

Aeschylus's tragedies such as "Chain Prometheus" [2], Sophocles "King Oedipus", [3] Euripides' "Medea" [1] served as amodel for future generations.

It is believed that the emergence and development of tragedy in Rome were related to the work of the Greek Livius Andronicus, who was brought to Rome as a prisoner of war in 272 BC. Livius Andronicus reworked Greek samples, translated them from Greek into Latin, and performed them in performances. Livius Andronicus's performances served as the impetus for the further development of Roman theater. Also Gnaeus Naevius (c. 280 - c. 201 BC), Quintus Ennius (c. 239 - c. 169 BC), Marcus Pacuvius (220 - c. 130 BC) and Lucius Accius (c. 170 - c. 85 BC) are recognized as famous Roman tragic playwrights. In Roman tragedies, the importance of the choir is less than in Greek tragedy.

But Roman tragedies, like Greek tragedy, were written with poems. Unfortunately, no tragedies have come since that period. We can only learn small tragedies through scientific sources and imagine these tragedies.

Of the tragedies created during the Empire, only philosopher Seneca's poems have preserved. Lucius Anne Seneca wrote a total of 9 tragedies. [1] The playwright derives the plot of these works from Greek mythology. For example in Medea and Phaedra he reworked the plots used in Euripides' Medea Hippolytus.

For "Oedipus" he based Sophocles' "King Oedipus." Seneca's protagonists are overwhelmed by a strong emotion that causes their loved ones to experience horrible, sometimes tragic consequences.

In conclusion, the tragedies of antiquity differ from each other, but they are united by some commonalities. In the works of this playwright, the important social, philosophical and moral issues of that period were widely artistically understood and served to educate the citizens of that period in the spirit of high morals.

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#### TECHNIQUES AS AN ESSENTIAL ELEMENT OF TRANSLATION

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Abstract: The following article is about the differences between translation methods and techniques also it includes the categories of the techniques with their usage within a procedure, additionally; it distinguishes the categories from each other.

Key words: bilingualism, mechanical copying, transcription, transliteration, grammatical, lexical, semantic, complex transformation, borrowing, calque, literal translation, transposition, modulation, reformulation, adaption.

Inevitably, translation is one of the most ancient types of human activities. As various languages appeared in the development of humanity, bilingualism also throve in order to provide comprehension between two or more people, communities and nations with different languages. Not only is translation ancient, but also it is a difficult and vital key to social development and the quote "Without translation, we would be living in provinces bordering on silence" said by a French critic George Steiner determines the importance of proper translation again.

First of all, we have to identify the difference between a translation method and a technique. A translation method is applied to the whole text to be translated while a translation technique may vary within the same text depending on the specific verbal elements to be translated, if explained more simply, a translator uses one method to translate the whole text, but several techniques to translate the sentences in the same text which shows the connection between methods and techniques that is why it is suggested that all techniques should be mastered in order to obtain an appropriate result.

In order to transfer a form from one language to another with different alphabets remaining the basic context, a translator either copies the form by letters of the target language or making transformations.

There are two types of mechanical copying or transfer words of the source language :

"Transcription or the act of copying the sound form of the source language word by the letters of the target language: for instance: hockey -хоккей, baseball-бейсбол,garageгараж,trolleybus-троллейбус, firework-фейерверк, hake - хек, eau de cologne - одеколон, verbal - вербальный, non - verbal - не вербальный and etc.

"Transliteration or copying the letters of the source language by the target language letters of another system, for example: Uzbekistan-Узбекистан Berlin-Берлин, Vena-Вена, communism-коммунизм, transposition-транспозиция, liberalizationлиберализация, telecommunication.

But some linguists, V.N Komissarov for example, consider calque translation as a mechanical copying. Calque is translation by parts . For example: overloaded-перегруженный, sunglasses-солнечные очки, for example-на пример, underuse-недоиспользовать, bilingual-двуязычный, future president-будущий президент, shopping centre- торговый центр and etc. However, the calqued word is not just a mechanical borrowing of the word form, but it undergoes some changes, this method, to some extent, an actual translation including translation forms, for instance: wildlife-животный мир, market есоnomy-рыночная экономика, восстановить-restore etc.

Translation transformations are complete changes of the appearance of a translated

word, phrase, or sentence . They can be of 3 categories:

"Grammatical transformations

"Lexical (semantic) translations

"Complex (lexical and grammatical) translations

When structural and conceptual elements of the source language can be translated into the target language the translator uses direct procedures. There are three main direct techniques: Borrowing, Calque, Literal translation .

Borrowing: this is the easiest and most straightforward technique in translation. It is the way of not translating at all, all the translator has to do is just conserving the word or an expression unchanged from the source language into the target one. It should not be transferred, but instead ought to be used directly in order to give the passage the basic sense when no equal word exists in the target language.

Examples: la Bibliothe `que Nationale $\Box$  rue de Richelieu - the Bibliothe `que Nationale $\Box$  the Rue de Richelieu, NATO-HATO, NASA-HACA, UNESCO - ЮНЕСКО, UNICEF - ЮНИСЕФ, and etc, not only are these obligatory borrowings in English or Russian, but also in many other languages since all institutions, including names of organizations, names of streets, must be maintained in the original form , furthermore the abbreviations of famous organizations are recognized by their original names, that is the reason that we remain the basic form.

More examples: samovar, troika, poshlost, nadryv, khamstvo, toska, kolkhoz, vodka and etc.

Calque: as explained above it is a particular type of borrowing in which an expression is borrowed from the source text by translating every word or par of a word separately. Sometimes calques work, but sometimes they do not.

| Source language   | Target language        |
|-------------------|------------------------|
| rename            | Переименовать          |
| secret location   | Секретное расположение |
| a former prisoner | Бывший заключенный     |
| unaccomplished    | Недоделанный           |
| group mates       | Однокурсники           |
| brainwashing      | Промывка мозгов        |
| headache          | Головная боль          |
| trademark         | Торговая марка         |
| schoolboy         | Школьник               |
|                   |                        |
|                   |                        |
|                   |                        |

Example

But calque can be very tricky as it may lead to the translators false friend (direct and incorrect translation), for example: водохранилище-reservoir (not water keep), restroom-туалет (not комната отдыха), water melon-арбуз (not водяная дыня), water closet-туалет (not водяная полка), headway-прогресс (not головной путь), feedback-мнение (not еда назад), freshman-первокурсник (not свежий человек) and etc.

Literal translation: Unlike borrowing, literal translation is the procedure of translating each word separately, without looking at how the words are used in a phrase or a sentence. It was claimed by J.P Vinay and J.Parbalet that literal translation can only be used between two languages with extremely close culture terms, it may only be accepted when the translated texts retains the same syntax, the same meaning and the function as the original text, for example: Quelle heure est-il? - What time is it? But if the same question was literally translated it would sound like "Какое это время?" and would have the right meaning asked in the basic question because the literal translation may lead to mistranslating of idioms and proverbs that is why it is better to learn the type of the sentence and look for the equivalents. For example, the Uzbek proverb "Sabrning tagi sariq oltin" may literally be mistranslated as "the base of patience is yellow gold" which does not give any sense of comprehension, but in the case of selecting an equivalent, it would sound like "Rome wasn't built in a day" or "Everything comes to him who waits" which would be more natural. If the idiom "Put your feet in your mouth", which means "to say something without thinking", was literally translated into Russian, we would end up with "Положить свою ногу в рот" or another idiom "Feel under the weather", which has the meaning "to feel slightly ill", would be like "Быть под погодой" in the case of the literal translation, which would not only be wrong, but definitely extraordinary. Proverbs and idiom have to be applied to the particular technique explained below.

According to the work of J.P.Vinay and J.Parbalet, which dates back to 1958, translation consists of another four categories excluding the ones we have already clarified.

"Transposition which means transforming from one grammatical category in the source language to another in the target one without a change in the context. This technique of translation introduces a change in grammatical structure.

Example: You had better get up -Тебе следует встать, A summit was against global warming held in Moscow - в Москве прошёл саммит против глобального потепления, have you been invited to the conference? - Вас пригласили на конференцию?, My actions were approved personally by the director - директор лично подтвердил мои действия, etc

"Modulation is about changing the form of the text or the phrase by involving a semantic change.

Example: Unless you find a job, you will face trouble - Пока ты не найдешь работу, трудности будут тебя преследовать, he can not but come to the meeting - он не может не прийти на собрание.

"Equivalence or reformulation is a technique which uses completely different expressions and words to give the same meaning, this technique is the one that should be used for idiom and proverb procedures rather than literal technique.

Example: Once burnt, twice shy - Sutdan og'zi kuygan, qatiqni puflab ichadi (Uzbek), Обжегшись молоком, будешь дуть и на воду (Russian), Keep your chin up - держи нос выше, pull somebody's legs - кого-то обмануть.

"Adaption (also called cultural equivalent) is a cultural element which replaces the original text with one that is the best suited to the cultural meaning of the word.

Example: Ko'pkari (Uzbek) - Horse race, Пасха - Easter, baseball -futbol, domino - narda, drums - dombra, stipendiay - scholarship, Namoz o'qish - pray - молиться (the word "Namoz o'qish" is adapted by the word "pray". Although it is accepted as the translation of this word, they don't have the same meaning as the word "namoz o'qish" means "to fulfill the duty of the religion Islam" and Muslims fulfill Namaz not to ask something, but it is their obligations while the words "pray" in English and "молиться" in Russian mean to ask God for help or something else.

From all said above, we can conclude that all the techniques are important according to their functions within a text, a sentence or even a word. They ought to be used in the right place so that the translator can achieve the expected result from the procedure.

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## PSYCHOLOGICAL ASPECTS OF FIRST LANGUAGE ACQUISITION IN CHILDREN

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Abstract. The thesis describes the psychological developmental stages of first language acquisition in children. It goes through the phonological, morphological, and lexicon first language acquisition in children.

Keywords: Language acquisition, psychology, articulation, vocalization, consonants, vowels, utterance.

People use the language every day to communicate and exchange information with each other. Using it looks very natural like eating and sleeping. However, using language is a complicated neurological phenomenon. Children acquire first language through various articulative and cognitive processes. Following is major stages of first language acquisition in children:

a) Cooing - babies' first efforts at imitating articulation (vocalization) consisting of back-throat consonants and vowels produced at around the age of 8 to 20 weeks. For example, "ba-ba-ba."

b) Babbling - babies' early vocalization consisting of consonants and vowels at around the age of 25 to 50 weeks. For example, "a-ga."

c) Holophrastic stage - single word utterance produced by young children at around the age of 13 to 18 months. For example, "car" (interpretation - I want to play with the car).

d) Telegraphic stage - toddlers' utterances made of two words and lacking grammatical elements. For example, "dog come" (interpretation - a dog is coming).

First language learner's phonological development is as follows:

a) Fis phenomenon - is an asymmetry in the child's perception and production of language sounds. Example,

Mother: Say "Barbie."

Child: "Bup."

Mother: No, "Barbie."

Child: "Bup."

Mother: No, say "Barbieeeee."

Child: "Bup."

b) Reduplication - Babies' pronunciation of the word's initial syllable twice. For example, "mu-mu, ni-ni."

Children's first language morphological maturation develops as follows:

a) The natural order of morpheme acquisition studies - is a finding introduced by psychologist Roger Brown who stated that children learn grammar in fixed steps that instruction is powerless to change.

b) Overgeneralization - is a process in which young children apply a grammatical form where it does not belong. For example, "I readed this book" instead of "I read this book."

Children's first language lexicon acquisition:

a) Overextension - child's application of the familiar label to new words where it

b) Fast mapping - a child's ability to learn a new word after one brief exposure to it.

It is common to think that adults teach babies how to speak. This is correct only partially (parents teach children some new words), as children pick up most words simply by being exposed to them. Moreover, observations of parents talking to their children show that corrective feedback is not effective as children usually ignore their mistakes with grammar. This happens because children acquire first language mainly through complex automatic neurological processes. The following conversation between a father and his child is an example of the ineffectiveness of corrective feedback which is used a lot between parents and their children:

Child: I goed to park.

Father: You went to the park?

Child: Yes, I goed to park.

Father: You mean you went to the park?

Child: Yes, I goed to park.

Notions mentioned above emphasize the developmental stages of first language acquisition in children and its connectedness with the cognitive processes that occur in babies from an early age.

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## AXIOLINGUISTIC APPROACH IN THE ANALYSIS OF PROVERBS

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Abstract. Modern linguistic research pays special attention to the practical problems of science, mainly focusing on the person himself, that is, his emotional and mental sphere, ethical and aesthetic views in man, the value system, the processes of understanding and perceiving the world. Mankind's spiritual experiences, attitudes, and values are reflected in his language. In this sense, axioinguistic research shows the relevance of the topic. This article analyzes a number of studies on the formation and development of axiolinguistics that are currently evolving. Basically, the dominant values in the axiom of the linguistic personality are considered in the example of proverbs (Uzbek proverbs reflecting the axiological diad of thrift / waste).

Keywords: axiology, axiolinguistics, value, evaluation, subjective evaluation, language, axiological approach, axiological lexicon, paremia, proverb, proverb, axiologema.

Arutyunova [1], G.G. Slishkin [8], B.I. Karasik [5], L.K. Bayramova [2] and other researches serve as a theoretical basis for the development of axiolinguistics. Axiolinguistic researches in Slavic languages can also be exemplified by the scientific researches of G.D. Gachayev, S.G. Terminasova, L.G. Babenko, E.B. Babayev, E.V. Ivanova. One of the works devoted to the analysis of value expressed in French proverbs can be seen in the works of L.K. Bayramova and D.R. Moskalova [3].

In addition, the axiological modality in Uzbek linguistics is currently being studied by J. Yakubov, G. Kambarov, S. Boymirzayeva [4] and Z. Pardayev [6]. In particular, the main scientific research and articles published by Z. Pardayev in recent years are aimed at studying the communicative-pragmatic possibilities of axiological assessment. Also, M. Rakhmatova's dissertation "Linguistic features of the concept of" beauty "in English, Uzbek and Tajik national culture" [7] [PhD) in philological sciences is an aesthetic assessment in English, Uzbek and Tajik languages. The specific features are described on the basis of comparative analysis.

The following article provides an axiolinguistic analysis of several articles in Uzbek.

Praise the wise horse, the foolish wife. The horse has long been the closest companion of the Turkic peoples. This can be seen in the folk epics "Alpomish" and a number of examples of folklore in the series "Gorogli". Mahmud Kashgari is described as "the wing of the horse Turk". Also, in Alisher Navoi's epic "Farhod and Shirin", during the fight with Farhod Khisrav, he is ashamed to say the name of his friend Shirin, that is, he is jealous of his friend's name. A woman is considered a man's honor. In our country, calling a wife by the name of a child in front of others shows that language is a value. That is why our people express their wisdom and ignorance in their own words, based on their mental nature.

The mind is seen as the guiding factor: to make money, not to have an account, to use money, you need a head, to make money is easy, to use it, to make money is a fool

In the family, it is valued and valued for women and girls to be smart and intelligent. The tradition of choosing a bride is not in vain. The father is a fool, the mother is a fool, the father is a pervert, the mother is a pervert, the fat lamb is good, the wise mother is a daughter, do not take the girl praised by the mother, do not leave the girl praised by the new.

Savings are considered significant in any financial situation: Excess wealth will not be enough, If it is too much in the pot, If you eat it in the morning, Don't give the end of the tea to your father. Think of hunger when you are full, and need when you are rich. In Uzbek families, clothes were not discarded in the past, with an older child, then a brother, a nephew, a cousin, and the chain ending with being pillows instead of cotton. This custom is still common in the villages. There are two possible explanations for this. The first is to avoid waste, because our wise people say that the old will not be new until the new is old. Secondly, mothers and grandmothers were careful not to throw their children's clothes or give them to strangers, and our business mothers used them as covers for pillows. In recent years, we have come across the word "second hand" in our language. The word means clothes are sold after they have been worn for a short time, and sold to the buyer as a "second hand" product. There is no need for such a word in Uzbek, as there is no such custom.

In short, an axiological lexicon expresses important concepts in the life of a people, reflecting the traditions, perceptions of existence, and moral norms that have risen to the level of value for a particular people. Proverbs, on the other hand, are the main field of reflection of axiological lexicon, as they cover all aspects of people's lives. As the paremologist Anikin put it, "What is not in the experience of the people is not in the proverbs." National cultural identity is reflected in folklore.

