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INFLUENCE OF REPEATED AND INTERVAL CROPS ON THE DYNAMICS OF NUTRIENTS IN THE SOIL

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Abstract.The soils of the Republic of Karakalpakstan are saline, low fertile. Field experiments were conducted to study the problem of increasing soil fertility. The data obtained from the research showed that the planting of repeated and interval crops after winter wheat, with the use of additional organic fertilizers in the amount of 20 t/ha, has a positive effect on the dynamics of nutrients in the soil.

Keywords: cotton, winter wheat, repeated and interval crops, nutrients, humus, nitrogen, phosphorus, potassium, dynamics;

The soil of the Republic of Karakalpakstan are characterized by salinity and low productivity. Measures should be taken to increase soil fertility in order to obtain high yields from agricultural crops. At the same time, sowing of repeated and interval crops after winter wheat, use of additional organic fertilizers will increase soil fertility and create favorable conditions for cotton to be planted in the following years. A field experiment was conducted to study this problem.

The field experiment was conducted in the central soil-climatic region of the Republic of Karakalpakstan, on a educational experimental farm of the Nukus branch of the Tashkent State Agrarian University located in Khujayli district. The soil is grassy-alluvial, the mechanical composition is average, the groundwater is located at 1.5-2.0 m, saline.

Repeated crops planted after winter wheat in short crop rotation systems consist of a study of the effect of organic fertilizer in the amount of 20 t/ha on mung bean, sesame, maize, and interval crops on soil fertility and the growth, development, and yield of cotton planted after them.

The following options were studied in the experiment: option 1, cotton (control), option 2, 1: 2, winter wheat + repeated crop (mung bean): cotton: cotton, option 3, 1: 2, winter wheat + repeated crop (sesame) : cotton: cotton; option 4, 1: 2, winter wheat + repeated crop (maize): cotton: cotton, option 5, 1: 2, winter wheat + repeated crop (maize) + 20 t/ha manure: cotton: cotton, 6- option, 1: 2, winter wheat + repeated crop (mung bean) + interval crop (mung bean): cotton: cotton, option 7, 1: 2, winter wheat + repeated crop (maize) + interval crop (mung bean): cotton: cotton, option 8, 1: 2, winter wheat + repeated crop (maize) + interval crop (mung bean) + 20 t / ha manure: cotton: cotton. The area of each option was 240 m2, carried out in four repetitions.

In order to determine the effect of crops included in the short crop rotation system on the dynamics of nutrient content in the soil, the amount of nutrients in the soil was determined before the experiment, at the beginning and end of the experimental period.

The productivity of any agricultural crop depends on the fertility of the soil, namely the amount of nutrients in it, soil capacity mass, water supply, structure. Nutrients assimilated by plants from the soil must be returned. If this law is violated, it will lead to a decrease in soil fertility. Therefore, we must always look for ways to restore,

maintain and increase soil fertility, along with high yields of agricultural crops.

In the experiment, we determined how the crops included in the crop rotation affected the soil fertility in two terms, at the beginning and end of the action period, in 0-30 and 30-50 cm layers of soil to develop a short crop rotation system.

Initial indicators of the total amount of nutrients in the ploughing (0-30 cm) layer of the experimental field are humus 0.785%, nitrogen 0.045%, phosphorus 0.085% and potassium 0.085% and their mobile amounts are 5.4 mg / kg, phosphorus 43.5 and potassium 210 mg / kg.

In the initial period of nutrient amount, in the spring of 2019, the amount of humus averaged 0.680-0.870% on options. At the same time, the lowest humus content is observed in the post-cotton control variant of cotton sowing (var. 1), in the 1: 2 system of crop rotation, before cotton after sowing of winter wheat repeated crops of mung bean, sesame and maize in variants 2, 3 and 4 0.740-0.780% , after sowing of winter wheat repeated crop (maize) + 20 t/ha of manure was 0.800%, after sowing of winter wheat + repeated crop (mung bean, maize) + interval crop (mung bean) was 0.840% and the amount of humus in the soil after sowing of winter wheat + repeated crop (maize) + interval crop (mung bean) + 20 t/ha manure system was 0.870%. As can be seen from the data in the table, the differences between the options remain both in terms of the amount of total and mobile species of nutrients. That is, plant roots and stubbles left in the soil after the crops included in the crop rotation system last year have different effects on the accumulation of nutrients. In the control variant of cotton planting after cotton, there is a decrease in nutrients, but if in the system of short rotation crop (1: 2) (grain: cotton: cotton) after winter wheat, repeated, interval crops are planted and fertilized with additional 20 t/ha manure then the amount of humus in the soil and other nutrients increase.

When we determined the amount of humus and other nutrients in the soil at the end of the action period, their decrease is observed in all options (except for options 5 and 8). In the control option in which cotton was planted after cotton, humus was 0.680% at the beginning of the action period and decreased by 0.40% at the end of the action period, reaching 0.640%. In options 2, 3 and 4, where cotton was sown after sowing of winter wheat, mung bean, sesame and maize were 0.740-0.780% at the beginning of the action period, at the end of the action period were 0.740-0.770% and decreased by 0.010%. When sowing of repeated crops after winter wheat and adding 20 t / ha of manure, the amount of humus increases by 0.020%, when sowing in the system of winter wheat + repeated crop (mung bean, maize) + interval crop (mung bean) was 0.840% in spring and 0.820-0.830% in autumn and the decrease was 0.020-0.010% and the amount of humus increased by 0.20% when cotton was planted after winter wheat + repeated crop (maize) + interval crop (mung bean) + 20 t/ha manure system. At the end of the action period, the difference between the options on the dynamics of total and mobile amounts of nitrogen, phosphorus and potassium from nutrients remains, depending on the type of crop introduced into the cotton monoculture and crop rotation system.

Based on the data in the table, in a 1: 2 rotation system to increase the amount of nutrients in the soil, winter wheat + repeated crop (mung bean, maize) + interval crop (mung bean) and 1:2, winter wheat + repeated crop (maize) + interval crop (mung bean) + 20 t/ha of manure will create favorable conditions for good growth, development and high yields of cotton planted in the following years.

Influence of crop rotation on soil nutrient dynamics

Options	Soil layers, cm	Humus, %	Total amount, %			Moving amount, mg/kg		
			N	P	K	$N\text{-}NO_3$	P_2O_5	K_2O
Spring								
1	0-30	0,680	0,030	0,050	0,050	3,0	30,5	120,0
	30-50	0,480	0,020	0,020	0,020	2,0	20,0	90,0
2	0-30	0,780	0,060	0,095	0,090	5,0	45,5	190,0
	30-50	0,600	0,040	0,045	0,050	4,0	28,0	110,0
3	0-30	0,780	0,065	0,090	0,090	5,2	48,0	180,5
	30-50	0,580	0,040	0,045	0,050	4,0	30,5	120,5
4	0-30	0,740	0,050	0,080	0,075	5,2	47,5	190,5
	30-50	0,540	0,030	0,030	0,030	3,3	22,0	110,0
5	0-30	0,800	0,065	0,100	0,100	7,0	50,5	220,5
	30-50	0,600	0,040	0,050	0,065	5,0	29,0	170,0
6	0-30	0,840	0,060	0,095	0,095	6,5	50,5	190,5
	30-50	0,580	0,050	0,050	0,040	5,0	27,0	125,0
7	0-30	0,840	0,060	0,095	0,095	6,3	50,5	200,0
	30-50	0,600	0,040	0,060	0,040	4,5	25,5	120,0
8	0-30	0,870	0,070	0,110	0120	8,0	55,6	240,0
	30-50	0,640	0,055	0,060	0,070	5,0	30,0	180,0
Autumn								
1	0-30	0,640	0,020	0,040	0,040	2,5	25,0	100,0
	30-50	0,460	0,015	0,015	0,020	2,0	15,0	70,0
2	0-30	0,770	0,055	0,090	0,080	4,0	35,0	170,0
	30-50	0,540	0,030	0,040	0,040	3,0	25,0	90,0
3	0-30	0,770	0,060	0,080	0,080	5,0	40,0	170,5
	30-50	0,560	0,030	0,040	0,040	3,0	30,0	100,5
4	0-30	0,740	0,045	0,075	0,075	5,0	42,5	170,5
	30-50	0,520	0,025	0,020	0,025	3,0	17,0	100,0
5	0-30	0,820	0,070	0,090	0,090	6,5	45,0	210,5
	30-50	0,600	0,035	0,045	0,060	4,5	25,0	120,5
6	0-30	0,820	0,060	0,090	0,090	6,0	45,0	170,0
	30-50	0,560	0,045	0,045	0,030	4,0	22,0	105,0
7	0-30	0,830	0,065	0,090	0,090	6,0	44,5	180,0
	30-50	0,580	0,040	0,050	0,030	4,0	20,0	100,0
8	0-30	0,890	0,075	0,100	0,110	7,0	50,5	220,0
	30-50	0,630	0,050	0,060	0,060	4,0	25,0	160,0

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THE EFFECT OF LOCAL AGRICULTURAL ORE ON THE AMOUNT OF NUTRITIONAL ELEMENTS IN THE SOIL

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Abstract.Field experiments were conducted to determine the effect of local agro-ores on soil nutrients in the conditions of saline soils of the Republic of Karakalpakstan. The research found that local agro-ores had positive results when used to feed cotton. When the amount of nitrate nitrogen, mobile phosphorus and exchangeable potassium in the soil is used in local agro-ores in the amount of 1200-1500 kg/ha, there is no decrease in the action period and an improvement in the soil nutrient regime.

Keywords: local agro-ores, glauconite, glaucophos, normal, mineral fertilizers, nitrogen, potassium, salinity, soil, nutrients, positive, negative;

The results of many years of research in our country and abroad show that mineral fertilizers containing trace elements (molybdenum, cobalt, copper, zinc, boron, manganese, etc.) increase the quality and productivity of agricultural products. Lack of these elements results in reduced plant growth and metabolic disorders, decrease their productivity, and increase their susceptibility to various diseases.

In addition to nitrogen, phosphorus and potassium fertilizers, the use of fertilizers that improve plant growth, increase the efficiency of enzymes, accelerate photosynthesis, contain trace elements (Fe, Cu, Cn, Mo, B, Zn, Co) increases the resistance of plants to stress conditions.

As a result of crop rotation and disuse of organic fertilizers, the soil is saturated with salts of mineral fertilizers. Therefore, the reduction of mineral fertilizers and their replacement or joint use with local agro-ores is economically and environmentally relevant. The field experiment was conducted on the experimental farm of the Nukus branch of the Tashkent State Agrarian University in the central region of the Republic of Karakalpakstan (Khojayli district). Experimental field soils are grassy-alluvial, moderately saline, groundwater is 1.5-2.m.

The following options were studied in the experiment. Option 1, only mineral fertilizers were used (N250 P175 K125 kg / ha), options 2 and 3, only unconventional fertilizers glauconite and glaucophos 900kg / ha, in options 4-7 mineral fertilizers N180 P135 K90 kg / ha, in addition to glauconite and glaucophos 600 and 900kg / ha, N180 P135 K90 kg / ha in 8 and 9 variants, 1200kg / ha of glauconite and glaucophos, 600kg / ha under plowing, 600kg / ha in feeding, 10-13 variants, without changes in mineral fertilizers, glauconite and glaucophos 1200 and 1500 kg / ha was full given under plowing. In order to determine the effect of local agro-ores on the amount of nutrients in the soil, it was determined in soil samples before and during the experiment, at the beginning and end of the action period.

In the experimental field, the amount of nitrate nitrogen was 4.17-4.60 mg / kg in the period of 3-4 leaves of cotton in the soil ploughing layer (0-30 cm) according to options. In the control variant applied to cotton mineral fertilizers in the amount of N250 P175 K125kg / ha, it was 3.20 mg / kg at the end of the action period, which is 1.20 mg / kg less than at the beginning of the action period. In variants 2 and 3, where only glauconite and glaucophos were applied at 900 kg / ha, it was 2.70-2.80 mg / kg at the end of the growth period, which was decreased by 1.50-1.65 mg / kg compared to the beginning of the action period. By reducing the annual amount of mineral fertilizers by 25% (N180 P130 K90 kg / ha), in 4-7 variants applied in combination with

glauconite and glaucophos from local unconventional fertilizers at 600 and 900 kg / ha the amount of nitrate nitrogen at the end of the action period was 4.25-4.30 mg / kg at the end of the action period, which is 0.10-0.30 mg / kg less than in the period of 3-4 leaves of cotton, with additional glauconite and glaucophos added to the mineral fertilizers at 1200 kg / ha and 600 kg / ha under ploughing and 600kg / ha was used for feeding cotton during the action period, the nitrate nitrogen content at the end of the growth period was 4.70-4.75 mg / kg, which was 0.60-0.55 mg / kg higher than at the beginning of the action period.

10-13 variants in which mineral fertilizers N180 P130 K125 kg / ha used in combination with glauconite and glaucophos from local unconventional fertilizers in the amount of 1200 and 1500 kg / ha, and when local unconventional fertilizers are applied fully under plowing, nitrate nitrogen content is 4.50-4.75 mg / kg, which was 0.25-0.30 mg / kg higher than at the beginning of the action period.

In order to apply a sufficient amount of nitrate nitrogen in the soil in a layer of 0-30 cm, that is in combination with glauconite in the amount of 1200 and 1500 kg / ha in the amount of N180 P130 K125 kg / ha and 600 kg / ha of glauconite and glaucophos to ensure the growth of the indicators at the beginning of the action period, it is advisable to use 600 kg / ha of cotton under plowing. In addition, when applied with mineral fertilizers glauconite and glaucophos at full plowing in the amount of 1200 and 1500 kg / ha, the amount of nitrate nitrogen increases at the end of the growing period compared to the period of 3-4 leaves. The amount of mobile phosphorus in the soil in the experimental field averaged 42.0-48.5 mg / kg according to the variants in the 0-30 cm layer. Mineral fertilizers were applied (N250 P175 K125 kg / ha) in the control variant (var. 1) at 43.5 mg / kg, 32.0 in the 30-50 cm layer and 24.5 mg / kg in the 50-70 cm layer. these figures are 31.5 at the end of the growth period; 2.25 and 17.0 mg / kg, respectively, the decrease in the amount of mobile phosphorus by the end of the action period was 12.0; 9.5 and 7.5 mg / kg.

Reducing the annual rate of mineral fertilizers by 25% (N185 P130 K90 kg / ha) they are replaced by local unconventional fertilizers glauconite and glaucophos in 10-13 variants given in full plowing, the amount of mobile phosphorus in the 0-30 cm layer of soil is 44.0-48.5, 28.1-32.0 in the 30-50 cm layer and 27.0-29.5 mg / kg in the 50-70 cm layer. These indicators are 34.0-39.0; 20.6-25.0 and 20.5-23.0 mg / kg at the end of the growing period, which is the period of growth of the amount of mobile phosphorus from the beginning of the growing season (3-4 leaves). In the end, the decrease is 10.0-9.5; 7.5-7.0 and 6.5-5.5 mg / kg. Therefore, in order to maintain a sufficient amount of mobile phosphorus in the soil, decreasing the annual rate of mineral fertilizers by 25 % did not have a negative effect. Combined application of local unconventional fertilizers in the amount of 1200 kg / ha for a reduced amount of mineral fertilizers, including 600 kg / ha under plowing and 600 kg / ha during the action period or application of glauconite and glaucophos at 1200 and 1500 kg / ha, application of mineral fertilizers during the action period application for feeding is characterized by a positive effect on other options.When we determined the effect of the amount and duration of their application on the amount of exchangeable potassium in the soil of the applied fertilizers, the following became known. At the beginning of the action period, the soil was 210-260 mg / kg in a layer of 0-30 cm, 30 170-190 mg / kg in the -50 cm layer and 130-150 mg / kg in the 50-70 cm layer, which were 180-230, 140-200 and 120-160 mg / kg, respectively, at the end of the action period. The amount of exchangeable potassium in the soil at the beginning of the action period, at the end of the period of mowing, flowering and growth depends on the type, rate and duration of fertilizer applied. When mineral fertilizers N185 P130 K90 kg / ha are applied to it in addition to glauconite and

glaucophos in the amount of 1200 and 1500 kg / ha, local unconventional fertilizers are applied under full plowing in 10-13 variants, in the period of 3-4 leaves 0-30 cm in the layer was 230-245 mg / kg, 185-190 mg / kg at 30-50 cm and 140-150 mg / kg at 50-70 cm. These indicators are 215-225 mg / kg, 190-210 mg / kg, and 140-150 mg / kg at the end of the growth period, while the decrease in the amount of exchangeable potassium was 15-20 mg / kg in the 0-30 cm layer, 30-50. cm layer even an increase of 5-20 mg / kg and remained unchanged in the 50-70 cm layer.

To ensure that the amount of exchangeable potassium in the soil is sufficient from the beginning of the action period to the end of the growing season, mineral fertilizers in the amount of N185 P130 K90 kg / ha, additional glauconite and glaucophos in the amount of 1200 kg / ha under plowing (600 kg / ha) and feeding cotton during growth 600 kg / ha) or 1200 and 1500 kg / ha should be applied under full ploughing.

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BIOLOGICAL SCIENCES

METHODS FOR INCREASING THE BIOLOGICAL VALUE OF NATIONAL BREAD PRODUCTS

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Abstract: The possibility of using flour from mung bean seeds in the production of traditional bread products of Central Asia (Uzbek flatbreads) with the aim of enriching them with high-grade protein and other physiologically active components has been studied. The expediency of pretreatment of mung bean seeds before dispersing by peeling or germination has been substantiated. The chemical composition of various types of mung bean's flour and the nutritional value of finished products have been explored. It was found that replacing 10.0% of wheat flour of the II grade in the formulation of flatbreads contributes to an increase in the degree of satisfaction of the daily requirement for proteins by 3.1 ... 5.0, lysine - by 4.5 ... 7.5, sugars - by 0.2 ... 1.0, fiber - by 0.1 ... 1.0% relative to samples without deteriorating the traditional consumer characteristics of this product. When using mung bean's flour, it is recommended to increase the dough moisture by 1.0 ... 1.5%.

Keywords: bread products, biological value, additives, mung bean's flour, peeling, germination, chemical composition, nutritional value.

The problem of providing the population with high-grade and safe food products has been and remains one of the priority tasks of all sectors of the food industry. This is actual at the present time due to the disruption of natural economic processes and stagnation of the economy around the world caused by the coronavirus pandemic, and, as a result, a decrease in consumer demand for certain food products, in particular of animal origin, which are the main source of protein.

The deficit of protein in the diet of the world's population will only worsen over the years, including due to its exponential growth, urbanization, a decrease in the amount of land suitable for grazing, and an increase in material costs for its maintenance. And if we take into account the ever-increasing shortage of fresh water, then the cost of livestock products will increase and become practically inaccessible for certain social strata of the population, not only underdeveloped, but also for countries with a high levels of living. It is necessary to head off among the general population, especially protein deficiency, by focusing on increase products of daily and mass demand, such as bread and bakery products.

The solution to this problem in relation to the production of flour products has been associated in recent years with the search for new types of high-protein added ingredients, which can be divided into two groups: 1- natural non-traditional raw materials from

cereals and legumes, dairy products, etc .; 2 - products had got by complex processing of natural materials (protein concentrates from dairy products, wheat flour, legumes; biological products based on biomass of yeast, bacteria, sunflower meal, cotton seeds, etc.) [1; 2, p. 58-61; 3, p. 32-35; 4, p. 45-46].

The additives of the first group have a complex composition in the physiologically most imbibe form, are balanced by individual components, but also contain side compounds that negatively affect the quality (darkening of the crumb, deterioration of the porosity structure, the appearance of a specific taste and smell of the product) and the nutritional value of bread (oligosaccharides in legumes and etc.). The additives of the second group, as a rule, are devoid of the indicated disadvantages, while complex technologies are used for their production, and a significant amount of physiologically functional components goes to waste, which is not rational, since this significantly increases the cost of this product and, as a result, products with these additives. Bread is a socially significant food product, so an increase in its price is not desirable. Consequently, for manufacturers of this type of product, additives of the first group are most desirable, which also makes them independent from suppliers of specialized products. At the same time, consumers are not ready to put up with the unattractive sensory characteristics of food, even for the positive impact on their health. Therefore, it is necessary to develop special technological methods to increase the nutritional and biological value of bread and bakery products without deteriorating their consumer benefits.

In this context, a promising modification product is national bread products, in this case, Uzbek flatbreads, in which the color and structure of the crumb porosity are not decisive indicators for consumers. Mainly, attention is paid to appearance, taste and aroma.

The aim of the study was to study the effect of processing products of legume seeds subjected to special treatment to increase the biological value of Uzbek flatbreads.

As an object of research, we selected the seeds of mung bean traditionally used in the national cuisine of the peoples of Central Asia.

Mung bean or mung beans, or lui-dau, Asian or golden beans (Latin Vigna radiate) - a year plant; species of the genus Vigna of the pulses family (pulses) [5; 6].

Mung bean seeds are characterized by an increased protein content relative to wheat (based on dry matter), on average, 1.8 times, sugars - 3.5 times, fiber - 1.7 times, dolas - 2.0 times. They contain pharmacologically active flavonoglycosides - vitexin and isovitexin, which are natural antioxylants capable of regulating intracellular lipogenesis and adipogenesis, as well as ensuring normal myocardial oxygenation. The protease inhibitor mungoin in mung bean has antifungal and antitumor properties [7].

To increase the nutritional value of mung bean seeds, before dispersing (grinding), they were subjected to special treatment: 1 - peeling (cleaning from shell particles), 2 - germination. Investigated the chemical composition of shelled and germinated mung bean seeds. As a comparison sample (control), using natural mung bean, that is, not subjected to special processing (Table 1).

Table 1

Effect of special treatment on the chemical composition and energy value of mung bean seeds

Nutrients	Mass fraction of nutrients, g / 100 g DM		
	the control	*after peeling*	*after germination*
Protein	27,16±1,58	29,65±1,50	33,52±1,50
Carbohydrates:			
starch	47,84±0,24	53,23±0,25	38,67±0,20
mono- and disaccharides	3,70±0,02	4,04±0,01	9,11±0,01
cellulose	4,93±0,02	1,34±0,01	3,81±0,02
Fats	2,55±0,13	2,78±0,12	1,93±0,10
Ash	3,78±0,08	1,65±0,10	3,85±0,10
Minerals, including:			
calcium Ca	0,005±0,00	0,002±0,00	0,017±0,001
magnesiumMg	0,019±0,003	0,010±0,003	0,055±0,003
sodium Na	0,019±0,003	0,009±0,003	0,054±0,002
potassium K	1,646±0,001	0,536±0,001	3,750±0,001
phosphorus P	0,022±0,00	0,008±0,00	0,080±0,00
iron Fe	0,005±0,001	0,002±0,001	0,018±0,001
Vitamins, including:			
pyridoxine B6	0,47±0,02	0,51±0,02	1,34±0,03
tocopherols E	0,62±0,05	0,67±0,05	1,58±0,03
Other substances	8,95±0,81	6,13±0,87	8,12±0,80
Energy value, kcal	357	378	358

The results of the studies (Table 1) indicate that the peeling and germination of mung bean seeds contributes to an increase in their protein value relative to mung bean samples not subjected to special treatment (control), respectively, by 9.2 and 23.4%.

Next, mung bean seeds were crushed to the size of dietary flour. In appearance, the prototypes of muffin flour did not differ significantly from each other.

As an object of modification, we used the basic recipe for Obi-non flat cakes (TI 8-200-2002 Technological instructions for the production of Uzbek flat cakes) from grade II wheat flour (hereinafter W.f.II). Comparative analysis of the test samples of flour for the main components is given in table 2.

