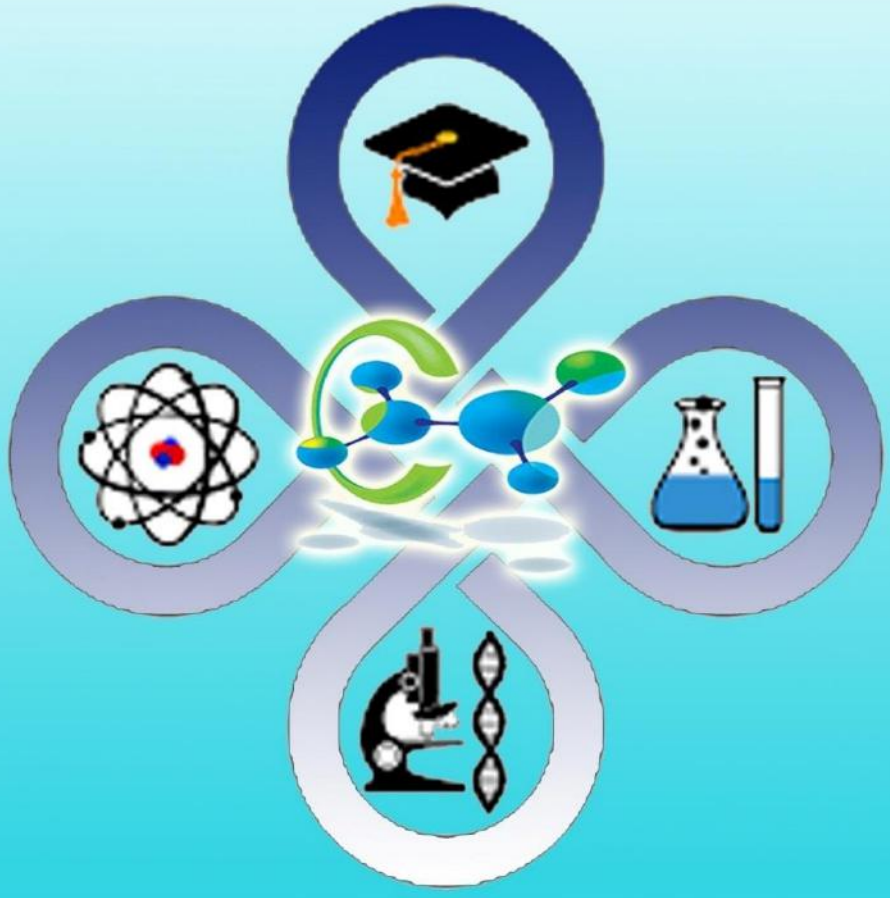
MINTAQADA ZAMONAVIY FAN, TA`LIM VA TARBIYANING DOLZARB MUAMMOLARI

ACTUAL PROBLEMS OF MODERN SCIENCE, EDUCATION AND TRAINING IN THE REGION

АКТУАЛЬНЫЕ ВОПРОСЫ СОВРЕМЕННОЙ НАУКИ, ОБРАЗОВАНИЯ И ВОСПИТАНИЯ В РЕГИОНЕ



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АКТУАЛЬНЫЕ ВОПРОСЫ СОВРЕМЕННОЙ НАУКИ, ОБРАЗОВАНИЯ И ВОСПИТАНИЯ В РЕГИОНЕ

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KICKED PARTICLE TRANSPORT IN ARMCHAIR GRAPHENE NANORIBBONS

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Abstract. In this paper we discuss the study of charge transport in an armchair graphene nanoribbon drivenby an external time-periodic kicking potential.

Annotatsiya. Mazkur ishda biz davriy vaqtga bog`liq tashqi zarb potensiali ta'siridagi kreslosifat grafen nanolentasida zaryad tashilishi nimuhokama qilamiz.

Аннотация. В данной работе мы обсудим изучение переноса заряда в креслообразной наноленте графена под воздействием внешнего времённо-периодического ударного потенциала.

Keywords: Graphenenanoribbons, delta-kicks, Dirac equation, band structure, optical conductivity.

**Kalit so`zlar:** Grafen nanolentalari, delta-zarblar, Diraktenglamasi, zonaviystruktura, optiko`tkazuvchanlik.

Ключевые слова: Графеновыенаноленты, дельта-удары, уравнение Дирака, зонная структура, оптическая проводимость

I. INTRODUCTION

One of the most intensely studied class of problems concerns electronic transport in bulk or confined graphene monolayers. Here I focus on the particle dynamics in externally driven graphene samples, where a general goal is to achieve tunability of charge transport. A rich variety of predicted and observed phenomena due to time-dependentfields have been reported in recent publications [11]-[18]. In particular, reference [11] argues that time-periodic spin-orbit interactions lead to an interesting time evolution of the spin polarization and of the optical conductivity. Particle transport can also be induced by a time-dependent

elastic deformation field [12], or in a.c. driven graphene nanoribbons, where by adopting a tight-binding model,the authors of reference [16] found a strong dependence of transport properties on the geometry of the ribbon edges. Furthermore, Ishikawa [17] studied electron transport in graphene perturbed by a time-periodic vector potential, which results in an enhancement of inter-band transitions. Finally, electron transport and current resonances in the presence of a time-dependent scalar potential barrier have been studied in reference [18], where a resonant enhancement of bothelectron backscattering and the currents across and along the barrier was reported when the modulation frequencies satisfy certain resonance conditions. Ultrafast dynamics and particle transport in graphene driven by ultrashort optical pulses have also been studied recently [19][25]. The experimental observation of a bright broadband photoluminescence in grapheneinteractingwith femtosecond laser pulses was reported in reference [21]. Moreover, the authors of reference [25] have studied the modification of the bandstructure under ultrashort optical pulses and the carrier dynamics caused by the optical response of graphene, arguing that the electron dynamics in the time-dependent electric field of the laser pulse becomes irreversible, with a large residual conduction band population. In addition, the formation of a laser-induced band gap was discussed in reference [23]. In this paper, I study electron transport in graphene nanoribbons interacting with an external time-periodic scalar potential represented by a sequence of δ-kicks. The setup is schematically shown in Figure 1. Such a potential could be created by applying laser pulses to free-standing samples. Using the exact solution of the time-dependent Dirac equation within one kicking period, I compute the transport properties of the system, such as the probability current and the optical conductivity, as a function of time. As I have discussed above, periodically driven graphene couldbe realized through the interaction with a.c. voltages [16], pulsed laser fields [27], surface acoustic waves [Saw], ortime-periodic straining [12]. Here I focus on the case of ultrashort optical pulses [19]-[22].