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## THE IMPORTANCE OF COMPUTER LINGUISTICS IN THE FIELD OF PHILOLOGY

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Abstract: The article reflects, albeit partially, the current issues in computer linguistics, in particular in Uzbek linguistics, which need to be addressed today and in the near future. Keywords: effective use of computers in linguistics and literature, study of computer solutions to linguistic problems, basics of mathematical logic, mathematical model of natural languages, mathematical model of Uzbek language, computer method of Uzbek language.

Today, in the process of global integration and globalization, it is vital to bring the Uzbek language to the level of secular languages. The need for computer technology, in particular computer linguistics, will increase in order to achieve this great, responsible and very important goal. Because it is computer linguistics that allows Uzbek to become one of the secular languages in the world, and to optimize its study and teaching. Particular attention should be paid to the most important of these issues, which is the creation of a computer style of the Uzbek language. Because this issue is the basis, so to speak, the solution to all these problems. The above problems can be solved only after the creation of a comprehensive, convenient and popular computer style that meets the requirements of world standards. It is known that a person uses various grammatical means in the formation of oral or written thought, he uses in his speech phraseology, various expressions, means of artistic expression, that is, each person's speech is unique and unrepeatable. However, in the XXI century, the age of information and technology, these are redundant for computer style, that is, the breadth of artistic style does not meet today's requirements, in particular, the breadth of computer style does not meet today's requirements, especially computer style. Because it is necessary to be concise and concise in the transmission of information. We are proud of all the possibilities of the Uzbek language, its richness of meaning, the vocabulary formed over the centuries, its beauty, as noted by Alisher Navoi, its superiority over other languages. However, I would like to emphasize once again that in the computer style there can be no place for artistic means, various rhetoric and peculiar neologisms. This style is formed and developed in parallel with the artistic style, but their field of application is different. Both methods are used by people from different fields: literature, art, culture, computer specialists, advertising business, natural sciences, and most importantly, the Uzbek language. The computer style will be clear, concise, concise, adapted to computer processing in accordance with the requirements of world standards.

Creating a computer style of the Uzbek language is important in our lives. After all, computer style unites specialists in computer linguistics. Together, experts are created in the Union of Computer Programs and Philologists. The positive side of computer linguistics is the same: it unites philologists and computer specialists. We know from history that in the history of mankind there were times when various objects, such as coal, gold, salt, were considered the greatest wealth. At the beginning of the third millennium, humanity has entered the information age. For human thought, which has evolved over thousands of years, today the primary source, that is, information, is becoming a vital necessity. Therefore, in the world market, information is more valuable than gold. There is a growing need for convenient ways to find, store, process and

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communicate this information. So, whoever develops and masters these convenient methods, he will be the richest man in the world. It is known that the richest man in the world is Bill Gates. Why is the richest person in the world a computer, that is, a representative of the field of reception, storage and processing of information? Why did the leader of the information industry become the richest man on the planet, not the owner of the oil prices, the banker's oil, cotton, automobile plant? Bill Gates himself answers this question: Whoever has information, he has everything, or another observation of his is world-famous: Information is superior to even the largest, most valuable material wealth in the world, because these resources are information. is obtained in the vehicle. Accordingly, computer linguistics is a source of both spiritual and material wealth for linguists. Only it should be supported by all the correct understanding and, most importantly, support. However, computer linguistics is a key tool not only in the study of Uzbek, but also in other languages, in particular Russian and English. Also, in the establishment of the training of translators specializing in science, art, business and advertising in higher and secondary special education institutions, English will be taught in Uzbek and Uzbek will be taught in English. It also helps computer linguistics in the development of teaching aids and computer programs. The main tasks of computer linguistics are to teach languages, test knowledge, edit texts and develop machine translation programs.

In classical linguistics, language is interpreted in relation to man, in pairs, that is, classical linguistics is necessary for man. Mathematical linguistics, on the other hand, leaves no room for the participation of the individual in the descriptive process, which is more computer-aided. The mathematical model of language grammar is based on the axiomatic theory of mathematical logic. Another feature of the electronic virtual library multimedia room is a networked library with electronic copies or electronic multimedia textbooks. Russian-speaking students studying the Uzbek language can effectively use the Internet: to collect information in the process of independent study, to master the topics, to write an essay on a given topic, etc. Email can also communicate with a teacher or peer through a system that allows information to be transferred from one computer to another. Working with video materials is especially important in language teaching. This tool of information technology can be used in different ways and methods. Distance education is a method of distance learning via the Internet, on the basis of which tests are conducted in certain areas in the country. It turns out that there are different ways to use a computer in the classroom. There is no doubt that the application of these and a number of other computer technologies in the process of language teaching will give high results. The world has accumulated enough experience in the use of computers in the educational process, there is important scientific and methodological research in this area, many educational control programs, multimedia textbooks. The quality of the created software and other electronic developments, of course, depends on the personal views of the authors, the level of scientific methodology and the general culture. This is difficult to control. For example, some educational electronic developments serve to achieve the desired goal, while others are very interesting, aesthetically pleasing, and provide the necessary knowledge and skills on a particular topic. It does not serve to acquire skills, but only to study the course of informatics and information culture. Today there is a need to develop a theory of computerization of teaching, to establish general and specific criteria for the creation of educational electronic developments that really increase the effectiveness of educational activities, form a positive attitude and interest in the subject. Currently, scientific and methodological research on the concept of creating educational electronic developments is being conducted in Russia, Ukraine, France, Japan, Canada and other countries. The concept defines the essence of developments, the order of their creation, testing and application. According to experts, educational electronic developments should meet the technical, pedagogical and methodological requirements. They can be used in the process of such requirements.

Therefore, it is necessary to use computers effectively in the field of linguistics and literature, to study ways to solve linguistic problems by computer, to create the basics of mathematical logic, mathematical model of natural languages, mathematical model of Uzbek language

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### MAIN FUNCTIONS OF CURRENT JOURNALISM

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Abstract. This article focuses on one of the most important issues in journalism theory and the function of its activities. Journalism, that is, the main task of the media, is to cover social life, that is, to collect and disseminate social information to the public. The print media and all types of media are constantly tasked with reflecting, analyzing and reinfluencing public life. Consequently, the social functions of the media are divided into three components and the edges. These parts can be conditionally called image, analysis, and effect.

Keywords: Press, journalism, mass media, social functions, image, analysis, influence, newspaper, magazine, radio shows, TV shows, internet.

The role of the press and mass media in human society is incomparable. As in all stages of human history, the press and media play an important role in the development of society and the destiny of mankind. Modern life - the age of great discoveries, science and technology, the XXI century, without the press, newspapers and magazines, radio and television, news agencies and the Internet - is unimaginable. Just as a person cannot live without bread and delicacies, the press and mass media, which are spiritual food, have become a constant companion and close partner of modern people. The media, which covers the entire globe like invisible blood vessels, informs people every day, every hour, every second about what is happening in the world, affects their minds, their spiritual world. The democratic press, which is based on progressive, populist ideas and conveys the ideas of goodness and progress to humanity, plays a key role in this.

The press, that is, the media, is one of the forms of reflection of social life, an important means of knowing, researching and influencing the real world. The basis of the press is the real reality, which reflects a particular reality, studies it, analyzes it and re-influences it. If the interpretation is correct, the press can be compared to a spiritual fountain that boils from real reality and re-flows into it as a living stream.

In the theory of the press, the question of the functions of the press - the social functions it performs - has a special place, but these actions constitute its essence, its main direction. The word function is derived from the Latin word functio, which means work performed, activity. By the functions of the press, we mean the activities of the press and the media, which have a permanent and legitimate character, its goals and directions.

There are different views on the social functions of the press. During the ideological monopoly, it was stated that the functions of the press were "collective propagandist, collective propagandist and collective organizer." Although this definition has taken the form of a law and has been widely used in the activities of the communist press, it is clear that it is based on and limited by the class-party point of view. But the task of the press, as claimed above, is not only to propagate and challenge an idea, but also to provide the public with objective, objective social information. Therefore, it is entirely wrong to limit the function of the press in this way. Modern Russian journalist E.P. Prokhorov considers the main tasks of the press to be ideological, cultural, educational and recreational (for leisure) and direct organization. Although there is a certain scientific approach to the press is to collect and disseminate social information, as mentioned

above, we believe that this task is too complicated to be described in the above language. Another Russian researcher, S.G. Korkonosenko, describes the functions of journalism in four ways - production - economic, social - management, information - communication and spiritual - ideological. It is obvious that even in this definition, the press is overburdened with social responsibilities. So, what are the main social functions of the press? How can it be described correctly?

As mentioned above, the press is one of the forms of reflection of social life, knowing the real reality is an important tool for researching and re-influencing it. This definition also serves as a basis for defining the social functions of the press. Therefore, the main task of the press is to reflect social life, that is, to collect and disseminate social information to the public. The print media and all types of media are constantly tasked with covering, researching, and re-influencing public life. It is clear from this definition that the social functions of the press are divided into three components, the edges. We conditionally refer to these parts as image, analysis, and exposure.

The main task of the press is to reflect social life, that is, to collect and disseminate social information to the public. The print media and all types of media are constantly tasked with covering, researching, and re-influencing public life. It is clear from this definition that the social functions of the press are divided into three components, the edges. These parts can be conditionally called image, analysis, and effect.

The main and most important aspect of the social functions of the press is the image, that is, the reflection of social life and information. Press publications - newspapers, magazines and mass media - radio, television, news agencies, the Internet - constantly perform this task, primarily through the printed word, the sound of the word, the unity of words and images.

Hence, the image, that is, the broad, complete delivery of the events of social life to the public, is the main social function of the press, the most important work it constantly performs. The print media and mass media - newspapers, magazines, radio, television, news agencies, social networks of the Internet - are engaged in this work every day, every hour, every minute. In carrying out this task, different views of the press are involved differently depending on their characteristics and capabilities. Newspapers play a key role in this regard, the main part of any newspaper activity, the main place in its pages is devoted to information, information. In other words, the main task of the newspaper is to describe the latest facts, events and happenings in the life of society, to reflect the history of the day in its entirety.

Magazines also play a role in this task, but although magazines with their features (longer periodicals, intended to cover deeper layers of social life, etc.) serve to reveal its essence rather than depict social events, the image also occupies a certain place in their activities. Radio and television play a key role in doing this social work. Radio plays a special role in informing with its responsiveness, speed and knowledge of boundaries. Television programs, on the other hand, are characterized by the ability to broadcast live social events. In the activities of news agencies, which are an important part of the media, image is also a key task. All the news agencies in the world collect and distribute a lot of different, social, world news every hour, every minute. The international computer network - the Internet - also plays an important role in this social practice of the press. Today, the Internet plays almost the first role in the image of the press, in the delivery of news of social life to the public.

The informational genres of journalism play a key role in fulfilling the image or information function of the press. These include information (message), extended message, reportage, report, interview (interview), and so on. These genres are mainly concerned with reporting, describing, and demonstrating facts and events in social life. But this task is not limited to the above genres. Genres of journalism, such as analytical and artisticjournalistic genres, such as articles, commentaries, essays, feuilletons, pamphlets, are designed to reflect a deeper layer of life, but in fact they are based on images and reporting. Journalism also plays an important role in fulfilling the image and information function of the press. The journalistic spirit and conclusions expressed in them play an important role in the impact of the image function reflected in the media on society.

The image function of the press is widely reflected in the mass media of the republic, where the necessary socio-economic and spiritual reforms are being carried out for our society. Guided by the Action Strategy for the five priority areas of development of the Republic for 2017-2021 and the important tasks set out in the Address of the President of the Republic of Uzbekistan Sh. Mirziyoyev to the Oliy Majlis, our media began to cover social events more broadly, deeply, objectively and quickly. , our newspapers and magazines are becoming more interesting, educated, the content of radio and television broadcasts has expanded, the form has become more diverse. The Internet, a new type of media that has been promoted for a long time, is also playing a key role in raising the most important issues of the day. In this case, the main function of the press - the image is useful in all respects.

However, the press is not limited to simply recording and reporting on life, but also reveals the inner essence of the facts, events and happenings in it, explains, analyzes, evaluates, draws conclusions, approves or denies. This shows that the second main social function of the press is analysis. In other words, if the image function of the press reflects the upper, visible layers of social life and affects the upper layers of consciousness, the analysis reflects the deeper layers of social life and affects the deeper layers of human consciousness. By fulfilling this social task, the press reveals, explains, explains to its readers the internal causes and essence of facts, events and happenings in life, gives us adeep knowledge of the world around us, equips us with many, necessary life experiences and concepts. Like the task of informing the press, the analysis covers all aspects of the socio-political, economic-industrial and cultural-spiritual life of a society. There is no area of public life in which this function of the press does not interfere.

The social function of the analysis of the press plays an important role in solving important problems of society, improving economic and production processes, the further development of cultural and spiritual life. This practice of the press plays an important role in the reflection and solution of problems in society, economy, science and culture, literature and art, as well as in all spheres of public life, in the further development of human civilization. gives, educates a person.

In fulfilling the social function of the analysis of the press, the press - newspapers and magazines, the media - radio and television - are constantly active. According to the mutual division of labor between press types, newspapers perform more of the image function (approximately 75 percent), while magazines perform more of the analytical function (75 percent). In radio and television, image and analysis functions are proportional (50-50 percent). Image and analysis functions are also being combined on the Internet. This social work of the press is also connected with its enlightening, aesthetic pleasure, leisure features. Journalists, publicists, scientists, public figures, politicians and other professionals take part in the analytical function of the press.

If the information genres of journalism are useful in the task of informing the press, then in the practice of analysis, its analytical genres serve. These include genres such as correspondence (extended message), article, review, commentary, observation, and fiction, such as essays, feuilletons, and pamphlets. It is well known that these genres differ from informational genres in their size and genre requirements, and they reflect the deeper layers of life. In these genres, however, scientific research methods such as comparing, summarizing, and drawing conclusions, such as the analytical method, are widely used, and in the genres of fiction, literary and artistic methods such as imagery, animation, typification, plot, and composition are widely used. helps in-depth analysis. The function of analysis requires a journalist to have an in-depth knowledge of life, to specialize in one or another area of social life.

In the newly independent Uzbek press, the analytical function is constantly improving along with the image. The analytical task of our press has also significantly expanded and deepened, it actively serves to cover the most important, topical issues of our time, to inculcate in the minds of the public the ideas of socio-economic development, further development in all respects. In his congratulatory message to the newspaper staff on the occasion of the publication of the "New Uzbekistan" newspaper, President Mirziyoyev addressed the journalists of this new edition "The newspaper has set a task to cover the importance and results of democratic reforms, incomparable creative work in the regions, to form the opinion of the population and the public, to raise the existing problems and shortcomings through analytical materials and take a worthy place in the media," he said. These tasks also apply to all existing media outlets in our country. As long as the press analyzes the facts, events and happenings in life freely, without obstacles, from a universal point of view, objectively, scientifically and objectively, its impact on life will increase. It is the duty and daily work of every journalist to know this important social function of the press and to serve it. It is important for the development of society to give sufficient space in the press to critical materials, comic journalism and its important genres, such as feuilletons, pamphlets and other genres, which serve to eliminate social shortcomings and shortcomings in society through comedy.

The press should not only describe and analyze the events of social life, but also have a direct impact on social life. This feature of the press defines the third aspect of its functions, namely the function of influence. That is, the press describes a social being as a manifestation of social consciousness, not only knowing and researching it, but also reinfluencing it. Consequently, press materials must not only be written, printed, read, heard, and seen, but also make a difference in life. The influence function of the press is closely related to its imaging and analytical practices, i.e., it is a logical continuation of these two social functions. Whichever press publication covers life broadly, objectively, and in the desired way, its impact will be even greater if it is analyzed in depth in the same way. Conversely, if life events are portrayed in a shallow, one-sided way, and the analysis is both superficial, the effect will be similar.

The impact of the press on life is of two kinds: direct and indirect. The direct effect is to influence the minds and emotions of students through the depiction and analysis of life events. It depends on the impact, importance, interest, fact, structure, skillful writing of press materials. This is achieved through adequate implementation of press imaging and analysis practices. The formation of public opinion plays a key role in fulfilling the influence function of the press. Public opinion is the main issue of the press and its underlying journalism. The indirect impact of the press on life is measured by the effectiveness of the press materials, that is, the results. That is, if any problem raised in the press is resolved, if the criticism is effective, and if the public administration is implemented as a result of the intervention of the legislature, the executive and the judiciary, this task will be fulfilled. The organization of the press and journalists also plays a key role in the indirect impact on life.