Table 2

Nutritional value of the investigation raw materials by main components

The name of components	Component content, g / 100 g of product			
	wheat flour II	*Whole meal flour*	*peeled mung bean flour*	*sprouted mung flour*
Proteins	12,35	24,75	27,03	30,54
Lysine	0,333	1,563	1,807	2,251
Fats	1,80	2,10	2,40	1,70
Carbohydrates:				
- starch	62,80	39,80	46,90	33,82
- mono- and disaccharides	0,90	2,40	3,57	7,87
- cellulose	0,60	3,70	1,10	3,10
Moisture, %	14,0	9,0±0,5	9,0±0,5	11,0±1,0

Established that in experimental samples of mung bean flour the protein content is 2.0 ... 2.5 times higher than in the reference sample (W.f. II), lysine, the most deficient amino acid, is 4.7 ... 6.8 times higher.In muffin flour there was an increased content of mono- and disaccharides, fiber, respectively, in 2.7 ... 8.7 and 1.8 ... 6.2 times, as well as a decrease in 1.3 ... 1.9 times the amount of starch. The nutritional value of the finished product was determined by calculation, taking into account the safety of the components during heat treatment. The laboratory results presented in Table 3.

Table 3
Content of main components in finished products

Name of the raw materials	Net weight, r	Mass fraction of basic nutrients, g					
		Proteins	Lysine	Fats	Carbohydrates		
					starch	mono- and disaccharides	cellulose
Control (bread y. = 122%)							
W.f. II p.	100	12,35	0,33	1,80	62,80	0,90	0,60
Total in raw materials	-	12,35	0,33	1,80	62,80	0,90	0,60
Safety during heat treatment, %	-	94	94	88	92	91	97
Total in the product	-	11,61	0,31	1,58	57,78	0,82	0,58
100 g of the product	82	9,52	0,25	1,30	47,38	0,67	0,48
Option 1 (bread y. = 125%)							
W.f. II p.	90	11,11	0,30	1,62	56,52	0,81	0,54
Whole meal flour	10	2,47	0,16	0,21	4,00	0,24	0,37
Total in raw materials	-	13,58	0,46	1,83	60,52	1,05	0,91
Safety during heat treatment, %	-	94	94	88	92	91	97
Total in the product	-	12,76	0,43	1,61	55,68	0,96	0,88
100 g of the product	80	10,21	0,34	1,29	44,54	0,77	0,70
Option 2 (bread y. = 125%)							

To define the degree of satisfaction of a person's daily need for nutrients, averaged (for both sexes) physiological norms of needs for the age group of the population 18 ... 29 years old were selected IV group of professions (workers of heavy physical labor) according to Sleigh Pedimation of the Republic of Uzbekistan No. 0347-17.

The choice of this age group was based on certain age-related characteristics of metabolism. So, at 18 ... 29 years old, the metabolism is associated with incomplete and ongoing processes of growth and physical development.

The calculated data shown in Table 4. lysine fats sugars fiber proteins.

Table 4

The degree of satisfaction of the physiological norms of the daily requirement for basic nutrients when using 100 g of the fortified product

Component content	Component name					EC *, kkal
	proteins	lysine	fats	sugars	cellulose	
The norms of the physiological need for nutrients and energy, g, kkal	22,5	2,0	35,0	50,0	20,0	3450
The control						
in g / 100 g of product	9,52	0,25	1,30	0,67	0,48	237
in% of the norm	42,3	12,5	3,7	1,3	2,4	6,9
Option 1						
in g / 100 g of product	10,21	0,34	1,29	0,77	0,70	230
in% of the norm	45,4	17,0	3,7	1,5	3,5	6,7
Option 2						
in g / 100 g of product	10,40	0,36	1,31	0,78	0,50	232
in% of the norm	46,2	18,0	3,7	1,6	2,5	6,7
Option 3						
in g / 100 g of product	10,65	0,40	1,26	1,17	0,67	231
in% of the norm	47,3	20,0	3,6	2,3	3,3	6,7

Note: * EC - energy value

From the data in Table 4 it follows that in products with additives, the degree of satisfaction of the daily requirement for proteins increased by 3.1 ... 5.0, lysine - by 4.5 ... 7.5, sugars - by 0.2 ... 1.0, fiber - by 0.1 ... 1.0% relative to the control values (without additives). In terms of fat content and energy value, the experimental samples of cakes practically did not differ from the data of the comparison sample.

In terms of organoleptic and physicochemical characteristics, the products with additives corresponded to the requirements of TI 8-200-2002 and did not have the

specific taste and smell characteristic of legumes.

Thus, the expediency of preliminary peeling or germination of mung bean seeds has been substantiated to obtain flour used to increase the biological value of bread products, reduce the alternative prescri ption amount of wheat varietal flour and increase the yield of finished products by 3.0 ... 4.0% by sprouting the moisture content of the dough by 1.0 ... 1.5%.

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CHEMICAL SCIENCES

PRODUCTION OF THE OPTIMAL VERSION OF A PILOT BATCH OF PLASTICIZER OIL IN THE CONDITIONS OF THE FERGANA REFINERY

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Abstract. In this work, the optimal version of the pilot batch of plasticizer oil from the III-cut extract was produced in the conditions of the Fergana oil refinery.

Key words: extract, phenol, petroleum oils, olefin, density, viscosity, aniline point, toluene.

At present, in the oil and gas industry of the Republic of Uzbekistan, special attention is paid to the priority areas of oil and gas chemistry in order to implement industries that produce products with high added value, in particular, in this area there are opportunities for obtaining new types of products - polystyrene, polyethylene terephthalate, synthetic rubbers based on aromatic hydrocarbons (benzene, toluene, xylene), using the technology for producing olefins from methanol, as well as increasing the production of polyethylene and polypropylene.

According to the analysis of the state of work on plasticizers, petroleum oils and products based on them are widely used in the tire industry as plasticizers and softeners of rubber compounds, and in terms of the total volume of use they occupy the third place after rubbers and carbon black [1]. Petroleum plasticizers are especially widely used in the production of styrene butadiene rubbers and tire rubbers, into which petroleum oils are introduced in large quantities (20-50 mass parts or more per 100 mass parts of polymer) [2]. The viscoelastic, low-temperature strength properties of rubbers, as well as wear resistance, shrinkage, adhesion, tendency to vulcanization, and workability largely depend on the composition of the plasticizer [3,4].

We have carried out work on the manufacture of a pilot batch of plasticizer oil. The preparation process for this pilot batch consisted of the following stages:

- preparation of the components of the residual extract and the extract of the III-shoulder strap;
- purification of oil extracts with liquid propane;
- mixing of components.

Samples from pilot production batches were taken and analyzed from the installation 36/1, the quality characteristics of which are shown in table 1:

Table 1

№ o/n	The name of indicators	Residual extract	Extract III-shoulder
1.	Kinematic viscosity at 100 ^{0}C, sSt	20,61	8,21
2.	Flash point, ^{0}C	250	194
3.	Refractive index at 50 ^{0}C	1,5100	1,4920
5.	Density at 20 ^{0}C, kg/m^3	936	922
6.	Pour point, ^{0}C	34	25
7.	Sulfur content, % mass.	1,80	1,85
8.	Aniline point, ^{0}C	72,2	66,7

The prepared samples are shown in table 2

Component name	Sample 1	Sample 2	Sample 3
Fraction III extract	10 %	15 %	20 %
Residual extract I	90 %	85 %	80 %

The quality of the prepared plasticizer samples is in table 3:

№ o/n	The name of indicators	Plasticizer oil			
		Norm	Laboratory samples		
			№ 1	№2	№3
1.	Kinematic viscosity at 100 ^{0}C, mm^2/s (sSt)	16-23	19,53	18,25	15,27
2.	Refractive index at 50 ^{0}C	1,5080-1,5280	1,5110	1,5030	1,5010
3.	Density at 20 ^{0}C, kg/m^3	927-967	934	927	923
4.	Pour point, ^{0}C	not higher than 30	32	30	28
5.	Closed Cup Flash Point, ^{0}C	not lower than 220	245	235	224
6.	Sulfur content, % mass.	no more than 3.0	1,8	1,75	1,79
7.	Aniline point, ^{0}C	64-72	71,8	69,5	67,4

As a result of the tests, it was found that the obtained laboratory samples of the plasticizer oil meet the requirements of the standard indicators.

Thus, an experimental batch of plasticizer oil obtained under laboratory conditions of the Fergana refinery can be recommended for transfer to operational tests in the production of rubber products. Scientific and practical work in this direction continues.

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ANALYSIS OF THE FERGANA OIL REFINERY INSTALLATION FOR THE PRODUCTION OF CONSTRUCTION PETROLEUM BITUMEN

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Abstract. In this work, an analysis was made of an operating installation for the production of petroleum bitumen of type 19/3 with an approved feedstock capacity of 205 thousand tons per year of the Fergana Oil Refinery (FNPZ). As a result of the analysis, on the basis of the analysis and patent information search, it was found that the most promising direction for improving the production of oxidized bitumen is the introduction of various modifying additives into the oxidation process, namely, regenerated amines.

Key words: petroleum bitumen, modifying additives, aliphatic primary amines, regenerated amines.

It is possible to obtain oxidized petroleum bitumen in a device that contains a chamber and a pipeline located therein with a perforated end. At the end of the pipeline, a thermally insulated perforated glass is installed, inside of which a heater is placed, and the heater and the pipeline are installed axisymmetrically relative to the cylindrical chamber. The use of this invention makes it possible to reduce energy costs for obtaining bitumen [4].

It was found that the most promising direction for improving the production of oxidized bitumen is the introduction of various modifying additives into the oxidation process, namely aliphatic primary amines [3] and regenerated monoethanolamines.The authors of [3] point out that the use of such an additive can reduce the oxidation time by 30 min; to lower the oxidation temperature by 10 C0, and also to reduce the oxygen content in the oxidation off-gases by 40-50% and at the same time improve the quality of petroleum bitumen.

Comparison of the parameters of the industrial analogue method and the new method for obtaining the target product

Table №1

Process parameters	Analogue production method	Way Institute of General and inorganic chemistry of the Academy of Sciences of the Republic of Uzbekistan
Stage under consideration	Synthesis	Synthesis
Oxidation time at the synthesis stage	300	275
Process temperature	260	248
Supplements	-	«regenerated ethanolamines»
Molarity ratio of reactants (asphalt: extract)	80:20	80:20 + addition of 0.05 wt% for raw materials
Product yield	205000 t/year	224612 t/year
Oxygen content in oxidation off-gases	3,57 wt.%	1,96 wt. %
Distillation (black solarium)	Discharge to industrial sewer	Reuse

In our case, the use of an additive in the form of regenerated amines makes it possible to reduce the oxidation time by 25 min; to lower the oxidation temperature by 12 ˚ C, and also to reduce the oxygen content in the oxidation off-gases by 40-50% and at the same time improve the quality of petroleum bitumen.

Thus, the analysis of the installation made it possible to propose ways to improve the operation of the installation for the production of petroleum bitumen - the introduction of an organic additive "regenerated ethanolamines". We have carried out calculations of the application of the improvement at the 19/3 bitumen production unit of the Fergana oil refinery with a feedstock capacity of 205.0 thousand tons per year. This improvement option allows, by reducing the time and lowering the process temperature, to increase the yield of the finished product 224 612 t/year, while improving the technical and operational characteristics of the resulting bitumen. All calculated results are summarized in Table 1. Reuse of black solar oil in the process of dissolving amines leads to an increase in the environmental friendliness of the installation

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CULTUROLOGY

OUT-OF-CLASS EVENT ON THE THEME: "THANKSGIVING DAY"

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The aim of the out-of-class event: to form children's interest in the cultures and traditions of the English-speaking countries by studying the specificity of the Thanksgiving Day and Harvest Festival in the United States.

Decoration: The hall is decorated with garlands with pumpkins, leaves and turkeys and wall newspapers.

Event progress:

Introduction:

- Dear boys and girls! Dear guests! Dear teachers! We are here to celebrate a wonderful holiday - Thanksgiving Day. Thanksgiving Day is a traditional national holiday in the USA and some other English speaking countries. It has become a tradition with Americans to get together on this day. As a rule, all the members of the family have a great holiday dinner in one house. The Americans, especially children, like this holiday very much because they eat roast turkey, cranberry sauce, sweet potatoes and many other tasty things.

Today we shall tell you interesting information about the history of Thanksgiving Day.

Poem about Thanksgiving Day

Do you know the story
Of the first Thanksgiving Day
Founded by our Pilgrim Fathers
In that time so far away?

They had given for religion
Wealth and comfort - yes, and more -
Left their homes and friends and children
For unknown barren shoe.

We shall never know the terrors,
That they faced years ago,
But for all their struggles gave us,
We our gratitude can show.

And the children of New England
If they feast or praise or pray
Should bless God for those brave Pilgrims,
And their first Thanksgiving Day.

- The American Thanksgiving began nearly four hundred years ago. Now let's imagine how it all might have begun. And let's begin our travel to the past. In September 1620, a small ship called the Mayflower with 102 passengers left Plymouth, England, in search of a better life in the New World.

Scene 1

Indian: I'm greeting you, Massasoit.
Indian: I'm greeting you, Squanto! What's the news?
Indian: A big boat is approaching our land. It has a lot of people.
Indian: How many?
Indian: May be 50.
Indian: Do you think they are enemies or friends? We don't want to have a war.
Indian: You are right, Massasoit. But we must be ready for everything.
Indian: Be very careful. I wish you good luck!

Scene 2 May flower song

The Mayflower, the Mayflower
A little ship on an ocean trip.
The Mayflower, the Mayflower
A yo-ho-ho over the sea.
The lightning was fright'ning.
The winds were strong as they rode along
On the Mayflower, the Mayflower
A yo-ho-ho over the sea.
Twas dreary and bleary,
They nearly froze in their Pilgrim Clothes
On the Mayflower, the Mayflower
A yo-ho-ho over the sea.
Then land ho! We all know,
They came to dock up at Plymouth Rock
On the Mayflower, the Mayflower
A yo ho ho over the sea.

- It was in December 1620 that they reached the shores of America in what is now Massachusetts.

Pilgrim: Oh, I see a land! Look!
Pilgrim: Thanks God, we have arrived!
All Pilgrims: Land! Hurrah! Land!
Pilgrim: We have to find a safe place for us to live.
Pilgrim: We need good houses.
Pilgrim: Let's see tomorrow where to build our settlement.
Pilgrim: Look! There are people there.
Pilgrim: Somebody is coming! And his skin is red!
Pilgrim: They welcome us.
Indian: I'm greeting you , pale faced people! My name is Squanto! Why have you arrived here? Who are you? Where are you from?
Pilgrim: We are Pilgrims. We have come from England.
Pilgrim: This country is very far from here.
Pilgrim: There we had many problems and we want to begin a new life here. And who are you?
The Indian: We are Indians. We have been living here for a long time here.
The Indians: Welcome to our land!

The Indian: You may stay here and live on our land.
Pilgrims: Thank you very much!

- The first winter in the New World was difficult. The colonists arrived too late to grow any vegetables and fruits, and without food, half of the colony died. The pilgrims were starving and sick. Then Native Americans, Indians, helped the pilgrims. Throughout the first winter, the Indians shared their supplies with the settlers.

Scene 3

Pilgrim (daughter) : Mummy, Mummy, I am so hungry. Give me some bread.
Pilgrim (mother) We haven't got any bread, my darling.
Fred, our daughter is hungry and she has got high temperature. She is sick. It is so cold here. What must we do?
Pilgrim (father) Many people are dying. We have nothing to eat and we have no weapon. Winter is coming, but we have no houses and warm clothes.
(Indians appear with baskets of food).
Indian: Hello! We have brought food to you: bread, vegetables, fruit, corn, and other things.
Pilgrim (mother) Oh! Thank you very much! You have saved our lives! We'll never forget you!
Pilgrim (father) Many people are dying. We have nothing to eat and we have no weapon. Winter is coming, but we have no houses and warm clothes. Help us, please!
Indian: OK, our people will help you!

- They showed them how to grow other crops, how to fish and hunt wild turkey, the meat of which was delicious. The Indians helped the colonists survive the cold winter and the following spring.

Scene 4

(Indians are showing pilgrims how to grow corn, fish, hunt).
Indian: We'll teach you how to plant corn, build houses, hunt and fish. Our land is very rich.
Pilgrim: Thanks! We'll pray for you! We'll be good pupils.

Indians song - Текст песни "An Indian song"
This is the way we beat our drum,
Beat our drum, beat our drum.
This is the way we beat our drum,
We are the Wampanoag.

This is the way we plant our corn,
This is the way we crop our corn,
This is the way we hunt for food,
This is the way we hunt for fish,
This is the way we sing our song.

- In the fall of 1621, the colonists harvested wonderful vegetables. So they were very grateful and decided to organize a big feast with turkey as the main dish.

Scene 5

Pilgrim: Look! Our crops are well.
Pilgrim: You are right! We have a great harvest.
Pilgrim: Let's celebrate our harvest with a feast.
Pilgrim: Yes! Yes! Let's do it!
Pilgrim: Oh! Dear Pilgrims, let's invite the Indian friends to share our Thanksgiving feast.
Pilgrim: You are right! They helped us very much.

- And the Indians, of course, were invited.

Сцена 6

Pilgrim: You helped us very much.
Pilgrim: We are so grateful to you for many things!
Pilgrim: And we'll never forget those days!
Pilgrim: Welcome to our Thanksgiving feast!

(Indians and pilgrims sit down at the festive table. There is a turkey (a dummy), cranberries, fruits, corn, pie on the table. The leader of the Indians pronounces a toast in honor of the pilgrims).
The Indian Leader:

Heap high the board with plenteous cheer,
And gather to the feast,
And toast the sturdy Pilgrim band
Whose courage never ceased.
Pilgrim: Thanks a lot! Now let's have a fun!

Final Song

And since that time, every fourth Thursday in November, Americans have celebrated Thanksgiving. This is why we are here today. It's always great to learn something new from history. And as you know it's so great to celebrate holidays. The make us so happy and friendly.

ECONOMICS SCIENCE

ISSUES OF DEVELOPMENT OF INVESTMENT ACTIVITY IN COMMERCIAL BANKS.

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Abstract: The article discusses the concept of investment, the role of the credit and financial system in investment activity and the essence of banking investment activity. The main directions of participation of commercial banks in the investment process were highlighted and recommendations necessary for the further successful development of investment and issuance activities of commercial banks were given.

Keywords: commercial banks, banking system, investments, investment process, bank investment activities, bank investments, bank investment policy and strategy.

Modern commercial banks offer a variety of services that act as financial supermarkets in order to meet the most diverse needs for different categories of their customers. Most banks operate using a universal development strategy, i.e. they are the most important segments of the financial market, the partici pants in the banking services market.At the same time, the main areas of activity of banks, especially large credit institutions of systemic importance, are retail business, corporate business and investment business. [1]

The classification of investment activities of commercial banks depends on the types and forms of investments, as well as the specifics of banking activities. The sources of funds that commercial banks invest in consist of their own funds and borrowed funds. If own funds consist of bank capital, the attracted funds are formed from various forms of deposits.

In order for commercial banks to carry out active investment activities, it is necessary to increase the level of capitalization. Therefore, in our country, special attention is paid to increasing the level of capitalization of banks. The positive results are also recognized by experts from international financial institutions [2]

Investment plays a key role in the development and operation of the economy. The financial system is one of the key components that helps increase investment activity. Commercial banks also make a significant contribution to its growth: by attracting government deposits, they form investment capital and contribute to their spread.

In addition, commercial banks can be considered as a powerful information processor in the investment market. Their position is unique for a number of reasons, one of which is that they are able to combine all services to ensure interaction with the business entities served in their services. [3]

World experience shows that countries cannot develop their economies without attracting investments and using them effectively. By raising private, public or foreign capital, creating access to modern technology and management, investments not only contribute to the formation of national investment markets, but also revitalize markets for goods and services. In addition, investment, as a rule, contributes to macroeconomic stabilization measures and allows to solve social problems in the period of transformation.

If the investment is understood as an investment aimed at increasing the capital later, then from the bank's point of view, the capital increase should be sufficient to compensate the commercial bank for refusing to use available financial resources to invest in other

alternative instruments in the financial market and to cover losses from inflation in the next investment period.

Bank investments mediate the use of temporarily vacant funds in the form of financing (lending) of capital investments or other forms of investments in real assets of direct investment products to serve the process of reproduction . They are characterized by the supply of vendor-like funds from the banking system and the demand for these funds from potential participants in investment activities as buyers of bank investments.

That is, in a market economy, banks form the backbone of a country's financial system, being the main channel for transferring funds from those who keep them to those who invest them. The need to attract funds to the economy creates objective conditions for the active attraction of bank investments in the long run.

Banks are advised to engage in investment activities for the following reasons: expansion of income and customer base; bank investments help to maximize profitability, liquidity and solvency; high risk of credit operations and the desire to optimize the taxation of bank income. Investment activity provides banks with a certain guarantee of profitability and survival in the market. [4]

Bank investment management means:

- first, to determine the temporary and spatial structure and the volume of bank investments;
- second, increase the efficiency of the bank's investment activities to reduce costs and achieve high results;
- third, the creation of new banking investment products that are in demand and can bring maximum benefit to the bank;
- Fourth, the selection and effective use of highly qualified personnel for banking investment activities.

The most important project in our country in 2019 - 300 mln. It should be noted that Eurobonds in the amount of US dollars were issued. The Bank was the first corporate issuer in the country to place corporate Eurobonds on the London Stock Exchange, and this project helped to promote the bank's brand in the international arena.

For the first time in the history of the country's banking sector, the issuance of Eurobonds is the result of joint efforts of the state and the bank, as well as an important step towards the bank's integration into international financial markets and diversification of funding sources.

In order for our commercial banks to increase their ratings and reach the level of investment, the sovereign rating must also increase. In other words, the outcome of reforms in the country should ultimately have a direct impact on the well-being of the people and the economic well-being of the people. Significant work has been done in recent years to achieve this goal.

In addition, it is advisable to actively study and apply the methodology of rating agencies by the management of corporate issuers.

The Bank's investment activity is a complex and multifaceted phenomenon. The Bank, as akey player in the investment relationship, accumulates significant financial resources of the population through the use of various monetary and financial instruments and directs them to other participants in the investment process to accelerate the country's reproduction process and economic growth. Therefore, great attention should be paid to this area of banking.

One of the challenges in improving the investment performance of commercial banks in the securities market is to determine the purpose of portfolio management. This problem is due to the need to modify some models of portfolio formation in the process of transition from statistical data, portfolio management to dynamic issues. Banking

practice shows that the client can't change his investment interests during the term of the contract. Implementation of this task will allow to determine the forecast of the investment portfolio. According to the objectives, the investment activity of banks is the effective distribution of portfolio investments among assets. This portfolio should focus on security and profitability. There are two types of investment control portfolios: income and growth portfolios. Income is formed on the basis of these portfolios. Each portfolio is formed on the principles of low risk, high liquidity and profitability. An investment portfolio is a set of securities owned by an individual or legal entity.

So, based on the above information, the following suggestions can be made to increase the efficiency of investment activities of banks:

1.Further encourage the expansion of investment activities of commercial banks, modernization of economic sectors, technical and

Strengthen their resource base to increase funding for long-term investment projects aimed at technological re-equipment;

2.It is necessary to further improve the diversification of the investment portfolio in commercial banks.

3.Our banks need to invest in long-term effective projects by increasing their long-term resources. In order to increase long-term resources, it is necessary to first increase the level of capitalization of banks, then issue long-term deposits by banks, attract more long-term deposits instead of time deposits of individuals and legal entities. This can be achieved through the introduction of various benefits, the organization of attractive types of deposits.

4.It is expedient to introduce the use of widely used methods of investment risk management in foreign banks in the practice of local banks.

5.It is necessary to expand operations with securities in commercial banks, in particular, the share of securities in total assets in the secondary securities market is less than 1%. However, in developed countries, its share is second only to loans, and its share is 20-30%.