Let us mention at this stage that some time ago, both the classical and the quantum dynamics of systems interacting with a delta-kicking potential have been extensively studied in the context of nonlinear dynamics and quantum chaos theory [32][33]. A remarkable feature of periodically driven quantum systems is the quantum localization phenomenon, which implies a suppression of the growth of the average kinetic energy with time; for the corresponding classical system, this energy grows linearly in time. However, the case of delta-kicked graphene nanoribbons is more complicated due to the kicking-field-induced population transfer discussed below, which is also the reason for interesting electronic and transport phenomena. The main effect of the driving force is to cause inter- and intra-band transitions, leading to excitation and ”ionization” of valence-band electrons to the conduction band. Another effect caused by driving fields in graphene is an effective band-gap opening or widening [23], which allows one to tune the electronic properties

using an external time-dependent field. Below, I analyze the time evolution of the population transfer probability

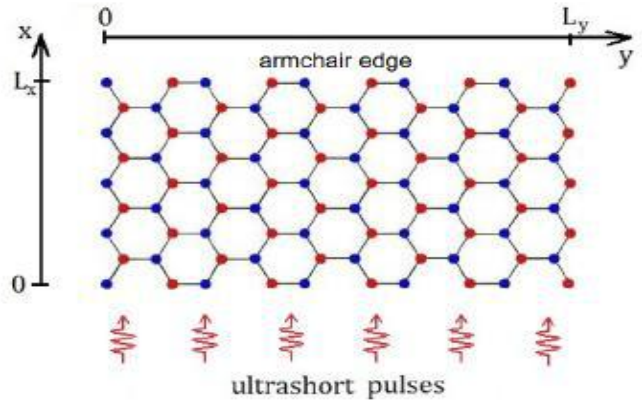

FIG. 1: (Color online). Sketch of periodically driven armchair grapheme nanoribbon

and the optical conductivity in delta-kickedgraphenenanoribbons.I find that the population transfer probability effectively describes intra- or inter-band anticrossings, where the time-dependent effective density of states reaches a local maximum when anticrossings take place. This effect may increase the number of charge carriers in the conduction band, with a subsequent increase of the current and of the optical conductivity. Indeed, as shown by our analysis of the time-dependent conductivity in Section 3, depending on the kicking parameters, the conductivity may monotonically grow in time, while in other kicking regimes, such a growth is suppressed.

The remainder of this section is organized as follows. In subsection 2 I briefly recall the Dirac equation for graphene zigzag nanoribbons, basically following the approach of Brey and Fertig [36] and our paper [37], and discuss the solution of the time-dependent Dirac equation in the presence of the δ-kicking potential. This solution is then utilized to compute the time evolution of the population transfer probability, and, in Section 3, the optical conductivity indifferent kicking regimes. Finally, Section 4 contains some concluding remarks. Below I often use units where $\hbar = 1$.

II. KICKED GRAPHENE NANORIBBON

A. Unperturbed Hamiltonian

In this work I study the electronic behavior of kicked zigzag graphene nanoribbons, see Figure 1 for an illustration,within the Dirac equation approach [36]. It is well-established that low-energy quasiparticles in an extended graphemesheet are accurately described by the massless two-dimensional (2D) Dirac Hamiltonian [1]

$$H_0 = v_F \begin{pmatrix} 0 & p_x - ip_y \\ p_x + ip_y & 0 \end{pmatrix}, \qquad (1)$$

where$p_{x,y} = -i\hbar\partial_{x,y}$ and $v_F \approx 10^6$m/sec denotes the Fermi velocity. The 2 × 2 matrix structure of$H_0$is withrespect to sublattice space, corresponding to the (A/B-type) basis atoms of graphenes honeycomb lattice [4]. Since I do not take into account electron-

electron interaction effects here, the two different valleys (K points) as well as the two spin projections decouple, and I can focus on a single-valley spinless system in equation (1). The spinor eigenstates of the armchair nanoribbon with periodic boundary conditions along the longitudinal y-direction (see Fig. 1), are written as:

$$\psi_{(x,y)} = \frac{e^{ik_y y}}{\sqrt{L_y}}\phi(x), \qquad \phi(x) = \begin{pmatrix}\phi_A(x)\\ \phi_B(x)\end{pmatrix}, \qquad (2)$$

where$k_y$is the conserved wave number along the *y*-direction. Periodic boundary conditions yield$k_y = 2\pi n_y/L_y$with integer n_y. To take into account the armchair edges at *x* = 0 and $x = L_x$, where $L_x$is the width of the nanoribbon, I impose the boundary conditions [28]

$$\phi_i(0) = \phi_i'(0),$$
$$\phi_i(L_x + a_0/2) = \phi_i'(L_x + a_0/2)e^{i\Delta K(L+a_0/2)}, \qquad (3)$$

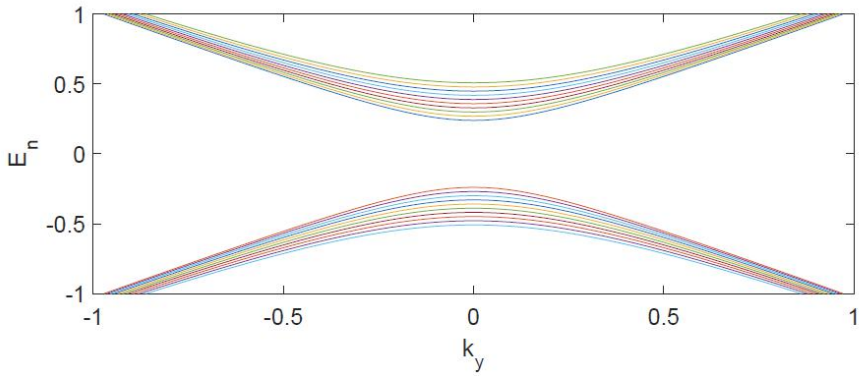

FIG. 2: (Color online). Band structure of armchair graphene nanoribbon.

with$\Delta K = 4\pi/(3a_0)$ and put $0 \le x \le L_x$henceforth.

Next I summarize the spinor solutions $\psi_n(x,y)$solving the stationary Dirac equation for eigenenergy$E_n$in the absence of the kicking potential,

$$H_0\psi_n(x,y) = E_n\psi_n(x,y), \quad n = (n_x, n_y), \qquad (4)$$

where the integer $n_x$serves as a band index and $n_y$parametrizes k_y. The boundary conditions (3) imply that theeigenvalues of equation (4) are obtained from the equation [28]

$$e^{2ik_x(L+a_0/2)} = e^{i\Delta K(L+a_0/2)} \qquad (5)$$

I start by discussing solutions which lead to the eigenenergies

$$E_n = \pm v_F\sqrt{k_x^2 + k_y^2}, \qquad (6)$$

where the plus (minus) sign corresponds to the conduction (valence) band. Equation (5) now simplifies to:

$$(k_x - 2\pi/(3a_0))(2L + a_0) = 2\pi n,$$
$$k_x = \frac{2\pi n}{2L + a_0} + \frac{2\pi}{3a_0}. \qquad (7)$$

The respective eigenstate (2), with the energy $E_n$in equation (6), has the wavefunction

$$\phi_B(x) = e^{ik_x x} ,$$
$$\phi'_B(x) = e^{-ik_x x} , \qquad (8)$$

and ϕ_A, ϕ'_Acan be found from Eq.(3) of [36].

In Figure 2, the resulting band structure of a typical armchair graphene nanoribbon is plotted.

B. Including the kicking potential

I am now ready to include the external driving potential. I consider a periodic sequence of delta-kicks of kicking strength $\varepsilon$and period T. (No confusion with the symbol for temperature should arise here; I always consider the zero-temperature limit.) Writing $H = H_0 + Vdiag(1,1)$,the additional term is given by the time-periodic scalar potential,

$$V(x,t) = \varepsilon \cos(2\pi x / \lambda) \sum_{l=0}^{\infty} \delta(t - lT) , \qquad (9)$$

Where λ is the wavelength of the kicking pulse. Experimentally, such delta-kicks could be realized by standing-wave laser pulses [38]-[40], or by half-cycle laser pulses [41]. For instance, the delta-kicked quantum rotor, representing a well-known paradigm of quantum chaos theory, can be experimentally realized in ultracold atoms that interact with the periodic standing wave of a near-resonant laser field [38]. Significant progress concerning the experimental realization of graphene interacting with ultrashort laser pulses has also been reported recently [20]-[22]. Combining the experimental methods in references [38]-[40] with those in references [20]-[22] could allow to implement the delta-kicked graphene nanoribbon discussed here in the lab.