It should be noted that there are also some shortcomings in the implementation of the press influence function. Organizations are required to comment on critical material published in newspapers and magazines, and if this is not done, important issues covered by the media, critical materials will remain on paper, screen or on the website.

taken.

That is, the press, which is the fourth power in society, can only function if it works together with the judiciary, the executive, and the state, critical materials, comments and discussions written on paper or broadcast, shown on television screens, and posted on the Internet are brought to life and benefited by society. There are many reception centers in the country, which receive and resolve the views and complaints of citizens, if the press materials play a key role in their work, the influence of the press can fully fulfill its function only if the critical statements, suggestions and comments published in the media are checked by the relevant organizations and the necessary measures are

The image, analysis, and influence functions of the press are at the heart of press activity. They are constantly evolving in an integral connection with each other. At the same time, the press has such functions as cultural and educational, entertainment, recreation, various services (advertising and announcements). These also stem from and complement its main social functions.

The social functions of the press continue to evolve, improve and take on new dimensions with life.

# THE STRUCTURE OF FOUR STAGED MODULE TO USE THE INTERROGATIVE PRONOUNS

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Abstract. In this article, it is described the use of interrogative pronouns in the study of a foreign languages by the module of the four-staged system of text formation (FSSTF) and the creation of dialogues and monologues, the study of a foreign languages in the students' opportunity. It is also, discussed about strengthening learners' skills of grammatical, lexical and editing (stylistic), composing interrogative sentences in a particular direction.

Key words: text, module, method, speech, component, word, stage, process, grammar, form.

As it is impossible to imagine without a computer to expand the spiritual worldview, to improve individual's (oral and written) speech, to gain experience from foreign countries, to create the information-text and, if necessary, to acquire the skills of its rapid transmission as well as it is not easy to develop communication in any language without to identify the essence of interrogations. Achieving a culture of free communication in English also requires regular research, vocabulary development, consistent and continuous thinking, and accurate, concise, understandable expression of ideas, the ability to use interrogative pronouns correctly and the search for a complete answer to it. This didactic process strengthens the students' ability to learn English as a whole system, independent thinking, questioning words and phrases, choosing the right ones to creat a system of interrogative sentences, composing interrogative sentences in them, via grammatical and stylistic analysis. The correct and fluent speech, communicative literacy in oral and written communication in English can contribute the rapid formation of a culture.

According to Uzbek and foreign methodist-technologists' conducting scientific and pedagogical research in the field of foreign languages[1, p-85] innovative technologies applied in the new generation of textbooks should be interesting, free from excessive complexity, easy to learn, do not cause unnecessary difficulties, rapidly master the topic, serve to master the quick ways to apply it in speech practice. Due to the linguistic and communicative abilities of a person's learning a foreign language, the formation of lexical and grammatical skills, conversation, the development of knowledge and skills in text processing and translation gives good results. [2, p-47].

To do this, foreign language teachers themselves must be able to understand the phenomenon of interdisciplinary integration, which forms the mechanism of critical thinking, comparison, selection and discovery of the cause-and-effect relationships between social laws, interdisciplinary and interdisciplinary connections, language and speech dichotomy be aware of ways of implementation, new methods and tools (technologies). Although sentences regularly appear as separate speech movements, they must clearly express the sentences and the corresponding movement of the speech. They should also be aware of the basics of collaborative pedagogy, psycholinguistic approach to the student's personality in order to accelerate the acquisition of a foreign language in order to increase the effectiveness of education. Among these problems it is crucial creation of intensive-universal technology for the formation of independent textwriting skills for students, for the development of acceleration, step-by-step system of text creation and its introduction into school practice. Among these problems is the

intensive development of students' independent text creation skills - a special place is given to the creation of universal technology, the development of an accelerated, stepby-step system of text creation, which serves this purpose, and its introduction into learning practice. [3, p - 6]. In today's system of higher education, the main purpose of teaching a foreign language is to form in students a culture of oral and written speech. A reliable and easy way to achieve a goal is to develop the student's speech formation skills by creating dialogues texts of different content. To this end, the technology of systematic language learning is a complex, at the same time interesting way from phonetics to stylistics on the basis of modul tasks.

A reliable and easy way to achieve a set goal is to develop oral and written skills to develop the student' speech. The main role of the student in this regard is a) Stage 1: to increase their vocabulary at the beginning of the process, to translate, to interpret the semantics of special interrogative pronounsto

b) Stage 2: to group different word groups, select interrogative words according to the given topic.

c) Stage 3: to connect the words with other words, using question words, consolidation of grammatical and syntactic knowledge

d) Stage 4: to construct different interrogative sentences and use them in dialogues and texts focusing on the content and semantics of the sentences.

In creating new texts and dialogues FSSTF module can often serve to develop language skills.

The four-staged universal module of systematic language learning FSSTF can be used effectively in the study of mother tongue, Russian, foreign languages and other social sciences, in independent education system, determining the level of speech and communicative literacy of students. In any language interrogative pronouns have a great importance in the study of primary and secondary parts of speech. [3, p-77].

There are many ways to ask questions in English. It's important to understand the situation when deciding how to ask questions. In other words, is the question you want to ask a polite request? Would you like to confirm the information you already know? Are you gathering details about a subject? [4]

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## STATE AND LAW

## LEGAL BASIS OF THE ISLAMIC FINANCING SYSTEM IN THE REPUBLIC OF UZBEKISTAN. WHY IT IS INEFFECTIVE?

#### Asal Juraeva

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Abstract. The thesis analyzes the activities of the Islamic Development Bank in Uzbekistan, the financial services provided by it and steps taken to develop Islamic financing in the country. Besides current legislation framework of Islamic financing in Uzbekistan and the issues of enhancing it is mechanism covered in this work. At the end of the analysis, the reforms that should to be implemented in the legislation of Uzbekistan to further develop Islamic financing in the country are discussed.

Keywords: Islamic Development Bank, Islamic finance, Islamic window, banking, lending

Islamic products and services are not offered in Uzbekistan by the Islamic Development Bank (hereinafter IDB), except for murabaha, istisna (exception) and rental services in business lending. Only Toiba Leasing Company has been established for lending through local organizations and this company also does not provide financing services other than leasing. In the process of lending, which is offered by commercial banks as an Islamic window or Islamic credit line, this operation is not offered by the bank, but by the IDB, and the bank signs a contract with the entrepreneur on his behalf on the basis of a power of attorney. Because the activities of the IDB are based on Islamic financing mechanisms. Current legislation of the Republic of Uzbekistan prevents commercial banks and other lending institutions from offering Islamic financing services. In particular, banking law, tax law, civil law, securities market laws, and other legal documents do not allow the implementation of many Islamic financial services.

The First Deputy Chairman of the Senate of the Republic of Uzbekistan Sadiq Safaev also said that no practical steps have been taken in Uzbekistan to introduce Islamic finance, but the government has decided to start work on the importance of this sector, its effective use and development. []

As a first step towards the introduction of Islamic financing system in Uzbekistan in May 2018, the draft resolution of the President of the Republic of Uzbekistan "On measures to establish the infrastructure of Islamic banking and finance in the Republic of Uzbekistan" was announced. []

The draft resolution provides for the establishment of a new commission for the development and implementation of the principles of Islamic banking and finance.

According to the Draft Resolution of the President the new Commission shall develop normative and legal acts on the introduction of the principles of Islamic banking and financial infrastructure for the implementation of insurance activities (takaful), leasing activities (idjarah), securities transactions (sukuk) and other principles of Islamic banking and finance. It was decided to take measures to widely promote the use of the advantages and opportunities of Islamic banking services among the population and entrepreneurs, as well as to explain their main differences from traditional banking services.

In the Draft Resolution it was also considered the establishment of the Islamic Development Bank of Uzbekistan, which provides a wide range of standard retail services, including export-import financing, housing finance, commercial real estate financing, leasing services, insurance, and services in the securities market through infrastructure units and refinancing commercial banks. However, this Draft Resolution was not adopted.

In the second paragraph of the Resolution of the President of the Republic of Uzbekistan dated 5 March 2019 N. PR-4224 "On measures to further expand and deepen partnership with the Islamic Development Bank and the Arab Coordination Group", the introduction of Islamic financing in the banking sector, public-private partnership mechanisms including the joint development and implementation of support programs in Uzbekistan through the establishment of waqf-foundations, as well as the active involvement of financial resources and products of Islamic Corporation for the Development of the Private Sector (ICD), International Islamic Trade Finance Corporation (ITFC) and Islamic Corporation for Insurance of Investments and Export Credits (ICIEC) to support investment projects of business entities by commercial banks, strengthening their export potential were pointed out in the Resolution. []

Above Resolution was the first official step towards introducing Islamic financing system in Uzbekistan. On the implementation of the mentioned Presidential Resolution, the Cabinet of Ministers adopted Resolution N.428 on 23 May 2019 which approved the Action Plan (Roadmap) for further expansion of cooperation with the Islamic Development Bank Group (IDB) and the Arab Coordination Group (ACG). []

Item 13 of the roadmap envisages the involvement of ICD consulting assistance in 2019 in the framework of the development of Islamic finance infrastructure in Uzbekistan, and several events have been organized over the past year.

The following banking and financial services, products based on the principles of Islamic banking and finance can be introduced in Uzbekistan:

- complex structured financial services;

- securities Market Services (Sukuk);
- risk hedging (hedging of exporters' risks);

- investment funds (investments in long-term projects, projects in the securities market);

- venture capital organizations (investment in high-tech startups, etc.);
- leasing services (Idjarah);
- insurance services (Takaful);
- retail services;
- export-import services;
- housing financing;
- financing of commercial real estate;

- other operations in accordance with Islamic finance.

Other operations under Islamic finance include:

Mudaraba- partnership for profit;

Musharaka- partnership in profit and loss;

Murabaha - trading at an additional or higher than the set price;

Bai al salam - purchase in advance;

Amana - responsible custody of the trust;

Istisna - purchase order.

A number of laws on the implementation of these services need to be brought into line with Islamic finance criteria.

In particular, the newly adopted Tax Code of Uzbekistan on 30 December 2019 stipulates that fines, penalties and other sanctions to be paid by the debtor for breach of contractual obligations in the calculation of income tax are considered as income; the funds provided in the form of charitable assistance are not deductible in the calculation of income tax; if banks finance equipment or technology based on Islamic finance, value-added tax (VAT) will be applied to them, these and other provision in the legislation of Uzbekistan does not comply with the rules of Islamic financing system.

Also, in the new edition of the Law of the Republic of Uzbekistan "On Banks and Banking" N.580, adopted on 5 November 2019 it considers the condition of interest rates on loans; prohibition of banks to engage in production and trade activities; a bank can lease its property only to legal entities of which is the founder; prohibition of formation of legal entities or acquisition of shares or shares in the authorized funds (authorized capital) of legal entities; such norms are one of the main obstacles in the legislation of Uzbekistan in establishing Islamic banks or Islamic windows. []

To sum up, in order to expand the inflow of the IDB's resources into the Uzbek economy a roadmap should be developed to deepen relations between the IDB and Uzbekistan. This roadmap should be aimed at improving the existing legislation (amendments and additions to the legislation on banking, taxation, securities), increase public awareness, develop Islamic financial infrastructure, international cooperation and public sector. In addition, a roadmap should also provide measures to enhance research on Islamic financial service market and its development, specific measures should be identified in each direction. At the same time, it is expedient to establish a responsible agency and define express deadline for each task.

# CONSTITUTIONAL RIGHTS AND FREEDOMS OF PEOPLE - INDICATOR OF LEGAL CULTURE

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Abstract.Along with the gradual development of rights and freedoms in Uzbekistan, there are processes of positive change in the mechanisms of legal protection, consisting of economic, civil, political and socio-professional legislation.

Key words: State, community, person, democracy, culture, principle, right, constitution, justice, responsibility, duty, freedom, public relations.

The rights and freedoms of the individual are the achievement of human enlightenment. The basic constitutional principles that define universal concepts such as democracy, development, human rights are in line with the interests of our national statehood, the uniqueness of our people, its traditions and deep respect for independence. Democracy and human rights in our society are strengthened not only by laws, but also by the consciousness of the people, their moral experience of honesty, hospitality. One of the human values in Uzbekistan - a characteristic feature of the Eastern Enlightenment - was and will be the full support of the family. Full understanding of human rights and respect for the individual will enrich our national culture and our young state. The patriotic feelings of the people, their desire for manhood and happiness are embodied in the symbols of the new state - the anthem, flag and coat of arms of Uzbekistan. These have a meaning and content that is sacred to every Uzbek. The first pages of the Constitution of Uzbekistan state the individual rights and freedoms, followed by political rights and freedoms, as well as economic, social and cultural rights and freedoms. Such consistency has its own internal logic.

Whereas previously the priority of socio-economic rights was provided, now it is clear that all categories of rights and freedoms are reflected in one sense, while the priority of personal and political rights is shown. In the past, most of these rights were not respected. The Constitution proclaims pluralism (diversity), multiparty system, freedom of speech and expression, freedom of religion and belief, diversity of interests in society as the basis of statehood. There is a second section on human rights in the Constitution of Uzbekistan to ensure the above-mentioned human rights and freedoms and to prevent the occurrence of violence in this area. It is based on the Universal Declaration of Human Rights, adopted by the United Nations on December 10, 1948, as well as the International Covenant on Civil and Political Rights and other documents.

Along with the gradual development of rights and freedoms in Uzbekistan, there are processes of positive change in the mechanisms of legal protection, consisting of economic, civil, political and socio-professional legislation. The following views of the classification of rights and freedoms are generally accepted. These are civil, personal rights and freedoms, political, economic and social rights. These are reflected in Chapters VI-IX of the Constitution of Uzbekistan.

Public authorities in Uzbekistan base their policies on the need to expand and strengthen the mechanism for the exercise of rights and freedoms, on the universal values embodied in the universally recognized set of civil rights and freedoms. The main obligation of the state and society is to adequately guarantee these rights by all possible means. Implementation of this law is the first condition for the democratic development of the state and society. Because this defines the humanity of democracy. The Constitution of Uzbekistan expresses respect for the freedom of conscience, which is established in the Republic and fully meets the spiritual traditions of our people. The universal principle of the state not to interfere in the personal beliefs and religions of its citizens does not allow us to give the state a religious essence. The nationalization of religion also contradicts its own sacred pillars, and it threatens the state's interference in the spiritual essence of religion. Belief in religion is everyone's personal business. On top of this, the Holy Qur'an also denies the forcible imposition of religious views on people.

The issue of guaranteeing the rights of believers and non-believers is also reflected in the Basic Law, according to which the Constitution guarantees their freedom of information and association, the scientific nature of education in the state system. The duty of citizens is to carefully preserve the historical, spiritual and cultural heritage of the people of Uzbekistan. The basic human rights include the right and the right to engage in entrepreneurial activity to mobilize and manage one's creative power. the gradual transition of our society to a socially oriented market economy requires the liberation of the people from the pre-existing mistreatment of entrepreneurship, laziness and laziness. This process is not only complicated by purely economic and social reasons, but also by its involvement in the feelings of the people. The Uzbek state is multinational. That is why we understand the right of every person to national dignity, their native language and culture as a guarantee of national peace. It is no coincidence that we rarely use the term "national minority". In this way, the Uzbek people respect the position of other peoples in our common family. The total number of these peoples living in Uzbekistan exceeds one hundred. A system of protection of the national rights and interests of all peoples has been established and is developing through the rule of law and public opinion. It should be noted that according to the law on citizenship, all citizens of Uzbekistan, regardless of race, nationality, religion, settlement census and language, can acquire the citizenship of the republic at will. This is one of the most important manifestations of legal culture. The source of democratic legal development of Uzbekistan is the inclination of our people to universal values.

For centuries, it has nurtured the buds of justice, equality, good neighborliness and humanity. The ultimate goal of the renewal of our homeland is to restore these values, enrich them with new content, create the necessary conditions for peace, humanity, democracy, prosperity, culture, freedom of conscience and the perfection of every human being. The constitution of any state defines the basic principles of the organization of state power, that is, it distributes the powers of different state bodies. The Basic Law of our country states that "the system of state power is based on the principle of separation of powers into legislative, executive and judicial powers" [1: 5]. The Constitution of Uzbekistan has created aconstitutional and legal basis for the relationship between the legislature, the executive and the judiciary.

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## LEGAL BASIS OF REGULATION OF IMPORT-EXPORT RELATIONS IN THE REPUBLIC OF UZBEKISTAN

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Abstract.After gaining independence, the Republic of Uzbekistan has begun to create a legal framework for the legal regulation of import-export relations, and this legal framework is still being improved. In this thesis we have described the legal basis for the regulation of import-export relations in the Republic.