In summary, investments appear not only in terms of potential returns for commercial banks, but also in helping other organizations, focusing on the growing role of commercial banks in attracting investment to the real sector of the economy, as well as in various markets, including in terms of its emergence in international markets.

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EAP, ESP-WHY TO CONTEMPLATE BOTH TYPES.

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Abstract.Current research work is about the importance of English language Acquisition and why it is essential to consider all the purposes English is being focused to teach. Although English is directed to be taught in diversity purposes, no matter whether it is focused on academic, general or specific purposes, all three types of English should be emphasized equally. Both EAP and ESP are interrelated, so we cannot ignore one or the other.

Key words: English for Specific Purposes, English for Academic purposes, objectives, essentiality, utilization, mind reading, Lingua franca.

English language, being Lingua Franca- is meant to be the language of the world, as well as official language of almost 70 countries. According to the statistics of the year 2019 English became an official language in 55 sovereign and 27 non-sovereign states of the world, 65% of which are developed countries. In the rapidly emerging century language is the target mean of collaboration and negotiation of people all over the world. Hence English is spoken in 90% of countries, the demand for language acquisition is tremendously high. People learn English for different purposes, aiming to have better educational background, better living, travel the world or just for intrinsic motivation.

In English language teaching EAP and ESP plays an essential role, however, they are often misunderstood and as a result ESP is ignored. The current thesis is to claim the importance of ESP of various fields, such as English for Economics, English for Accounting, English for Business and others. In most Universities the syllabi are designed relying on only general English. It is true that grammar is the phenomenon of language proficiency, based on accuracy in language use, however, at the same time in the Universities and Institutes where English is not the main Major, ESP should be immersed. The curriculum and the syllabi of those universities should be improved considering the field of the students and paying attention to grammar aspect as well. Unlike EAP, ESP includes more branches, that require to be specific in teaching and attentive in learning. Nevertheless, in the journal for teachers Understanding Science, ESP is explained as unreal which fail to meet one of the key aspects of scientific behavior: assimilating the evidence. Using the tools scientists tried to discover whether ESP exists, but the experiments were mostly focused in mind reading. Due to the results of the experiment ESP is claimed to be not essential, and it is ignored aspect of English language teaching.

ADVANCED EXPERIENCE OF FOREIGN COUNTRIES IN THE FIELD OF MORTGAGE LOAN

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Abstract.In order to form a complete system of mortgage lending, it is necessary to use the many years of experience of foreign banks, experience in the provision and maintenance of mortgage housing loans. International experience shows that an important purpose of state and municipal government is to provide affordable and quality housing with the help of legislative and administrative acts .

Key words.Market economy, mortgage market, housing mortgage, insurance coverage, investment mortgage relations, construction savings bank, construction savings.

The effectiveness of the functioning of a market economy depends on the reserve system of the institutional unit, the beginning of which is: pledge, surety, insurance, accounting accounts of reserves, guarantees, etc.

The mortgage market in Uzbekistan is just beginning to develop and is based on primary debt mortgage obligations (mortgages, guarantees), which are located in those institutions that purchased them before the maturity date.

Collateral is a way of securing obligations.

With floating collateral, the composition and natural form of the collateral subject is constantly changing (for example, collateral of an enterprise, branch, etc.).

In the writings of such economists as: B. Butler, D. Goodman, D. Downs, we can see that almost all definitions of collateral focus on the form of securing a loan return and the possibility of selling the subject of collateral. It is important to understand that the guarantee in a market economy is the main form of ensuring the execution of any operations.

It should be noted that in the US, 63 million families live in homes purchased with a mortgage. Mortgage loans include over 3 trillion dollars a year, which is more than circulation in the US government securities market. Mortgage loans are provided by savings and loan associations (40 - 50% of all mortgage loans), mortgage banks (18 - 30%), commercial banks (19 -20%), mutual savings (commercial) banks (8-10%), credit unions (1-2%).

It is worth noting that the United States took more than 50 years to reach the current level of investment mortgage relations.

In order to form a complete system of mortgage lending, it is necessary to use the many years of experience of foreign banks, experience in the provision and maintenance of mortgage housing loans.

International experience shows that an important purpose of state and municipal government is to provide affordable and quality housing with the help of legislative and administrative acts. In Europe, the following well-known and effective economic regulators are recognized, which have a long-term path and international application:

A) preferential bank loans in the amount of from 3.5 to 9% per annum with maturities of 15 to 25 years for housing created and bought by the population;

b) tax incentives (for example, a reduction of up to 50% VAT) on the production of building materials and engineering equipment for the construction of residential houses,

paved roads, hospitals, schools, child care facilities and some other facilities;

c) stimulation of capital investments allocated for the construction of housing, utilities and energy facilities in remote and inaccessible areas through the complete abolition of tax collection.

For example, Finland in its legislation uses the norms of entrepreneurial activity, improving housing development, as well as effectively stimulating the gene pool of young families by reducing the payment for an acquired apartment by 25-50%, depending on the number of births children.

Today, the minimum mortgage interest in Finland starts from fixed rates of 3.7% and floating 3.3%. Although in 1990 the Central Bank of Finland set a rate for lending for housing construction at a rate of 3.5 percent per annum, while the average rate on loans in the banking market ranges from 9 to 17%.

In the UK, they use a model related to credit refinancing. Investors refinance a mortgage every 2-3 years, returning the invested funds due to the fact that, due to the growth in the value of collateral and improving conditions in the mortgage market, banks increase the amount of the loan secured by the same real estate.

In the UK a loan is issued for 25 years, the interest rate on a mortgage is from 4-6% fixed, or from 1-3% floating.

In Germany, there is a construction savings bank, which issues a loan at a very low interest when a certain amount is accumulated. After the acquisition of housing, the return component of the "funded-return" system begins, which stimulates young families in terms of fertility, with at least two children. Such families receive subsidies from the state to pay for their homes, development and education of children, and payment of electricity. The repayable money allows families with two or more children to significantly facilitate and accelerate the repayment of a loan issued by a construction savings bank.

In the USA there are many mortgage lending programs, even if the citizen's income is not high enough, the borrower can get aloan with state participation.

Starting from 1934 to the present day in America there is the Federal Housing Administration (FHA), which is actively involved in the development of the real estate market, allowing you to purchase housing with an initial down payment of 3.5% and providing reliable insurance protection for mortgage loans.

In the Czech Republic in 1992-1993, the legislative framework for "Building Savings" was created, which covered half of the total population of the Czech Republic.

The procedures for building savings are that financial institutions offer to make a deposit with an annual interest rate of about 3-4. After 2 years, the depositor is entitled to a loan at a low interest rate. And those investors who make a deposit for a long time, then they are given state subsidies (1 time per year 10% of the deposit amount).

Compared to regular bank deposits, customers can take out loans on favorable terms with a low interest rate. It is enough to accumulate 35% of the total amount, and you can already get the remaining 65% at a low interest rate. Most citizens contribute a small amount of capital and use the program not to solve their housing problem, but to save and increase funds. The popularity of construction savings is estimated by a high degree of reliability of these deposits compared to universal banks. The state approves this system, as it considers it beneficial for itself.

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LITERATURE

ANALYSIS ON THE WORK OF MUNAJIMBASHI DARWISH AHMAD "SAHAIF UL-AKHBAR"

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Abstract.This article is devoted to the scientific analysis of the work of Munajimbashi Darwish Ahmad "Sahaif ul-Akhbar", which tells a short history from the origin of mankind to the Middle Ages of Muslim and Turkic dynasties. The main goal of the study is to analyze the literature and sources of creativity of that time and today, as well as to show the scientific and practical significance of scientific work.
Also, the main task was to assess the role of the source in illuminating medieval history, to assess the detail and sequence of events in this historical work.
In the study of the study, historical-comparative analysis, research methods from a historical-chronological point of view were used.
In a word, this scientific work can not only describe events from Adam to the reign of Mahmud IV, a representative of the Ottoman Turkic dynasty, but also serve as a historical source on the history of our country.
Key words: "Sahoyif ul-akhbar", Munajimbashy Dervesh Ahmed, Mohammed Yusuf Bayani, "Jame ud-duval"

Introduction. The author of Sahaif ul-Akhbar, Munajimbashi Darvesh Ahmad (Turkish: Müneccimbashi, Ahmed Dede), describes the sequence of events from Adam to the reign of Mahmud IV, a member of the Ottoman Turkic dynasty. During the reign of Darwish Ahmad Sultan Mahmud IV, he held the position of "Munajjimboshi" for his morals, manners and intelligence. The exact position he holds will remain a nickname for him. His activities in the sultan's palace ended when Sultan Suleiman II ascended the throne and he was exiled to Egypt. Darwish Ahmad later moved to Mecca and Medina, and wrote many of his works in exile in Cairo, Medina and Mecca.

Sahaif ul-Akhbar was written in Arabic and translated into several languages. Including Turkish, Persian, English, German. Sahaif ul-Akhbar was translated into Turkish by the poet Nadim during the reign of Sultan Ahmad III. This translation was published in three volumes in 1867 and is now preserved in the Manuscript Fund in Istanbul. The work "Sahoyif ul-akhbor" was first translated into the old Uzbek script in 1901 by the historian of the Khiva khanate Muhammad Yusuf Bayani. Today, this work is kept in the Institute of Oriental Studies named after Abu Rayhan Beruni and in the Manuscripts Fund of the Mamun Academy in Khiva.

We can see that Sahaif ul-Ahbar has been used by a number of Turkish researchers in modern times for research on various parts of the work. For example, [1], Ahmet Ağirakça, Nuri Ünlü, Ömer Tellioğlu, Melis Keskin and Şeyma Nur Temel can be

cited. We can see that the first translation into English was made in 1954 by V. Minorsky from Arabic. Pakistani scholar S.A. Hassan translated the Great Seljuk part of the work into English and defended his doctorate at Cambridge University.

Purpose of Research. It has been mentioned above that certain parts of Darwish Ahmad's Sahaif ul-Akhbar have been studied before us. Our main goal is to study other parts of the work that have not been researched. An important task for historians is to translate and study the originals of the work, to conduct research on the work on the basis of methods of comparative comparison of the objectivity of the work with other sources.

The work is known among most researchers as Jami ud-Duval. In Turkey, the work is described as the "History of the Astrologer," while other scholars say that the author called his work "Sahaif ul-Akhbar fi waqeyl-Asar." A copy of the work is kept in the TopKapi Palace Museum in Turkey under the name "Jami ud-duval". It follows that the Arabic version of the work is called "Jami ud-duval" and the Turkish version is called Sahaif ul-Ahbar. According to sources, the work was written by order of Minister Kara Mustafa Pasha. The official period limit of the work is the events up to 1670.

Methods. In writing this scientific article, the views are expressed using historical and objective, the principles of scientific analysis, historical-comparative and historical-chronological methods.

Results and Discussion. Munajimbashi Darvesh Ahmad was an encyclopedic scholar of his time, in addition to history, he wrote in the fields of medicine, logic, music, astronomy, ethics and religion, and inherited several works. His work Sahaif ul-Ahbar, written in Arabic, is especially famous, and in some sources it is also called Jome' ud-Duval. Also known as the "History of the Munajimbashi". Of the more than twenty works of Darwish Ahmad that have come down to us, this is the most important. Modern historians consider this work by Darwish Ahmad to be the most important work in the field of history written in the seventeenth century [2].

While this work lost its attention after it was translated into Turkish as part of Ottoman state science, it was later mentioned by historian Hammer in his work in the early nineteenth century. In his work, Hammer cites Sahaif ul-Akhbar as his main source [3].

The Turkish translation of the poet Nadim has been used to this day. Some historians point out that there were some errors in translating the work into Turkish [4]. Historian Hasan Fahmi Turgal Sahaif translated a part of his work on the Anatolian Seljuks and published it in Istanbul in 1935 under the title "According to the Anatolian Seljuk Astrologer". Some time later, a part of the work related to the Qarakhanid dynasty was translated into Turkish by Nejati Logal under the title "From the work of the astrologer Sheikh Ahmad Darvesh Efendi, Sahaif ul-Ahbar fi waqeyl-Asar or Jami ud-Duval: Part of the Qarakhanids." was published with introductory remarks [5]. After that, no scientific work was done on the work of Sahaif ul-Ahbar. After it was said that his translation was flawed, the researcher

Ismail Erunsal translated a part of the Ottoman period [6] and published it in two volumes.

Conclusion. Unlike the traditions of medieval historiography, the work of Darwish Ahmad, Sahaif ul-Ahbar, was not written at the behest of the ruler. Darwish Ahmad did not follow the chronological order at some points in his work. Some areas also came in a mixed state. We can explain this by the fact that the author does not bore the reader or, in a colorful way, depicts the events. In addition, the play discusses the peoples and ethnic groups that were known to all at that time. There is also information about the peoples who founded the dynasties that have reached history.

The Munajimbashi Darwish Ahmad, unlike medieval historians, did not use the method of narration, but approached his work in a unique style in the spirit of criticism. It is evident that he tried to define the language of the work in as simple a style as possible. In the introduction to the work, the author writes that he was inspired by the works of historians such as Ibn Khaldun, Rashididdin Fazlullah, Hafizi Ebru, Muslihiddin Lari and Mr. Mustafa. In the creation of the work, the author mentions that out of seventy-two sources, forty-seven are in Arabic, seventeen in Persian and eight in Turkish.

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MATHEMATICS SCIENCE

FOUNDER OF THE FIRST TEXTBOOK ON ARITHMETICS
ОСНОВАТЕЛЬ ПЕРВОГО УЧЕБНИКА ПО АРИФМЕТИКЕ

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Abstract: The article reveals the arithmetic views of the great scientist-encyclopedist Abu Abdullah (Abu Jafar) Muhammad ibn Musa al-Majusi al-Khwarizmi (763-850). Particular attention is paid to his arithmetic treatise "The Book of Addition, Subtraction by the Calculation of the Indians". This article describes the founder of the first arithmetic textbook.

Keywords: Academy, Byte al-hikma, arithmetic, algebra, astronomy, geography, calendar, addition, subtraction, algorithm, decimal positional numbering, fraction, multiplication, division, square roots.

Аннотация: В статье раскрываются арифметические взгляды великого ученого-энциклопедиста Абу Абдуллаха (Абу Джаъфар) Мухаммада ибн Муса ал-Маджуси ал-Хорезми (763-850). Особое внимание уделено его арифметическому трактату "Книга сложении и вычитании по исчислению индийцев". В статье описывается основателя первого учебника по арифметике.

Ключевые слова: Академия, Байт ал-хикма, арифметика, алгебра, астрономия, география, календарь, сложение, вычитание, алгоритм, десятичная позиционная нумерация, дробь, умножение, деление, квадратные корни.

On the territory of our Motherland, starting from the 8th century, the science developed.Central Asiaat that time was part of the huge empire of the Arab Caliphate.

The first large scientific center of the Caliphate was Marw and further Baghdad.

At the end of the 8th and at the beginning of the 9th century, many scientists, a number of caliphs, starting with al-Mansur (754-775) and Harun al-Rashid (786-809), were gathered in Baghdad, who contributed to the development of natural sciences,

including mathematics.

Under the caliph al-Mamun and al-Vosik, akind of academy was organized, called "Bayt al-hikma". The academy had a well-equipped observatory led by al-Khwarizmi. Over the course of two centuries, the Baghdad School of Mathematics, in which the outstanding scientist, encyclopedist and mathematician, the founder of arithmetic and algebra al-Khwarizmi worked, achieved tremendous success. The main works of Euclid, Archimedes, Apolonius, Menelaus, Theodosius, Heron, Ptolemy, Diophantus and other great scientists have been translated from Greek and Syriac into Arabic.

Al-Khwarizmi worked with prominent scholars like: Ahmad ibn Abdullah al-Marwazi, Banu Musa, Ahmad ibn Muhammad al-Fergani, Khalid ibn Abd al-Malik al-Marrwarudiy and Abbas al-Jauhari.

In this note we will briefly dwell on the life and work of al-Khwarizmi.

The work of al-Khwarizmi and his associates was aimed at the development of natural science knowledge, knowledge of nature by experience.

This school laid the foundation for the development of exact sciences in Central Asia. Thanks to the work of scientists who began work in this "Academy", the exact sciences were further developed. It gradually began to develop in Bukhara, Khorezm (now Urgench), Gazna, Tus, Raya, Samarkand and other cities of Central Asia. Outstanding scientists, such as Sabit ibn Korru, Abu-l-Wafa, al-Kuhi, al-Karadzhi, al-Fergani, Ibn Sina, Biruni, Umer Khayyam, Nosiroddin at-Tusi and others, worked and were engaged in science in these cities.

Of course it would have been unthinkable if not to name the school of Ulugbek. Outstanding scientists, such as Dshemshid Giyasiddin al-Kashi, Kazazade ar-Rumiy, al-Kushchi and others, worked in this school along with Ulugbek.

Most of their works are related to mathematics and astronomy.

Al-Khorezmi al-Majusi was born in 783 in Khorezm. The word "Majushi" indicates that there were magicians among his ancestors. In Khorezm, he received his primary education, studied mathematics, astronomy, Arabic, religious and other sciences. His talent as a future scientist brought him to Marw and then to Baghdad.

Al-Khwarizmi was the main figure in the "academy" organized by al-Mamun. In this school, a huge number of manuscripts from Byzantium and other large cities of the world were stored. Al-Khwarizmi led a group of mathematicians and was the director of the observatory at this school. The main works of al-Khwarizmi were written in this school. Like all scholars of Islamic countries, he wrote his works in Arabic, since at that time all the peoples who obeyed the Caliphate were numb to write in their own language. Unfortunately, a significant part of his work has not reached us.

His ten works are known: on arithmetic, algebra, astronomy, geography, calendar and other sciences, but those works that we have enough, allows us to speak of him as an outstanding scientist of the world.

The works of al-Khwarizmi had a huge impact on the subsequent development of mathematics on a global scale. These works were the means of numerous studies, many commentaries were written on these works, dozens of generations have studied on them.

Al-Khwarizmi took part in an expedition to India, which was organized by the Caliphate. He studied the works of Indian mathematicians, and translated them from Indian into Arabic. On the basis of these data, he wrote a book on arithmetic which he called "The Book of Addition and Subtraction for the Calculation of the Indians" (A Treatise on Indian Counting), as well as on algebra "Al-Kitab al-mukhtasar fi hisob al-jabr wal-mukobala" ("A short book on the calculus of algebra and almukabala"). If Euclid gave rise to geometry, then al-Khwarizmi immortalized arithmetic, as well as algebra. Beginning in the 12th century, Arabic books were translated into Latin, the first one

called "Arithmetic", the second "Algebra", and the scientist's sum "Algorithm". It is no coincidence that each section of the book on arithmetic, as well as on algebra, begins with the words "The algorithm says ..." that is, "al-Khwarizmi says ...".

Consequently, the word "algorithm" sounded nine centuries ago, and from that time Europe began to get acquainted with the algorithm, which is a system of calculations, the rules of which are valid to this day, which are equally suitable for performing exercises, as well as for solving problems in a computer.

In the book on arithmetic, the first system in Arabic is given, which is set forth in decimal positional numbering (i.e. any number can be described using 0,1,2,3,4,5,6,7,8,9) and based on her actions. Al-Khwarizmi expounded the method of calculating the Indians using nine numbers (letters) that allow you to express any number that allows you to perform arithmetic operations. Thanks to this book, Europe, and later the whole world, switched to decimal positional numbering, al-Khwarizmi's work on arithmetic has come down to us only in Latin translation, which was called "Algoritmi de numero indorum", which is kept in the Cambridge University library. The book describes arithmetic operations, gives a method for extracting square roots. Of course, al-Khorezmi's method of calculating and extracting the square root is more difficult than the current method, since to extract the square root, he reduces the problem to an equation, after which he solves this equation.

Kurt Vogel noted: "The historical role of this manual is very great: it laid the foundation for the spread of the principles of decimal positional arithmetic based on the use of numeric signs 0, 1, ..., 9, first in the countries of Islam, and then in Western Europe. Many generations of authors of arithmetic textbooks started from this book, which was distinguished by high methodological merit". ?

Some scholars of the world compare al-Khwarizmi with Euclid.

Thanks to the book of the scientist, any actions are now performed according to the rules formulated by al-Khwarizmi.

Al-Khwarizmi begins addition and subtraction with a large category, which is currently used in the elementary grades.

A.F. Fayzullaev. Scientific work of Muhammad al-Khorezmi. T., "Fan", 1983.

In the book, large numbers are formulated using single, decimal, hundredths, thousandths, the base of the roots of any numbers was read, and other numbers are formulated using one. For example, the number "1180 703 051 492 863" reads as "one thousand thousand thousand thousand thousand - five times, one hundred thousand thousand thousand thousand - four times, eighty thousand thousand thousand thousand - four times, seven hundred thousand thousand thousand - three times, three thousand thousand thousand - three times, fifty-one thousand thousand - two times, four hundred thousand and ninety-two thousand and eight hundred sixty-three". This reading has survived for a very long time.

When adding and subtracting numbers, actions were performed from right to left.

The scientist emphasized great importance when performing actions on the numbers of multiplication and division, by the method of doubling and doubling numbers, which doubling is a special case of multiplication, and doubling is division. This is a method that made it possible to extract the square root.

At that time, the letters of the Arabic alphabet were used to designate the numbers 1-9, as well as the so-called Eastern Arabic numerals (Fig. 1).

0	1	2	3	4	5	6	7	8	9
٠	١	٢	٣	٤	٥	٦	٧	٨	٩

Al-Khorezmi, when approximating the square root of a non-square number N, uses the formula $\sqrt{N} == \sqrt{a^2 + b} \approx a + \frac{b}{2a}$, where $a^2 - N$ is the largest integer square.

In the book, actions on fractions, the translation into Latin “fractionts”, in Arabic kasara - break, is set out using fractions of a unit, namely, $\frac{1}{2}$ = nisf, $\frac{1}{3}$ = suls, $\frac{1}{4}$ = rub, $\frac{1}{5}$ = khums, $\frac{1}{6}$ = sud, $\frac{1}{7}$ = sub, $\frac{1}{8}$ = sum, $\frac{1}{9}$ = tus, $\frac{1}{10}$ = uush. Using these designations, I formulated simple fractions, for example, $\frac{4}{5}$ read like “arba' ahmos”. When multiplying numbers, it is suggested that you learn the multiplication table, especially up to 9 by 9. All the rules are explained with examples. The calculation was carried out, according to the text of the treatise, on a board sprinkled with dust or sand with a stick. Using parchment, which at that time was rare and expensive, the erasure of the numbers used was replaced by the recording of all intermediate calculations, including the shift of the multiplier.

Books on arithmetic and algebra by al-Khwarizmi were textbooks for many generations and at the present time these books, like the geometry of Euclid, are a "beginning" that has not spent its dignity.

The great scientist of the East died in about 850.

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MEDICAL SCIENCES

RESEARCH OF ANTIOXIDANT TRAITS OF INDIGOCARMINE PHOTOSENSITIZER

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Introduction: antioxidant traits of indigo carmine in erythrocyte hemolysis were studied by determining the activity of catalase and the content of malondialdehyde (MDA). Catalase activity increased with a decrease in the concentration of indigo carmine in biological materials, and the concentration of malondialdehyde decreased. This indicates that indigo carmine has antioxidant activity and, with a decrease in concentration, this activity is more pronounced.

Purpose of the research is to study the antioxidant properties of indigo carmine, well known in medicine and food industry as a diagnostic agent and a safe dye. It is the disodium salt of indigo-5,5'-disulfonic acid (C16H8N2Na2O8S2), obtained by sulfonating indigo.