The dynamics of a state $\Psi = \Psi(x, y, t)$ is then governed by the time-dependent 2D Dirac equation, $i\partial_t \Psi = H\Psi$.To solve this equation, I expand $\Psi(x, y, t)$ in terms of the complete set of eigenfunctions of the unperturbed graphene armchair nanoribbon discussed in Section 2.1,

$$\psi(x,y,t) = \sum_n A_n(t)\psi_n(x,y), \qquad (10)$$

where $n = (n_x, n_y)$ and the summation implicitly includes the $\pm$ sign for the conduction and valence band, respectively.To ensure normalization, the initial values (at time $t = 0$) of the complex-valued expansion coefficients $A_n(t)$ in equation (12) satisfy the condition

$$\sum_n |A_n(0)|^2 = 1 \qquad (11)$$

Within one time period, the amplitude $A_n$then follows the time evolution

$$A_n(t+T) = \sum_{n'} V_{nn'} e^{-E_{n'}T} A_{n'}(t) \qquad (12)$$

Where E_n is the unperturbed eigenenergy of the respective mode (see Sect. 2.1), and I define the matrix elements

$$V_{nn'} = \int_0^{L_x} dx \int_0^{L_y} dy \psi_{n'}^{\dagger}(x,y) e^{i\varepsilon \cos(2\pi x/\lambda)} \psi_n(x,y)\,, \qquad (13)$$

where nonzero matrix elements exist only for $n_y = n_y'$due to the translation invariance in y-direction. In calculatingthese matrix elements, I use a well-known Bessel function expansion formula for the exponential term. In numericalcalculations, one may choose only a few non-zero initial coefficients $A_n(0)$ subject to equation (13). In particular,I tested the impact of using different choices for $A_n(0)$, such as randomly chosen or equally distributed values.All choices were found to give qualitatively similar results for the time-evolved state $\Psi(t)$ after many kicks. For thecalculations presented below, I chose a random distribution for the coefficients $A_n(0)$containing ≈15 non-zero entries,where I take into account only states with energy $E_n$below the Fermi level. The Fermi level is here assumed at theneutrality point, i.e., $E_F = 0$, in order to maximally emphasize the Dirac fermion nature of the graphenenanoribbon.Our procedure for choosing the initial values for the$A_n(0)$coefficients mimics the zero- temperature average over thefilled Fermi sea. I have carefully checked that different initial values lead to the same physical results after a short initial transient. Given the wave function, one can compute different characteristics of the carrier dynamics and, in particular, investigate charge transport in a kicked graphene nanoribbon. In Figure 3, the time evolution of the population transfer probability $E_n(t) \equiv |A_n(t)|^2 E_n$ (see Ref. [42]), is shown for a few selected states. I observe several crossings of the quantities $E_n(t)$ within the conduction (or within the valence) band. However, the $E_n(t)$ originating from different bands exhibit an anticrossing, closely approaching each other up to some time when they start to separate again. After a certain number of kicks, one can then again observe crossings or anticrossings, where intraandinterband transitions become more frequent. Since initially the valence band is filled, this can lead to an increase in the number of electrons in the conduction band, and thereby to current flow. A related enhancement of intra- and inter-band transitions has also been reported in reference [25] for graphene subject to ultrashort laser pulses. When the $E_n(t)$ separate from each other again after a crossing or anticrossing, intra- and interband transitions become less frequent, and one can expect a decrease in the current. Such features indeed appear in the conductivity, as I study next.

III. OPTICAL CONDUCTIVITY

The interaction of external electromagnetic fields with solids generally causes a modification of their electronic properties and, in particular, of the bandstructure [25],[43]. In this section, I focus on the optical conductivity of our5system, which represents an important observable of experimental interest and can provide precious insights aboutthe

transport mechanisms at play in kicked graphene nanoribbons. Within linear response theory, the Kubo formulayields for the diagonal elements of the time-dependent conductivity tensor (α= x, y)[44]

$$\sigma_{\alpha\alpha}(x,y;tw)=\frac{e^2}{\omega}\int_0^\infty d\tau e^{-i\omega\tau}\times\langle[J_\alpha(x,y,t),J_\alpha(x,y,t-\tau)]\rangle \qquad (14)$$

where [,] denotes the commutator and the particle current density along the α-direction is [1]

$$J_\alpha(x,y,t)=v_F\Psi^\dagger(x,y,t)\sigma_\alpha\Psi(x,y,t), \qquad (15)$$

with standard Pauli matrices$\sigma_{\alpha=x,y}$acting in sublattice space. The average in equation (16) is taken with respect tothe filled Fermi sea at the initial time t = 0, present before the kicking potential is switched on. In equation (16), Ifocus on the long-wavelength limit by probing the two current operators appearing in the Kubo formula at the samepoint in space. In terms of the expansion coefficients $A_n(t)$ appearing in the expansion (12), equation (17)takes theform

$$J_\alpha(x,y,t)=v_F\sum_{nn'}A^*_{n'}\,A_n(t)\psi^\dagger_{n'}(x,y)\sigma_\alpha\psi_n(x,y), \qquad (16)$$

where A^*denotes the complex conjugate of A. Inserting equation (18) into equation (16), the conductivity at time $t$follows as a lengthy (but straightforwardly obtained) expression involving the time-dependent coefficients$A_n(t')$ for0 < t' < t. As described in Section 2.2, the zero-temperature average over the filled Fermi sea is implemented bychoosing suitable initial values for those coefficients. Below I discuss the time-dependence of the conductivity averagedover the sample area and taken in the $\omega\rightarrow$ 0 limit,

$$\sigma_{\alpha\alpha}(t)=\lim_{\omega\to0}Re\int_0^{L_y}\frac{dy}{L_y}\int_0^{L_x}\frac{dx}{L_x}\sigma_{\alpha\alpha}(x,y;t,\omega). \qquad (17)$$

Notice that the respective conductivity (for $\omega\rightarrow$ 0) in the undriven case simply corresponds to the t = 0 limit in the figures shown below. Since I take the Fermi energy at zero energy, this t = 0 value is generally orders of magnitude smaller than the conductivity at long times in the driven case. The variation of the kicking strength allows for a considerable tunability of the conductivity. The time-dependence of the average kinetic energy,

$$\langle E(t)\rangle=\int_0^{L_x}dx\int_0^{L_y}dy\,\Psi^*(x,y,t)H\,\Psi\,(x,y,t)=\sum_n|A_n(t)|^2\,E_n \qquad (18)$$

can also be computed.

IV. CONCLUDING REMARKS

In this paper, I have studied time-dependent particle transport in graphene armchair nanoribbons driven by anexternal time-periodic δ-kicking potential. The time- dependent

Dirac equation can be solved exactly within a single kicking period, and numerical iteration of this solution provides access to the wave function at arbitrary time. Using this wave function, I can computed the time-dependent optical conductivity (and other quantities). I find it rather remarkable that by judiciously choosing the strength $\varepsilon$and the time period T of the kicking field, one can achievealmost arbitrary results for the oscillation period and for the amplitude of the conductivity. In particular, it is possible to choose parameters such that the initial increase extends for very long time. The described behavior of $\sigma_{\alpha\alpha}(t)$ can be linked to the existence of (anti-)crossings in the population transfer probabilities of the driven system. The model studied in our work could be realized in armchair ribbons made of monolayer graphene samples that are exposed to 6standing-wave ultrashort laser pulses, such as those discussed in references [38][40]. The above results also may help in solving the problem of tunable charge transport in graphene-based electronic devices.