Key words: import, export, legal basis, regulation, law, legislation.

Import-export relations together constitute foreign economic activity. Foreign economic activity is the activity of legal entities and individuals of the Republic of Uzbekistan aimed at establishing and developing mutually beneficial economic relations with legal entities and individuals of foreign countries, as well as international organizations. Legal entities registered in the Republic of Uzbekistan, as well as individuals who have a permanent residence in the territory of the Republic of Uzbekistan and are registered as sole proprietors, have the right to engage in foreign economic activity. The state bodies of the Republic of Uzbekistan may carry out foreign economic activity, unless otherwise provided by the legislation. The main principles of foreign economic activity are:

- freedom and economic independence of the subjects of foreign economic activity;

- equality of subjects of foreign economic activity;
- non-discrimination in trade and economic relations;
- mutual interest in foreign economic activity;
- state protection of the rights and legitimate interests of foreign economic activity.

Subjects and objects of foreign economic activity. Legal entities and individuals of the Republic of Uzbekistan engaged in foreign economic activity are the subjects of foreign economic activity. Goods, works (services) that are the object of purchase or exchange, any property, including securities, currency values, electricity, heat and other types of energy, vehicles, intellectual property foreign economic activity may be carried out in respect of such entities, except for those whose use in foreign economic activity is prohibited by law.

Foreign Trade Laws "On Foreign Economic Activity of the Republic of Uzbekistan" (June 14, 1991), "On Currency Regulation" (May 7, 1993), "On the State Customs Service" (August 29, 1997), "Customs Code" (1997, Dec. 27) and other laws and regulations.

In order to further improve the legal regulation of import and export relations in the Republic of Uzbekistan, the following regulations have been adopted:

- Resolution of the President of the Republic of Uzbekistan dated November 3, 2017 No PP-3351 "On measures to further liberalize foreign trade and support businesses"

- Decree of the President of the Republic of Uzbekistan dated December 15, 2017 No PF-5286 "On additional measures to ensure the competitiveness of domestic products in foreign markets and stimulate exports"

- Resolution of the President of the Republic of Uzbekistan dated June 29, 2018 No PP-3818 "On measures to further regulate the foreign economic activity of the Republic of Uzbekistan and improve the system of customs and tariff regulation"

- Decree of the President of the Republic of Uzbekistan dated November 29, 2018 No PF-5587 "On measures to further stimulate the export potential of domestic producers"

- Resolution of the President of the Republic of Uzbekistan dated May 24, 2019 "On

measures to expand export financing and insurance protection mechanisms"

Over the past period, the country has made consistent efforts to integrate into the international economic community and create favorable conditions for foreign economic activity by businesses.

At the same time, the current system of customs and tariff regulation does not encourage the development of market principles of competition. In particular, the excessive use of customs duties on imported goods does not allow for effective tariff regulation, while personal preferences create unequal competition for business development.

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## **TECHNOLOGY SCIENCES**

## A SENSOR-BASED ROBOTIC ARM FOR RESCUE ROBOTS

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Abstract-In this technology century, and as a result of technological advances, robotic technology has a positive impact as it helps to manage and control, becomes an integral part of our daily life. Therefore, robotic technology has an important role to serve humans in difficult situations. Novel advances in research and technology have broadened the horizons of rescue robotics. Using grip sensing technology in rescue robotics will increase the level of robot performance. In this paper, we develop a sensor-based robotic arm for rescue robots. Keywords: rescue robot, robotic arm, sensors, gripper.

A robotic arm is a type of mechanical arm, usually programmable, with similar functions to a human arm; the arm may be the sum total of the mechanism or may be part of amore complex robot. The links of such amanipulator are connected by joints allowing either rotational motion (such as in an articulated robot) or translational (linear) displacement. The links of the manipulator can be considered to form akinematic chain. The terminus of the kinematic chain of the manipulator is called the end effector and it is analogous to the human hand [1].

Robots have used multiple types of grippers for years, but the push for more manual dexterity has become more urgent because of rising demand from e-commerce order fulfillment and other applications. Human-level manipulation of various objects is a difficult technical challenge, and robotics developers and vendors have responded with a range of solutions [2].

A gripper is adevice which enables the holding of an object to be manipulated. The easier way to describe agripper is to think of the human hand. Just like ahand, agripper enables holding, tightening, handling and releasing of an object. A gripper is just one component of an automated system.

Robot grippers are the physical interface between arobot arm and the workpiece. This end-of-arm tooling (EOAT) is one of the most important parts of the robot. One of the many benefits of material handling robots is the reduction of part damage. A gripper comes in direct contact with your product, so it's important to choose the right type of gripper for your operation.

There are four types of robotic grippers: vacuum grippers, pneumatic grippers, hydraulic grippers and servo-electric grippers.Manufacturers choose grippers based on which handling application is required and the type of material in use.

Vacuum Grippers

The vacuum gripper has been the standard EOAT in manufacturing because of its high level of flexibility. This type of robot gripper uses arubber or polyurethane suction cup to pickup items. Some vacuum grippers use aclosed-cell foam rubber layer, rather than suction cups, to complete the application.

Pneumatic Grippers

The pneumatic gripper is popular due to its compact size and light weight. It can easily be incorporated into tight spaces, which can be helpful in the manufacturing industry. Pneumatic robot grippers can either be opened or closed, earning them the nickname "bang bang" actuators, because of the noise created when the metal-on-metal gripper operates.

Hydraulic Grippers

The hydraulic gripper provides the most strength and is often used for applications that require significant amounts of force. These robotic grippers generate their strength from pumps that can provide up to 2000psi. Although they are strong, hydraulic grippers are messier than other grippers due to the oil used in the pumps. They also may need more maintenance due the gripper being damaged because of the force used during the application.

Servo-Electric Grippers

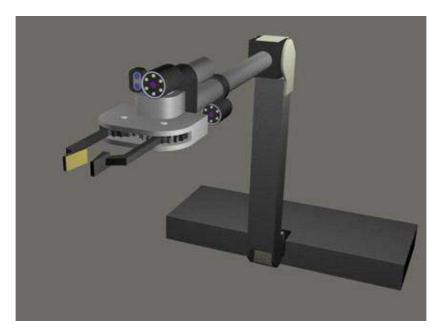
The servo-electric gripper appears more and more in industrial settings, due to the fact that it is easy to control. Electronic motors control the movement of the gripper jaws. These grippers are highly flexible and allow for different material tolerances when handling parts. Servo-electric grippers are also cost effective because they are clean and have no air lines [3].

We develop a sensor-based robotic arm for rescue robots. The robotic arm has tensoresistor mounted gripper. The robotic arm has following features:

- the tensoresistor changes its resistance depending on the deformation, and in this way, the pressure at the surface can be measured.

- the robotic arm is equipped with 1 night-vision camera and 1 thermal camera equipped with 1 infrared light on top of the clamps for ease of operation.

- a camera equipped with 1 infrared light is also installed for medium distance viewing.



## Fig. 1. 3D model of sensor-based robotic arm for rescue robots

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## EXPERIMENTAL AND GRAPHICAL ISSUES IN STUDENTS' INDEPENDENT STUDY ACTIVITIES IN PHYSICS

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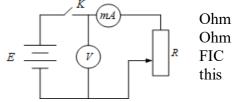
Abstract. This article reveals about experimental and graphical issues in students' independent study activities in physics. In solving experimental problems, experiments should be set in compliance with all the conditions of the demonstration experiment. In order to draw conclusions based on the students' answers, how the student analyzes the graphs based on the theoretical knowledge acquired by the teachers, the analysis of the velocity graph based on their independent opinions is monitored and reviewed.

Keywords: velocity, thinking skills, acceleration, graphic problems.

Particular attention should be paid to the selection of interesting topics in order to develop students' independent learning activities, the formation of thinking and skills, increase their interest in the lesson. The selected issues should form a clear system and be focused on a specific goal. Therefore, special attention should be paid to the selection of individual topics and sectional issues aimed at developing independent thinking skills. The content of experimental and graphical problems should be derived from the goals and objectives of teaching physics, the relevance of SES to students, the problem statement should be clear and realistic, and the student should have clear scientific knowledge and practical skills.

In solving experimental problems, experiments should be set in compliance with all the conditions of the demonstration experiment. Particu lar attention should be paid to the visibility of instruments and measurement processes. Including the process of experimental execution, it is necessary to guide the teacher himself. Here is an example of a demonstration experimental problem. Figure 1.

When the galvanic cell battery was connected to a 24 resistor, the current in the circuit was 150 mA. When a 12 resistor was connected, the current was 270 mA. Find the of the battery and its internal resistance. If possible, try in practice. To do this, use two resistors with known resistances and millimeters.



Schematic diagram of the electric charge collected according to the condition of the matter. Given:

$$R_1 = 24$$
 Om,  $I_1 = 150$  mA,  $R_2 = 24$  Om,

$$I_2 = 270$$
 mA,  $E = ?, r = ?$ 

Systematizing the problem-solving sequence in the following order helps the student to visualize the problem-solving process clearly.

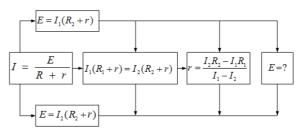
Problem solving algorithm.

According to the calculations, it can be determined that E = 4,05 B, r = 3 Ohm. As a result of the independent application of experience and skills in solving experimental problems, students' skills and abilities to work independently are formed and developed.

Problems in which the object of study consists of graphs of the connection of physical quantities are called graphical problems. In some cases, they may need to be combined.

When solving graphic problems:

- Students must have the skills and abilities to "Read" graphs and create simple graphs;



- Increasingly complicating the work with graphs, it is necessary to advise students to find quantitative relationships between quantities, to go to the construction of relationship equations.

The steps for solving graphic problems are as follows:

1) if a graph of connections between the quantities is given, then it is necessary to explain it, to study the nature of the connection in each section; 2) using the scale, find the values of the quantities (on the abscissa and ordinate axes) sought from the graph; 3) if a link graph is not provided, then a graph is created based on the values obtained from special tables or the condition of the problem. To do this, the coordinate axes are drawn, then the corresponding points of the ordinate and abscissa corresponding to the plane with the coordinate axes are placed. Using these points, a graph of the relationship between

the physical quantities is made, and then set in the order mentioned above.

As an example, we see the following issue.

Using the graph given in Figure 2, describe how the objects move and write the velocity formula for each movement.

Figure 2.

The movements in

the graph are analyzed by the students as follows.

1. a) if the velocity increases with time, then the motion is accelerating;

b) slowing down if the speed decreases over time;

c) if the velocity is constant, there will be smooth motion.

2. Acceleration is determined for variable motion.  $a = \frac{9 - 9_0}{t - t_0}$ 

3. For a plane of variable motion, the velocity formula is constructed from the acceleration formula:

 $\vartheta = \vartheta_0 + at$ 

4. Constant quantities are determined from the graph: Velocity is found from the axis and by

calculation  $\vartheta_0$  and the value of  $a = \frac{\Delta \vartheta}{\Delta t} = \frac{\vartheta_2 - \vartheta_1}{t_2 - t_1}$  is put into the above formula. In order to draw

conclusions based on the students 'answers, how the student analyzes the graphs based on the theoretical knowledge acquired by the teachers, the analysis of the velocity graph based on their independent opinions is monitored and reviewed.

I-graph is a velocity graph of a plane accelerating motion with an initial velocity of zero; II velocity graph for a plane accelerating motion with an initial velocity of 2 m/s:

II- velocity graph for a plane accelerating motion with an initial velocity of 2 m/s;

III- the velocity graph for a smooth decelerating motion with an initial velocity of 7 m/s; IV- velocity graph for a special case of plane acceleration with an initial velocity equal to zero; V- velocity graph for a straight motion with velocity 4 m/s.

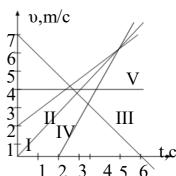
Based on the above conclusions, the following velocity equations are written by putting the values of initial velocities and accelerations in the velocity formula:

I 
$$\vartheta_0 = 0;$$
  $a = \frac{7M/c}{5c} = 1, 4M/c^2;$   $\vartheta = 1, 4t$ 

II 
$$\theta_0 = 2M/c; \quad a = \frac{7M/c - 2M/c}{5c} = 1M/c^2; \quad \theta = 2+t$$

III 
$$\theta_0 = 7M/c; a = \frac{0M/c - 7M/c}{6c} = -1.2M/c^2; \theta = 7 - 1.2t$$

IV 
$$\mathcal{G}_0 = 0; \quad a = \frac{7M/c}{5c+2c} = -2,33M/c^2; \quad \mathcal{G} = 2,33(t-2)$$



V  $\vartheta = 4_M/c$ ; a=0, smooth movement. It can be thought of as a special case of a plane variable motion with acceleration equal to 0.  $\vartheta = \vartheta_0 + 0 \cdot t = \vartheta_0$  is analyzed. Based on these analyzes, the

graphical issue is fully developed. Organized independent learning activities show that students can solve problems independently:

strengthens theoretical knowledge; the ability to think independently is formed and developed; studies the relationships between physical quantities; conscious mastery of the laws of physics is achieved; the ability and skill to create a graph is formed depending on the condition of the problem; learns to record given physical quantities based on graphs.

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## THE SIGNIFICANCE OF CREATING INTEGRATED ACADEMIC CURRICULUM AND SYLLABUS AT TECHNICAL HIGHER EDUCATIONAL INSTITUTIONS

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Abstract: This article summarizes the views of technical higher education institutions on the role and importance of interdisciplinary integration and integrated curricula, programs in increasing the interest of students in science, the acquisition of knowledge, independent, creative thinking, the formation of opportunities for independent thinking.

Keywords: integration, integration of pedagogical-psychological sciences and specialty subjects, interdisciplinary integration, integrated curricula and programs, professional training, knowledge, skills, qualifications, qualified specialist, independent thinking, competent person.

Current important socio-political, economic, legal and cultural changes in our society place qualitatively new requirements on the content and nature of the work of qualified specialists. This situation indicates the need for an integrated approach to the problem of training qualified specialists [1]. An integrated approach to the training of qualified specialists, in turn, requires the rational organization of the educational process and the development, improvement and integration of the content of the training of mature specialists.

Pedagogical scientists and practitioners of the country are conducting research on the development of science-based modern educational technologies and their introduction into the educational process, the implementation of information technologies, improvement of regulations, improving the quality of education. In this regard, it should be noted that the 'National Program of Personnel Training' identifies the application of advanced pedagogical technologies in the educational process, as well as the integration of disciplines between types of education as an urgent task.

Ensuring interdisciplinary integration in the field of education, which is adapting to world standards today, giving new content and form to the development of integrated curricula and programs in the education system is an important aspect of educating a new generation.

After the adoption of the Law of Uzbekistan "On Education" and the National Training Program, the content of education has been significantly updated. New textbooks and manuals have been developed in accordance with the requirements of the state educational standard. However, observations and studies show that the number of subjects in the curriculum has increased [2]. Efforts are being made to increase the level of knowledge of students by increasing the number of academic subjects. But as a result:

1.As the number of academic subjects increases, the knowledge provided to students becomes less;

2. The amount of repeated information in textbooks and manuals is increasing;

3. The knowledge and concepts that are not included in the student's social experience are increasing;

4. There is a discrepancy between the STS and the curriculum;

5. The multiplicity of subjects, the repetition of information distracts and bores students

from learning:

6. The time that students can spend on useful activities is wasted.

Integrated curricula should reflect the student's knowledge and minimum requirements for the level of preparation on the basis of DTS. The level of integration to be implemented should be ensured at the level of interdisciplinary connection, harmonization, starting from deep, comprehensive communication in the content of the same subject.

The interdependence of the directions of science is reflected in the disciplines, which, by their nature, reflect the basics of science. Today, all branches of science are inextricably linked, the disciplines can not be separated from each other, the integration of pedagogical, psychological and specialized disciplines is akey tool in the deep and comprehensive mastery of the basics of science in the professional training of future professionals. Integration contributes to the deeper acquisition of knowledge by students, the formation of scientific understanding and laws, the improvement and proper organization of the educational process, the formation of scientific worldviews. At the same time, integration allows students to increase their knowledge, academic level, logical thinking, thinking processes, and develop creative skills. Implementing interdisciplinary integration eliminates duplication in the study of program material, saves time, and shapes student knowledge, skills, and competencies.