Materials and methods: antioxidant traits of an individual compound of indigo carmine were studied. Indigo has been used since ancient times to dye fabrics blue and is obtained from some plants of the genus Indigofera. At the end of the 19th century, indigo was first synthesized, after which natural indigo was rapidly replaced by synthetic. Currently, the bulk of indigo and its derivatives is obtained by synthesis. Let's easily dissolve in water. To study the substance, biological materials were used, erythrocyte hemolysate, assessment of the oxidative system of blood under the influence of indigo carmine. We watched the effect of different concentrations of indigo carmine. (5 μg / ml - 20 μg / ml) and unchanged. These tests were investigated by the authors by determining the activity of catalase and the content of malondialdehyde - the second product of lipid peroxidation in biological materials.

Results: Indigo carmine is used for the manufacture of ink, coloring food products (food additive-dye E132, also known as indigotin, and also in chemistry as a redox and acid-base indicator and reagent for the photometric determination of O2 and O3. Indigo carmine is well known in medicine as a diagnostic tool, including in histological studies: urology - chromocystoscopy (indigo carmine test) is used to study the excretory function of the kidneys and the dynamic activity of the renal pelvis and ureters. Today, as in the past, there are situations in urological, gynecological, surgical practice, when there is no alternative substitute for indigo carmine as a diagnostic drug.As a result of the study of the antioxidant activity of indigo carmine, it was revealed that the activity of catalase increased with a decrease in the concentration of indigo carmine in biological materials, and the concentration of malondialdehyde - in decreased. Also, during the study, it was found that the activity of catalase in hemolysate with indigo carmine at a concentration of 12.5μg / ml, the optical density index was 1.5 times higher than in the intact sample. As for MDA, with a decrease in the concentration of the substance in the

test materials, the concentration of MDA decreased and was practically equal to 0 at a concentration of the substance of 12.5 μg / ml.

Conclusion: Thus, it was found that indigo carmine has antioxidant activity and, with a decrease in concentration, this activity is more pronounced. At a concentration of 12.5 μ / ml, it has the most pronounced antioxidant activity, which has a positive effect on cells.

PROPHYLAXIS AND TREATMENT OF DICHLOROETHANE INTOXICATION WITH PHYTOCHA "HEPALYUKS"

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Experimental studies have confirmed the probability of changes in some indicators of carbohydrate energy metabolism when intoxicated with dichloroethane. To prevent the adverse effects of dichloroethane on the body, the use of phyto tea "Hepalyuks" for prevention and treatment by correcting metabolic processes and neutralizing toxic properties becomes important.

Keywords: Dichloroethane, phyto tea, Hepalyuks, carbohydrate and energy exchange, protein exchange, correction, prevention.

The petrochemical industry is one of the leading branches of the republic. In industrial conditions at oil production there is an impact on the body of workers of industrial noise, vibration, chemicals, adverse microclimate. Complex impact of these production factors has a negative impact on the health of workers. Normal condition of organism and its resistance to risk factors support physiological mechanisms of homeostasis regulation. Violation of the constancy of the body's internal environment inevitably leads to changes in metabolic processes leading to the development of various diseases.

The work is aimed at development of prophylaxis and early diagnostics of chronic hepatitis, as well as new methods of restoration of hepatocyte functional state disorders on the basis of scientifically grounded data on study of mechanism of hepatotoxic action of chemical (dichloroethane) and physical factors (noise and vibration) at subcellular level of the liver, on biochemical processes of metabolites of carbohydrate and energy exchange in the liver and blood.

A study of the literature and the information provided by ZAMONA RA'NO shows that the medicinal herbs included in the Hepalyuks phyto tea make up the most optimal proportion for effective treatment of liver diseases.

The research was carried out within the grant project ADSA - 15.17.3.

Research objective. Experimental study of efficiency of phyto tea "Hepalyuks" on carbohydrate and energy metabolism in conditions of influence of chemical and physical factors.

Materials and methods. The experiments were carried out on 60 white male rats weighing 160-180 years, contained in the usual vivarium diet. Animals were divided into control and experimental groups. Control animals received equivalent amount of drinking water, food and were kept in the vivarium. The animals of the experimental group are divided into two groups: The first group was intragastrically injected 10% of oiled dichloroethane solution in a dose of 1/20 LD50 (255 mg/kg) under the conditions of noise (tape recording) at the level of 95-105 dBA and vibration of 5-16 dBA during 90 days, The second group together with intragastric administration of 10% oily solution of dichloroethane in a dose of 1/20 LD50 (255 mg/kg) was administered a decoction of phyto tea "Hepalyuks" (1 ml of phyto tea per 100 g of animal body weight) in conditions of noise exposure (tape recording) at the level of 95-105 dBA and vibration of 5-16 dBA during 90 days.

Phyto tea "Hepalyuks" consists of immortelle sand flower, yarrow herb, licorice root, peppermint leaves, corn snouts, rosehip fruit.Animals were slaughtered on 15, 30, 60 and 90 days from the beginning of experience. Liver and blood were taken for the study.

Impact of noise (tape recording) at the level of 95-105 dBA and vibration of 5-16 dBA during 90 days.

To assess the state of carbohydrate and energy metabolism, the content of pyruvic and lactic acids and glycogen levels were determined in liver tissue and blood. Simultaneously, the activity of respiratory enzymes of liver mitochondria: glutamatdehydrogenase (GDG), succinatdehydrogenase (SDG) and malatdehydrogenase (MDG) was determined in groups of animals using spectrophotometer SF-48. Mitochondria were isolated from the liver by differential centrifugation in 0.25 m saccharose solution containing 1 mm of EDTA at PH-7.4 with double washing. The activity of enzymes was expressed in micromolecules per 1 gr. of tissue for 1 hour (μmol/g, h)

The obtained data have been statistically processed on a personal computer using the Microsoft Office Excel - 2010 software package with built-in stato-processing functions. The indicators "M", "m", "t" were calculated. The statistical significance of the differences in the compared indicators was assessed by the Student's criterion ($p < 0.05$).

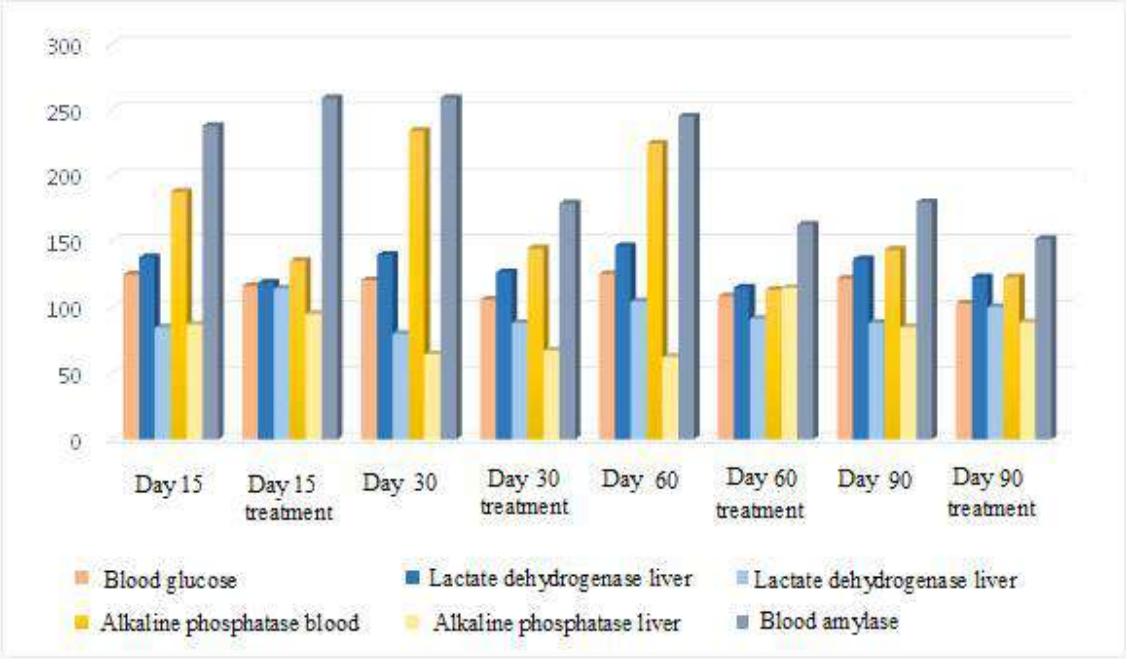
Results. In order to clarify the mechanism of hepatotropic action of chemical (dichloroethane) and physical factors (noise and vibrations) on carbohydrate metabolism were studied glucose content and activity of lactate dehydrogenase (LDG), amylase, alkaline phosphatase (alkaline phosphatase) in the blood and liver, to correct metabolic processes were injected into the stomach of white rats decoction of phytophagy "Hepalyuks".

Under the influence of dichloroethane, noise and vibration during 90 days the blood glucose content increased to 122 and 125.6%.

At the introduction of "Hepalyuks" its level decreased (60 - 90 days) to the control level (Fig. 1).

Amylase activity in blood also increased up to 180 - 238%, with the use of decoction of phyto tea "Hepalyuks" it decreased from 30 days of experience by 28 - 62% in relation to the group that was not treated.

It can be seen from the figure that the activity of LDH and SCP in the blood under the influence of hepatotropic factors increased. Particularly sharp increase in the activity of ALP was observed in comparison with the control group and made up 1.54 ± 0.15 - 1.92 ± 0.6 μmol/l.h. (control 0.82 ± 0.1 μmol/l.). Their activity in the liver, on the contrary, decreased (to 84.9 - 80.2 and 64.6 - 87.3).



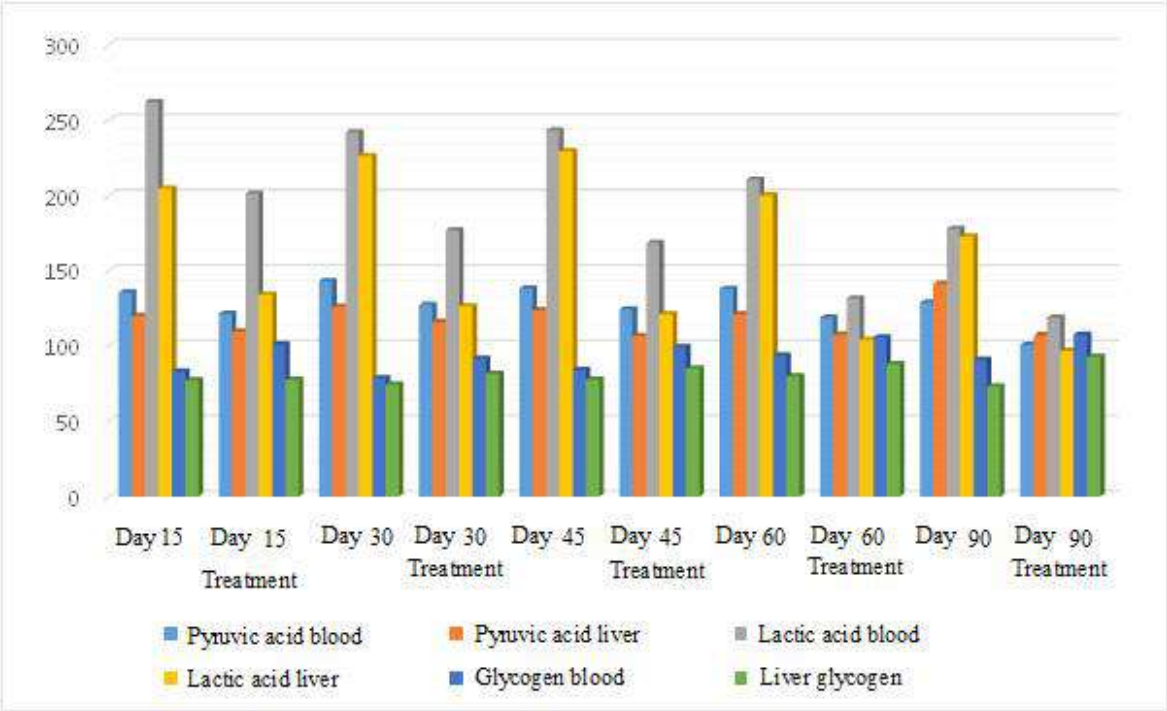
Note: Reliability * - P<0,05; ** - P<0,01; *** - P<0,001.

Picture 1

Carbohydrate metabolism in the blood and liver of experimental animals under repeated exposure to dichloroethane, noise, vibration and correction of metabolic processes by introducing phyto tea "Hepalyuks"

Changes in the activity of the studied enzymes in the blood and liver of experimental animals indicate a violation of the functional state of cell membranes and is manifested by their increase.

Figures 2 and 3 show metabolites of carbohydrate and energy metabolism: content of pyruvic and lactic acids, glycogen. The table shows the activity of tricarboxylic acid cycle enzymes - GDG, MDG, SDH under repeated exposure to dichloroethane, noise and vibration. It is seen from Figure 2 that at repeated exposure to dichloroethane, noise and vibration during 90 days (each 15-30 days) the pyruvic acid content in the blood and liver increases, respectively, to 135.0 - 143 and 120 - 141%. With the introduction of decoction phyto tea "Hepalyuks" "Hepalyuks" into the stomach, the level of pyruvat decreased by 15 - 30 ҳmol / l in the blood and 13 - 34 ҳmol / g in the liver, the content of lactic acid in the blood and liver more than 2 - 2.5 times, in all study periods (15 - 90 days).



Note: Reliability * - P<0,05; ** - P<0,01; *** - P<0,001.

Picture 2

Content of pyruvic, lactic acid and glycogen in chronic exposure to dichloroethane, noise, vibration and correction of biochemical indicators by the introduction of phyto tea "Hepalyuks"

The lactate level in both bioenvironments decreased with the introduction of therapeutic agents and at the end of the experiment was approaching the control group.

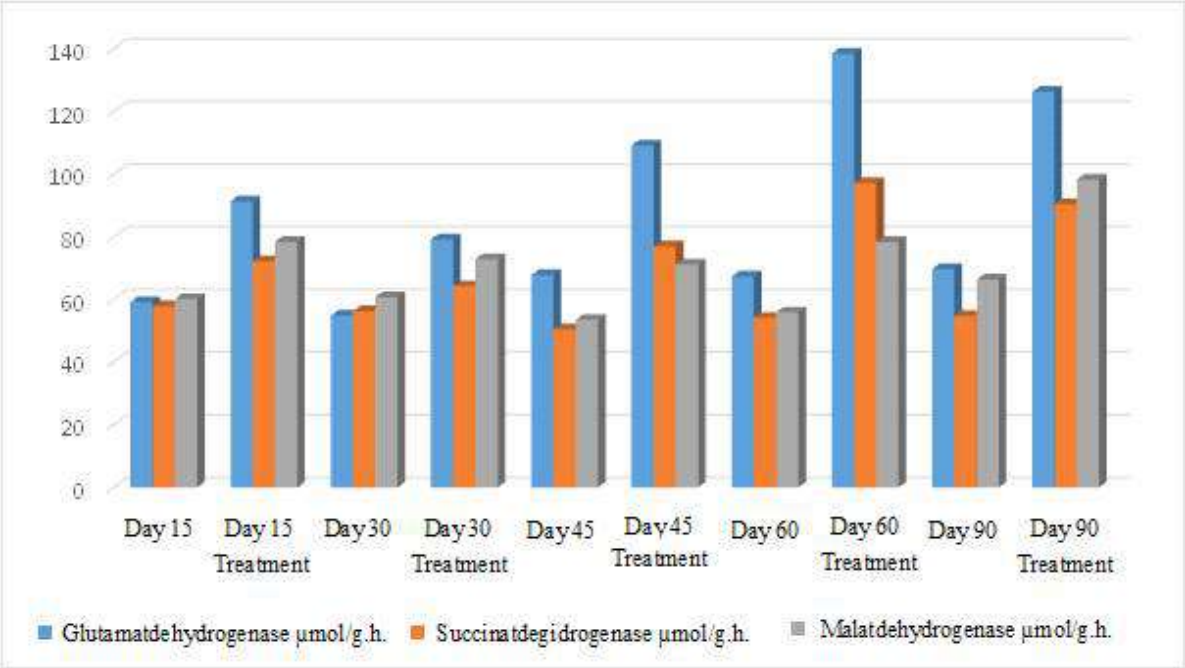
Thus, with the introduction of dichloroethane and noise, vibration in laboratory animals, the accumulation of metabolites of carbohydrates - pyruvate and lactate in the blood and liver tissue was observed. With the introduction of phyto tea "Hepalyuks" the

level of studied substrates was approaching the control group. Concentration of glycogen in all terms decreased in the blood to 82.5 - 78.5% and in the liver to 80 - 72.2% at the end of 60 - 90 days of the study was approaching or restored to the control group.

Studies on the activity of mitochondrial enzymes in the blood and liver during dichloroethane injection, noise and vibration for 90 days were observed oppression of glutamate, malate, succinate-dehydrogenase.

Figure 3 shows that the activity of glutamate dehydrogenase under the influence of the studied factors is depressed in all periods of experience up to 54.8 - 59.2%. When using experimental animals decoction phyto tea "Hepalyuks" enzyme activity increased by 54 - 105%.

Similar phenomena were observed in the activity of enzymes succinate- and malate dehydrogenase in the liver under the influence of chemical and physical factors. At the same time the activity of succinate-dehydrogenase was inhibited by 42.2 - 50% in all the periods of experience, and the activity of malatdehydrogenase decreased from 6.2 to 7.06 mol/g.h. When using the phyto tea "Hepalyuks" in the stomach of animals poisoned with dichloroethane and under the influence of noise and vibration an increase in the activity of studied dehydrogenases in the liver was observed.



Note: Reliability * - P<0,05; ** - P<0,01; *** - P<0,001.

Picture 3

Activity of tricarboxylic acid cycle enzymes in the liver of experimental animals under repeated exposure dichloroethane, noise,

vibration and biochemical correction

Hepalyuks phytochloride broth introduction. Depending on the dose of the injected plant preparation and the duration of its application the recovery to the control level takes place on day 60 - 90 of experience. And so, under the influence of dichloroethane, noise and vibration on the body there was observed inhibition of dehydrogenase enzyme activity (GDG, SDH, MDH) of the liver during the whole period of study. When using the decoction of phyto tea "Hepalyuks" the activity of the studied enzymes until the end of the experiment increases and approaches the control group, and the activity of GDG

exceeds the control group.

Conclusions:

1. Introduction of dichloroethane with the impact of noise and vibration causes significant morphofunctional disorders in the liver of laboratory animals, expressed in the disintegration of enzyme systems, disorders of antitoxic function of the damaged organ, significant degenerative changes of liver tissue.

2. As a means of correction of metabolic processes in the experimental studies carried out with the use of phyto tea decoction "Hepalyuks" during 60 days under the influence of dichloroethane, noise and vibration had a positive effect in the biochemical tides of carbohydrate energy exchange.

RESEARCH ON COGNITIVE DYSFUNCTIONS IN PATIENTS WITH POST-TRAUMATIC IMPAIRMENT

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Relevance. Traumatic brain injury is extremely diverse and includes quantitative and qualitative disturbances of consciousness, paresis and paralysis, sensory disturbances, impaired coordination of movements, epilepsy syndrome, and cognitive impairments. (Voskresenskaya O.N., Damulin I.V., 2014, Grafman J., Salazar A., 2015). According to the literature, the frequency of cognitive impairments in traumatic brain injury ranges from 40% to 80%, depending on the severity of the injury (Drozdova E.A., 2014, Djamikhov K.K. et al., 2015). The high prevalence of traumatic brain injury among people of working age makes it important to study the problem of post-traumatic disorders. The increase in the incidence of disability among young people makes the problem of traumatic brain injury not only medical, but also medical and social. According to S.V. Vorobiev. (2014), mild and moderate cognitive impairments predominate in traumatic brain injury of mild and moderate severity, mainly of a dysregulatory and neurodynamic nature. Rarely, patients have been diagnosed with amnestic variants of cognitive impairment. Researchers believe that psychopathological symptoms are sleep weakening or loss of capacity for prolonged mental and physical stress, hypochondria, depression, obsessions and anxiety in various combinations. Cognitive dysfunction and psychopathological symptoms mutually aggravate the clinical picture of the disease and lead to the patient's disability (Drozdova E.A.).

Purpose. To study neuropsychological signs in patients with a sequel to TBI.

Materials and research methods. The study was carried out on the basis of 1 clinic SamMi, Department of Neurosurgery, followed by rehabilitation therapy in the Department of Neurology. 30 patients aged 19-42, 23 men, 7 women. Causes of injuries - car accident, falling from a height, etc. Diagnosis, doverin established with anemnesis of these reasons. The examination of patients with a concussion of the brain was carried out in the first hours and days of injury. To solve the tasks set before the examination, the patients were examined again in a month. Neurological examination was performed according to the standard technique. Neuropsychological examination initially used gestures, scales for determining cognitive functions (Schulte table, battery of complete dysfunction, KSHOPS technique) In order to obtain control data, a group of healthy (with no history of trauma) was formed in the amount of 10 people.

Research results. Neuropsychological testing of patients with concussion one month after the injury revealed changes characteristic of neurodynamic disorders and impaired concentration. The highest sensitivity was shown by the application of the methods of the Schulze tables. The time spent on filling out the Schulze tables was significantly different from the time spent by the subjects in the control group. When analyzing the cognitive dysfunction of patients after trauma, mild cognitive impairments were diagnosed in 47% of cases, which makes it possible to diagnose post-traumatic cognitive impairments. Results deviating from normal values were obtained, including with the use of screening techniques such as KSHOPS and frontal dysfunction battery. So, according to the results of the KSHOPS, the average score was 25.6- + 1.1 points, which corresponds to moderate cognitive impairment. The results of trying on the frontal dysfunction battery technique also showed a deviation from the results of the control group (16.7 - + 0.5)

points. The most frequent errors were found in the study of fluency, a simple and complicated selection reaction, which indicated a lack of concentration.

Conclusions. The result of neuropsychological testing revealed an association with tests aimed at detecting disorders of attention, increased exhaustion and a decrease in the speed of thought processes, such as Schulte tables. The lower strength of the correlation relationship with the level of the short scale for assessing mental status (KSHOPS).The results allow us to see a deficit at a key link in the formation of the cognitive consequences of traumatic brain injury.

ANALYSIS OF ELECTROENCEPHALOGRAPHY RESULTS IN ELDERLY EPILEPSY PATIENTS

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Relevance. The researchers note that the reasons leading to the development of epileptic seizures in the elderly can be vascular diseases of the brain (about 50%) and dementia (11-16%), neoplasms (4%), the consequences of traumatic brain lesions (from 1% to 3%)) (Karlov V.A., 2009). Analysis of bioelectric activity (BEA) based on EEG results is a neurophysiological method for assessing the state of neurons in the cerebral cortex and their functional abilities, including in epilepsy. Neurophysiological examination of elderly patients with epilepsy plays an important role in diagnostics and dynamic screening, along with the clinical picture and instrumental diagnostic methods. Currently, EEG phenomena that are classified as epileptiform include discharges of "spikes", "spike-wave" or "polyspike-wave" and "sharp" waves. Some types of epileptiform phenomena are closely correlated with clinical epilepsy, others are less associated. Basically, on the EEG in elderly patients with epilepsy, in addition to epileptic phenomena, BEA changes that are specific in this case are often determined: a) Hypersynchronization of the alpha rhythm with an amplitude greater than 100 ?V; b) a pronounced beta rhythm of more than 30 ?V, determined outside the frontal central regions; c) flares and local presence of sharp waves in theta and delta ranges; d) an increase in the average characteristics of amplitudes and spectral power indicators; e) change in the index of slow-wave activity (Myakotnykh V.S., Galperina E.E., 2003; Zenkov, L.R., 2010; Van Cott et al., 2004). The EEG of patients over 60 years old is characterized by stronger general cerebral deviations of the BEA of the brain, widespread slow-wave activity of different amplitudes, which undergoes synchronizing processes. The problem of analyzing the results of EEG examinations in elderly patients with epilepsy remains largely unexplored.