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THE MODEL OF OPERATIONAL CONTROL OF THE PRODUCTION PROCESS IN COTTON PROCESSING ENTERPRISE

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Аннотация. Ўрганилаётган жараённи математик расмийлаштириш пахта хом ашёсига дастлабки ишлов бериш технологик жараенини фаолиятини тезкор ростлашнинг статик моделини қуришга қаратилган, бунда технологик жараенни ва ишлатилаётган дискрет технологик режимнинг параметрлари нисбатан ўзгармас деб олинган.

Калит сўзлар. Ишлаб чиқариш жараёни, пахта хом ашёсига дастлабки ишлов бериш, технологик жараен, тезкор ростлаш, бошқарув, математик модел, оптималлаш.

Аннотация. Математическая формализация исследуемого процесса сводится к построению статической модели оперативного регулирования хода технологического процесса первичной обработки хлопка-сырца, при этом считается фиксированным параметры технологического процесса и интенсивности использования дискретных технологических режимов.

Ключевые слова. Производственный процесс, первичная обработка хлопка, технологический процесс, оперативное регулирование, управление, математическая модель, оптимизация.

Annotation. Mathematical formalization of the test process is reduced to the construction of the static model of operational control of technological progress of the primary processing of raw cotton, thus it is considered a fixed process parameters and usage of digital technological modes.

Keywords. The manufacturing process, the primary processing of cotton, process, operational control, management, mathematical model, optimization.

Introduction. In order to create multi-level hierarchy, algorithms of optimization of enterprise management with discrete-continuous nature of production (cotton plant), it is necessary to construct a mathematical model of the control object. Production management is a complex interweaving of different functions, which can be classified in three groups:

organization, planning and operational control of the production process. The function of operational control of the production process is, based on the comparison of current information on the control line feedback, and available planning information, to develop operational decisions, continuously supporting the production process in the specified optimal mode, and eliminates the effects of various disturbances.

Relevance. One of the complex methodological issues of automated management course of the manufacturing process of cotton processing enterprises is to create complex mathematical models of various functional purpose with different software-algorithmic and technical features, response time and periodicity of the function. To carry out this task, the need to coordinate the interaction of automated control systems, components, organization of appropriate information flows between levels of government, to ensure interaction between hardware of different levels, combined in systems and networks, in particular the provision of an integrated system reliability by improving the reliability of software, information, technical and organizational security, and quality of methodical maintenance of such systems.

For algorithm development the planned process control and primary processing of raw cotton it is necessary to have a mathematical model of the control object (control), which is a formalized description of the structure of production and its characterizing parameters.

Mathematical formalization of the process under study is to build a static model of operational control of raw cotton technological process, as well as the definition of the law of the release of a final (intermediate) products joint distribution intensities of the required quality at fixed process parameters and intensities, using a discrete technological regime.

The continuously studied technological process of primary processing of raw cotton is a sequential process with a sequential structure [1,2]. It is known that the complexity of the mathematical model of the production process is determined by the number of the structural elements and the configuration of the connections between them. The purpose of the model of operational control of the production process in the cotton processing enterprises is the formation in accordance with the system strategy, performance management, corrective parameters of the system elements, depending on the actual course of the process, revealed in the time of the survey, and to ensure the task of the system target functioning for the remaining time, or a decision on the need to adjust targets and issuing the necessary information in the operational planning model [3].

Decision. As the controlled parameter will consider the rate of passage of order, certain cotton modifications are necessary for its implementation, from the time of the survey to the planning period, and as a control action - Priority change the sending order to provide the desired rate of advance of the technological process and the deviation the actual implementation of the planned order.
Urgency of the order determining its priority can be set using the coefficient (index)

urgency at any given time:

$$k_l(t) = T_{u_l l}(\tau) / (\overline{\tau_l} - \tau). \qquad (1)$$

In case of urgency, when the two orders indices do not differ by more than a predetermined value Δk, ie. e. $|k_{l_1}(\tau) - k_{l_2}(\tau)| \le \Delta k$, a clear choice of one of them as a candidate for surgery becomes justified and necessary to resort to other methods of selection. The value of discrepancy indices must be a function of the current time interval in the planning period, varying from a maximum value to zero, ie. e.

$$\Delta k(\tau) = \Delta k_0 \frac{T_{pl} - \tau}{T_{pl}}, \qquad (2)$$

where Δk_0 - the initial value of the permissible differences maturity indices.

Formation of control action is determined by the order category. For orders going according to plan, ie. e. when $V_l(\tau) = V_{pl\,l}(\tau)$, the manipulated variable is zero.

To calculate the index of leading orders of urgency, in accordance with which the orders are ranked in this category.

The situation, when $V_l(\tau) < V_{pl\,l}(\tau)$, at the same time $v_l(\tau) = v_{pl\,l}(\tau)$, ie. the category lagging orders, it is necessary to consider in more details, as in this case, the possible failure to fulfill the plan by the deadline.

After the order is included in the category of laggard, it is computed the index of the urgency of the order $k_l(\tau)$. . In the case where that is, when $k_l(\tau) < 1$, the order is less than the residual cycle time period remaining before it is released, there is a reserve of time to the execution of the order by the deadline:

$$\Delta T_{pl}(\tau) = \overline{\tau}_l - \tau - T_{u_l}(\tau). \qquad (3)$$

However, the smaller $\Delta T_{pl}(\tau)$, the higher the priority should be the order, which you can specify the size of

$$p_l(\tau) = k_l(\tau) / \Delta T_{pl}(\tau). \qquad (4)$$

In $k_l(\tau) = 1$, order fulfillment is possible only when the remaining operations is processed smoothly with maximum speed. Where any delay in order processing leads to a situation where $k_l(\tau) > 1$.

In this case, ie, when $k_l(\tau) > 1$, to execute the order by the deadline is not possible with the resources available, which means that the failure of all the planned tasks; It manifested the need to revise the planned target, or to seek additional resources for the implementation of the planned target.

On a particular production site the search for additional resources is possible only if the order can be processed not by one but by several routes, i.e., if the same operation can

be performed on different groups of equipment spaced spatial. One of the routes taken for the main determines the normal course of passing of the order for equipment groups. The presence of operations "branching" for different groups of equipment creates the possibility of redistribution of equipment, if among the remaining operations are "branching" in the group of equipment on which they run.

Correction schedules. The essence of operational management is drawing up new operational plans (shift-day tasks) on the basis of a comparative analysis of schedules and the accounts of the progress of production data [4,5]. Thus, the planning period (generation of control action) at this level is a change (days).

The perturbation that causes the correction of schedules, in addition to accumulated at the previous change include: lack of blanks or material, equipment (tools and fixtures), program management, process documentation, fault, or employment of equipment, lack of work, unplanned orders, marriage.

Unscheduled orders and flaw affect the timing of planned operations in the sense that the production of unscheduled orders and parts to replace defective requires a shift start time of scheduled operations. At the end of each shift (days)it is analyzed credentials about the current state of production; the number of processed cotton each batch of modifications with the number of the last operation; the volume of flaw for each modification of the Party ξ_{lk}^{t} of raw cotton; pending modifications parties d_t indicating the transaction number, which interrupted treatment of the remaining quantity of raw modification of raw cotton $\overline{\xi_{lk}^{t}}$, and the complexity of the residual u_{lk}.

On the basis of monitoring data for the progress of the plan define the operation P_1 cotton products not made in the previous shift. They include the mandatory range planning period. Next, establish a list P_2, cotton products to be manufactured instead of rejected. They are included in the plan for the next period, along with unfinished P_3 parties.

On the basis of these data, as well as the information entered on the controller unscheduled orders P_4 formed a planned target area for the next five shifts (days):

$$P = P_1 \bigcup P_2 \bigcup P_3 \bigcup P_4 \bigcup P_5, \qquad (5)$$

where P_5 - the issue of cotton products operation, the period for which the schedule is within the planned five shifts (day), minus those who had been treated previously off-plan.