The integration of pedagogical-psychological and specialized disciplines provides a practical orientation of teaching.

While the problem of interdisciplinary integration in pedagogy is primarily focused on the coordination of the study of disciplines included in the curriculum and the formation of students in the content perfect, logically complete systematic knowledge, behavioral methods and personal qualities, psychology is the understanding of the student's psyche, identity and others. processes (analysis, synthesis, conclusion), to learn to understand the purpose of life.

According to O. A. Abdukudusov, the following are some obstacles to the implementation of interdisciplinary integration [3]:

1) the use of incompatible terms and concepts in the sciences;

2) no separation of ideas, theories, problems or concepts from the teaching materials;

3) failure to take into account the internal connection of scientific knowledge;

4) and the fact that academic disciplines do not have a single purpose.

Issues related to interdisciplinary integration in the 50s and 70s of the twentieth century It has been comprehensively studied by I.D. Zverev and V.N.Maksimova [4], P.G.Kulagin [6] and others. These scholars have come to the conclusion that interdisciplinary integration is the relationship of real beings, which reflects the objectivity of the world and, accordingly, should determine the content, methods and forms of organization of teaching. It was during these years that the main didactic tasks of interdisciplinary integration, methods of their implementation in the classroom were identified.

V.IAlekseentsev defined the following in his research work: "Interdisciplinary integration is used to determine the synthesizing, integrative relations between objects, events and processes of real beings, reflected in the content, forms and methods of the educational process, and in a limited unit of educational, developmental and pedagogical functions. is an executive pedagogical category "[5].

According to I.D.Zverev and V.N.Maksimova: "Interdisciplinary integration is the most important factor in the development of students' learning activities, modern teaching processes. By taking the whole teaching process to a higher level, interdisciplinary integration has a multifaceted effect by ensuring the unity of the developmental, educational functions of the educational process "[4].

Interdisciplinary integration is the process of creating a single whole in continuous communication and its result.

Therefore, when we say interdisciplinary integration, we mean the unity of goals, objectives and content of educational disciplines, which contribute to the generalization, systematization and consolidation of knowledge in the educational process, the formation of generalized skills and abilities, and ultimately - the scientific outlook and qualities of a well-developed person. it is not difficult to obtain [6]. It is well known that a system implies an integrity that serves to achieve specific goals. As a system, it would be appropriate for us to take the education system as an example. Within the disciplines, the logical integration of a particular system of knowledge is reflected in the content of teaching. Because the content of any subject can be considered as a didactic system, in which the connecting concept is performed by leading concepts and ideas. Leading concepts and ideas perform the function of system-forming integration in the context of science, uniting its structural elements around them into a single system. Leadership concepts and ideas can play a unifying role in the teaching process. Topics studied on the basis of interdisciplinary integration contribute to the generalized nature of students' learning activities [7].

In this case, first of all, it is important to provide the content of educational materials. To achieve this goal, the development of scientific and pedagogical bases for the integration of educational disciplines in the content of education, the improvement of the curriculum in accordance with the requirements of the liberalization of the educational process; it is expedient to create a new generation of integrative curricula and textbooks, to develop and adopt the integration of educational content.

Interdisciplinary integration takes place at different levels:

- at the level of academic disciplines belonging to different categories (general academic disciplines or interdisciplinary integration);

- at the level of internal studies;

Today's interpretation of interdisciplinary integration is based on the following categories and concepts - integrity, emergence, emergence and development, discussion of interests, integrated knowledge, systematic approach, socialization of consciousness and practice illuminated.

Interdisciplinary integration is a multifaceted, multidisciplinary, multi-functional phenomenon [8].

Interdisciplinary integration is primarily characterized by its structure, because the internal structure of the subject determines its form, on the basis of which the following forms of integration can be distinguished (Table 1).

First of all, we distinguish the types of interdisciplinary integration by composition. The study of aspecific topic in terms of the structure of interdisciplinary integration shows what can be learned from other disciplines.

Accordingly, since the structure of interdisciplinary integration is determined by the content of the learning topic, which is formed by skills, competencies and thinking operations, the following types of interdisciplinary integration can be distinguished in the first row:

| Forms of<br>interdisciplinary<br>integration | Interdisciplinary<br>integration<br>types |               | The content of educational<br>materials that constitute the<br>types of interdisciplinary<br>integration |  |
|--|---|---------------|--|--|
| In terms of                                  |   | erms of       | In terms of evidence, concepts,  |  |
| content                                      | meani                                     | •             | laws, theories   |  |
|  | 2. In t                                   | terms of      | In terms of the skills to be   |  |
|  | operat                                    | ions          | formed, skills and thinking  |  |
|  | perfor                                    | med           | processes, thinking operations   |  |
|  | 3.In te                                   | erms of       | In terms of the use of   |  |
|  | metho                                     | odical        | pedagogical methods  |  |
|  | application                               |               |  |  |
|  | 4.In terms of                             |               | In terms of forms and methods  |  |
|  | organization                              |               | of organization of educational   |  |
|  |   |               | processes  |  |
| In terms of the                              | One-s                                     | ided          | Direct;  |  |
| direction of                                 | Two-s                                     | ided          | Reverse or renewable   |  |
| integration                                  | Multilateral                              |               |  |  |
| In terms of the                              |   | Chronological | Consistent;  |  |
| interaction of                               | JC  |               | Synchronous;   |  |
| the elements                                 | In terms of<br>the time<br>Chronometric   |               | Prospective;   |  |
| that make up                                 | im in                                     | Chronometric  | Local;   |  |
| the integration                              | l te<br>e t                               |               | Middle-term;   |  |
|  | h<br>th                                   |               | Long-term  |  |

In terms of interpretation of concepts, events, processes studied in different disciplines on the content of the studied topic;

1. In terms of performed operations - on the skills, qualification and thinking processes, thinking operations formed in interdisciplinary character;

2. In terms of methodological application - the coordination of teaching methods in different disciplines, the use of the same methods in the study of different subjects (graphics, project, comparative analysis, etc.).

3. In terms of organization - the appropriateness of the forms and structure of the organization of classes in the disciplines, which are integrated.

In the second line, we distinguish the content of educational materials, which constitute the types of interdisciplinary integration.

Interdisciplinary integration can be asource of interdisciplinary information for a specific subject of study of one (one-sided), two (two-sided) or several (multilateral) disciplines studied on the basis of interdisciplinary integration.

Types of interdisciplinary integration in the areas of behavioral methods are the use of interdisciplinary information in the study of the subject of basic education, or this topic as well as other topics. Indicates whether it is also used for subjects in other curricula.

In the third, time-dependent form of interdisciplinary integration, the following types of connections are distinguished:

1. Chronological - this is an integration in the sequence of implementation;

2. Chronometric is the integration in terms of the duration of the interactions that make up the integration.

According to the time factor:

- What knowledge from other disciplines has been mastered by students, which will be required for further study (chronological integration);

- which topic is considered aleader in the process of interdisciplinary integration in terms of the duration of study, and which one is a leader (chronological synchronous integration);

- shows how long the interaction of topics in the process of interdisciplinary integration will be.

In the development of integrated curricula and programs in higher education institutions, special attention should be paid to the content of educational materials, which constitute the forms of interdisciplinary integration, types of interdisciplinary integration, types of interdisciplinary integration, shown in Table 1.

In conclusion, it should be noted that the introduction of this or that level of integration in the educational process saves time and effort of the student; its cognitive capabilities expand; mechanisms for forecasting the results of the educational process on the basis of interdisciplinary integration will be created; In the process of integrated education, the basis is created for the training of a well-rounded person, a mature specialist, masters of their profession, who can fully meet the needs of today.

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## INVESTIGATION OF PROPERTIES OF FILMS BASED ON ETHYLENE COPOLYMER WITH VINYL ACETATE

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Abstract. The article examines the deformation-strength and operational properties of films based on a copolymer of ethylene with vinyl acetate in order to use it as a material for the bottom of shoes.

Keywords. A copolymer of ethylene with vinyl acetate, deformation-strength properties, resistance of films to aging, modifying additives, fillers, plasticizers, plantar materials.

One of the most urgent tasks for the successful development of plantar materials production is to find ways to expand its raw material base.

This is dictated by the scarcity of raw products (polyethyruretanes, thermoplastics), their high cost, complexity of processing (ethylene propylene copolymers) or an unsatisfactory complex of properties of finished products based on them (PVC-plasticates).

In this aspect, ethylene copolymers with vinyl acetate (SEVA) may be of particular interest. Compositions based on them are widely used in a variety of industries. They are distinguished by a unique set of properties such as: low density, high mechanical properties, high adhesion characteristics, high resistance to atmospheric influences and aggressive environments, high thermal insulation and heat protection properties, as well as physiological safety, etc.

SEVA is easily processed into products in all the ways typical of thermoplastics: Extrusion, vacuum forming, calendering, injection molding, and pressing [1]. The good compatibility of these polymers with other ingredients and the relatively low price (they are 3-3.5 times cheaper than polyethyruretanes) confirm the feasibility of using an ethylene copolymer with vinyl acetate as a feedstock for Shoe sole materials.

In this work, the properties of films based on an ethylene copolymer with vinyl acetate containing 75-85% VA – links were studied. Samples of films for the study of deformation and strength properties were obtained using standard rubber technology. The thickness of the films was 2 mm.

The aim of the work was to establish the regularity of changes in the parameters of physical and mechanical properties of SEVA-based films depending on the conditions of their formation, aging and the nature of modifying additives.

The latter were used: for regulating the elastoplastic properties of films – dioctyl phthalate (DOF) and epoxy resin ED-20; for filling films – technical carbon of the PM-50 brand and chalk, chemically precipitated.

The deformation and strength properties of the films were studied on an Instron-1022 type breaking machine at the speed of the lower clamp movement of 4 mm/min.

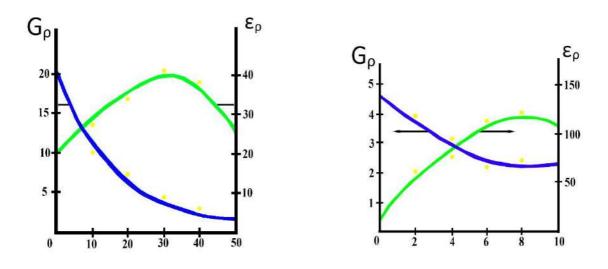
Aging of films under the influence of ultraviolet rays (UVL) was carried out in the UIS-1 apparatus. Exposure time of samples is 0-6 hours. The resistance of films to abrasion was determined on the device it-3-WE weight method. Attrition time of 10 min.; abrasive material-3-layer kirza; counterweight weight of 1 kg; rotation speed of the rotor with an abrasive 300 min<sup>-1</sup>.

All modifying additives were introduced into the polymer composition at the rate of 100 WT. h. SEVA.

For rice.1 the curves of changes in the deformation and strength properties ( $\sigma p$  and EP) of SEVA-based films depending on the plasticizer content in the polymer matrix are given. It can be noted that even small additives of plasticizer (up to 10 wt.h.) significantly reduce the strength

of samples at break [2]. In accordance with the graph shown in Fig.1, the optimal dosage of dioctyl phthalate was selected in the range of 25-35 wt.h. plasticizer per 100 WT.h. SEVA.

The effect of epoxy resin on the or and EP of plasticized samples of SEVA-based films can be seen in Fig.2. it Can be noted that the introduction of ED-20 into the system up to 5-10 mass. h. contributes to a sharp increase in the relative elongation of samples with a slight decrease in their breaking strength. This effect of the introduction of an epoxy resin into the SEVA in the first approximation can be explained by the manifestation of structural plasticization, when small additives of the modifier increase the mobility of supramolecular formations of the polymer.



| The content of the plasticizer, wt.h                           | Content of ED-20, mass. h.               |
|--|--|
| <b>Fig. 1.</b> Changes in the strength $(\sigma_r)$ and        | Fig.2. Change in the deformation         |
| elongation ( $\varepsilon_r$ ) during the rupture of SEVA film | and strength properties of plasticized   |
| samples, depending on the content of dioctyl                   | SEVA films (30 wt. h. DOF per 100 wt. h. |
| phthalate.   | SEVA) depending on the content of the    |
|  | epoxy resin ED-20.                       |

In table.1 presents data on the dependence of the deformation and strength properties of samples of films based on SEVA on the nature and quantity of the introduced polymer.

Table 1

| and $\varepsilon_r$ ) depending on the content of fillers |                      |                    |  |  |
|---|----------------------|--------------------|--|--|
| Composition   | σ <sub>r</sub> , MPa | ε <sub>r</sub> , % |  |  |
| SEVA : DOF : ED-20 = 100:30:10                            | 2,8                  | 149                |  |  |
| SEVA : DOF : ED-20 : PM-50 = 100:30:10:5                  | 3,9                  | 131                |  |  |
| SEVA : DOF : ED-20 : PM-50 = 100:30:10:10                 | 4,5                  | 138                |  |  |
| SEVA : DOF : ED-20 : PM-50 = 100:30:10:15                 | 4,0                  | 127                |  |  |
| SEVA : DOF : ED-20 : Chalk = 100:30:10:5                  | 2,8                  | 133                |  |  |
| SEVA : DOF : ED-20 : Chalk = 100:30:10:10                 | 2,9                  | 124                |  |  |
| SEVA : DOF : ED-20 : Chalk = 100:30:10:15                 | 2,3                  | 98                 |  |  |

Changes in the deformation and strength properties of SEVA-based films at break ( $\sigma_r$  and  $\epsilon_r$ ) depending on the content of fillers

It can be noted that carbon black acts as an active filler (with an increase in the content of PM-50,  $\sigma_r$  increases, and  $\varepsilon_r$  decreases slightly). The amplification effect in this case can be explained by the structuring of carbon black particles in the polymer matrix in the presence of vinyl acetate ring in the studied copolymer [3,4].

Ml injected into the SEVA in the same quantities, manifests itself as an inert filler. The maximum permissible content of both fillers in the composition is 10 wt. h. per 100 WT. h. SEVA. An increase in the content of fillers in the composition worsens their compatibility with

the polymer, the uniformity of the surface of the finished films is violated, and the indicators of their deformation and strength properties are reduced.

Table 2 shows the results of testing the deformation and strength properties of samples of SEVA films after 6 hours of exposure to UV rays.

Table 2

| Changes in the strength $(\sigma_p)$ and elongation $(\varepsilon_p)$ at the break of samples of films based |  |
|--|--|
| on SEVA after 6 hours of aging under the influence of UV rays  |  |

|                                | σ <sub>p</sub> , MPa |       | ε <sub>p</sub> , % |       |
|--------------------------------|----------------------|-------|--------------------|-------|
| Composition                    | before               | after | before             | after |
|                                | agings               |       | agings             |       |
| SEVA: DOF = 100:30             | 4,7                  | 5,4   | 43                 | 21    |
| SEVA : DOF : ED-20 = 100:30:10 | 2,8                  | 3,5   | 149                | 80    |
| SEVA : DOF : ED-20 : PM-50 =   | 4,5                  | 4,8   | 138                | 77    |
| 100:30:10:10                   |                      |       |                    |       |
| SEVA : DOF : ED-20 : Chalk =   | 2,9                  | 2,8   | 123                | 120   |
| 100:30:10:10                   |                      |       |                    |       |

Analysis of the data table.2 shows that samples of SEVA films after UV aging have the worst indicators of deformation and strength properties. The exception is samples filled with chalk. The stabilizing effect of chemically deposited chalk is determined in this case by its ability to absorb UV rays [2].

The resistance of modified samples of SEVA films to abrasion is shown in table 3.

Table 3

## Abrasion resistance of samples of films from the THROAT depending on the composition of the composition

| Composition                               | Mass loss, % |
|---|--------------|
| SEVA : DOF = 100:10                       | 8,7          |
| SEVA : DOF = 100:20                       | 9,9          |
| SEVA : DOF = 100:30                       | 12,4         |
| SEVA : DOF : ED-20 = 100:30:10            | 7,4          |
| SEVA : DOF : ED-20 : PM-50 = 100:30:10:10 | 5,1          |
| SEVA : DOF : ED-20 : Chalk = 100:30:10:10 | 5,7          |

The table shows that fillers significantly increase the abrasion resistance of film samples.

As a result of the research, it was found that ethylene copolymers with vinyl acetate with a BA content of 29% are well combined with such modifiers as plasticizers and fillers. The studied complex of physical and mechanical properties of modified samples of films based on SEVA allowed us to determine the optimal dosages of the selected modifiers and the effectiveness of their action in UV-aging conditions. The obtained data can then be used as a source for obtaining plantar materials from the SEVA by casting.