Purpose. To analyze the results of electroencephalography in elderly patients with epilepsy

Materials and research methods. In accordance with the whole work, elderly patients were examined, the average age was 65.5 years. I study 32 patients with symptomatic epilepsy, who constituted the main group. The second control group consisted of 20 patients with previous acute cerebrovascular accident without epileptic seizures, patients were on treatment hospital, in the Department of Neurology 1 SamMI Clinic, in the period from 2018 to 2020. Upon admission to the hospital, patients are subject to a standard clinical and neurological examination: Given the age, it was necessary to investigate concomitant somatic diseases (arterial hypertension, diabetes mellitus, cardiovascular and renal failure). So to study the expected factor in the development of epilepsy, in this category of patients, the establishment of cerebrovascular disorders in 71%. All patients underwent a standard electroencephalographic study (EEG) according to the generally accepted method, studying at the same time, bioele ctric activity, interhemispheric asymmetry. For a complete picture of brain changes in patients with epilepsy of advanced age, we estimate the spectral power by the method of analysis by delta, alpha, beta-theta frequency EEG rhythm. Statistical processing was carried out on an individual computer.

Research results. A standard study of the bioelectrical activity of the brain revealed a one hundred percent change on the EEG in patients with epilepsy of old age, a

combination of organic diffuse and nonspecific local changes. During the distribution of bioelectrical activity in the hemispheric zones of the brain, a difference in impairment is visible: bilateral change was often observed, 45% of patients second in frequency of occurrence, left-sided in 29% of cases, right-sided change is the greatest rare local distribution from the group of patients constituting the basis. Paroxysmal changes on the EEG were recorded in 75% of the examined patients of the main group with additional functional load, the percentage increased to 90. Local changes in epileptic activity or both it is commonly said that epileptic patterns in the main group disintegrated in the temporal zone in 2 patients, in the frontal region in 1 patient: Frequent local changes in bioelectric activity occurs in the parietal region Thus, in elderly patients with epilepsy, the localization of damage is revealed in the frontotemporal region. EEG analysis by the method of which the type of study obtained results little differ from the second control group of elderly patients with the consequence of stroke without epilepsy. At the same time, the spectral power indices have differences. In the delta-range on the EEG in patients of the main group, there is an increase in indicators in the frontotemporal and temporoparietal areas in comparison with age standards. A similar picture of activity with delta-ranges of EEG was observed in theta range in patients of the main group in, and temporo-parietal region. Intercortical connection in the frequency ranges in patients with epilepsy, delta-range in 52%, theta-range in 51%: alpha range 15%: in beta range in 48.9% of cases. The strongest intercortical connections are observed, as seen well surveys in the delta and theta range.

Conclusions. The main etiological factor underlying the pathogenesis of epilepsy in the elderly is the vascular pathology of the brain. The bioelectrical activity of the brain on the EEG in patients with epilepsy and patients with previous stroke, the elderly in both categories, and the specificity in both groups by an increase in intercortical connections in the range temporoparietal region, frontotemporal.

PEDAGOGICAL SCIENCES

FOREIGN AND VALUABLE EXPERIENCE IN REARING THE YOUNG GENERATION IN THE FAMILY

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Abstract: Future of todays childeren depends on the period of their childhood, how they had it, affect their mentality and surroundings they are in. Based on views of ancestor and foreign experience, we conclude how to reflect positively on the upbringing of children.

Keywords: research, constructor, nervous system, plot, enlightenment, scientific observation, principles of child rearing, pedagogical view.

Child development in didactic processes in preschool education and a person-centered model of social adaptation has been developed on basis of scientific substantiation of the problem of improving person-centered technologies that ensure the development and social adaptation of the child in the didactic process in preschool education. Scientific observation and researches show that 70% of all information a person receives during his/her lifetime when underage of 5 years and about 90% of the good and bad behavioral experiences throughout his/her life are in the early stages of childhood. Therefore, the tie of five years old child and older person is near to each other.

In 1994, the United States and Japan conducted a scientific study on the differences in rearing and educating children. Scholar Azuma Hiroshi conditioned for assembling a pyramid-constructor for mothers and children of two different cultures. As a result, the researchers found that the Japanese mother first assembled the constructor and showed it to her child. Afterwards, the scholar asked her son to collect it by himself. If the child could not do it, the mother made it again. As Americans did it differently, before constructing, American mother explained the algorithm to the child and then the mother and child began to build the constructor. Germans teach their children from an early age to be thrifty, disciplined, to protect the environment and to be polite.Although boys and girls are mostly married before the age of 30, they have children by the age of 40, that is, when they are spiritually and financially ready. The birth rate in the country is the lowest in European countries due to the fact that parents do not help their children, kindergartens do not work full time, nursing services are expensive and women are not in a hurry to have children. If a young family stays in a small house before having a child, they replace it with an older one, a house with a separate room for the child and they find a pre-experienced nurse and a pediatrician in order to undergo a medical examination at each stage of pregnancy in advance. When a child is born, serious attention is paid to child's upbringing.

Children are not allowed to watch TV at an early age and persist to go to bed at 20.00pm, because the baby wakes up early and plans his/her daily routine from an early age, remembers important dates and pays child's own expenses. In order to develop communication skills in their children, mothers bring them to development groups. Mainly, kindergartens teach children to behave in a team and to communicate, only schools teach writing and reading. From infancy period of time the child does whatever s/he wants under the supervision of the babysitter, special attention is paid to

the fact that reading is useful and enjoyable for the little one, trying to choose subjects according to the abilities of each child.

In the primary schools' subjects are taught in the form of games. The period of schooling is 9 years and even the grades of the control works are not announced in the classroom and are told separately parents so that no one can damage the student's reputation. If a child misses a lesson, the education police can immediately try to determine the reasons for it and fine the parents if there is no reason. Students with physical disabilities attend ordinary schools, while children with mental disabilities attend special schools. Tuition of schools is paid by the social service.

In Germany, a child under the age of 9 cannot be left alone at home. Therefore, mothers try to work part-time or hire a babysitter. The education at young age should become enlightenment, because this education serves as a cornerstone for society. Many of our ancestors and scholars have commented on the importance of child rearing in their writings and teachings. In particular, Alisher Navoi paid special attention to the power and strength of upbringing in the development of the child. He believed that as a result of upbringing, the child grows up to be a useful and mature person. It is necessary to rear ayoung child from avery young age. Discipline helps aperson to develop good habits and qualities. It teaches 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.

In pedagogical views of Mirzo Ulugbek, it paid special attention to the development of children who are physically healthy, well-versed in military skills, brave and courageous. According to Ulugbek, in order to be healthy and strong, person should exercise at an early age and teachers should be fair and honest so that there is no corruption and fraud in education. The point of Mirzo Ulugbek's views rely on on the family environment of raising a healthy generation are based on the fact that the scientist believes that the environment in which a child is brought up plays an important role in increasing child's interest in learning.

Today's child future depends on period that is called childhood, how it is gone and surroundings his/her environment. In relation to the child, first of all, it is necessary to take into account his age, which can be roughly distributed according to age:

1. Up to three years;
2. Three to seven years;
3. From seven to ten years;
4. From ten to fourteen years;
5. Fourteen to eighteen years of age.

At the age of one, a child's development accelerates: body weight triples, height grows 25 cm, teeth come out, learns to chew, stops breastfeeding, the child can stand on his/her feet, hold an adult's hand or himself knows how to walk independently by holding adult's hand or walk him/herself. By the age of 3, these affects increase, hand gestures improve, dresses and undresses independently, washes, makes delicate movements with the hand, and draws with a pencil, pushes a button, learns to speak, so parents they have to be very sensitive and careful. The proper development of the body's organs depends on the parents' ability to speak clearly and to act patiently and wisely.

Moreover, the particular age of 3-7 years is also important. In this period, in order for a child to form the correct understanding of the concept of time, it is necessary not to lie to child and answer correctly and seriously to questions. In addition, from the age of 2-5 years hygienic skills should be developed from infancy, face-to-hand washing should be reminded, supervised and facilitated. Adherence to cleanliness is not only a factor in maintaining a child's health, but also a factor in keeping him or her clean in

the future. The child should be taught to brush teeth from the age of 2. To do this, the child should be given a children's toothbrush and toothpaste.

The properly organized agenda plays important role. The child should be fed at defined time, sparse feeding can adversely affect the health of children. The nervous system of young children is very sensitive. Children are immediately overwhelmed and feel the need to rest. The most important type of rest is sleep and they should always sleep at the same time. Taking rest during the night and day sleeps depends on the age of the child, weak child should take rest more and it is useful to walk outdoors before bedtime. The dinner should be given 1-1.5 hours before bedtime. Moreover, strengthening is important for child's health in all aspects. Therefore, it is important that 2-3-year-old children exercise in the fresh air. It is also very useful to harden the sun baths with water.

Rearing young children in pre-school institutions have a number of unique features compared to rearing them in the family conditions. It is important not to chase after kindergartens where it is fashionable or pays attention to physical exercises. It is better to choose kindergarten which is near to home. The child who masters skills in home condition does not faces difficulties while in kindergarten. Children who know how to use a spoon independently, who dress and undress by themselves, feel confident in kindergarten and get used to it quickly. Moreover, it is hard to imagine children without toys, fairy tales and music. The life of a child living in the world of games and toys can be called a spiritual fullness. When choosing a toy for a child, his age, interests and circumstances should be taken into account.

As boys get older, their interest in technology, especially transportation and similar toys, increases and these toys arouse their interest in various professions and specialties, which parents can detect and encourage this interest. Girls favorite toys are dolls, particularly, 1-2-year-old girls love dolls that wink eyes and sounds. 1-4 years old girls love plastic dolls, because girls can bathe and dress them. Sport toys like balls and swings serve to strengthen the physical conditions of children. Music games develop children's artistic abilities. In general, children's toys are conventionally divided into 3 groups:

1. story toys;
2. construction toys;
3. different materials if a child is taught from an early age to keep their toys clean, they learn to treat household appliances with care.

There are a number of specific principles of child rearing in the family, following them ensure the effectiveness, here are: parental responsibility in upbringing, unity in upbringing, parental prestige, labor education, parental upbringing in cooperation with kindergarten, school and community, parental equality of all children, to treat them fairly, to take into account the characteristics of the child's growth and development in upbringing, to respect the child's personality and to be demandable. It is useful to know some parenting techniques for it.

The President of the Republic of Uzbekistan Shavkat Mirziyoyev touched upon this issue and cited "It is important for us to worry always about the behavior of our young people, in a word, their worldview. Times are changing fast today. Young people are the ones who feel these changes the most. May the youth meet the requirements of their time. But at the same time, don't forget about yourself. May the call of who we are and what kind of great people we are, always resonate in their hearts and motivate them to remain true to themselves. How do we achieve this? By rearing, rearing and only by rearing."

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INNOVATIVE APPROACH TO TRADITIONAL AND DISTANCE EDUCATIONAL PROCESS

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Abstract: In today's pandemic, the proposal to start the new 2020-2021 academic year in educational institutions in a hyper way, that is, in the form of distance online education, along with traditional education, was supported. In this regard, the pedagogical staff of our educational institution has been preparing for the new academic year with a variety of innovative ideas in order to ensure the quality of online education, as well as traditional education. The following article is written to explain a number of innovative technologies that serve to improve the quality of the educational process.

Keywords: pedagogical technology, innovative tools, innovative educational technology

Currently, the teaching methodology is going through a difficult period related to changing the goals of education, developing federal state education standards based on a competency-based approach. The difficulties are also related to the reduction of teaching hours for individual subjects in the core curriculum. All this requires the search for new pedagogical research, innovative tools, methods of teaching and education, the development and introduction of innovative educational technologies in the educational process in the field of teaching methods of sciences. In order to skillfully and consciously select the available pedagogical technologies by an existing bank that achieves optimal results in the field of education, it is necessary to understand the main features of the modern interpretation of the concept of "pedagogical technology". Pedagogical technology "How to learn effectively?" answers the question.

Analyzing the existing definitions, we can highlight the criteria that make up the essence of pedagogical technology:

-determine learning objectives (why and why not);

-selection and structure of content (what);

- optimal organization of the educational process (as);

-teaching methods, techniques and tools (using what);

-as well, taking into account the necessary real qualifications of the teacher and objective methods of assessing learning outcomes (if any).

So, "Pedagogical technology" is a structure of the teacher's activity, in which the actions performed are demonstrated in a certain sequence and involve the achievement of the expected result.

What is "Innovative Education Technology"? It is a complex of three interrelated components: The modern content delivered to students implies the development of knowledge not only as a science as a development .. Modern teaching methods are based not only on passive perception of the material, but also on student interaction and active ways of building competencies based on their involvement in the learning process. Modern educational infrastructure with information, technological, organizational and communication components that allow to effectively use the benefits of distance learning.

Currently, there is no generally accepted classification of educational technologies in Russian and foreign pedagogy. Different authors approach their views on ways to solve this topical scientific and practical problem.

Innovative areas of the priority national project "Education" or modern educational technologies include: developmental education; problem-based learning; multi-level training; collective education system; problem solving technology; teaching methods of

research; design of teaching methods; modular learning technologies; lecture-seminar-class test system; use of game technologies in training (role-playing, business and other types of educational games); joint exercise (team, group work); information and communication technologies; health technologies.

Other sources differ:

Traditional technology: different types of training with reference to traditional technologies, including the forms, methods, forms of organization of educational and cognitive activities of each student, the degree of cognitive independence, the teacher and any system of tools that ensures the relationship between the student and the student is based on a multi-step approach. too much.

Classroom teaching technology is to ensure the regular acquisition of learning materials and the accumulation of knowledge and skills.

Interactive technologies or group learning technologies are pair work, continuous and shift groups, frontal work in a circle. Forming a person who is personally communicative, tolerant, has organizational skills and is able to work in a team; increase the efficiency of mastering software materials.

Game technology (didactic game). Development of new knowledge through the application of knowledge and skills in practice, collaboration. (Educational dialogue as a specific type of technology, the study of technology problems (heuristic). Acquisition of knowledge and skills by students, independent activities development, knowledge and creative skills development. Advanced learning technology. Achieving the minimum required educational content for students. Learn how to solve problems, consider opportunities, and apply knowledge in specific situations.

Everyone to give the student the opportunity to independently determine the methods, means, means of searching for the truth (result). Assist in the formation of methodological competence. Solve problems independently, develop the ability to search for the necessary information. Learn how to solve problems.

Every teacher should follow modern innovative technologies, school ideas, instructions, not spend time discovering things that are already known. Today, we cannot be pedagogically competent without exploring the vast possibilities of educational technology. The use of innovative teaching technologies is one of the criteria for evaluating the professional performance of a master of vocational education and a teacher.

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INNOVATIVE TECHNOLOGIES IN PRESCHOOL EDUCATION ORGANIZATION OF INCLUSIVE EDUCATION IN PRESCHOOL EDUCATION

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Abstract.What is inclusive education, the role of inclusive education in the upbringing of abnormal children and its impact on the upbringing of healthy children, the advantages and disadvantages of inclusive education, new technologies for working with abnormal children in special pedagogy, with abnormal children the organization of non-traditional, integrated activities.

Key words: special pedagogy, abnormal children, healthy children, inclusive education, modern teaching technologies in inclusive education, the use of integrated training in the organization of non-traditional activities.

Today, due to the rapidly changing times, modern technologies of teaching, education, new modern views and new approaches are emerging, and all healthy children enjoy the achievements of our time. But how do abnormal, unhealthy, developmentally retarded children find their place in our society? How can we help children with analyzer problems in the current situation? We will answer these questions in the context of inclusive education.

Inclusive education is implemented within the education system of secondary, vocational and higher education institutions. Can inclusive education be used in preschools?

Inclusive education is the integration of abnormal children and healthy children in education and upbringing. That is, anomalous children are brought up in a group, not in special preschools, but in the ranks of healthy children.

The goal of inclusive education is to help abnormal children find their place in our society, to ensure the equality of all children, who, like all healthy children, have shortcomings. The United States, Japan, and the Scandinavian countries were among the first in the world to use inclusive education. After 1970, all developed countries of the world began to implement inclusive education. In 1994, under the auspices of UNESCO, the introduction of inclusive education, the involvement of people with disabilities in education the declaration will be signed. The Declaration also includes principles for people with disabilities:

- Every child with disabilities has the right to education and to increase their knowledge;
- Every child with a disability is an individual, taking into account their personality, interests, abilities and learning needs;
- Every child with disabilities has the same right to go to high school as a healthy child, and inclusive education is organized in schools so that abnormal children can study together with healthy children;
- Create good conditions for children with disabilities in all schools with inclusive education and prevent discrimination and discrimination between healthy and abnormal children;

Achievements of inclusive education in the education of abnormal children (at the

level of preschool education):

- When inclusive education is established, abnormal children begin to try to follow healthy children;
- Children with defective analyzers feel like healthy children in the educational process and their interest in life increases;
- Accelerated adaptation of abnormal children to social life;
- Abnormal children learn to think independently like healthy children;
- The child develops as a person;

Disadvantages of inclusive education in the educational process (at the level of preschool education):

- Due to the strong imitation in preschool children, some healthy children may imitate abnormal children or increase speech defects without realizing it;
- Some distracted healthy children, without realizing it, behave badly. the emergence of actions;
- Incomplete study of inclusive education;

According to German scientists, the education of children with disabilities in special educational institutions creates a barrier between abnormal and healthy children.

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USE OF ELECTRONIC EDUCATIONAL RESOURCES AS A MEANS OF IMPROVING THE QUALITY OF EDUCATION

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Abstract.The article discusses approaches to the classification of electronic educational resources, requirements for their use. The system of use in computer science lessons is presented.

Keywords: electronic educational resources, electronic resources, educational and methodological complex, quality of training, ICT competence.

The priority of modern education, which guarantees its high quality, is training focused on self-development and self-realization of the individual. In order to achieve educational results that meet the new demands of society, we need new tools and new learning technologies based on them. The use of new methods not only corresponds to current trends in the development of society, but also allows you to significantly expand the Arsenal of tools that teachers can use in their classes. They help to form the necessary ICT competencies for students in the modern world, and increase students ' motivation to study [1].

The practical significance of using electronic educational resources (EER) in the educational process contributes to solving a number of problems:

- increased individualization of training;
- save time when closing gaps caused by skipping classes;
- increase the productivity of self-training after lessons.

GOST 53620-2009 contains the following definition of an electronic educational resource: "Electronic educational resource - an educational resource presented in electronic and digital form and including the structure, subject content and metadata about them.".

The following characteristics can be identified as the basis for classification:

1.method of application in the educational process;
2.the target level and the level of education;
3.for the intended purpose;
4.by the function performed in the educational process;
5.according to the degree of didactic support of the specialty;
6.by type of educational activity;
7.by the nature of the presentation of information;
8.by degree of interactivity;
9.according to the degree of compliance with the current state educational standards [2].

When organizing computer science training, a teacher can use both ready-made electronic resources from public educational collections, and EER created independently using various services and software tools. When organizing computer science training, a teacher can use both ready-made electronic resources from public educational collections, and EER created independently using various services and software tools.

To support the educational process, it is advisable to use electronic educational resources of the following types:

1) Electronic applications to the UMK in computer science. Performing simple, accessible exercises on the monitor screen allows students to gradually master many operations with screen objects in an involuntary form;

2) Resources posted on Federal educational portals and in various online pedagogical

communities.

3) Electronic educational resources created independently using various services and software.

Electronic educational resources can be used at different stages of the lesson in different modes:

- training - in the form of a presentation of theoretical material;
- developing - in the form of interactive exercises;
- controlling - in the form of interactive control tasks with self-control functions.

The most effective electronic educational resources are multimedia resources. In them, learning objects are presented in many different ways: using text, graphics, photos, videos, sound, and animation. Thus, all types of perception are used; therefore, the basis of thinking and practical activity of students is laid. Multimedia resources do not replace teachers and textbooks, but at the same time create fundamentally new opportunities for learning the material. Multimedia technologies can be used at various stages of the lesson. In addition, the fragments of lessons that use presentations reflect one of the main principles of creating a modern lesson - the principle of attractiveness. Thanks to presentations, students who are usually not very active in the classroom begin to actively Express their opinions and reason.

An electronic educational resource, like any educational material, should be evaluated by a set of qualities. When selecting EOR for use, Facilitating the process of perception and memorization of information with the help of vivid images is the basis of any modern presentation. The use of interactive technologies is becoming a common phenomenon in Uzbekeducation.Interactive equipment, such as interactive whiteboards, create a stable motivation for students to acquire knowledge and help them solve educational tasks creatively, thereby developing students ' imaginative thinking.

In my training activities, I define the following criteria:

- compliance with the training program;
- scientific validity of the submitted material
- no factual errors;
- optimality of technological qualities of the educational product.

Thus, the systematic use of information and communication technologies (ICT) and electronic educational resources in the educational process contributes to the formation of students ' ICT competence as one of the important conditions for their successful learning in all subjects.

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TECHNOLOGIES OF DEVELOPMENT OF VALLEOLOGICAL COMPETENCES OF PHYSICAL EDUCATION TEACHERS

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Abstract.The article considers the issues of creating opportunities for quality education by developing the valleological competence of future physical education teachers on the basis of information and communication technologies and achieving the educational goals of their socialization.

Keywords: valeology, healthy thinking, physical education, health, future specialist, professional competence, development, information and communication technologies.

INTRODUCTION

There are ample opportunities for developing the professional potential of future specialists, in the process of integration of the training system with the priorities of science and technology in our country. The issues of achieving the future professional development of students, adaptation to social life within the combination of common sense and beliefs occupy a leading place. Also, the development of valleological competence of future physical education teachers, improvement of healthy thinking and high spiritual qualities among professionals become more important. Fulfilling Presidential decrees of the Republic of Uzbekistan, PD-2909 on 'On further development of the higher education system', PD-3151 of 27- July 2017-year on 'On measures to further expand the participation of industries and sectors of the economy in improving the quality of training of highly educated specialists', PD-3775 of 5-June 2018-year on 'Additional measures to improve the quality of education in higher education institutions and ensure their active participation in the ongoing comprehensive reforms in the country' and including other regulations are very essential nowadays[1,2,3,4,5,6].

The formation of valleological competence of future physical education teachers through information technology has an effective impact on the process of visualization of educational data. Drawings, graphics, animation, hypertext, multimedia, modelling elements, the sound will expand the opportunities for students to acquire virtual knowledge. It will also strengthen the valleological competence and motivation of future physical education teachers to acquire knowledge and become fundamentals for ensuring educational outcomes.

The valleological competence of future physical education teachers allows them to complete any complex tasks on the basis of information technology. Multimedia programmed products will be effective in the acquisition of valleological knowledge by future physical education teachers.

Valleological competence in future physical education teachers serves to develop the skills of attention, perception, imagination, logical observation in the use of information and communication technologies. Their creative thinking skills, emotional feelings are formed. It also allows future physical education teachers to organize their activities on the basis of theories and views on valeology.

The cycle of components in the development of valleological competence of future physical education teachers through information technology determines the essence of the system function. The pedagogical system is made up of components, the change of which depends on internal contradictions. The openness of the system serves to connect

with the external environment through many communications, and the relationship of the environment has an impact on the movement and development of the system. 'Receiving and transmitting information from the pedagogical system are methods of interaction of system components with each other and with the whole system, as well as with the external environment of the system' [7, B.-21]. Therefore, the activities of educational entities in the field of valeology, healthy lifestyles, the need for education that meets the standards through information and communication means, alternative opportunities to meet it and other various factors are characterized as a single dynamically evolving system.