On the basis of the accounting data on the state of warehouses for each modification of the Party of raw cotton from the planned target P security check blanks (material) and snap, then - security P management software and technical documentation. Release of cotton products, whose operation is not secured by at least one of these resources is prohibited to plan for the first shift (day) of the planning period, but are allowed to put in a plan for the next four shifts (days).

Then analyze the "portraits" of equipment and workers, define the number of faulty

or occupied by the equipment and the number of absent workers (sickness, vacation and so on. n.). They are not included in the plan. The dispatcher can know the release date of the worker or the repair of equipment. Then the operations will be planned from that date.

This ends the phase of preparation of the initial data, and then make up the schedule for five shifts (days). You can use the scheduling system software to solve this problem, plan for the first shift (day) and is a shift-day job (SDJ). If the SDJ for some parameters are not satisfied with the controller, it can change the source data (for example, to include in the P party secured the 6th day or introduce reserves in the form of a third shift, overtime, and so on. d.) and repeat the solution of the problem.

Plans (tasks) based on the schedule of 2-5 days, providing services (plans logistics, technological training, etc.) on the basis of the information received, when checking availability are made up.

Conclusion. The main advantages of the considered method inside the monthly operational management and control production process primary processing of raw cotton in comparison with known methods the following: preparation of shift-day job does not produce a simple sample works from the monthly schedule, and taking into account the availability of production, implementation of previous shift-daily tasks and other production factors; compilation of schedule for five shifts (days), rather than one, you can improve the quality of the plan, since the greater the range of planning broader opportunities for optimization; advance planning work providing services that significantly increases the probability of the rhythm of production and implementation of the monthly plan; dynamically change to take into account the production situation.

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DEVELOPMENT OF STRUCTURE OF CERAMIC BRICK WITH REGARD TO ENVIRONMENTAL FACTORS

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Abstract: Preliminary studies have established that the process of burning ceramic bricks containing coke-fines as burn-in additives proceeds much faster, with minimal energy expenditure than the traditional method. Also, under these conditions, it is established that the coke fines serve as a reducing agent and accompanies the decomposition of difficult to decompose salts (Na_2SO_4, $CaSO_4$), which eliminates such negative phenomena as high education. The reducing medium also positively influences the reduction of iron oxides (Fe^{2+} to Fe^{+}) contained in loess-like loam, the chemical ratio of which is Fe^{+} more active than Fe^{2+}, which predetermines the acceleration of the formation of the liquid phase. Further heating of the sintered material layer leads to a decrease in the viscosity of the liquid phase, thereby enveloping the grain of the refractory component, or dissolves in them, forming new chemical compounds.

Аннотация: Предварительные исследования показали, что процесс сжигания керамических кирпичей, содержащих кокс-мелочь в качестве присадок для ожога, протекает гораздо быстрее, с минимальными затратами энергии, чем традиционный метод. Кроме того, в этих условиях установлено, что мелочи кокса служат в качестве восстановителя и сопровождают разложение трудноразлагаемых солей (Na_2SO_4, $CaSO_4$), что устраняет такие негативные явления, как высшее образование. Редукционная среда также положительно влияет на восстановление оксидов железа (Fe^{2+} до Fe^{+}), содержащихся в лёссоподобных суглинках, химическое соотношение

которых Fe^{+} более активное, чем Fe^{2+}, что предопределяет ускорение образования жидкой фазы. Дальнейшее нагревание спеченного слоя материала приводит к уменьшению вязкости жидкой фазы, таким образом, обволакивающему зерно огнеупорного компонента, или растворяется в них, образуя новые химические соединения.

Key words: ceramic brick, roasting, salts, high education, loess-like loam, iron oxide.

Ключевые слова: керамический кирпич, обжиг, соли, высшее образование, лёссовидный суглинок, оксид железа.

In the construction of individual houses, industrial facilities in ecologically destructive regions, especially with solonchak soil, the applied ceramic brick is quickly worn out due to the aggressiveness of the environment, as a result of which premature failure is observed. In this regard, it is important to develop a technology for producing ceramic bricks with high mechanical properties and chemical resistance. The most acceptable material under such conditions is a special type of ceramic bricks, the so-called clinker brick, obtained, as a rule, from high-grade quality white-clad refractory clays with a wide interval of sintering. The deposits of such clays in the Republic of Uzbekistan are limited. Recent years in research, a number of foreign scientists have information about the possibility of using loess-like loam as the main constituent of the ceramic composition in the production of clinker building bricks [1-2]. Loess loam is considered to be a common raw material [3]. In the Republic, scientific research aimed at developing the compositions and technology for the production of clinker bricks has not been carried out almost, and the products are not produced at all, and the demand for such materials is not very limited.

In this paper, we consider the production of clinker bricks from loess-like loam, the study of feedstock and the improvement of the composition of the mass.

In earlier works [4-5], the compositions and physicochemical properties of the raw material of the experimental compositions were reported. As noted in [6], ceramic materials, depending on the composition and the sintering regime, can contain both amorphous and crystalline solid phases, a differently formed pore space and a non-uniform grain composition. Considering these factors, we have developed in the laboratory conditions compositions of brick mass for chemically resistant clinker bricks. The selection of the initial components for mass compilation was carried out taking into account economic and environmental factors. As a cementitious ceramic mass, a mechanically activated fine-grained fraction of the feedstock was tested. To obtain it, the feedstock underwent dissolution and mechanical activation in an aqueous medium. The technological scheme of this process with the indication of the necessary equipment is described in detail in [7]. As a tenter of the ceramic mass is offered thin-grained brick slag. Slag brick is

obtained in the process of firing because of the heterogeneity of the feedstock or because of a violation of the technological mode of firing. According to our observations, in some plants, the amount of slag is up to 10% of the output.

The process of obtaining laboratory samples was carried out according to the traditional method. 15 compositions of ceramic bricks have been developed, components of which were taken within the following limits (in mass%): 70-100 loess-like loam; 0-30 - slag of ceramic bricks; 0-30 mechanically activated fine-grained fraction of feedstock; 0-5% coke breeze. As a result of the tests, the following data were obtained:

- weight of bricks, kg; - 2800-2925;
- mechanical compressive strength, kPa; -40.0- 60.0;
- frost resistance, cycle - 80-100;
- water absorption 3.0-6.0 chemical resistance 94.0-97.0%.

Preliminary studies have established that the process of burning ceramic bricks containing coke fines as burn-out additives proceeds much faster, with minimal energy expenditure than the traditional method. Also, under these conditions, it is established that the coke fines serve as a reducing agent and accompanies the decomposition of hard-to-decompose salts (Na_2SO_4, $CaSO_4$), which eliminates such negative phenomena as vysokolobovaniya. The reducing medium also positively influences the reduction of iron oxides (Fe^{2+} to Fe^{+}) contained in loess-like loam, the chemical ratio of which is Fe^{+} more active than Fe^{2+}, which predetermines the acceleration of the formation of the liquid phase. Further heating of the sintered material layer leads to a decrease in the viscosity of the liquid phase, thereby enveloping the grain of the refractory component, or dissolves in them, forming new chemical compounds.

Thus, on the basis of laboratory and industrial testing, the possibility of obtaining clinker bricks with increased mechanical strength and chemical stability has been proved. The resulting material is recommended for the construction of houses, structures in conditions of high corrosive environments, when paving roads, sidewalks and other objects.