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## METHODS OF ORGANIZATION OF LITERATURE LESSONS ON THE BASIS OF HEURY EDUCATIONAL TECHNOLOGY

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Abstract: This article provides theoretical and practical information on the methods, importance and effectiveness of the use of heuristic learning technologies in literature lessons.

Keywords: Heuristic education, research, analysis, method, assignment, problem, protagonist, description.

The main idea of heuristic education technology is the comprehensive development of students. The main features of this technology:

- Forms and develops the mechanism of thinking, making students the subject of their cognitive activity.

- Cognitive activity of students is organized in the integrity of empirical and theoretical knowledge, and the deductive study of knowledge in the learning process is a priority.

- Preparing for the development of the teaching process, the formation of critical and creative thinking in this process is a priority. These two types of thinking complement and require each other.

- Critical thinking (analysis of information, selection of necessary facts, comparison, comparison of facts and events). [1]

When we teach students about life and work of poets and writers, we must not only inform and memorize them, but also stimulate creative, critical thinking on the subject under study. Because the memorized information can be forgotten after a certain time. However, creative and critical thinking on a topic serves for self-education on the basis of topics. With this in mind, we must teach literature lessons not only to read the poems of poets expressively, but also to analyze them. For the analysis, we use a number of methods of heuristic methods: In particular, when studying the poems of Zulfiya, we can use the method of "Wheel of Mind", for the practice of this method we recommend to fill in the following table.

| Analysis of<br>Zulfiyakhanim's<br>poems                             | "Gardens<br>bloom" | are ir | "Spring has come to<br>question you" | "My son, there will<br>be no war" |
|---|--------------------|--------|--------------------------------------|-----------------------------------|
| How many words<br>are used in the<br>poem?                          |                    |        |                                      |                                   |
| Identify the<br>additions that make<br>art                          |                    |        |                                      |                                   |
| Find words that give aesthetic pleasure                             |                    |        |                                      |                                   |
| Does this match the title of the poem?                              |                    |        |                                      |                                   |
| What is the main idea of the poem?                                  |                    |        |                                      |                                   |
| If the poem<br>belonged to you,<br>what title would you<br>give it? |                    |        |                                      |                                   |

This task is aimed at creative thinking of students and is directly related to the science of the native language. In the process of analysis, the student reveals the knowledge acquired in two disciplines.

For the effective organization of our literature lessons, we recommend the "Time Machine" or "Knowledge Station" method. That is, in this way the life and work of an artist, or the protagonists of a work, are placed in stations. The time machine explains the name of the station to which the student lands and expresses his thoughts. For example. In the analysis of Abdullah Qadiri's novel "Last Days", you can put the heroes or chapters of the work at the stations. The reader expresses his impressions about this hero or this chapter, and can express positive and negative views in a statement of opinion.

To sum up, we hope that the methods of heuristic learning technology proposed in this article will serve to improve the quality and effectiveness of education, to teach students to study literature with interest.

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# SECURITY ANALYSIS OF URBAN RAILWAY SYSTEMS: THE NEED FOR A CYBER-PHYSICAL PERSPECTIVE

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Abstract. Urban railway systems are increasingly relying on information and communications technologies (ICT). This evolution makes cyber security an important concern, in addition to the traditional focus on reliability, availability, maintainability and safety. In this paper, we examine two examples of cyber- intensive systems in urban railway environments a communications-based train control system, and a mobile app that provides transit information to commuters and use them to study the challenges for conducting security analysis in this domain. We show the need for a cyber-physical perspective in order to understand the cross-domain attack/defense and the complicated physical consequence of cyber breaches. We present security analysis results from two different methods that are used in the safety and ICT security engineering domains respectively, and use them as concrete references to discuss the way to move forward.

Keywords: security analysis, urban railway systems, cyber-physical systems, railway safety

Information and communications technologies (ICT) play a vital role in helping railway operators improve their system safety and service reliability, provide higher transit capacity, and keep the costs of building, operating, and maintaining their infrastructure in check. For example, many urban transportation systems around the world have deployed some form of communications-based automatic train control (e.g., [1],[2]). In those systems, multiple cyber components, including wireless communication, software de?ned control logic, and near-real-time data visualization at control centers, have been introduced to replace their conventional physical counterparts. As another example, with smart phones becoming ubiquitous, transit operators (e.g., [3], [4]) are introducing mobile apps to provide consumers with information about train schedules, as well as push noti?cations about emergency events or other relevant information. While the bene?ts of digitizing urban railway systems are obvious, the potential implications of this evolution could be multi-faceted and profound, especially when it comes to the issue of security. For older railway systems, where train protection is based on track circuits and mechanical relay signaling, the security concerns reside primarily in the physical domain. In comparison, the ICT components used in newer automatic train control systems expose additional cyber-attack surfaces, which could allow sophisticated attackers to combine cyber-attack vectors with physical attack means to achieve malicious goals. This makes it dif?cult to assess the security of digitized urban railway systems using traditional approaches (e.g., safety analysis methods) that are most familiar to transit operators and other stakeholders. At the same time, security analysis approaches used in other ICT systems (e.g., enterprise networks) are also not readily applicable to urban railway systems, since cyber components can have complicated interactions with the physical assets, or even passengers (e.g., with a false noti?cation through a mobile app).

In this work, we take a close look at two concrete examples of cyber-intensive systems used in urban railway environments a communications-based train control (CBTC) system and a mobile transit information app and use them to analyze the cyber-physical security challenges introduced by the digitization of urban railway systems. At the high

level, we identify two key challenges:

- Cross-domain attack and defense: For a digitized urban railway system, with its many components that span a large geographic area in the physical domain and interconnect with each other in the cyber domain, attack and defense can manifest in multiple stages, involving both cyber and physical actions.

- Physical-domain consequences from cyber breaches: Security breaches in the cyber domain, such as falsi?ed information or malicious control logic, can have a complicated impact on the physical domain, which is also subject to an urban railway system's underlying design features, such as fail-safe mechanisms.

The evolution of urban railway systems requires the corresponding evolution of security analysis methodologies in particular, the need for encompassing a systematic cyber-physical perspective. In particular, we ?nd that in the CBTC example, the Failure Modes, Vulnerabilities and Effects Analysis (FMVEA) approach [4], which originates from the safety engineering domain, provides a convenient starting point, since the primary concern in train signaling is avoiding "hazards" such as train collisions or derailments, regardless of whether they are caused by cyber or physical means.

In summary, we analyze the cyber-physical security implications of the ongoing evolution of urban railway systems, present analysis results obtained from two different methods, and use them as concrete references to discuss the way to move forward.

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## SPECIFIC ASPECTS OF THE FORMATION OF MARKETING STRATEGIES IN THE AUTOMOBILE INDUSTRY

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Modern automobile industry is one of the leading industries that has a significant impact on the development of the country's economy. The development of the automobile industry will contribute to the development of related industries and the expansion of employment. Automobile production is not possible without the development of fundamental and applied science, on the one hand, and contributes to scientific and technological progress, on the other hand.

The Action Strategy for the Development of the Republic of Uzbekistan identifies a number of measures in the direction of "Deepening structural changes, increasing its competitiveness through modernization and diversification of key sectors of the national economy." In particular, the task of "pursuing an active investment policy aimed at modernization, technical and technological renewal of production, implementation of production, transport and communications and social infrastructure projects" covers the country's automobile industry, liberalization and simplification of export activities; and diversification of geography, expansion and mobilization of export potential of economic sectors and regions, liberalization and simplification, diversification of export composition and geography are considered to be topical issues.

While we are on the subject, the specifics of the formation of marketing strategies in the automobile industry, the importance of using basic marketing strategies, including leadership in reducing costs, differentiation and specialization strategies, and alternative strategies to ensure the competitive advantage of automobile enterprises .

The main problem of the domestic automobile industry is that the choice in favor of its products due to the financial constraints of the buyer, not the commitment of the automobile brand because of the quality and consumer characteristics domestic automobiles are losing overseas.

It should be noted that the main problem of the national automobile industry is that the financial and other choice of the buyer in the purchase of its products is determined by the limited capabilities of the automobile, as domestic automobiles are losing to foreign automobiles in many ways.

In addition, the problems of the domestic automobile industry are:

- The automobile industry is now in a difficult financial condition, the solution of which takes time. (this is due to many factors, including the capacity is not fully loaded).

- low quality of components of the automobile itself, which makes domestic automobiles less competitive;

- outdated production technologies and significant costs for the maintenance of stocks;

- long-term decision-making on the launch of new automobile models, a narrow range of automobiles on offer, limiting the possibility of entering the world market;

- the lag in the field of R&D, associated primarily with insufficient funding for research institutes and design bureaus;

- lack of experience in the conditions of world competition and inefficiency of personnel management;

- a small number of sales of domestic automobiles in foreign markets.

As far as we are concerned, the inevitable confrontation between auto manufacturer and consumers requires the localization of production, the creation of a new system of regional distributors and dealerships. In this context, there is aproblem of coordinating the efforts of economic and legally independent operators of the automobile market at the corporate, marketing level, as well as various marketing functions, including communication. Problems of relations between enterprises and consumers within a single system will need to be considered in the concept of marketing relations .

In the study of consumers in the production of products requires the integration of structural marketing links. Marketing provides the interaction between the consumer and the product. With this, marketing plays an important role in a company's success. In particular, in the automobile industry, the process of conducting marketing research and reaching the consumer is shaped in a unique way.

Summarizing the experience of the world's largest automobile industry, it can be widely used in the development of a model of strategic development of the automobile industry of the republic.

One of the peculiarities of paying special attention to the development of the automobile industry in Uzbekistan is the creation of a systemic cluster environment. The systemic cluster represents a framework that addresses issues related to the formation, organization and development of the automobile industry, namely the organization of management in the automobile industry, research aimed at improving the industry, human resources and its role in national and international markets.

It should also be noted that the main factor in the development of the global automobile market is the convenience created for consumers. Vehicle safety system, acceleration, fuel consumption rate, stopping capabilities and other devices are important. Innovative ideas introduced to them are of special importance in the development trend of the automobile market. Thus, the application of innovative processes to automobiles is of two types: the first is the introduction of innovation into a single device, and the second is the introduction of innovation into a whole system of devices, namely two or more devices together.

In general, a modern marketing strategy in the automobile industry creates the following opportunities for auto manufacturer:

- setting complex and at the same time realistic goals for the company, forming the necessary basis for forecasting future development trends;

- introduction of best practices, analysis of the best companies and learning to be competitive with them;

- search for weaknesses in the company's activities and accurate assessment of the company's potential;

- implementation of the best methods and approaches to practice;

- organization of production and service at the level expected by customers and consumers.

We believe that long-term marketing on the elements of the marketing complex based on the results of the analysis of external and internal marketing environment, aimed at achieving long-term marketing goals and positioning of the enterprise and its products, through the effective use of marketing strategies to improve communication between auto manufacturer and consumers' decisions must be made correctly.

# SMART TRANSPORTATION ACTUAL PROBLEMS IN BUILDING SMART CITIES

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Abstract. Urban mobility is described as the lifeblood of modern cities, a critical economic factor, and a facilitator of smart, sustainable development. Planning a smart city that delivers effective and equitable urban mobility solutions is one of the most pressing problems for cities throughout the world. In this article - the first in a planned series -we provide information on the role and current challenges of the smart transportation system in the construction of smart cities.

Key words: Smart city, smart transportation, Mobility-as-a-Service, Traffic Demand Modelling, network technology.

Currently, there is a rapid change in information and communication technologies. The emerging changes affect network technologies, actually computing and communication devices, as well as data processing. As a result, information technologies are used in an increasing number of spheres of human life and economic life. One of the topical areas of scientific research is the sphere of living environment, which, from the Smart Home area, is currently developing into the Smart City, Smart Transport System, etc.[4]

The complex of problems that arises in connection with the growth of all cities is as follows:

-transport problems,

- environmental problems,

-social problems associated with the growth of crime and social tension,

- the limitation of natural resources.

All these problems as a result of active urbanization are the main triggers and forced processes of the development of cities and their transformation into Smart Cities.

This transition can be called evolutionary, not revolutionary, since ongoing processes and emerging new tasks of cities arise in a long time period gradually, rather than briefly.

Smart cities must deliver effective smart mobility solutions while encouraging innovation, facilitating a collaborative ecosystem, and meeting sustainability goals. These challenges are part of the rapidly changing landscape of urban mobility as seen through the lens of a smart city planner.

In developing innovative smart city transportation solutions, cities face the challenge of how to ensure usability and continuity of services for citizens who have limited mobility options and those in "transport poverty". The effect of transport poverty is harsh in diverse segments of society and often denies equitable access to employment, education, healthcare services and social and cultural activities. "Our transport planning system penalizes people who cannot afford a car, who struggle to cover rising public transport fares, and who lack access to public or private transport because of age, disability or where they live."[2]

Smart transportation services can optimize transportation in urban areas by considering the traffic conditions, traffic problems and energy consumption. They provide public transportation users with real-time and multi-modal information to create an efficient transportation by using environmentally-friendly fuel and innovative transportation systems. Smart transportation is developed on the base of smart infrastructure that includes not only multi-modal connected conveyance but also automated traffic signals, tolls and fare collection. Data integration drives the system, incorporating weather and traffic data, linking emergency services data as well as information from government agencies. Smart services offer different benefits, from smart parking and vehicle locating systems, to route diversion alerts. A central command centre can tie together the smart transportation ecosystem, with real-time and updated data, handling passenger information, traffic signals, incident management and vehicle health monitoring.[1]

Globally, smart cities are taking the help of technology to develop such seamless and connected transportation systems:

Multi-modal mobility options-through Mobility-as-a-Service MaaS): MaaS aims to solve the problems associated with urban density and make mobility more efficient and convenient. It offers users access to different modes of transport via a single platform such as a mobile application. Users can choose the way they want to travel.

Intelligent traffic management-Traffic Demand Modelling: City planners can track data records and area-wise people movement and use this information to build models whereby public transportation gets deployed in areas of maximum people movement to ensure better connectivity.[3]

A smart transportation system will deliver when it enables affordable mobility for people from all strata of society. A standard data-sharing platform needs to be created to facilitate seamless mobility in terms of multi-modal options as well as regulating routes for traffic.

Technology can also be very effectively leveraged in the planning stage to arrive at the elements and framework that an optimized smart transportation system should incorporate.

Implementing smart transportation would need the government, transport operators and service providers to collaborate in planning and execution. Transforming the existing transportation system, across different touch points and activities-be it via mandates to implement vehicle tracking and emergency response systems, introducing smart payment systems or moving to green alternatives is crucial.

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## STRUCTURE RESULTS OF THE SOFTWARE FUZZY-DETERMINATED MATHEMATICAL MODEL WATER INTAKE OF UNDERGROUND WATERS

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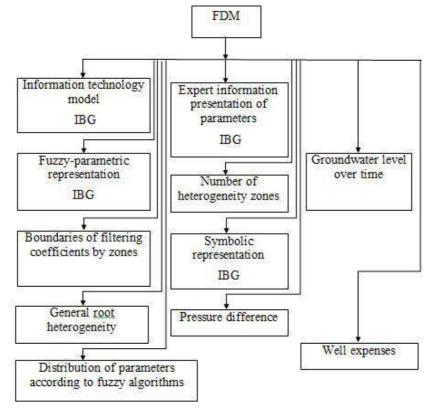
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Abstract. This article discusses the creation of an algorithm for the structure of the results of the software of a hydrogeological object based on fuzzy-deterministic modeling. The program provides the relationship between the object and its fuzzy-deterministic model.

Keywords:hvdrogeology, algorithm, software, fuzzy-deterministic modeling, groundwater intakes.

Structure the results of software for fuzzy-determinate modeling of groundwater intakes are effective for the processes of formation and operation. This structure of the results makes it possible for a decision to increase the effectiveness of the results of the information. The main goal of the considered structure of the results is to increase the security of the interconnectedness between groundwater abstractions and its fuzzydeterministic modeling.

The proposed structure of the results of fuzzy-deterministic modeling software is created of the following components - channels, rivers, infiltration basins and underground water intake wells. The algorithm for calculating the software for fuzzy-deterministic modeling provides algorithms for fuzzy formalization of the parameters of the filtration region, the initial and boundary regions. Moreover, fuzzy numbers of triangular and trapezoidal nature are used in such situations. Deriving the above tasks can be characterized in the following form:



Pic.1. Hierarchy of software results for fuzzy-determinate simulations of groundwater intakes

The results of computational experiments on the formation, analysis and presentation of information models are presented. The filtration area are important elements of the interface and establishing the relationship between the object for studying groundwater abstractions and its fuzzy-deterministic modeling, which makes it possible to simplify the fuzzy-deterministic modeling process and the decision-making process.