In our country, caring for the health of young people, the formation of a healthy lifestyle, the acquisition of skills of regular, independent participation in physical culture and sports is an integral part of the educational process. It is no coincidence that the head of our state Sh. Mirziyoev has put forward 5 important initiatives to raise the morale of young people and meaningfully organize their leisure time. In particular, the second initiative is aimed at creating the necessary conditions for the physical training of young people, to demonstrate their abilities in sports. In recent years, large-scale work has been carried out in our country to promote physical culture and sports, to ensure that young people follow a healthy lifestyle. The activity of sports clubs has been revived, regular competitions in mass sports have been organized.

The valleological competence of the teacher lays the groundwork for increasing the effectiveness of his pedagogical activity. Valleological competence, which is part of the general pedagogical culture of the pedagogue as a pedagogical phenomenon, combines the following alternatives: knowledge of health technologies, civility; possession of universal values; the ability to have a healthy lifestyle inherent in the national culture and to form it in students; active participation in the social life of the country; respect for the culture of other nations and fostering these qualities in students, and so on.

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PHILOLOGICAL SCIENCES

THE DIFFERENCE BETWEEN AUTOMATED AND MACHINE TRANSLATION

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Abstract: The article reveals the differences between automated and machine translation, its history and such concepts as automated and machine translations, their working principles are described and the corresponding examples are given.

Key words: Automated translation, machine translation, quality, process of translating text, Google translate, Software, Cat,Smartling platform.

How modern machine translation works.

Modern machine translation systems are based on a translation algorithm that uses formal language grammar and statistical data. To learn a language, the system compares thousands of parallel languages texts containing the same information, but in different languages. The system builds a list of unique attributes for each text studied. For example, rarely used words and special characters that occur in the text with a certain frequency. In machine translation systems, there are usually three main parts: the translation model, the language model, and the decoder. A translation model is a table that lists possible translations for all words and phrases in the same language translations into another language with an indication of the probability of these translations. The system compares not only individual words, but also phrases from several words running in a row. Translation models for each language pair contain millions of pairs of words and phrases.

Instead of "machine", the word automatic is sometimes used, which means it doesn't affect the meaning. However, the term automated translation has a completely different meaning is that the program simply helps the person translate texts.

Automated translation - translation of texts from one language to another, another person using specialized programs, applications.

Machine translation - the process of translating texts from one language to another machine by means of a special computer program. There are three main differences between them: Translator's labor costs; Specialized software; Quality. Thus, for automated translation, the main work is performed by translator, and special programs act only as a translator. an auxiliary tool. Its main goal is to reduce 3 time of the process, ensuring uniformity of terms and General compliance (quality). Machine translation is performed by the program itself, but only by a person edits the result. And here the goal is to replace labor a person, while receiving a fast translation of poor quality.

Special program. Automated translation systems are a collective definition for specialized programs and Internet services, which translators use in the course of their work. They are well suited for working on artistic, legal, and technical translations. These include: a) Separate or built-in editors that help automatically check the text grammar and spelling of words. b) SOFTWARE, tables, and text editors that provide management terminology (MultiTerm, Termex, etc.). c) SOFTWARE, which is used for the management of translation projects. d) CAT-tools that use TM (Translation Memory -

Memory translations), which include samples of previously translated documents texts or sentences. Their most prominent representatives are programs Trados, D?j?Vu, MemoQ, MemSource, Wordfast.

Translation Memory

Today, translation needs to be done not only efficiently, but also and fast. Software developments such as MemoQ come to the specialist's aid. Their common name is "translation Memory", the principle is "don't translate the same thing twice".Translation memory should not be used not to be confused with machine translation programs. Actually Translation Memory - this is a well-developed database of translated words, expressions, and syntactic a program that is created by the translator himself. In each new text the program defines concepts that are already" familiar " to it and offers the specialist transfer from the database.

In this way, uniformity is achieved in the written language translation of documents and, of course, time savings is significant. Machine translation is also represented by a set of programs and Internet services. The most popular ones are: PROMT, Google translate, Yandex Translator.

Google translate: Google Translate uses SMT (statistical unique machine translation of text-Statistical Machine Translation) A special feature of Google Translate is the translation method: it is not based on analysis of grammar rules, and is based on the search for language matches between translated text and a huge array of services that consists of words entered by the user earlier during their translation. Data blocks texts are compiled from all possible reliable sources. As an example is the documents of state organizations. They are one of the most trusted sources for the database. The advantage is that such documents contain information available in many languages.

At the moment it is known that the "corpus" of Google Translate has more than a trillion words. This is how the service actively uses a unique user translation to improve the quality of machine text translation by entering custom variations of phrases in the database. Thus, this combination helps to increase the quality level generating unique text.

Description of differences between automated and machine translation confirms the fact that the tools of a professional translator - these are automated translation systems. At the same time, machine translation can help, for example, in an emergency situation where a person does not know the language, but is urgently needed translation.

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ASSESSMENT BY EXPERTS OF THE LANGUAGES AND STYLE OF INFORMATION GENRES ON THE INTERNET AT THE PRESENT STAGE

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Abstract. The article describes the characteristics and classification of genres as - a long-standing and stable science. But the media, and even more so electronic, do not stand still. This article will trace the trends in the language and style of news journalism genres in the 21st century. This problem is constantly being updated, because the avalanche and the variety of news hitting mass audiences are constantly growing. At the same time, old and new genres interact intensively with each other, and there is a search for a place in this niche for newly emerging genres.

Keywords: Internet, genres, blogger, traditional print media, information field, journalism.

Characterization and classification of genres is a stable science. But the media, and even more so electronic, do not stand still. This section will trace the trends in the language and style of news journalism genres in the 21st century. This problem is constantly being updated, because the avalanche and the variety of news hitting mass audiences are constantly growing. At the same time, old and new genres interact intensively with each other, and there is a search for a place in this niche for newly emerging genres. D. V. Dergach writes about this: "To a certain extent, new for linguistic genealogy is the problem of correlation between traditional and modern media genres. We are talking about the expansion of the media genre paradigm with new genres comparable to the realities of the time, types and means of communication, implemented in special texts, in particular in electronic media, radio, television, advertising, etc." [2, 124] But at the same time, it is obvious that the division of genres into informational (news) and analytical (commenting) is not canceled.

As you know, no one has yet given the concept of a genre such a definition that would be accepted by at least the main majority of specialists. Therefore, the characteristics we give below will also be relative. We believe that a genre can be called a certain stable set of corresponding elements of the form, which make a given work related to one or another genre.

In the book "Questions of genres and craftsmanship in the print media" the first paragraph of the first section is called "Information and classification of information genres in journalism", but the systematization of genres is not given here. It is mentioned before, in the introduction to the first section "Information genres in journalism", where such genres as news, reportage, interview, conversation and report are mentioned. [1, 6] We remain in favor of the previous classification - note, report, reportage, interview. Perhaps the authors mean a note by news.

Finding the right word in scientific, writing and journalistic activities has always been the most important stage in the activities of representatives of these professions. V. G. Kostomarov wrote about the work of a publicist that "the choice of one word or another in journalism is by no means a simple formal decision; on what word a journalist chooses to denote a certain thing, his decision in favor of one or another nuance of the statement very often depends emotional character "and the choice of the genre.[3, 17]

At the same time, it should be noted that changes in the language, even if it is the language of high-speed media, are extremely slow. For example, although the beginning of the information age in the United States, experts refer to the mid-60s. XX century.

Nevertheless, it is safe to say that the main stock of vocabulary of modern media at the beginning of the XXI century. Is also the language of the industrial period, which began two and a half centuries ago, as well as earlier times? New vocabulary, i.e. the language of the media of the information age is just gaining momentum and strength. It will take a long time for the language of the new era to become dominant in media and everyday communication.

As a result, it is extremely rare to find blogging informational posts without mistakes in style and language of presentation. This is not to say that bloggers do not know about it, they know, but they neglect it. For them, the main thing is not the exact form, but the quick content.

Specific genres of information materials or their varieties are determined by bloggers by the content of the publication, goals, objectives and methods of its presentation. The material can be 2 or 3 lines, like an announcement, or it can be a big story or an essay. As for the information genres directly, on the Internet there are quite often classic notes, reports, reports and interviews, but even more there are many of their non-traditional subspecies.

The confusion of genres, or rather, a disdainful attitude towards them, has become especially noticeable in blogging. Free presentation is the main advantage and at the same time the main disadvantage of blogging. Most bloggers not only do not have a special journalistic education, but also do not want to engage in self-education in this area, although they have such an opportunity and, moreover, the very rules of work in the mass information field require it. Bloggers are not interested in either the theory or even the practice of journalistic activity, they only need the news itself and its prompt reflection on the site. The choice of the genre occurs spontaneously and not in accordance with existing genre canons, but as a result of an arbitrary presentation of the event.

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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.

Abstract: The article partially addresses current issues in computer linguistics, especially in Uzbek linguistics, which need to be addresses today and in the near future.

Key words: Effective use of computers in the field of linguistics and literature compyuters in the field of computer science, learning the basics of mathematical logic, mathematical model of natural languages, mathematical model of Uzbek language, computer style 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 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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LINGUOPRAGMATIC ASPECTS OF PARALINGUISTIC MEANS IN SPEECH

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Abstract: This article deals with the problems of translation and comprehension of nonverbal means of speech. Views and theoretical ideas of Uzbek, English, Ottoman Turkish and Russian scholars on nonverbal means are discussed by collecting information and materials on the subject, and comparing them with the content.

Keywords: paralinguistic means, nonverbal communication, nonverbal means, lingua-pragmatics, translation problems.

It is no exaggeration to say that the problems of understanding and translating paralinguistic (nonverbal) means in communication have not been sufficiently thoroughly studied up to this day. It is true that in some cases nonverbal means have been studied in general together with verbal communication or as one of its components, but this does not mean that the place and content of nonverbal means in speech have been fully studied. This is because translating nonverbal means from one language to another requires understanding national and specific features of both languages, and it also requires a good mastery of non-verbal means in the language being studied. Scientific research has shown that the paralinguistic (nonverbal) tools used in speech have a general, national and specific character. In particular, the Uzbek linguist A.Nurmanov noted that when translating a certain text from one language into another, it is necessary not only to know the language of the people, but also to know their specific culture and gestures.

The pragmatic aspects of verbal and nonverbal means in translation were also researched In Ottoman Turkish linguistics also by H.Balji, a professor of Istanbul University. The scholar explained that the features of the use of verbal and nonverbal means in speech were connected with the social structure of pragmatics.

Research of the problems of understanding the lingua-pragmatic aspects and sign systems of nonverbal means in English-speaking countries are associated with the names of such American and European scholars Ch.Peirce, R.Karnap, Ch.Morris, L.Wittgenstein, who were the founders of the trend of philosophical pragmatism.

Lingua-pragmatic aspects of verbal and nonverbal means in Russian linguistics were studied by such scientists as N.Arutyunova, Yu.Apresyan, A.Suprun, I.Susov, I.Gorelov. Among them, it is no exaggeration to say that A. Suprun's scientific research clarified the processes of using verbal and nonverbal means in speech.

However, the problems of learning and translating verbal and nonverbal means in lingua-pragmatic context are almost the same in all languages. In translating them, problems such as the correct choice of expressions of the nonverbal means used in the target language instead of the ones used in the source language or their equivalents have not been resolved. Therefore, the problem of translating paralinguistic means in speech or the question of its correct understanding poses difficulties not only for foreigners, but also for representatives of our nation living in other countries. For example, in the Uzbek language, the nonverbal gesture " to slap someone on the shoulder" is known to us with more than 10 semas: calling from behind, comforting, persuading, thanking, praising, approving, reprimanding, expressing one's opinion, ensuring the seriousness of verbal means, and slapping someone who coughs while eating.

In Uzbek - Йўлчи дўстининг сўзларига хахолаб кулди, маъқул дегандай қўлини чўзиб, унинг елкасини қоқди .

In Turkish–"Tam vaktinde geldiniz don Lino..." dedi hakim ve dost haraketlerle omzunu sıvazladı onun .

In English - "You never offered to do that," she complains to Sam, slapping his shoulder.

In Russian - Ничего, добреющий мальчик, ничего! прибавил он, стукнув Заметова по плечу, я ведь не назло, "а по всей то есь любови, играючи", говорю, вот как работник-то ваш говорил, когда он Митьку тузил, вот, по старухиному-то делу.

As it can be seen from the examples the paralinguistic means associated with "slapping on the shoulder" used in speech have been demonstrating lingvopragmatic aspects and conveying different meanings in different situations. In particular, understanding or translating them from one language into another can cause inherent complexity for the translator and communicator.

In addition, by translation we mean not only the translation of verbal means or verbalised gestureand movements from one language to another, but also the transfer of nonverbal signaling means such as fine art and musical composition to speech. This is because there are cases when artists and composers in their works translate (decode) the processes of conveying people's inner experiences into words, and transcribing (encoding) them into color interpretations and musical tones. In particular, the Russian scientist I. Gorelov tried to interpret the process of translating musical language into verbal means from the point of view of psycholinguistics.

In this point it would be appropriate to say that thanks to the translation, the masterpieces of world literature - "A Thousand and One Nights", Indian fairy tales "Kalila and Dimna", Homer's "Iliad" and "Odyssey", Umar Khayyam's rubais, A. Navoi's epic "Sabbai Sayyar", Bobur's "Boburnoma", and works of Dante, W. Shakespeare, Cervantes, Byron, Voltaire, I. Goethe, A. Pushkin, N. Gogol, L. Tolstoy, Daniel Defoe, Robindranath Tagore's have been repeatedly translated into the languages of the peoples of the world and have served as a source of knowledge and enlightenment for centuries on different continents of the earth. Most of these works have been translated indirectly (applying personal feelings), not directly. Therefore, in the translations of these works, there are not ambiguous, semantically inadequate, i.e. inconsistent phrases. In fact, in the process of translation, the choice of a depiction method seems more appropriate when translating national ethnic concepts as semantic losses are minimized even if they are not close to the original. Therefore, when translating from one language to another, a certain aspect of meaning can be sacrificed to minimize gross semantic losses. For example, the Russian writer L. Penkovsky translated non-verbal means of gestures and actions in the Russian translation of the epic "Farkhod and Shirin" by the great Uzbek poet and thinker Alisher Navoi: "poster" - instead of the descriptive word "cry" used the phrase "рассыпать жемчуг слез - to pour out the pearl of tears" "razbudil" - instead of the word "awakened" skillfully used the periphrastic phrase "Солнечный рубин открыл глаза Шапиру - The sunny ruby opened Shapir's eyes".

Nevertheless, such Uzbek means as "paranji", "chimildiq", "tumor"; Ottoman Turkish "afiyet olsun", "zemheri", "maalesef"; English "football widow", "catch and release", "table queen"; "poshlost" (пошлость), "stushevatsya" (стушеваться), "xandra" (хандра) in Russian accepted as exotic lexicon cannot be translated into other languages without semantic loss.

In summary, when translating some Uzbek nonverbal means into Ottoman Turkish, English and Russian, there are problems such as finding their original translation or

equivalents which can cause not understanding the used paralinguistic means in full by the communicators. Therefore, in linguistics, nonverbal means can be incorporated into areas where linguistic-pragmatic and translation aspects have not been sufficiently well studied. Researching this problem scientifically has both theoretical and practical significance.

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STUDENT - PREVENTION AND CORRECTION OF SUICIDE AMONG YOUNG PEOPLE

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Abstract: After gaining independence, Uzbekistan has paid great attention to the education of young people, opening the door to great opportunities for them to become mature and well-rounded individuals. This article will demonstrate some aspects of suicide among young generation and suggest some issues.

Key words: suicide, objective and subjective reasons, teenagers, psychology.

The harmony and commonality of national and universal values play a special role in the education of young people. At a time when the flow of information of pedagogical psychologists is constantly transmitted through communication networks, it is our responsibility to ensure security, prevent risks and negative consequences. Our young people are free-thinking, free from any negative ideas, consciousness, dependence on thought, honestly assess the events in the family, the environment and can express their free attitude to them, with their advanced ideas, example can affect family members, classmates, friends.

Among the current issues today, the problem of suicide is being studied in depth by experts around the world. Admittedly, for some objective and subjective reasons, statistics on suicides to the general public are not covered. However, the fact that this problem is becoming more and more popular and even "getting younger" attracts all professionals.

One of the most important tasks of modern personnel in the upbringing of adolescent boys and girls is to rationally organize the work of others and socially useful in a way that knows themselves, their abilities, individuality, personal qualities and qualities as qualified professionals. to act as a gifted professional in other fields of labor. The suicide of teenagers is a horrible tragedy. It is even more frightening for them to leave this world with disappointment and hatred. To the other world, they are leaving the roofs of their houses, the attics and the ceilings of the barns with a noose around their necks. They are leaving for life with the hope of returning. They try to get the attention of adults or loved ones in order to "let them know who they are missing".

But children do not fully realize that death is the end of life. If they continue to live in victorious places in their dreams. But that assumption doesn't turn out the way they want it to.

Here the place and role of the science of psychology, which studies the laws of the human psyche, is enormous.

Suicide (lat. sui caedere - suicide) - deliberately depriving oneself of life, usually voluntary and independent suicide. Suicide cases have been treated differently in different periods of society and in different cultures. These are:

-ritual of revenge;
-religious (sacrifice) for honor;
-proving fidelity between couples;
-loss of a loved one;
-loss of normal social status;
-professional failure;
-intolerance to disease-specific emotions and other causes.

The perfect definition of suicide was given by the French sociologist Emile Durkheim. According to his interpretation, every death that is a direct or indirect result of a negative act committed by a person knowingly about the expected outcome is suicide. (Emil Durkheim's The Assassination, published in 1897, is a classic example of the suicide literature.

Suicide is asign that there are problems in society, in human relationships, that one cannot solve on one's own or that one does not want to solve in a normal, universally acceptable way, and that there is anxiety about personal tragedy, despair, and depression. . Suicide can often be caused by a long-term illness, and sometimes a disability.

The main social factors that lead to suicide are:

- parasuicide (secondary suicide under the influence of a suicide that did not occur before);
- exposure to suicidal ideation;
- Suicides in the family;
- autoaggression;
- persons consuming alcohol (30% of total suicides);
- Consumers of narcotic and toxic substances (chronic consumption of alcohol and narcotics leads to depression, depression, guilt, decreased motivation to live);
- people with severe depression;
- chronic and lethal diseases (in cases of no hope of recovery);
- heavy losses (loss of a loved one, loved one and experienced;
- various problems in the family (violence, conflicts, divorces and adolescent suicide) or, in medical parlance, suicide during puberty.

Stress (nervousness, strong excitement) is a dangerous mental and physiological stress, in which all the existing mental processes in a person are inhibited. That is, a person in a state of stress hears badly, does not like, loses sensitivity, does not fully understand the consequences of their actions, falls into an incomprehensible depressive state.

Professor A.Ambrumova described suicide as a social (partially medical) problem and described it as follows: "Suicide is the inability of a person to adapt to the micro-social conflicts he or she is experiencing socially and psychologically."

Regardless of the division into different types, the origin of suicide is based on conflict. The personality traits of suicides include:

- low or very low self-esteem;
- insecurity;
- high need for self-expression;
- For them, warm relationships, emotional connections, sincerity in relationships, the presence of understanding and support from others are of great importance;
- the complexity of willpower in decision-making;
-decreased level of activity in situations with optimism and difficulties;
- tendency to self-blame, exaggeration;
- lack of independence;
- high level of security;
- Insufficient socialization, immaturity and immaturity of the person.

The development of our country and the success of reforms largely depend on the level of legal consciousness, spiritual thinking and political culture of the people. At the same time, the political activity of each individual, his genuine civic attitude to changes in society, the desire for democratic reforms, is an important factor in achieving the desired goals faster.

The problem of suicide is one of the most pressing problems of today and is the most

erroneous decision in human life. The long-standing problem of suicide has led to the inability of education officials to provide the necessary pedagogical and psychological assistance in crisis situations related to suicidal activity in adolescents. Adolescents who have attempted suicide have personality and emotional disturbances. Suicide of a teenagerthe analysis of the motivational-need field is one of the necessary and important tasks in understanding the suicides that occur. Conflict situations in the family and interpersonal relationships that can lead to suicidal ideation, inadequate sense of personal values, inadequacy in self-control and evaluation, are among the main factors that prevent them from meeting their current needs. requires a comprehensive approach to the implementation of measures.

Helps to find opportunities for self-expression in adolescents, directs them to socially useful activities, taking into account their interests and needs, forms the motivation to pursue promising goals, defines the goals and objectives of planning corrective measures.

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LITERATURE SELECTION FOR INDEPENDENT WORK ON PROFESSIONAL ENGLISH FOR CORRESPONDENCE STUDENTS

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Abstract: The article deals with the literature selection for independent work on professional English for correspondence students. To develop the skills of independent work on texts, it is necessary to carry out preparatory work on the texts in the classroom preceding the home reading classes.

Key words: home reading, correspondence student, reading activity, independent educational activity, independent work.

The main purpose of teaching foreign language at the correspondence department of a non-linguistic university is the task of teaching reading and understanding of texts in the specialty. In this case, the importance of home reading and selection of texts for it becomes. Therefore, the main requirement for the texts: cognitive value, consistency and consistency of presentation.

Texts intended for home reading should serve the purpose of complementing and expanding the knowledge that students receive in their specialty classes, expanding students' knowledge of the language as a special social phenomenon. The department should select reading materials for home reading and develop them in a methodical manner. And on the first lessons, as experience shows, the most effective is to work on a single text, especially with correspondence students, who, as a rule, have long graduated from school and have to remember a lot.

With the same text, it is easier to activate the reading activity and thus achieve better assimilation and consolidation of the selected language material. Home reading classes are timed to coincide with the completion of work on a specific topic in the classroom. Home reading will be effective and beneficial only if students receive reading material and specific assignments. Moreover, at first, lighter texts are given and in a smaller volume. Their complexity and volume increase from task to task. However, in all cases, the text should be based on the lexico-grammatical material being studied and contain no more than 15% -20% of unfamiliar vocabulary and only those new grammatical structures that the student can recognize and translate by analogy with the previously studied ones. To develop the skills of independent work on texts, it is necessary to carry out preparatory work on the texts in the classroom preceding the home reading classes. For example, the beginning of the text is preliminarily held in the audience, since the most difficult to understand, as a rule, are the first chapters, the most overloaded with lexical material.

Home reading is a type of organization reading for educational purposes and aspect of the practical course foreign language. As such it deserves separate methodological understanding due to the inherent his characteristic features.

Home reading is specific autonomous aspect of educational activity and has as such by the internal laws of mastery of it, connections with other aspects and powerful teaching and general development potential. Being a self-performed type of work, home reading does not mean complete absence the leadership role of the teacher. Teacher develops a set of approaches, methods, forms and methods aimed at organizational and methodological support of independent work students, involving them in independent educational activity, the development in them of the desire to seek a solution in translation of complex texts. The main components of the organization home reading and conduct

is accessibility, encouraging students to do it and informing students about methods of monitoring results their work.

Thus, a purposefully selected textual educational material in a foreign language for a majoring specialty helps to activate the work of students and avoid overloading students of the correspondence-evening faculty. In addition, it increases students' interest in learning a foreign language and favorably emphasizes the difference between a school language course and a university course, which is more specific and motivated.

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INNOVATION TECHNOLOGY ENRICHED TEACHING FOREIGN LANGUAGE.

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Abstract: The aim of this article is find out the ways of possible use of the Information technology when teaching or learning English. To popularize the Information technology among the teachers and students in order to make their learning or teaching process more up-to-date, unusual and efficient. In this article investigates possible ways of using the Information technology in the process of teaching English and explain how to use it efficiently. The article considers the theme of the use of information technology in the classroom of English. Also describes advantages and disadvantages in the use of information technology. Particular attention is drawn to the use of the internet and smart boards in the classroom. This article is useful for the teachers and students.