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MODEL OF OPTIMIZATION OF TECHNOLOGICAL REGIMES OF OIL-EXTRACTION PRODUCTION FOR THE MINIMUM COSTS

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Аннотация. Стохастик ишлаб чиқариш жараёни шароитида ва ёғ экстракцияси заводи маҳсулотларини классификациялашда сифат жиҳатидан кесишадиган соҳаларини минималлаштириш бўйича ишлаб чиқариш харажатларини технологиянинг режимларини ва уларнинг координаталарини турлича комбинацияларда ўзгартиришлар орқали камайтириш мумкин.

Калит сўзлар. Стохастик ишлаб чиқариш жараёни, технологик режим, моделлаштириш, бошқарув, математик модел, оптималлаш, минимум харажат.

Аннотация. В условиях стохастического производственного процесса и классификации конечных продуктов маслоэкстракционного производства по пересекающимся областям качества, производственные затраты, могут быть снижены за счет варьирования значениями количества режимов и их координат. Построенная в работе модель оптимизации режимов технологии предназначена для целей объемного (текущего) планирования производства продуктов маслоэкстракционного предприятия.

Ключевые слова. Стохастический производственный процесс, технологический режим, моделирование, управление, математическая модель, оптимизация, минимум затрат.

Annotation. In the stochastic manufacturing process conditions and classification of end products of oil extraction production by intersecting quality areas, manufacturing costs can be reduced by varying the values for the number of modes and their coordinates.

Built in the model optimization mode technology is designed to surround the purposes of (current) planning production of oil extraction enterprise products.

Keywords. Stochastic production process, technological regime, modeling, control, mathematical model, optimization, minimum cost**.**

Introduction. By optimization of technological modes we will understand the choice of the number of modes and their parameters (the coordinates of the mode setting centers) in order to produce a certain output of final products during the planning period with the least production costs (overproduction).

Relevance. In practice, due to the difficulties of a computational nature, the number of modes and their parameters are chosen independently of the given intensity structure of output, sometimes intuitively based on years of experience in this production. With such a choice of the parameters of the regimes, due to the probabilistic nature of the technological process, there is a significant overproduction with the provision of a given output structure [1,2]. Under the conditions of a stochastic production process and the classification of the final products of cotton seeds in overlapping quality areas, the production costs of an oil extraction plant can be reduced by varying the values of the number of regimes and their coordinates.

The model of optimization of the technology regimes considered in this paper is intended for the purposes of volumetric (current) planning of the production of products of an oil extracting enterprise.

Formulation of the problem. Let there be given a set J capacity n_j modifications j each of which there corresponds a certain region T_j Parameter values α: $T_j = \{\alpha / \alpha \in [\underline{t}_j, \bar{t}_j]\}$, Where $\underline{t}_j = \alpha_k - \delta_j; \bar{t}_j = \alpha_k + \delta_j; \underline{t}_j, \bar{t}_j$ - lower and upper bound of the area T_j; α_k - fixed (nominal) parameter value $\alpha(k \in K)$; K- set of indexes k nominal values $\alpha_k; \delta_j$ - allowable value deviation α from the point α_k. Areas T_j can intersect. Let there be given a vector $a = \{a_j\}(j \in J)$ with intensities a_j output (demand) of final products, oil products (refined oil, meals, husk, soap, etc.) of cotton seeds in cross-cutting areas T_j. Let there be given an interval $[\underline{\alpha}, \bar{\alpha}]$ possible values α, each $\nu - th$ point α_ν which corresponds to a certain density $f_\nu(\alpha)$ normal distribution of a one-dimensional random variable α with mathematical expectation m (α_ν) and variance $G^2(\alpha_\nu)$, depending on the coordinate of α_ν as from the parameter. Dispersions $G^2(\alpha_\nu)$ are sufficiently large; so that the domains

$$D_\nu = \{\alpha / \alpha \in [m(\alpha_\nu) - 3G(\alpha_\nu), m(\alpha_\nu) + 3G(\alpha_\nu)]\}$$

cover some subset $J^{'} \subset J$ areas T_j. There are α_{ν}, $\alpha_{\nu'}, \in \left[\underline{\alpha}, \overline{\alpha}\right]$, what $D_{\nu} \cap D_{\nu'} \neq \emptyset$. We introduce a continuous quantity $c_i \notin \left[\underline{\alpha}, \overline{\alpha}\right]$-coordinate of the mode setting center i.

The task of optimizing technological regimes is formulated as follows: it is required to determine such quantity n_I and parameters $\{c_i\}$ regimes i, to ensure the required output $a = \{a_j\}$ final modification products j with a minimum of production costs (overproduction). Due to the computational difficulties associated with the cross ability of the quality areas T_j it is proposed to solve the problem in two stages.

Stage I. Transition from the task of output of final products of cotton seed modification along overlapping areas to the task of issuing over non-overlapping areas.

Stage II. The determination of the number of modes and their parameters by the control variables of the problem are:

n_i - discrete quantity;

$X = \{x_i\}, C = \{c_i\}$ - are continuous quantities.

The constraint on the control variables is:

$$\sum_{i=1}^{n_i} x_i P_{i_k}(c_i) \geq l_k, \qquad k \in K \tag{1}$$

$$1 \leq n_I \leq \overline{n} \qquad (n_I - \text{целое}) \tag{2}$$

$$(x,c) \in E_{+}^{2n_I} = \{(x,c) / x_i \in [0, \overline{x_i}]; c_i \in [\underline{\alpha}, \overline{\alpha}]; i = \overline{1, n_I}\}, \tag{3}$$

Where $P_{i_k}(C_i)$ - hitting probability of a random variable α in the interval $[\underline{b}_k, b_k]$ when i-th unit intensity mode with coordinate c_i and is determined by the formula:

$$P_{ik}(c_i) = \int_{\underline{b}_k}^{\overline{b}_k} f_i(\alpha) d\alpha = \frac{1}{\sqrt{2\pi}\sigma(c_i)} \int_{\underline{b}_k}^{\overline{b}_k} \exp\left[-\frac{(\alpha - M(c_i))^2}{2\sigma^2(c_i)} \right] d\alpha;$$

$\overline{n}$ - the maximum number of used mode *i;*

$\overline{x_i}$ - the maximum allowable intensity of mode *i.*

Value $\overline{n}$ is defined from manufacturing for example, the limited time allotted in the plan period on relaying equipment. Value $\overline{x_i}$ strongly determined by the bandwidth of the process equipment on mode *i* or features of the preparatory phase of the grinding system of oil extraction companies.

Condition (1) is limited from below by the expected release of a modification of the products of cotton seeds of the k-th sort. Condition (2) limits the number of modes used. As a criterion for the optimality of control variables, the minimum costs for the planning period, expressed in terms of the intensity of the regimes, are taken:

$$Z(x, n_i) = \sum_{i=1}^{n_i} x_i \qquad (4)$$

The generated problem (1) - (4) is partially integer [1]. Fixing n_i, we obtain a nonlinear programming problem with continuous variables X and C.

Conclusion. The solution obtained by the proposed model optimization technology modes can be used as initial information for planning, both main and auxiliary facilities.

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THE RESEARCH RESULTS OF DEHYDRATION PROCESS OF GOSSYPOL RESIN

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Аннотация: В статье приведены результаты изучения процесса обезвоживания отхода масло-жир комбината – госсипола. Изучении проводили в интервале температур от комнатной до 160ºС при постоянном перемешивании.

Abstract: This article is focused on the results of dehydration process of the oil and fat waste products- gossypol. The research was held in the temperature interval from room temperature until 160 degrees Celsius while constant shuffling.

Key words: gossypol resin, dehydration, moisture, boiling, condensate, gossypol conversion product, fat acidity.

Ключевая слова: госсиполовая смола, обезвоживания, влага, кипеня, конденсат, продукт превращения госсипола, жирные кислоты.