Complications of modeling complex processes will increase the level of requirements for initial information. In the face of an increase in technogenic factors, groundwater intakes cannot really be met.

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#### **ONLINE TUTORIALS: SUCCESSES AND CHALLENGES**

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Abstract. This scientific article is devoted to the achievements and challenges of organizing online courses in the distance learning process at all stages of education and reveals the main characteristics.

Keywords: online learning, synchronous, asynchronous, virtual classroom, visuals memory.

The best technology is the one whose results are obvious (BoqijonTokhliyev. Uzbekistan. Doctor of Philology, Professor)

As in all areas, the educational process is undergoing dramatic changes as a result of scientific and technological progress. For example, the distance learning process has been in great demand due to the pandemic that has occurred around the world today, which has led to the emergence and development of a new stage of education in world education. The online teaching process has spread to a wide audience.

There are synchronous and asynchronous learning processes in online learning, and these processes are very different from each other and complement each other. "When we say online synchronous, it means online or distance learning done in real time, asynchronous learning is done through online channels without real-time interaction". So, online synchronous teaching method includes video conferencing, teleconferencing, live lectures, telegram group teaching methods. We will analyze the successes and problems of these methods. Simultaneous learning is a process of communication between all participants in acertain virtual place, through acertain tool for acertain period of time. Due to the pandemic, strict quarantine measures were put in place in Uzbekistan at all levels of education: pre-school education, general secondary education, secondary special education, new requirements for higher education. As a result, distance learning processes began. The Ministry of Education has launched an online school system. It is organized not only for preschool education, but also for vocational colleges, academic lyceums and universities. From my personal experience, the followings were achieved in this process:

1.A student can connect with an educator from anywhere in the world via a computer or mobile device connected to the Internet (at home, on the street, in a shop, in the mountains, even when busy other work);

2. It saves travel expenses and time to get the necessary education (for example, in the city of Navoi, a fifth-grader can spend 6,000 sums on a taxi to go to school or 45-50 minutes on foot);

3.In addition to being able to get acquainted with a new lesson 24 hours a day, 7 days a week in virtual classrooms, there is also opportunity to review previous lessons, their analysis, mistakes and achievements of each student recorded by the teacher;

4. The student was able to ask questions and get quick answers to these questions, to exchange ideas freely with those in the virtual classrooms;

5.New psychological processes have given rise to new creative ideas;

6.Computer literacy has increased (processes that were not understood on the computer were researched and studied independently);

7.Before expressing one's opinion on a given task, the opinion of others was also read and analyzed, resulting in a new personal idea;

8.Discriminatory factors such as age, appearance, dress, disability of the learner in the online environment almost disappeared, the main focus was on the content of the discussion and debate, the level of accuracy of the given answer and the person's response remained important (There is no embarrassment due to any defect in appearance, clothing, writing or voice, atmosphere is relaxed)

9.Any observer can be freely included in online lessons, for example, scientists, lesson observers, parents. Parental involvement, especially in small school classes, shows how much achild is interested in and how to treat achild. If scientists participate with their lectures, it will lead to an increase in interest in the field.

10. When the traditional method is abandoned, the student's visual memory increases, and when animation methods were used student's interest in the field rises.

In addition to these achievements, the following shortcomings can be noted:

1. First of all, there must be a device that can connect to the Internet;

2.You need to know how to use the device on the Internet; computer literacy is prerequisite

3.You must be online for a specified period of time

4.Some students may not receive the attention that is important to them

5.Non-verbal vocabulary (body language, gestures) cannot be used;

6.Impartiality may be lost while doing tasks: copying from someone, use of external source.

In conclusion, today the main requirement of education is the comprehensive improvement and formation of the online education system.

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## RESEARCH ON INSTALLATION OF A COTTON CLEANER WITH VERTICAL SECTIONS FOR PURIFICATION OF FINE WEEDS IN A STATIONARY COTTON DISPOSAL

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In the technology of primary processing of cotton during transportation by pneumatic conveyor from reel sites of cotton to the drying and cleaning plant, stationary and portable transshipments are used, where, due to the long transportation distances of the processed raw material and to ensure full pressure in the pipeline, cotton is separated from the air and re-supplied to the next pipeline.

The dimensions of the stationary transshipment are 12x6 meters, where a SS-15A separator and a cyclone for cleaning dusty air are installed. At the ginning factories of the republic, the practice of partial pre-cleaning of cotton after the separator was used on two large litter cleaners ChKh-3M2 or on a fine litter cleaner 6A-12M. However, these technological solutions were of a local nature and did not provide the proper cleaning effect.

The proposed option for cleaning cotton works as follows: from the harvesting zone, cotton enters 1 separator SS-15A, where it is separated from the air, and fed to cotton cleaners with vertical sections for cleaning from fine and coarse litter 2. ginning in the gin shop. On the example of Chelak Paxta Tozalash JSC, where in the 2018-2019 season cotton the harvested cotton of the 1st grade of the 1st class amounted to 4,114,290 tons with the initial characteristics in terms of an average weediness of 3.01% and an average moisture content of 8.16%, as well as cotton of the 1st grade and 2nd class is 3,061,120 tons with an average weediness of 6.42% and moisture content of 8.67%, which is 9,731,290 tons of total processed cotton in the 2018-19 season, i.e. 31.3%. This entire volume of cotton can, without drying it, be cleaned on two cotton cleaners with vertical sections for cleaning from fine and coarse litter, installed at a stationary transshipment (Fig. 1).

Equipment layout plan at 3.6 meters

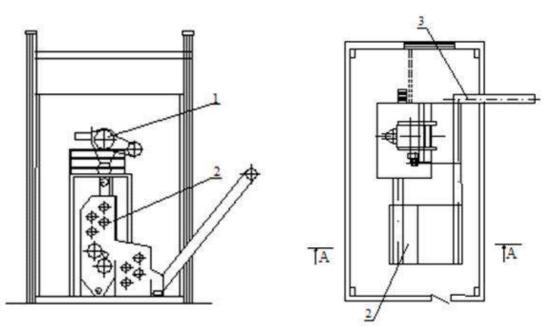


Fig.1 Flow diagram of a cleaner with vertical sections for cleaning cotton from fine litter at stationary transshipment

1.Separator SS-15A; 2. Cotton cleaner with vertical sections for cleaning fine litter; 3. Inclined conveyor.

This will significantly reduce energy consumption in the cotton cleaning process. At present, when the UKHK unit is in operation, the consumption is 98 kW / h, and in the proposed version this figure is 19 kW / h, the number of peg drums has decreased from 20 to 8, and the metal consumption has decreased by 60%. In addition, electricity costs for lighting and overall operating costs for cotton cleaning are reduced (Table 1).

Table 1

|    |                               | Unit options    |                         |
|----|-------------------------------|-----------------|-------------------------|
|    |                               | Operated 2 unit |                         |
| N⁰ | Indicators                    | S               | Two vertical cleaning u |
|    |                               | UHK (3) + 1H    | nits                    |
|    |                               | K               |                         |
| 1  | Number of peg-and-sl          | 40              | 16                      |
|    | at drums, pieces              |                 |                         |
| 2  | Machine productivity,         | 7               | 7                       |
|    | t / hour                      |                 |                         |
| 3  | "Living area section "        |                 |                         |
|    | mesh surface peg dru          | 40 x 2 x 0,628  | $16 \ge 2 \ge 1,54 =$   |
|    | ms, m2                        | =               | =49,2                   |
|    |                               | =50,2           |                         |
| 4  | Energy intensity of m         | 196             | 38                      |
|    | achines,kW                    |                 |                         |
| 5  | Metal consumption m           | 40              | 16                      |
|    | achines, tons                 |                 |                         |
| 6  | Occupied volume               | 20x2x2 = 80     | 2,4x3,5x2x2 = 33,6      |
|    | unit, m3                      |                 |                         |
| 7  | Drying area                   | 42x18=756       | 12x18=216               |
|    | cleaning shop, m <sup>2</sup> |                 |                         |
| 8  | Cost equipment, \$            | 49900\$         | 19262\$                 |
| 9  | The number of zones           | 12              |                         |
|    | of opposite rotations         |                 | not                     |
|    | adjacent peg-slat             |                 |                         |
|    | drums                         |                 |                         |
| 10 | Isolation of short            | Average         |                         |
|    | fibers during cleaning,       | 1.81 and more   | No more than 0.12       |
|    | kg / hour                     |                 |                         |

#### DEVELOPMENT AND MODELIZATION OF DECISION SYSTEM IN HYDROGEOLOGICAL PROCESSES

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Abstract. The article deals with the problems of making calculations and creating a computer program based on logic problems that are not strictly in the calculation of decision-making processes, which are part of the problems of computerization of hydrogeological processes. The main focus is on increasing the accuracy of decision-making in the process of construction of groundwater abstraction facilities in the context of inaccurate data.

*Keywords: Hydrogeology, computer programming, non-rigid mathematics, algorithm, groundwater intake;* 

The rapidly evolving theory of mathematical optimization has developed methods to help support on the computer so that effective decisions can be made with clear and definite parameters that define the process under study in the event that the parameters are random variables [1]. However, the main difficulties arise when the parameters are not clear and at the same time they have a strong impact on the outcome of the decision. Such situations may occur as a result of insufficient knowledge of decision-making processes or their involvement in the management of multiple facilities to achieve different goals.

One of the effective methods in the selection of hydrogeological objects is the method of "double coupling". In this method, n experts will be involved and k will need to find a convergence point. Every *i*-th expert should be found on the basis of a paired link in the following view:

$$m_{ij} = \begin{cases} 1, \, \mu_1 > \mu_j \\ 0, \, \mu_1 \le \mu_j \end{cases} (1)$$

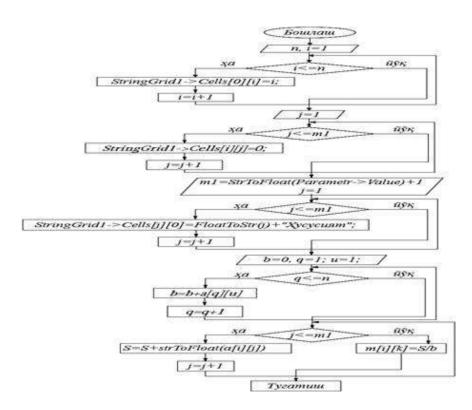
Expert assessment of each expert, the *i*-th expert on the basis of the following formula (2)

$$a_{il} = \frac{\sum_{j=1}^{n} m_{lj}}{\sum_{l=1}^{k} \sum_{j=1}^{k} m_{lj}} (2)$$

The approximation function for the parameter is defined in the following form (3)

$$\mu_{1} = \frac{1}{n} \sum_{i=1}^{n} \alpha_{il}, l = \overline{1, k}$$
(3)

In summary, the algorithm for selecting the best hydrogeological process based on experts shows that the third hydrogeological process is better. At present, the solution of hydrogeological problems on the basis of mathematical methods and the creation of software products on this basis is of great importance for specialists in the field of hydrogeology. Based on the above algorithm, the algorithmic block diagram of the program is as follows:



Pic 1.Algorithm of expert decision-making system in hydrogeological processes

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July | 2020

2

## ONE BELT, ONE ROAD AND ITS INFLUENCE ON THE ECONOMIC DEVELOPMENT OF THE COUNTRY

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Abstract. The article is devoted to the role and influence of China's "One Belt - One Road" initiative in contemporary international trade of the region. The author describes the priority areas of China's interests in economic development of all Central Asian countries through this initiative.

Key words: Foreign trade, economic development, economic growth, investment, new markets.

China is currently experiencing very fast economic growth in world history. However, it is not clear which model the Chinese are developing and using. This is a daily issue between scientists and analysts. It is assumed that "One Belt - One Path" is the answer to the future of China's long-term development goals. Chinese President Xi Jinping launched the "One Belt - One Road" (OBOR) initiative at the University of Kazakhstan in 2013 (Concept and Measures for the Joint Construction of the Silk Road Economic Belt and the 21st Century Sea Route, 2015). One of the most significant stories in Asian business is China's One Belt, One Road Initiative, an economic and diplomatic project that can transform trade. Implementing this initiative can help increase trade and investment in countries along the belt and road. The Belt and Road pass through the continents of Asia, Europe and Africa, connecting the economic circle in East Asia, on the one hand, and developing the European economic circle, on the other, and encompassing countries with huge potential for economic development. "One Belt, One Way" is the first ambitious mega-project that will connect the peoples of Asia with Europe and Africa within the framework of the traditions of economic trade and cultural ties that have never been in world history. Official data show that more than 68 countries of the world participate in the project "One belt - one way", including the new economy, developing and developed countries. "One belt - one road" covers 30% of the global economic potential, 55% of world GDP, about 70% of the world population and about 75% of world energy resources. For four years of implementation, the project received a remarkable result. A Chinese senior official visited more than 25 countries, engaging in dialogue and strengthening bilateral relations. Currently, more than 30 countries have signed an agreement on the project "One belt - one road" with China. In May 2017, an international summit "One belt - one road" was held in Beijing, in which the heads of 29 states and governments, as well as 1,200 delegations from different countries of Asia, Europe, North America, Latin America and Africa took part. The parties discussed the real ways of promoting the "One Belt - One Way" project and shared the mutual benefits of international cooperation and strengthening international cooperation. The Summit resulted in the signing of contracts for the implementation of 76 large projects based on investment, infrastructure, political communication, without barrier trade, financial integration and ensuring communication between people. According to the Ministry of Commerce of China, direct investment from Chinato countries participating in the One Belt - One Way program (in almost 65 countries) has risen sharply from \$ 200 million in 2003 to \$ 14.53 billion in 2016. After the announcement on the initiative "One Belt - One Way", contracts worth over 126.03 billion dollars were signed. This megainvestment and ambitious project will have a significant impact on the countries through

which it crosses. At the "One Belt - One Way" Summit in Beijing, Xi Jinping noted that over the past three years, Chinese investment in countries that have joined the "One Belt - One Way" has amounted to about \$ 50 billion. In the coming years, it is planned to increase this amount to \$ 200 billion. "One belt - one road" contains about 900 different infrastructure projects, including roads, railways, ports, power plants and bridges in more than 60 countries. For the implementation of these projects, the estimated cost will be from 2 to 3.6 trillion dollars. Everyone thinks that for many countries located on the ancient Silk Road, especially in Central Asia, which has no access to the sea, the historical trading system "One Belt - One Road" seems to be the only alternative to their prosperity and development. Despite the growing economic, political and cultural cooperation between China and Central Asia, the role of Central Asian countries in this project is still at the stage of study and insufficiently studied.

China and Central Asia from the Silk Road to "One Belt - One Road" Looking at the political map of the world, it seems that Central Asia is located in the center of the world, and it has several advantages and disadvantages. The connection of one part of the world with another and a transit corridor for export and import of goods is a priority for finding Central Asia between East and West. Central Asia is the place where the Silk Road crosses it, the place where Alexander the Great died, where Marco Polo sought the silk routes to Venice, and where the British and Russian empires held the Great Game. In fact, the West for most Chinese scientists and politicians was Central Asia, and not the modern European West. Since the Han Dynasty, Central Asia has been a strategic place, and the Chinese have always tried to have peaceful relations with the head of the Central Asian countries. These historical reasons are the scientific basis for abandoning the term "Silk Road" as a historical concept. The Silk Road was the only shorter trade route that connected the Chinese capital of Xi'an with various shopping centers in Central Asia, including Samarkand and Bukhara. These centers were connected with other points, such as India, Iran, the Middle East, and through them with Europe. The Chinese project "One Belt - One Road" directly linked its initiative with the legacy of the ancient Silk Road and presented it as a project based on equality and mutual benefit, mutual openness and the exchange of knowledge culture and traditions from each other.

But the goal of the "One Belt - One Way" initiative is not only to exchange goods, services and ideas on equal terms. It is about creating new markets and routes for Chinese goods in Asia, partly due to falling demand for them in Europe and the United States. Beijing's influence is growing rapidly day by day in the region. China is actively engaged in economic cooperation and invests impressive amounts of money in the implementation of projects that are vital for the countries of Central Asia. In 1991, after Central Asia gained independence and after it became an independent state on the political map, China changed its geopolitical position. Central Asia has become one of China's foreign policy priorities. Countries in the region, such as Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan, are rich in natural resources. The importance of the region as a strategic partner and market for the Chinese economy has persisted until recently.