Key words: information technologies, the virtual absence, electronic textbooks, multimedia textbook, , video equipment,

The use of information technologies at English lessons is a necessary condition for developing interest to the language and computer technologies due to the expansion of computers and information science application. In the process of teaching foreign languages new information technologies are used at secondary educational establishments. They are cameras, audio equipment, computer technology, video equipment, overhead projection devices, scanners, printers, CD equipment, multimediacomputer, Internet, multimedia textbook -almost any device that can access, present, manipulate and communicate words, sounds and images to enable us to create meaning. It makes possible the perfection of mechanisms of the system of education management, and also creation of the methodical systems of teaching oriented to the development of intellectual potential of students. Active work is conducted to elaborate and introduce computer tests on the studied foreign languages.

In terms of providing educational institutions with multimedia products, there are some problems to be solved so far:

- the virtual absence of domestic electronic textbooks (ET) in official language at educational institutions;
- lack of effectiveness of using the existing electronic textbooks;
- poor quality of teacher training in using electronic textbooks;
- insufficient implementation of new educational technologies in the educational process;
- low efficiency of automated assessment system in teaching.

The using of multimedia in classroom cannot be denied anymore. That will make possible for teachers giving more opportunity to students being happier and more enjoy during the learning course. Through their interactions with multimedia texts, students become increasingly familiar with academic vocabulary and language structures. As they pursue sustained study of one content areathrough focus discipline research, the students become actively engaged in the process of meaning construction within and across different media. Learners obtain most of the information from electronic devices, which has made such tools, a very essential component of their daily life.

Using innovative technologies in a classroom as a tool for language learning has many benefits. It gives stimulus to undertake the tasks. And could help in creating a long lasting impact on the learners. The role of teacher will change from an instructor's role to a

coordinator. Self-paced independent learning methodology is what is being propagated with the help innovative technologies in English Language Teaching. Using multimedia provides the students to gather information through media that encourages their imaginations, interests.

New information technologies, such as Internet, audio and video complexes, multimedia training computer programs are widely used at institutions of higher education. All these technologies help to create additional opportunities for students' creativity development, promotes their curiosity, and fosters their interest to the research work. Moreover, it gives an opportunity to effectively solve a number of following didactic tasks:

improving reading skills;

enlarging the vocabulary with the modern foreign words;

improving monological and dialogical speech skills;

discussing the materials of the web;

forming stable motivation to foreign language activity while discussing the problems, interesting for everybody.

Use of modern technologies, such as computers, Internet-resources, special educational multimedia programs, as well as modern technical equipment allows to optimize the teaching process. The advantages of using innovative technologies are following:

increase of motivation and enthusiasm of students and teachers through active involvement in the process of live communication, possibilities of language acquisition are increasing thanks to the cooperation, interaction and communication in learning language;

great potential for a variety of teaching methods and teaching to the needs of each student;

job satisfaction, where the result is visible after each section;

self-education of student's personality through the skills to locate, retrieve, evaluate and analyze relevant information;

intensification of the educational process that allows to rationally organize the educational process, both in the classroom and in the condition of independent work of students.

professional development - communication skills of students and teachers.

So, innovative technologies significantly enrich and diversify the process of teaching foreign languages. Intellectual, creative search comes up to take the place of monotonous work. It helps to create a personality of a new type, active, purposeful, directed on constant self-education and development. Thus, information technologies favour the efficiency increase of the study process, its individualization, active pedagogical cooperation of teachers and students; create optimal conditions for creative use of information in students' independent cognitive activity. Computers application encourages the optimization of teaching management, efficiency increase of study process, saves teachers' time for the work with teaching material, simplifying its search, analysis, selection and gives an opportunity of application of new organizational forms of teaching.

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TRADITIONS AND RULES OF HOSPITALITY IN CHINA.

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Abstract.China is on everyone's lips today. They talk and argue about , criticize and accuse , admire and imitate this country. And the most interesting thing is that life in China is filled with many surprises, politeness, kindness and wisdom that attract travellers to themselves day after day, year after year. This is the experience of the Celestial Empire, which has been accumulating for centuries. This article is devoted to an in-depth study of the traditions and customs of hospitality of the Chinese people. Information on friendliness and reception rules are given.

Key words: Eastern continent, friendliness, guest, hosts, hospitality, politeness, fragrant and delicious tea, traveller, country, Celestial Empire, friends forever, business partners, Chinese, food, respect.

"If you don't have any treats, tell the guest at least a kind word." This is what a Kazakh proverb says. In the eastern continent, a rich traveler or a poor guest, despite the nationality **"国籍"** [guo ji], age **"年纪"** [nian ji] or gender **"性别"** [xing bie], can always find a kind and good owner in whose house he will feel like at home because in the East people are very hospitable, they will give shelter to guests, treat them with delicious tea, feed them on the best that is available at home and lay them down in the most convenient place expressing a sign of respect. If the traveler gets lost, the locals will definitely show him the right way. From the historical diaries of wanderers of past centuries, it becomes clear that tourists in eastern countries were treated very politely. This is evidenced by some lines that can be seen when reading the diaries of ancient travelers: "No matter what house we entered, we were always and everywhere welcome, and, of course, we were treated to fragrant and tasty tea."

The Chinese who are one of the most populous people in Asia are actually very good-natured and always welcome any guest. They easily find a common language with people and are always ready for new acquaintances, and are also practically open in communication with the interlocutor. In the People's Republic of China, the tradition has been preserved since ancient times to invite everyone and visit with pleasure, in both cases the Chinese are very polite and accurate. As everyone knows from personal life experience, mainly young people **“年轻人”** [nian qing ren] willingly agree and visit with great pleasure. And according to the older generation **"老人"** [lao ren], it is better to stay at home and have a good time. Especially on the eve of the approaching Chinese New Year **"春节"** [chun jie], the Chinese have defined days when to receive guests, as well as to visit others. During this extraordinary period of time the richest feasts are arranged by the Chinese people. According to tradition, the Chinese people offer guests a plentiful treat so when you are asked to taste a little of the dish, you should never refuse. This can serve as disrespect and bad form towards the owners. It should also be remembered that the Chinese are recognized for obtaining maximum satisfaction from food. And of course, do not forget to express your admiration for the delicacy of the cuisine when trying the dishes offered to you.

There are some peculiarities of the sample of dishes: it is customary for the Chinese to eat food by chomping, making loud noises and sloppy which serves as evidence that the guest likes the food prepared by the hostess. But if the guest eats quietly, calmly, unhurriedly and with great care, then the owners will think that the food is not pleasant. Therefore, the guest who dirties napkins and tablecloth, loudly chomps at table, will earn great respect in the eyes of the hosts, as well as the hostess who cooked the food will be pleased with the guest knowing that the

guest liked her cooking. It is not customary for the Chinese to stay at a party for a long time, so after the end of the meal, you should thank for the dishes and go home with complete admiration.

Let's find out about four main features that should be highlighted when we talk about the hospitality of the People's Republic of China and what a traveler should expect from it:

1. From the very first second of acquaintance, you will become close as friends, translated into Chinese, meaning **"朋友 们"** [peng you men] forever, that is, no matter what state or people you are from, you will be treated like a friend. The Chinese are very friendly towards travelers. Perhaps, there are even tourists who will confirm this because the Chinese people are very open to new adventures and acquaintances and will always help tourists so that they will feel comfortable and do not feel the need for anything. It is believed that the art of accepting foreigners well so that they can remain friends or business partners is in the blood of the people of the Celestial Empire.

2. The Chinese are constantly concerned about how you feel, translated into Chinese it sounds like **"身家 怎么 样？"** [shenti zenme yang] or **"身文 好吗？"** [shenti hao ma]. It is very important for the Chinese people to know how their new guest is feeling. Is the guest satisfied with the room in which he lives or the view from the window to the street? They ask these questions almost every day, so don't be surprised.

3. They will tell you this every day - "You look amazing today!" **"你 今天 穿得 真 漂亮 "** [ni jintian chuan de zhen piaoliang]. When you hear this from a Chinese resident, do not rush to rejoice. This is due to the fact that Chinese people love to compliment other people with or without reason. It should be noted that the locals will be most interested in your appearance.

4. The people of the Celestial Empire will never let you go without seeing you off. This is very disrespectful according to their customs. Therefore, the Chinese will always see you off and meet you. This is a sign of respect for you and serves to determine the level of hospitality among these people.

Finally, I would like to add that from China there is a feeling of not entirely expensive, but cordiality and pleasant comfort, because it is no coincidence that many tourists, mainly Europeans, turn into "China-dependent", want to return to the friendly Celestial Empire again and again. This is the centuries-old skillful skill of the Chinese people to meet foreigners in such a way as to remain with them best friends or business employees forever without losing anything in return. And with all this being within the framework of understanding and courtesy, the Chinese word for courtesy is **“客套”** [ke tao].

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USING INNOVATIVE TECHNOLOGIES IN TEACHING FOREIGN LANGUAGES TO STUDENTS WITH MULTIMEDIA RESOURSES.

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Abstract: Today, there is a growing interest in ethno psycholinguistic problems that see language as a reflection of socio-cultural reality, which in turn requires the study of a holistic view of the world that exists in the cultural traditions of specific and studied people.

Methods and didactics of foreign language teaching seek modern answers to questions about what to teach and how to learn, based on the analysis of language, speech and thinking, thinking and communication, communicative and cognitive connections in speech. In this case, the importance of computers and modern innovative technologies in teaching English to students is high effective. We tried to talk about it in the article.

Keywords: communicative activity, The scale of using computers, modern methods.

The use of information technology is possible not only in specialized integrated classes, but also in ordinary English lessons at different levels of students training.

The inclusion of computer technology in the traditional lesson plan allows the teacher to transfer part of his work to a personal computer, while making the learning process more interesting, diverse and intense. The computer does not replace, only the teacher fills.

Thus, the main tasks of teaching modern English included:

1) Communicative and socio-cultural development of the student, his preparation for intercultural communication.

- formation and development of communicative competence (linguistic, speech, linguistic, sociological) necessary for communication in the fields of education, household, business, leisure and entertainment;
- development of a culture of perception of real texts (fiction, newspapers and magazines, advertising and reference books);
- The formation of students' ideas about the dialogue of cultures as a consciously chosen philosophy of life, its participants are required to respect other cultures, language, ethnic and racial tolerance, speech etiquette, readiness to learn. the search for non-violent ways of resolving conflicts and disputes, enriching the cultural heritage with peace, the achievements of other cultures;
- To acquaint students with the culture of the language countries studied, its relationship with the branches of world culture.

2) To teach students the technology of learning English and to develop its unique educational potential to meet their personal interests in learning English in the fields of communication, knowledge.

- study the methods of working with local and foreign directories;
- on teaching methods of schematics of communicative-cognitive information (language, speech and communicative tables, diagrams);
- development of skills in working with books, audio and video materials, computer programs;
- to get acquainted with international tests to determine the level of language proficiency;
- communicative activity in English on the study of forms of independent monitoring

of educational, communicative and cognitive performance.

To students: Various methods increase interest in the study of sciences, making the cognitive process more attractive. Using computers allows private students to be free and share their knowledge with others, increase independence in the learning process, develop creative skills, develop communication and culture, and develop speech. This makes it possible to participate in various contests, quizzes, contests, projects.

To the teacher: The solution of new methodological problems, the deepening of knowledge in science will improve its professional level. Increases prestige among students, colleagues, parents. Collaboration with other teachers of science (co-writing subprograms for lessons and lessons) activates the process of collaboration (extracurricular activities). The computer allows you to create the basis for monitoring the effectiveness of students, which allows the teacher and student to control. The computer allows you to create more individual test tasks, independent and control work.

The scale of using computers in the educational process is huge: from testing students to identifying their personal characteristics before the game. At the same time, the computer is a powerful tool to improve learning.

The computer greatly expands the possibilities of providing educational information. The use of color, graphics, sound, modern video technology allows you to simulate various situations and environments.

The computer allows you to increase the motivation of the student. Not only the novelty of working with a computer, but also the ability to regulate the presentation of educational tasks in accordance with the level of complexity, contributes to the growth of interest in reading, rapid stimulation. right decisions have a positive effect on motivation.

One of the sources of motivation is fun. The possibilities of a computer are endless. The computer allows you to significantly change the way you manage learning activities:

immerse students in a specific game situation, give students the opportunity to apply for a specific form of help, install educational materials using images, graphics, etc., When implementing information technologies, any coercion and suppression of a student's desires should be suppressed.

It is possible and necessary to use a computer in the classroom, this helps to increase interest in reading, its effectiveness and develops the student in all respects. Computer programs involve students in developmental activities, and form knowledge and skills of cultural significance.

The effectiveness of development depends on the design of the program, its access to the student, the level of his development and interest. Computer technology can help your student solve the problems of visualization (mediation), gaming knowledge and creative tasks at this age.

Today, computer technology can be considered as a new way of transferring knowledge, which corresponds to a qualitatively new structure for the education and development of the student. This method allows the student to read with interest, find sources of information, increase independence and responsibility in acquiring new knowledge, and develop the discipline of intellectual activity.

A creative teacher can use the capabilities of computer technology to achieve various goals:

1.the formation of new knowledge and concepts
2.Development of practical skills and activities
3.Repetition and generalization of the studied material
4.Encourage students to learn
5.Form the necessary personal qualities

Using a computer allows you to make any lesson attractive and truly modern. Performing

any task, computer exercises provide an opportunity to increase the intensity of the lesson. The use of flexible materials and various modes of operation helps to individualize sessions.

A computer can be used at all stages of training: explaining new material, combining, repeating, controlling knowledge, skills. In addition, for a student, he performs many functions: a teacher, a working tool, a training object, a joint team and a game environment. The use of multimedia technologies in teaching English.

Multimedia technology is a combination of various teaching methods: texts, graphics, music, video and animation in interactive mode. The new learning environment creates additional opportunities for students to develop creative abilities, increase their curiosity and stimulate interest in learning activities.

Modern multimedia programs are an effective tool for optimizing mental working conditions. Forms of working with computer curricula in English lessons include vocabulary learning, pronunciation training, speech monologue and dialogue lessons, writing instruction and grammar lessons. In English lessons, you can solve a number of didactic problems using materials from the Internet, replenish the vocabulary of students and develop reading skills in them; improve writing skills; creating sustainable motivation for learning English. For students, multimedia technology is a way to expand their understanding of the world. The use of multimedia technologies allows you to get complete and accurate information about the studied events and objects. This improves the quality of teaching, allows students to satisfy and develop their cognitive interests, increases the visibility of the lesson, allows the use of materials that are difficult to access or cannot be used without a computer. The work of students is becoming more intense, which allows to increase the rate of assimilation of educational material and increase the amount of independent work in the classroom.

For the effective use of multimedia technologies, it is necessary to create conditions that ensure the formation of social cognitive activity as the main personality characteristics of a student. Programs should be interactive to promote student independence.

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DEFINITION OF THE CONCEPT OF "BORROWING" IN UZBEK, ENGLISH AND RUSSIAN LINGUISTICS

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Abstract. The article examines the interpretation of the linguistic terms " заимствование", "borrowing", "loan" and " Ўзлашма сўзлар" depend not so much on the semantic features of words, but on the understanding of the essence of borrowing by different lexicographers.

Keywords: Source of borrowing, loan, term, linguistics, reasons of borrowing, assimilation, borrowed element.

Borrowing as one of the means of replenishing the lexical composition of languages at different stages of their development is a complex linguistic phenomenon, which can be studied from different angles. When considering this method of replenishing the vocabulary of the language, first of all, one should answer the question of what should be understood as borrowing and what words can be considered borrowed.

For this purpose, the etymology of English ("borrowing", "loan" and "loanword") and Uzbek ("ўзлашма" and "ўзлаштирилган сўз") terms was studied, as well as an analysis of the definitions of the terms " заимствование" and "заимствованное слово" proposed in dictionaries and encyclopedias on linguistics in Russian, German and English [2,1209].

According to the Oxford English Dictionary, the original verb "borrow" was used to refer to the process of borrowing words as early as the beginning of the 18th century: an example from 1706 is given. Both the Oxford English Dictionary and the International Encyclopedia of Linguistics, edited by W. Bright, note that the term "borrowing" is not entirely apt, since it implies the temporary possession of something with a subsequent return (OED Vol. 2 1989, p. .419; Bright Vol. 1 1992, p. 197). In addition, if the first element of a given word is a Scandinavian borrowing, which replaced the original form in the Middle English period, then the second element belongs to the common Germanic layer of the original vocabulary of the English language [3].

The nominative parts of the definitions under consideration indicate that the above-mentioned linguistic terms can serve to designate both the elements of a language (noted in 8 out of 9 sources) and the process of penetration of elements from one language into another language (indicated in 7 out of 9 sources). It is interesting to note that all of the Uzbek, Russian and English linguistic dictionaries under consideration define "заимствование", "borrowing" and "ўзлашма сўзлар", respectively, both as an act of borrowing and as a borrowed element. As for English-language dictionaries, their authors tend to interpret the term "borrowing" only as a process, and the term "loan", mentioned only once, both as a process and as a result of borrowing. According to the definitions of explanatory dictionaries of the general vocabulary of the Russian, English and Uzbek languages, all of the above four words have the meanings of both proceduralist and effectiveness [2, 1211]. Thus, the considered interpretations of the linguistic terms " заимствование", "borrowing", "loan" and "ўзлашма сўзлар" depend not so much on the semantic features of words, but on the understanding of the essence of borrowing by different lexicographers [3].

The concretizing parts of the definitions of the above terms make it possible to single out the following concretizing signs: origin (indication of the sources of borrowing), objects (identification of types of borrowed elements), methods (explanation of borrowing mechanisms), reasons (mentioning the reasons for borrowing), action and its result

(inclusion of assimilation of borrowed elements) [1, 38].

Other languages noted by most of the used linguistic dictionaries, dialects of the same language, functional styles and idiolects (indicated only by two English-language reference books - "Dictionary of Language and Linguistics" by R. Hartmann and F. Stork and "The Encyclopedia of Language and Linguistics" edited by R. Asher).

Borrowings can occur at the phonological (borrowing phonemes), grammatical (borrowing morphemes and syntactic structures) and lexical (borrowing lexemes) language levels, which is noted in three of the studied editions of O.S. Akhmanova, R. Hartmann and F. Stork, V.N. Yartseva.

On the basis of the mechanisms of borrowing, it is possible to distinguish two types of borrowed units - direct and traced, as indicated by G. Stammerjoham, R. Hartmann and F. Stork.

Of the numerous reasons for borrowing, only three are reflected in the definitions of two Russian dictionaries (edited by O.S. Akhmanova and V.N. Yartseva) and one German reference book (edited by G. Bussmann), namely:

1. Borrowing as a result of linguistic (intercultural) contacts.
2. Borrowing to designate objects and concepts previously unknown to the speakers of the borrowing language, as well as newly invented or recently appeared.
3. Borrowing to meet the need for detailing some values.

In general, it can be noted that terminological fragmentation is characteristic of English-language dictionaries and encyclopedias, since the same linguistic phenomenon can be designated by 2-4 linguistic synonymous terms [1, 36].

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TECHNOLOGICAL SCIENCES

ANALYSIS OF THE EFFECT OF CLEANING EQUIPMENT ON CLEANER INDICATORS

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Abstract.The article examines the effect of multi-faceted polymer materials on the cleaning efficiency of the machine. Mechanical damage to the seed was 1.0% when the number of edges of the column was 6, 0.95% when the number of edges of the column was 0, 0.9% when it was 8, and 0.88% when it was increased to 9.

Keywords. Kolosnik, versatility, cleaner, cleaning efficiency, mechanical damage.

Introduction. For the development of the ginning industry in the world, scientific research is carried out aimed at the development of innovative techniques and technologies, the improvement of existing ones, with the effective use of modern scientific and technical achievements. The analysis of scientific works showed that a number of scientific researches were carried out to determine the diameters of the coils of cotton ginning machines, mutual pitch, spacing of the coils formed by the saw cylinder, the frequency of rotation of the saw drums [1].

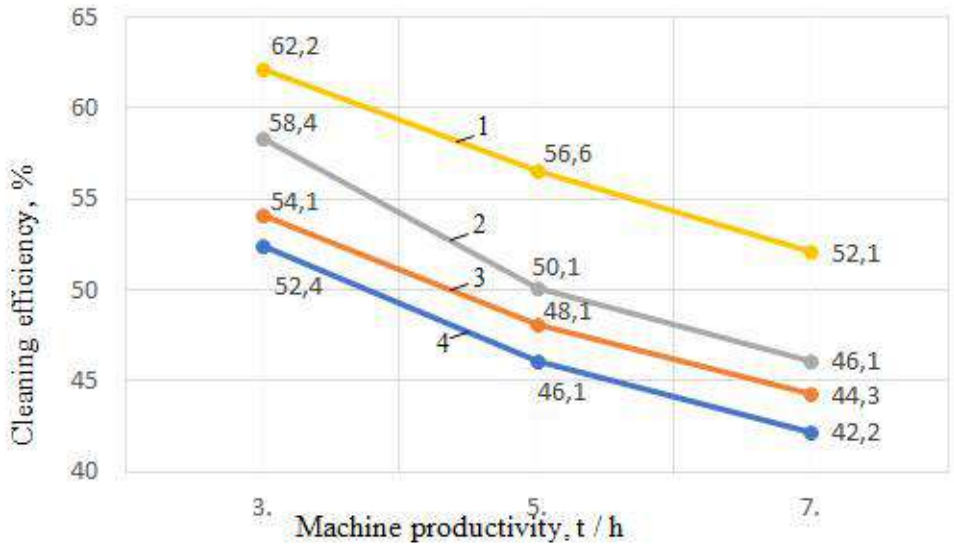
Today, ginners ChX-5, 1XK and UXK are used to clean cotton from contaminants [2]. In order to achieve high cleaning efficiency, a number of scientists have proposed various structural and technological changes based on theoretical and experimental research on the cotton cleaning process, rational technological performance of cleaning working bodies, optimal operating modes of working bodies [3].

Overseas, cotton ginning machines and cotton processing complexes are mainly owned by Murray Cotton, Lummus Corporation, Continental Moss-Gordin Company and Continental Cotton, among others. firms are produced [4].

From the analysis of the studies [5] it was found that the coefficient of friction between the working surfaces of cotton and cotton gins depends on the roughness of the surface of the working bodies.Given that the high coefficient of friction on the surface of cotton and working bodies leads to increased energy consumption, wear of parts and a decrease in the serviceability and durability of machine parts, then the use of polyamide materials with low coefficient of friction and low surface roughness, not only allows you to reduce energy and detail consumption, but also allows you to get fiber with high quality performance.It is expedient to conduct theoretical and practical research to substantiate the parameters of the improved cleaning technology based on the vibration action of the multilayer polymer material, which facilitates the columns.

Experimental part. Based on the above analysis, experiments were conducted to study the effect of the number of edges of multi-sided plastic columns on the cleaning efficiency of the machine and the mechanical damage of the seed.Experiments were carried out on aggregate productivity of 3, 5 and 7 t / h in grade I-2 cotton of S-6524 selection variety, contamination 5.4%, moisture 8.2%, mechanical damage of cotton seeds 0.2%.

The experimental results are shown in Figures 1-3



2 - Polygonal colossus, 3st grade;;
3 - Cylindrical colossus, 1st grade;
4 - Cylindrical colossus, 1st grade;

Fig.1. Graph of equipment cleaning efficiency dependence on work efficiency

Figure 1 shows agraph of the dependence of the cleaning efficiency of the equipment on the work efficiency when using multi-sided and cylindrical grate. As can be seen from the graph, the cleaning efficiency was 62.2% when using a multi-sided grate and the equipment was 3 t / h, while the cleaning efficiency was reduced to 56.6 and 52.1% when the equipment was operating at 5 and 7 t / h.observed.When using cylindrical columns and the efficiency of the equipment is 3 t / h, the cleaning efficiency is 54.1%. When the operating efficiency of the equipment is 5 and 7 t / h, the cleaning efficiency is reduced to 48.1 and 44.3%, respectively. When using multi-sided cotton pickers in the technological process of cleaning cotton from large contaminants, we see that the cleaning efficiency of the equipment is on average 7.0 ÷ 8.0% higher than the use of cylindrical cotton pickers, regardless of the efficiency of the equipment.