The main disadvantage of gossypol resin is the increased moisture content. In comparative studies, gossypol resins were used for comparison in the production processes of joint ventures of joint stock companies «Urganch yog-moy», «Kattakurgon yog-moy» and «Yangiyul yog-moy». It is established that these resins contain 10-15 and even 20% moisture. In accordance with the requirements of OST 18-114 in the gossypol resin content of moisture should not exceed 4% [1]. In the production process, in order to facilitate transportation of the gossypol resin, the pipelines use sharp steam. In this process, because of the condensation of steam, an increase in the amount of moisture occurs. The use of gossypol resin in the subsequent production requires dehydration. This is a time-

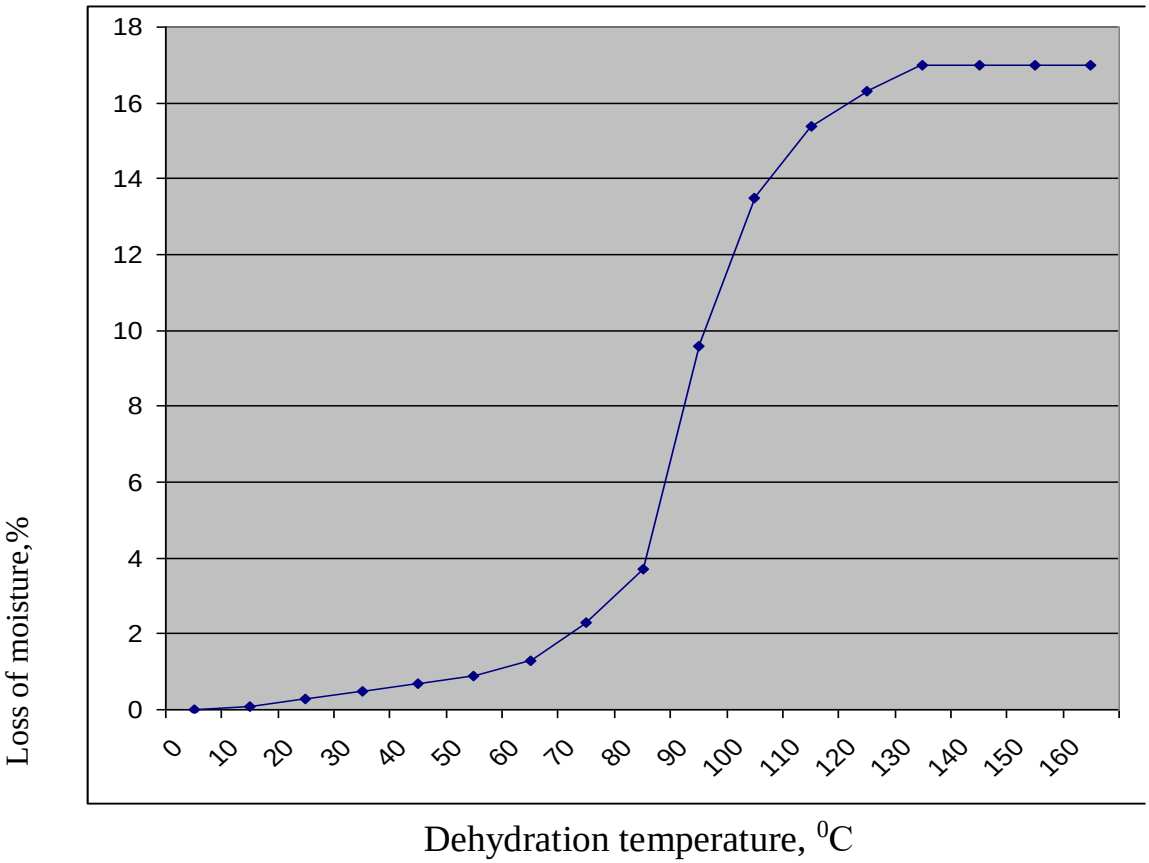
consuming process that requires a lot of time and money. To study the features of this process, we set the main task of our work on the process of dehydration of gossypol resin.

As the literature review shows, the chemical composition of the gossypol resin has been studied sufficiently [2,3]. Studies show that gossypol resin contains 12% of nitrogen-containing substances, 36% of products of gossypol transformations, and the rest consists of fatty and acid-fatty acids. For the study samples of the gossypol resin of a certain mass of combines of joint-stock companies «Urganch yog-moy», «Kattakurgon yog-moy» and «Yangiul yog-moi» were taken. Studies began at room temperature with a fixed time. The process was carried out on a sand bath, 200 g of gossypol resin of JSC «Urganch yog-moy» (the composition was designated as A) was placed in a vessel and heating was started. Every 10 minutes a temperature change was recorded. It was found that after 20 minutes the temperature of composition A was increased by 50 ° C. The results of the study are shown in the form of graphs and tables. The results obtained in experiments with A are shown in table 1 and in picture 1.

Table 1.

Results of studying the process of dehydration of gossypol resin

№	Temperature (^{0}C)	Losses (%)	Results of observations
1	50	0,9	Weak separation of water vapor from composition
2	60	1,3	The separation of water vapor from composition began
3	70	2,3	Water vapor extraction
4	80	3,7	Water vapor extraction
5	90	9,6	Water vapor extraction
6	100	13,5	Weak boiling
7	110	15,4	Boiling
8	120	16,3	Homogeneous boiling
9	130	17	Strong boiling
10	140	17	Strong boiling



pic 1. Dependence of dehydration of Urgench yog-moy dehydrate on the heating temperature

First, the room temperature was up to 50 ° C, the losses were almost not observed, the mass did not change. Each elevated 10 ° C we measured a weight loss of 1.3% at 50 ° C. After an hour, the temperature rose to 1000 ° C. The weight loss was 13.5%.

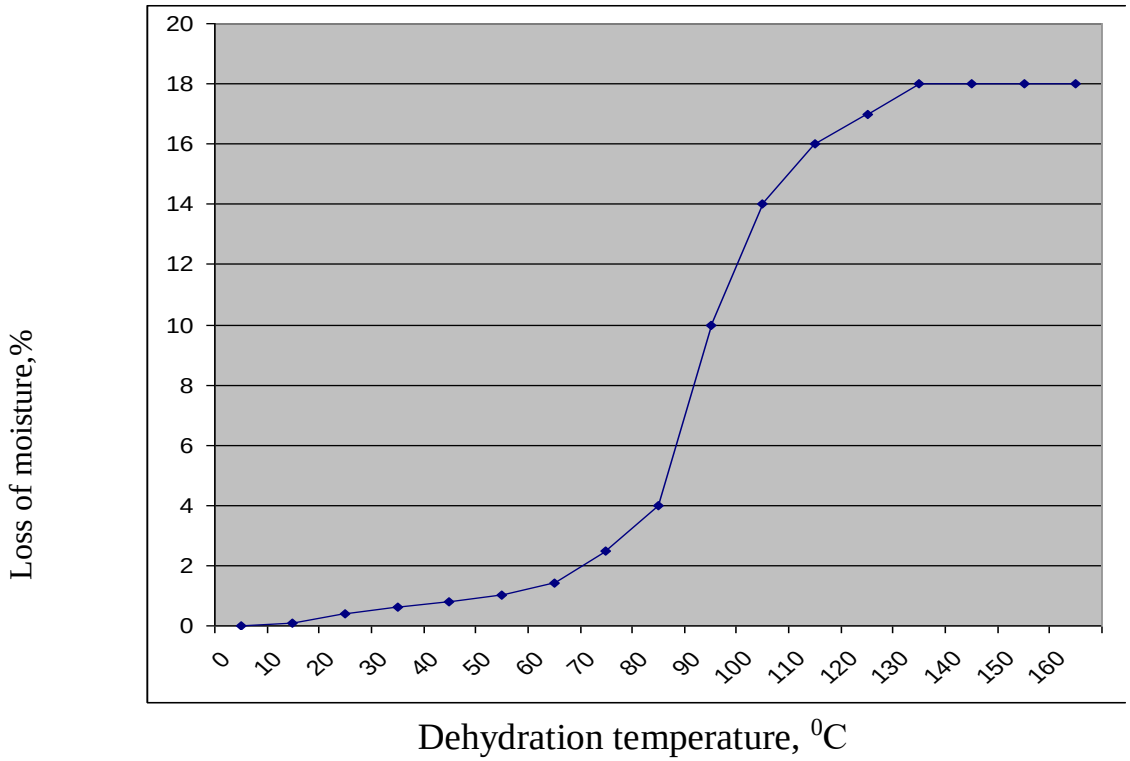
The observation process lasted 180 minutes, the temperature was 140 ° C, and the weight loss was 17%.