A new factor in Beijing's policy regarding Central Asia has been the firm consolidation of the need for the development of the country's western regions on the agenda of China's domestic policy, as China's regional dynamics continue to show significant imbalances. The western regions of China are more connected with Central Asia. Thus, almost a third of all trade in the Xinjiang Uygur Autonomous Region of China today goes to Central Asia. An urgent issue for China is cooperation with Central Asian states in the fight against terrorism, extremism and the maintenance of regional stability in recent years.

The Chinese authorities are not interested in activating the Islamists in their own

territory - in the Xinjiang Uygur Autonomous Region. China and the states of Central Asia today resolve issues of combating terrorism and maintaining regional stability both in a bilateral format and through cooperation within the framework of the Shanghai Cooperation Organization. Loans play an important role in ensuring Chinese economic penetration into Central Asia. They imply financing projects at a relatively low interest rate, but the condition for such loans is the use of Chinese materials, equipment or labor when performing work. The transfer of shares in the business and the application of production sharing agreements are also practiced.

This practice allows you to maximize the use of Chinese production resources, and the transfer of shares in business leads to a gradual expansion of the economic presence in certain sectors of the economy of Central Asia. Investments are crucial for Central Asian states to overcome geographical isolation from the seas, which significantly increases their transportation costs and the limiting factor in trade. A feature of the economic interaction of Central Asian countries with China in recent years has been the conformity of the programs of internal economic development of these states with the interests and strategies of Beijing. This is done in order to maximize the opportunities to attract Chinese financial resources. The financial component of the project is based on the funds of the Silk Road Fund in the amount of \$ 50 billion and the Asian Infrastructure Investment Bank in the amount of \$ 100 billion. In general, China is ready to invest in "One belt - one way" up to 1 trillion. But now about \$ 70 billion, not counting previously invested in the Central Asian region, investments in projects that will be included in the Silk Road.

A close neighbor is better than a distant relative "In order to maintain peace and stability and to promote prosperity and development in the region, friendly relations and pragmatic cooperation with neighboring countries will deepen, and unity and cooperation with developing countries will be strengthened.and traditional friendships and common interests will be maintained. China will always strengthen good neighborliness and friendship, deepen mutually beneficial cooperation in all areas and ensure that the country's neighbors benefit more from its development. China pursues policies in Central Asia through multilateral and bilateral channels. The main multilateral instrument is the Shanghai Cooperation Organization, which opens up new opportunities for the development of positive relations with the countries of the region. Bilateral relations with each state of Central Asia are as important as multilateral relations; the only thing they are more significant.

The fact is that bilateral relations create the conditions for posing and resolving the full range of issues. It is very important that China find the right balance in the development of multilateral and bilateral relations in relations with Central Asia. Both have special functions and characteristics, the most interesting point is that when bilateral and multilateral relations are mutually complementary. China is an important partner of Central Asian countries in ensuring border security and regional security. Border security with three Central Asian countries, such as Kazakhstan, Kyrgyzstan and Tajikistan, is vital for everyone. The Chinese side has no desire to establish hegemony or control the region, it does not threaten small countries, but considers them and cooperates with them as equals, does not interfere in their internal affairs and is always ready to solve all problems, issues through negotiations and in the spirit of justice. This type of foreign policy and di plomacy has helped Chinacreate apositive image among the countries of Central Asia.

Kazakhstan is China's largest economic and trade partner in Central Asia. China and Kazakhstan have not only laid a compact foundation for bilateral relations, but are also working to create a reliable political, economic and strategic framework for further cooperation. Compared to other countries "One belt - one road", Kazakhstan is strategically positioned as a portal of the common border of China with Europe in Khorgos to the western coast of the Caspian Sea in Aktau. In 2015, Kazakhstan and China reached an agreement on the integration of "One Belt - One Way" and the new economic policy of Kazakhstan "Nurly Zhol-Light Road". Four priority areas of strategic cutting "One Belt - One Way" and "Nurly Zhol" were identified: the development of bilateral trade, the accelerated expansion and modernization of infrastructure, the development of cooperation in the field of industrial activity and the deepening of financial cooperation (Prospects for the CIS, informational and analytical note, 2016).

The project "One belt - one road" is the strategic goal of the Kyrgyz Republic in terms of infrastructure, development and investment attraction. China is very interested in creating a railway connection with Uzbekistan through Kyrgyzstan. In addition to exporting Chinese goods to local markets, it is planned to use it to import raw materials into China. In some versions of the project, the road connects China through Kyrgyzstan not only with Uzbekistan, but also with Tajikistan, Afghanistan, Iran and Turkey, right up to the European railway network. Tajikistan has good relations with China, there are no significant contradictions in their relations. China is a strategic partner of Tajikistan.

Strengthening and developing bilateral relations and cooperation with this country is one of the priorities of Tajikistan's foreign policy. The volume of bilateral trade between China and Tajikistan is growing satisfactorily. Turkmenistan stands apart in Central Asia. He is neutral in foreign policy and does not want to join any regional organizations, including the Shanghai Cooperation Organization, and cooperate with all countries from a distance. Nevertheless, China has good, friendly relations with Turkmenistan. Since Turkmenistan is rich in natural resources, in particular access to natural gas can be obtained from Central Asia to Western Asia, the Middle East and Europe, which makes Turkmenistan very important in terms of energy and transport. Therefore, China seeks to develop good relations with Turkmenistan, especially in the field of trade and energy resources. A great opportunity is associated with the opening of the International Port in Turkmenbashi. With the implementation of this project, it will be possible to send goods through the international port of Turkmenbashi from China, Japan, Korea, as well as from Central Asiato the Iranian port or Azerbaijan. Modern equipment was used in the construction of several infrastructure facilities, two railway stations, as well as an oil terminal at the Imamnazar customs post. All this led to the compliance of the first stage of the Turkmenistan-Afghanistan-Tajikistan international railway with international standards that link Afghanistan, Tajikistan and Turkmenistan with easy access to China. India and Pakistan.

Uzbekistan differs from other Central Asian countries in that it does not have a common border with China, and this reduces the likelihood of conflicts over border issues, water resources, or other critical issues. In terms of transit potential, Uzbekistan has a great advantage, since it is located in the center of the region and has a developed network of railways and highways. China and Uzbekistan do not have serious political differences, and they managed to bring their relations to the level of agenerous partnership. Currently, China and Uzbekistan are striving to improve transport links. Communication between these countries occurs mainly through the territory of Kazakhstan, which leads to rather high transit costs. It is assumed that if the transport problem can be solved, the volume of bilateral trade can be more and more. Energy can make a significant contribution to bilateral relations and improve the status of Uzbekistan in China's foreign policy. Oil and gas is China's main interest in Uzbekistan. If Beijing builds the China-Kyrgyzstan-Uzbekistan-Turkmenistan-Iran-Persian Gulf railway corridor with a possible exit from Iran via Turkey to Europe under the "One Belt, One Way" plan, this section will

become its element, ensuring Uzbekistan is included in the global network of logistics routes . After the implementation of this project, Uzbekistan will get direct access not only to China, but also to the Middle East.

It is impossible to deny China's obvious interests in Central Asia. Without a doubt, the countries participating in the project can and should find and derive maximum economic and political benefits for themselves. Central Asia is located in the heart of Asia, at the crossroads of two. Continents have serious chances to get the maximum benefit from the implementation of the Chinese initiative for economic cooperation. Given the lack of access to the sea for several Central Asian countries, the Chinese project is the best option to solve this problem. Moreover, the land route has a great advantage over the sea route in the form of the speed of delivery of goods, for example, from China to Europe, the train can travel in 15 days, which is two times faster than at sea. Thus, Central Asia can use the opportunities and resources of "One Belt - One Way" to actively promote domestic products to new markets - to China and other countries along the belt, to attract investment in the development of the main sectors of the national economy, to more fully logistic advantages. There are some concerns in Central Asia regarding the influx of migrants from China. Chinese companies like to use their own materials to build their people's infrastructure and to attract Chinese labor to do the work. He does not give people local work and does not hire local specialists. The dominance of Chinese companies in large projects in Central Asia can be problematic for local companies. And they cannot compete with a Chinese company that has deep pockets in finance. Another problem is the growing number of terrorist and extremist groups that threaten the implementation of the "One Belt - One Way" initiative. Along the belt there will be extended highways, ports and bridges, which, unfortunately, can become the main goal of these groups.

China is trying to maintain close relations with other countries, especially with its neighbors. As China's population grows rapidly, it seeks to move its people around the world and provide them with food and work. The Chinese initiative is still in its early years and has a huge impact on the economy of Central Asia. New market opportunities are available as part of this huge initiative. This initiative provides an opportunity for Central Asia to build infrastructure, such as roads and railways, and provide access to modern technology, transport and logistics. Over the past 20 years, Central Asian countries have experienced rapid economic growth, averaging 7 percent, and increased investment from China, which led to further economic growth. Step by step, the nature of international politics is complicated by new rules, new actors and new competition. If the competition is absolutely free and aimed at the prosperity and development of the region, it will be great, never forget that there is something else behind everything. Let's hope for the prosperity of this world and wait for what will happen tomorrow. It is somehow impossible to predict or expect the outcome of an initiative until it is completed.

# EVALUATION OF THE FUNCTIONAL ACTIVITY OF THE MEMBRANE ENZYME OF ERYTHROCYTES WHEN STORED IN A PRESERVING MEDIUM.

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According to the data of domestic and foreign studies, at present there is a tendency towards an increase in the use of blood and its preparations in practical medicine, in particular, the use of erythrocyte transfusions. The latter becomes the main means of transfusion treatment of acute and chronic anemic conditions. In the erythrocyte mass, as in whole blood, significant changes occur during the conservation process. Storage of erythrocyte mass at + 4 ° C adversely affects the course of metabolic processes in erythrocytes. Due to the fact that the enzymes of carbohydrate metabolism in blood erythrocytes are associated with the membrane, various environmental factors during storage of erythrocytes in a preservative medium can affect the activity of membrane ion transport enzymes, primarily K +, Na + -ATPase. These changes can not only reduce the efficiency of blood transfusion of erythrocyte mass, but also contribute to the development of post-transfusion complications associated primarily with microcirculation disorders. The aim of this study was to study the effect of different shelf life of canned erythrocyte mass on the functional activity of K +, Na + -ATPase and magnesium content. Analyzed 80 doses of washed erythrocytes of various storage periods. The main object of research is erythrocytes from donated blood. In erythrocytes washed with saline (pH 7.2), the activity of K +, Na + -ATPase of erythrocytes was determined by the method of A.M. Kazyonnov. et al. (1984). The method for determining the activity of the enzyme is based on measuring the amount of inorganic phosphorus formed as a result of the enzymatic hydrolysis of ATP (Chen et al., 1957). Magnesium content by colorimetric method using SPINREACT reagents.

It is known that the energy of ATP hydrolysis in erythrocytes is used to pump Na + and K + ions, by the membrane enzyme Na + / K + -ATPase. In this regard, Na + / K + -ATPase is "electrogenic", i.e. creates an electrical potential with a negative value in the inner part of the cell in relation to its outer surface, and thus the membrane enzyme plays a direct role in the regulation of cell volume. The study of the activity of Na + / K + -ATPase in blood erythrocytes during storage showed a decrease in its activity within 30 days from  $0.64 \pm 0.07 \,\mu\text{M} \,/\,\text{h} \,/\,\text{g}$  HB to  $0.08 \pm 0.01 \,\mu\text{M}$  / hour / g HB. In erythrocytes, the (Mg-ATP) complex is in equilibrium with free magnesium cations, therefore, changes in magnesium concentration are reflected in the ATP content, and vice versa, with a rapid decrease in ATP concentration, the released magnesium cations diffuse from the cell. The key role of ATP in metabolism also determines the importance of maintaining normal magnesium levels. In our studies, a decrease in the level of magnesium ion was revealed during storage of the erythrocyte mass to values of  $1.23 \pm 0.06$  mmol / l versus the initial data of  $2.28 \pm 0.08 \text{ mmol} / 1$ . Consequently, when the erythrocyte mass is stored for 30 days, the level of ATP and magnesium ion decreases, which affects the activity of membrane enzymes and is one of the reasons for violations of the morphological and functional usefulness and viability of blood cells.

## **TODAY'S MODERN IMAGE OF TELEHOSTS**

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Abstract: This article involves experience that helps to create telehosts' modern images. Also, it involves pros and cons of creating an image as well as the author's advice on the theme.

We are living in the era where the Mass Information Means have turned into a huge power. Those powerful objects possess their own images, strategies, rules and overall results. And we are going to be talking about "Images" today. Image is an essential part of Television. In the twenty first century, people intend to visualize all things through their beauty and a variety of colors. Therefore, both the television and journalists should have their own images. Because our images from outside demonstrate our behavior, our place in a society and taste. The environment of the image does not create the television but creates hosts. In the ideal appearance, an appearance of a journalist and a host is in the first place. European Journalists identified an interesting case by learning an idea of a society: a host, a journalist tends to pay attention to his/her appearance in the first place, his/her ability to execute their job duties in the second place, his/her political reputation in the third place. And which television a journalist belongs is considered to be in the fourth place (for the audience). Political PR specialist J. Nevpoliten said the following: an impression a candidate makes is more important than his point of view. Not only in television an image plays an essential role, but also it has a big importance in other spheres. Let's take political parties as an example: after the presidency campaign of R. Nikson, who was a president of the USA, prior to the election, the specialists came to the following conclusion: there is no chance for the elector to get to know the candidate in person. Therefore, they pay attention to a candidate's television image. As a result, the conclusion to be made is not that the candidate is not important but his image is important.

Implementation of a contact between a host and a camera. Majority of the people working with camera: "Camera is not accepting me" remain with the upper-mentioned issue. Do you think a camera accepts a person? Yes, of course. Imagine you have got a beautiful appearance, everything is fine. And how a beautiful person you are is mentioned a lot but when you approach a camera you see someone not alike you. It is natural that this will hurt your feelings. Everything suits you but those might look a bit ugly too in front of a camera. The situations like those are referred to as "Camera did not accept him". There are such people who you see in real life and realize that they are increasingly simple and thus, they are not capable of attracting any attention. But if you see them in front of a camera they become increasingly nice. In the language of the television: "those people are called the ones who love camera". If you are experiencing the same problem there is no need to feel disappointed. Do you wonder why? Now we as well as you will be learning about how to work in front of a camera. To do this, image will greatly help us. Let's us at first increase our knowledge of what an image is.

Using the same colors all the time will make you as well as the people around you bored very quickly. Multi-colorfulness will provide fun. It will ensure a good mood all day long and increases your productivity. Similarly, a camera also likes multi-colorfulness. Spectators will always like colorful decorations, colorful clothes and a happy mood. They will never feel bored of looking at it. Therefore, you should try to use a variety of colors.

You should pay attention to multi-colorfulness of the items in the studio from minor items to your papers with texts. Of course, those colors must match with certain items in the shooting area. It can also match the costume or the clothes you are wearing. Let's also explore what choosing colors means. There is some more information about colors. You must choose to wear clothes based on not only weather and dress code, but also based on your mood. Scientists claim that our mind accepts colors based on their types. This means that communicators' requests serve as the reason for reliable relationships between a tele host and listeners. The people appearing on TV every day have different traits of self representation based on professional roles. Their appearance forms through their style of maintenance. Cultural codes develop as a tele host. Their clothes are signs of progressive fashion. The age of a tele host is important. Age and beauty generate a sense of love in the audience. For instance, a respected male tele-host attracts more attention, his appearance is linked with seriousness, and his experience. The success of programs depends on asocial discipline, fashion, requirements of the eraand the image that suits a mood of a society. Corporative style of correctly determined television programs, apart from the content, it is important to pay attention to the design of a studio, screens, signs, attributions, color, light and important influencing factors as music. Host's imagination forms a type of communication. However, the change in modern requirements is treated by images. It turns into an educational issue, because creating an image is a comprehensive process and it requires a work experience. A successful performance is not only successful for spectators, but also it is also a part of a journalist's career. If you want to become an experienced and customer favorite tele-host, you should not stop working on yourself. The efficiency of your hard work depends on your success.

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Primedia E-launch LLC

International scientific and practical conference cutting edge-science 2020. Primedia E-launch LLC July, 2020 Shawnee, USA. 222 pp.

ISBN 978-1-64945-255-9 DOI: http://doi.org/10.37057/U\_2