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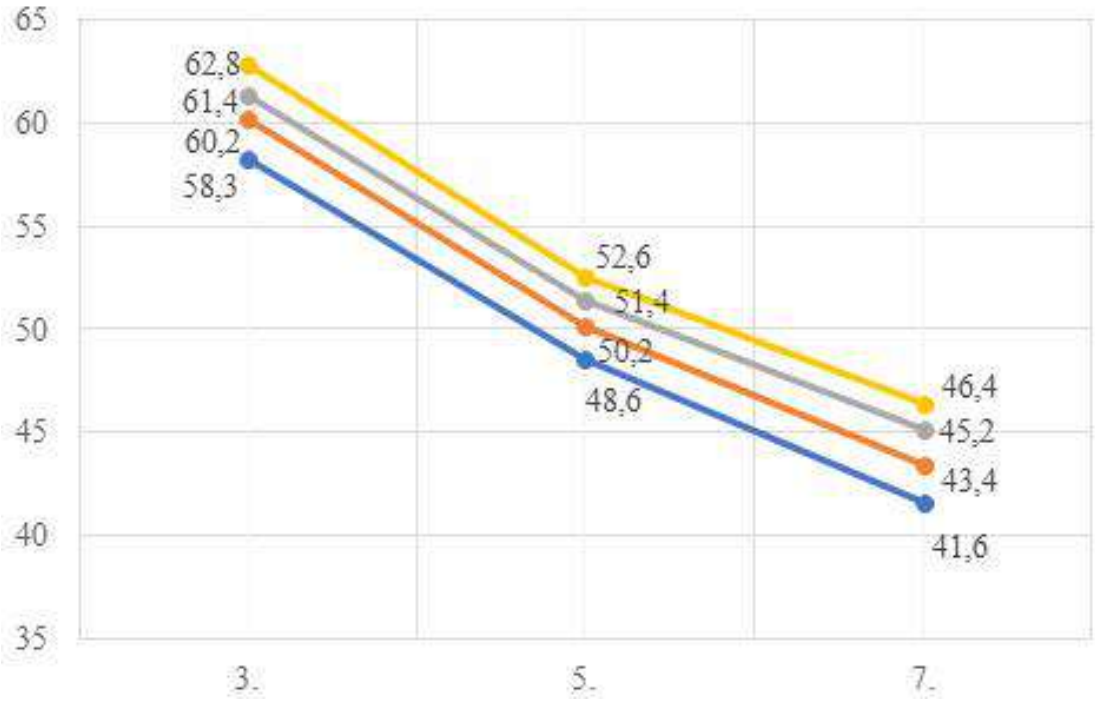
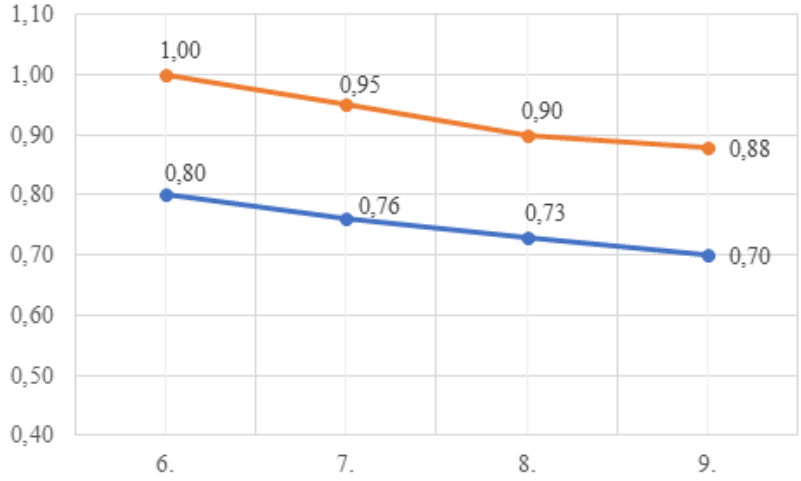
Figure 2 shows the dependence of the cleaning efficiency of the equipment on its performance when the edges of the columns made of polymeric material are 6, 7, 8 and 9. As can be seen from the graph, the number of edges of the column is 6, the cleaning efficiency is 62.8% when the equipment is 3 t / h, while the cleaning efficiency is 52.6 and 46 t when the equipment is 5 and 7 t / h., A decrease of up to 4 percent.Analyzing the remaining graphs, as in Figure 1, a decrease in the cleaning efficiency of the equipment is observed as the operating efficiency of the equipment increases.It should be noted that with the increase in the edges of the columns from 6 to 9, there is a decrease in the cleaning efficiency of the equipment to 4.5 ÷ 5.0%.



1, 2, 3 and 4 are the number of gable edges 6, 7, 8 and 9, respectively.
Figure 2. Graph of machine cleaning efficiency as a function of productivity.

Figure 3 shows the effect of the change in the number of edges of the columns on the mechanical damage of the seed. Figure 1 shows that experiments on 1st grade 2 grade 2 cotton show that the mechanical damage to the seed is reduced as the number of edges of the columns increases. When the number of edges of the column is 6, the mechanical damage to the seed is 0.80%, when the number of edges of the column is 7, the figure is 0.76%, when the number of edges of the column is 8, the mechanical damage is reduced to 0.73%, when the number of edges of the column increases to 9 mechanical damage to the seed is reduced by 0.70%.The results of experiments on curve 2 of grade 2 cotton in Figure 3 show that the mechanical damage to the seed is reduced from 1.0% to 0.88% when the number of edges of the columns increases from 6 to 9, just like in curve 1.



1 -1st grade; 2 - 3st grade;

Figure 3. Graph of the mechanical damage of the seed to the number of edges of the column.

Thus, we can conclude that while the increase in the number of edges of the columns from 6 to 9 led to adecrease in the cleaning efficiency of the equipment by

4.5÷ 5.0%, the mechanical damage to the seed remains almost unchanged.

Conclusion. Experiments have shown that an increase in the number of edges of the columns from 6 to 9 leads to adecrease in cleaning efficiency of the equipment by 4.5-5.0%, while mechanical damage to the seeds decreases from 0.8 ÷ 1.0% to 0.7÷ 0.9%.

According to the analysis of the results of experiments on the dependence of cleaning efficiency on the number of chimney edges, it is recommended to use 6-sided chimney grills to ensure high machine productivity and minimal mechanical damage to the seed.

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SELF-ADJUSTING FOOT DESIGN

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Abstract. The article provides a constructive scheme and principles of operation of a self-adjusting foot for manufacturing high-quality garments in sewing machines.

Key words: sewing machine, thread, needle, material, plate, foot design, 22 A class, 97 class machines.

In sewing machines, in order for the transport rail to be able to move the sewn materials, sufficient friction force must be created between it and the materials. This force is generated by the pressure of the presser foot. The purpose of the presser foot is also to keep the sewn materials at the level of the needle plate when the needle and puller are moved upwards. In addition, the presser foot must provide a certain compression of the materials to be cross-linked. This greatly facilitates stitch tightening by the thread puller and provides for the appearance of such elastic forces in the compressed materials that create enough tension in the stitches after cessation of exposure to the materials of the presser foot [1].

In the known design of the sewing machine 22-A class presser foot is attached to the movable vertical rod with a screw with a rolling head. The foot consists of the sole and the holder connected to each other by a hinge. The stem of the foot can be moved parallel to the needle holder in the guides mounted in the head of the machine. The rod is supported by a bracket that has a guide protrusion that moves when the foot is lifted in the longitudinal slot of the machine head. This prevents spontaneous rotation of the rod around its axis. When lifting the foot manually, a special cam must be turned behind the sprout. In the machine 22- A kl. foot pressure on cross-linked materials is created by a cylindrical spring, put on the rod. In some sewing machines, for example in the machine 97 kl [2].

For better pressed materials to the rail and needle plate foot should be attached to the rod hinged. This also facilitates its transition through transverse seams and thickening of the materials to be sewn. The hinge of the foot should stand no more than 5 mm from the back edge of its base. Otherwise, when turning the foot the back edge will slow down the upper layer of cross-linked materials as they move the rail, which will lead to an unwanted landing.

At transition to processing of materials of other thickness, the foot has to be moved by height relative to the rod. For this purpose, a groove is made in the foot under the fixing screw [1].

The main drawback of the existing presser foot designs of sewing machines of 22 class and 97 cells is that the feet do not provide uniform pressure on the materials being machined. At the same time, the quality of stitching is reduced. It should be noted that during the operation of the sewing machine presser foot makes vertical oscillations together with the rod on which it is mounted. This is due to the fact that the foot and rod pressed spring is an elastic system, which is located during the operation of the machine in the mode of forced vibrations [3]. The source of forced oscillations is a transport rail, which during the operation of the machine lifts the foot above the needle plate, and then lowered it again. If the amplitude of these vibrations will be commensurate with the total thickness of cross-linked materials, then breaks the regime of uniform (step) movement of the material, the process of stitching.

To increase the reliability of the work by ensuring uniform pressure foot on the materials being stitched, and on the rail improved the design of the presser foot of the sewing machine.

In the process of stitching materials the presser foot is in the working position, the sole 1 of which presses the materials being stitched on the rail (Fig. 1). The needle pass through a slot in the sole 1 foot, there is a stitching, the lath is in the lower position. In the mode of moving the material rail rises and the material is pressed sole 1 foot, the rail moves the material by one step, cross-linked materials slide on the working surface of the pillow 1 foot due to less friction between them. In this case, depending on the thickness and density of the materials to be cross-linked due to the appropriate deformation of the plate sole 1 and rubber cushion 4, and rubber bushing 5 and the pressure cylinder spring rod (in Fig. 1) sole 1 presses the materials to be cross-linked to the rail with the required force over the entire contact area. In this case, the friction force between the sole and materials, as well as between materials and the rail will be sufficient.

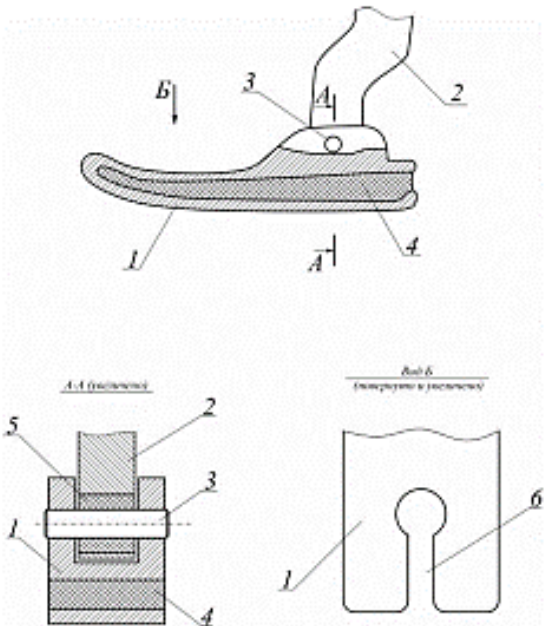

Fig.1 Pressure foot of sewing machine

Thickness and density of cross-linked materials do not affect the uniformity of stitches in the stitch due to depreciation (deformation of rubber pillow 4, both vertically and angularly due to the variable thickness of the pillow 4). Rubber bushing 5 mounted on the finger 3 and holder 2 shock absorbers the impact loads of the sole 1 foot when it is lowered and lifted. This eliminates the appearance of crumpled materials. The proposed design of the presser foot is actually self-adjustable to changes in thickness and density of cross-linked materials, providing pressure uniformity, thereby ensuring its reliability.

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DRIP IRRIGATION

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Abstract: Irrigation is the watering of land by artificial methods. Without irrigation, agriculture is limited by the availability and reliability of naturally occurring water from floods or rain. Drip irrigation is widely accepted as the most efficient irrigation technique as it allows high uniformity of water and nutrient application.

Key words: Micro irrigation, water, soil, bubbler irrigation, jet, mist, spray, wastewater, crop

During the last 40 years, many advances have taken place in the availability, quality, management, and performance of micro irrigation systems. Recently, the introduction of pressure compensated non leak emitters and low pressure and low-flow systems has further improved the performance of micro irrigation systems. Some advantages of micro irrigation include improved water and nutrient management, potential for yield increases, improved crop quality, and greater control of applied water. When adequately managed, micro irrigation will provide soil, water, and nutrient conservation; minimized leaching of soluble salts; and a reduced applied water requirement. These overall results have been shown to improve water use efficiency and economic returns.

Deep trickle percolation, where water moves below the active root zone, can happen if adrip system is running for too long time or if the irrigation application rate is too high. Drip irrigation systems vary from high-end and computer controlled to simple low-tech with intensive labor involved. Relatively low pressures, is required for most types of micro irrigation systems. System can be planned with uniformity within the field or for exact water conduction to individual plants in a field containing a mix of plant types.

Latest drip irrigation technology called hydro-pc, guarantee awide, efficient labyrinth leading the water into a flow control cell, where a special diaphragm compensates the stream, and keeps astable flow rate at changeable inlet pressures.IG hydrops drip line is highly resistant to clogging.The dripper inlet filter, located closer to the tube center, guarantees an excellent constant flushing treatment.The relatively small diameter drip line makes abetter drip irrigation efficiency. Decrease retained water in the system, causing a shorter refilling time with less redundant drained water, on sloppy terrains, no excessive water wetting in the lower parts of the field. Competitive low cost and big saving on transportation volume and weight. Applications for hydro-pc: All kind of crops on sloping terrain.Or where long run drip lines are amust, lookat our irrigation systems design section.

Types of system

Drip irrigation is the perfect solution for raised vegetable garden beds, hanging baskets, and potted plants.Our range of Drip irrigation system provides ample water, fertilizer and save electricity in the irrigation of different types of crops such as banana, grapes and oranges. Fabricated from quality tested raw material, these irrigation systems helps in mixing the fertilizer with water and provide drop by drop to the roots of the plant which will be most efficient way for healthy growth of plant and also saves fertilizers, water and time.

Drip irrigation is defined as amethod of micro irrigation wherein water is applied at the soil surface as drops or small streams through emitters. Discharge rates are generally less than 2 gallons per hour 7.6 l/h for single-outlet emitters and 3 gallons per hour per 3.3 feet 11.4 l/h/m for line source emitters. During the last 40 years, the interest and uses of drip irrigation have increased significantly as understanding of this irrigation fertigation method improved. Plastic materials availability, manufacturing processes, emitter designs, and fertilizer improvement have also increased the use of drip irrigation.Specific installation equipment, components, and guidelines have further been developed, resulting in more consistent system installation and retrieval, improved performance, and longer life.The use of drip irrigation is increasing rapidly in areas where water conservation is important or water quality is poor and high economic yields are expected.Drip irrigation performs best when intensive and accurate management of water and nutrients are used.

Picture-2

Bubbler irrigation is the application of water to flood the soil surface using a small stream or fountain. The discharge rates for point source bubbler emitters are greater than for drip or subsurface emitters, but generally less than 1 gallon per minute (3.785 l/min). A small basin is usually required to contain or control the water.

Picture-3

Jet, mist, and spray systems Jet, mist, and spray irrigation are the application of water by a small spray or mist to the soil surface, where travel through the air becomes instrumental in the distribution of water. These systems are also referred to as micro or mini sprinklers. Jet, mist, and spray irrigation operate at low pressure and apply water at rates higher than drip, but typically less than 1 gallon per minute (3.785 L/h).Jet, mist, and spray irrigation systems wet alarger soil surface areathan either drip emitters or tapes. Typically, jets have no moving parts and, thus, their radius of dispersing water is limited. Micro sprinkler systems, like jets, operate at relatively low pressure, but include moving parts which enables them to discharge water over a larger area than jets.

Picture-5

Advantages and Disadvantages

Micro irrigation offers many potential benefits in areas such as water conservation, plant response, farming operation, improved crop management, use of waste, saline and recycled water, adaptation to no typical irrigation conditions, automation, minimum tillage, frost protection, distribution uniformity of water nutrients, and economics. Although these benefits are not exclusive to micro irrigation as other irrigation systems can produce similar results, the combination of these benefits is unique to micro irrigation. The main disadvantages of micro irrigation systems are their comparatively high cost; proneness to clogging; tendency to build up local salinity; and, when they are improperly designed, installed, and managed, low distribution uniformity

Farm operational cost savings micro irrigation can reduce water losses and operating costs because the crop uses nearly all the water applied. Direct evaporative losses of water from plant and soil surface are limited to that portion of the soil surface wetted by the emitter.In the case of awell-designed and managed spray drip irrigation system, the soil surface is maintained nearly dry at all times.Drip irrigation also minimizes weed growth and their non beneficial use of water, which in turn minimizes the use of herbicides and weed control tillage.

Improved crop management plant growth results from the metabolic process of photosynthesis, which is highly dependent on the water status of plants. Micro irrigation potentially allows precision plant response to changes in crop water and nutrient requirements, environmental conditions, and even market timing. Micro irrigation allows frequent application of small volumes of water and precise nutrient concentrations in the irrigation water in response to plant demand. In addition, micro irrigation systems will prevent crop-water stress by allowing continuous application of water even during cultivation and harvest.

Use of recycled and wastewater in several States, agriculture wastewater, as well as secondary and tertiary treated domestic and industrial wastewaters, are being used for irrigation of field crops, landscape, and ground water recharge and other applications. However, the use of treated wastewater for irrigation is subject to major concerns because of potential nitrate contamination of domestic water supplies.

Use of saline water Crops have been irrigated with saline water since the beginning of irrigated agriculture. Under well-drained conditions, the soil salinity will approach the salinity of the irrigation water. The salt tolerance of a crop is usually appraised according to three criteria:

- ability of the crop to survive on saline soil
- yield of the crop on saline soil
- relative yield of the crop on a saline soil as compared to its yield on a non saline soil under similar growing conditions

Cost micro irrigation systems are initially expensive to purchase and install, but they may pay for themselves within a short period of time if properly designed, installed, and managed. Their potential for increasing yield and conserving water often allow the user to recover its initial cost within 1 to 3 years, depending on the crop. For a mature orchard, the cost could be recovered in 2 to 3 years and perhaps 1 to 5 years for a new orchard, depending on the type of orchard. In general, micro irrigation systems are expensive because of their requirements for large quantities of piping and filtration equipment to clean and distribute the water.System costs can vary considerably depending on the type of system being installed, the crop, terrain, and quantity and quality of water available. Steep terrain may require the use of pressure compensated, non leak emitters and several pressure regulators in the system. Because of different spacing requirement, some crops require fewer laterals than others. The degree of automation may also affect the cost; but, the convenience, safety, and labor saving may quickly pay for itself. Although costs are relatively high, under adequate design and management, these costs do not reduce profitability.

Clogging micro irrigation emitter outlets typically vary from small to very small, and they can become clogged easily by chemical precipitation of minerals, nonfiltered particulate or organic matter, root intrusion, and sometimes the combination of these things. Clogging can change emission discharge rates, decrease uniformity of water distribution, and eventually cause plant water and nutrient stresses. In some instances, particles are not adequately removed from the irrigation water before it enters the pipe network. In others, particles may form in water as it stands in the lines or evaporates from emitter openings between irrigations. Iron oxide, calcium carbonate, algae, and microbial slimes form in irrigation systems in certain locations. Chemical treatment, lateral flushing, and proper filtration of water can usually prevent or correct the majority of emitter clogging.

System malfunctions one filtration malfunction can result in the plugging of many emitters that then must be cleaned or replaced. Safety screen filters should always be installed downstream of the primary filters. A properly designed monitoring and control system will sense these incidents and quickly turn off the irrigation system, thus minimizing the emitter damages caused by these problems.

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TECHNOLOGIES TO DEVELOP STUDENTS' TECHNICAL THINKING IN ENGLISH LESSONS

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Abstract: The article deals with technologies for developing technical thinking of students in English lessons. English lessons promote technical thinking through a variety of materials and interactive approaches. Using the technology to develop technical thinking through reading in English lessons, the teacher develops the personality of the student

Key words: technologies, creative and technical abilities, technical thinking, authentic materials, professional knowledge, cognitive activity.

The modern technological society is moving along the path of transferring the functions of routine thinking to machines, computers, expecting creative and productive thinking from a person. No one is prohibited from being a universal encyclopedia, but it is unnecessary to do so, since any information of interest to us can be obtained in a very short time thanks to a computer. More and more, something completely different is expected from a person, namely, the ability to invent and create. Imagination and fantasy help everywhere: in school, at work, in interpersonal relationships, but most importantly, creative people know how to express their individuality, and this helps to achieve success in any business.

A foreign language, as a general educational subject, can and should contribute to the development of students' creative and technical abilities. Possessing a huge educational, educational and developmental potential of students' creative and technical abilities, a foreign language can realize it only in the course of realizing the practical goal of learning, that is, only if the student is in the process of foreign language communicative and cognitive activity (listening, speaking, reading, using writing) will expand their general educational horizons, develop their thinking, memory, feelings and emotions; if in the process of foreign language communication the social and value qualities of the individual will be formed: worldview, moral values and beliefs, character traits.

First of all, English as an academic subject is an additional "window" into the world, it is a means for replenishing knowledge in different areas of life, science, art, which is essential for general education, and it is a means that helps to carry out activities in different areas of work and social life. In English lessons, students deepen and expand many of their technical and professional knowledge and understanding.

Influencing the personality, the formation of creative and technical abilities enriches emotional and practical experience, develops the psyche, forms intellectual potential, contributes to the education of aesthetic and mental abilities, and leads to the accumulation of professional skills and abilities, the development of students' natural inclinations, their moral qualities. It tunes students to further, active creatively conscious self-activity, which meets their spiritual needs, satisfies their desire for self-realization in the future in their professional activities, and the manifestation of personal qualities. All this is an effective means of complex personality development, revealing the formation of its creative and technical potential.

English lessons promote technical thinking through a variety of materials and interactive approaches. Using the technology to develop technical thinking through reading in English lessons, the teacher develops the personality of the student primarily through direct learning of English, resulting in the formation of communicative competence that provides a comfortable environment for cognitive activity and self-improvement. The

instructor stimulates the interests of the student, develops his desire to practically use English, as well as to study, thus making it real to achieve success in mastering the subject.

Receiving new information, students learn to consider it from different points of view, to draw conclusions about its value and accuracy. English lessons should include information that makes students aware that learning English is more about their personality and interests than about their teacher's methods and tools. Authentic texts can be very helpful in addressing this issue.

It is necessary to note that the problem of authenticity in the methods of language teaching has received a lot of attention in recent years [Nosonovich 2000, Elizarova 2001]. It is accepted to consider authentic the text, which was not originally adapted for the educational purposes, the text written for native speakers by native speakers of this language.

From a linguistic point of view, authentic texts are characterized by the originality of vocabulary: they contain many pronouns, interjections, words with emotional coloring, word combinations designed to create associative links, phraseologisms, "trendy words"; and the originality of syntax: the short and unfolded sentences, fragmented, the presence of structurally dependent sentences used independently. It is also possible to have an understatement, to break the started sentence, to give preference to simple sentences. The use of authentic materials, taken from the life of native speakers or compiled with the peculiarities of their culture and mentality in accordance with accepted and used speech standards, will allow more effectively carry out training of all types of speech activities, imitate immersion in the natural environment of speech in English lessons. Such materials motivate students because they are more interesting internally and provide a greater incentive to learn than artificial or non-authentic materials.

Thus, the use of technology of technical thinking in teaching English allows you to significantly increase the time of speech practice in class for each student, to achieve the learning of the material by all participants in the group, to solve a variety of educational and developmental problems.

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