Studies continued similar to compounds B (oil-fat plant Kattakurgan) and B (oil-fat plant Yangiyul). The results of the studies are shown in the form of graphs in picture 2, 3 and tables 2,3.

Table 2

№	Temperature (^{0}C)	Losses (%)	Results of observations
1	50	0,1	Weak separation of water vapor from composition
2	60	1,4	The separation of water vapor from composition began
3	70	2,5	Water vapor extraction
4	80	4	Water vapor extraction
5	90	10	Water vapor extraction

6	100	14	Weak boiling
7	110	16	Boiling
8	120	17	Homogeneous boiling
9	130	18	Strong boiling
10	140	18	Strong boiling



pic 2. Dependence of the dehydration of Kattakurgan yog-moy resin on the heating temperature

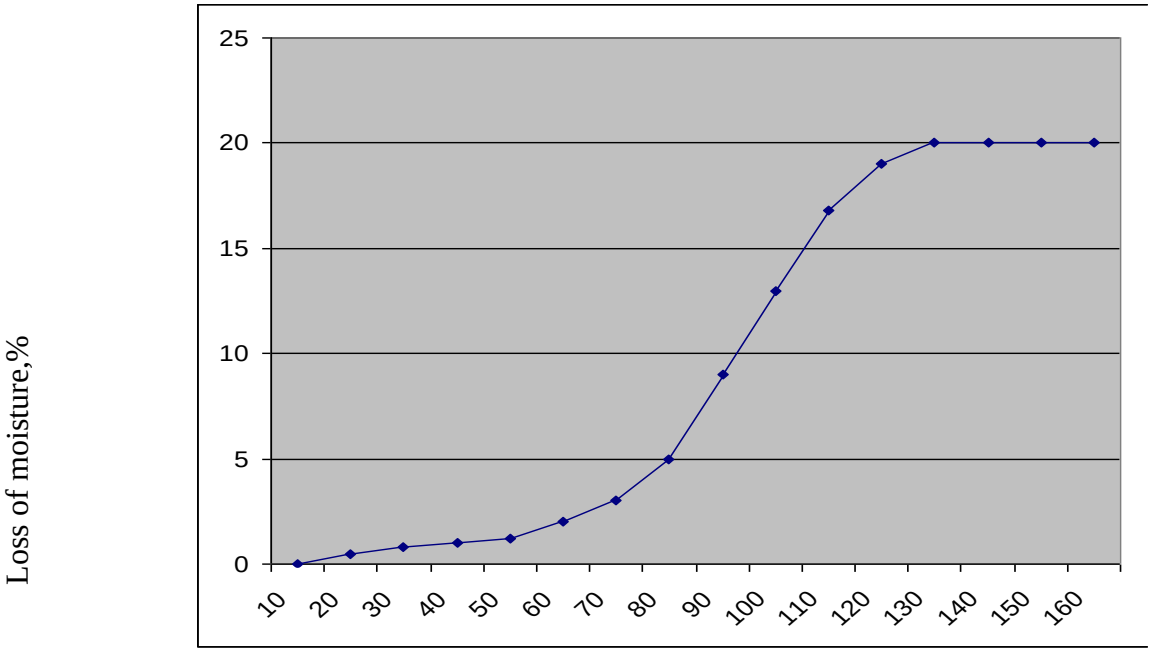
The results of the experiments are given in table 3.

Table 3

Results of studying the process of dehydration of gossypol resin

№	**Temperature (^{0}C)**	**Losses (%)**	**Results of observations**
1	50	1,2	Weak separation of water vapor from composition
2	60	2	The separation of water vapor from composition began
3	70	3	Water vapor extraction
4	80	5	Water vapor extraction
5	90	9	Water vapor extraction

6	100	13	Weak boiling
7	110	16,8	Boiling
8	120	19	Homogeneous boiling
9	130	20	Strong boiling
10	140	20	Strong boiling



pic 3. Dependence of the dehydration of the resin on Yangiyul yog-moy on the heating temperature

Thus, the process of dewatering of gossypol resin in the temperature range 25-160 oC was studied. It is established that in the composition of gossypol resin up to 20% of unbound water. The process of dehydration lasts 150 minutes.

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UDC: 678.046.2

RESEARCHES OF PROCESS OF RECEPTION OF ANTICORROSIVE MATERIALS AND BUILDING BITUMENS ON THE BASIS OF GOSSIPOL RESIN

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Аннотация: В статье преведены результаты исследования технологических процессов получения антикоррозионных покрытий и заменителя нефтяных битумов на основе госсиполовой смолы из отходов масложировых комбинатов.

Abstract: The article presents the results of research of technological processes of anticorrosive coatings and substitute petroleum bitumen based on gossipol resin from waste oil and fat plants.

Ключевые слова: антикоррозионных материалов, битум, госсиполовая смола, фосфорсодержащие соединения, оксида кальция и гексаметилентетрамина, реактор, технологических процесс, заменитель нефтяных битумов, отход масложировых комбинатов.

Keywords: anticorrosive materials, bitumen, tar gossipol, phosphorus-containing compounds, calcium oxide and hexamethylenetetramine, reactor, process, substitute petroleum bitumen, waste oil and fat plants.

In order to expand the field of application of gossypol gum, systematic studies were conducted to determine the possibility of obtaining a substitute for petroleum bitumen's on their basis [1]. As a result, we obtained compositions optimally approximate in physical and mechanical properties to known oil bitumen of BND 60/90 and BNI-4 brands. The properties of the following two compositions can be especially distinguished from the results obtained. So, the composition number 1: gossypol resin 97-98% and calcium oxide 2-3% corresponds to the known grade of bitumen of oil road BND 60/90. Composition No. 2: gossypol gum 84-89%, soapstock 9-13% and calcium oxide 2-3% is characteristic of bitumen oil insulating BNI-4, designed to protect pipelines from underground corrosion. The data obtained in the table make it possible to expand the field of application of coatings based on gossypol resin and recommend them as a substitute for petroleum bitumen [2].

Table

Comparison of the properties of petroleum bitumen's and compositions obtained on the basis of gossypol resin.

Name of tested objects	Depth of penetration Needles at 25°C, mm in accordance with GOST 11501	Softening temperature on the ring and the ball,°C in accordance with GOST 11506	Extensibility at 25°C, cm according to GOST 11505
BND 60/90	6,1-9,0	47	50
Compositi on №1	10,4	57	50
BNI-1U	7,5	25-40	3
Compositi on №1	8,2	25	2,5

The results of physico-mechanical studies, as well as the results of physicochemical analysis methods, show that gossypol-based coatings can be used as a rust and primer modifier for loose rusty surfaces.

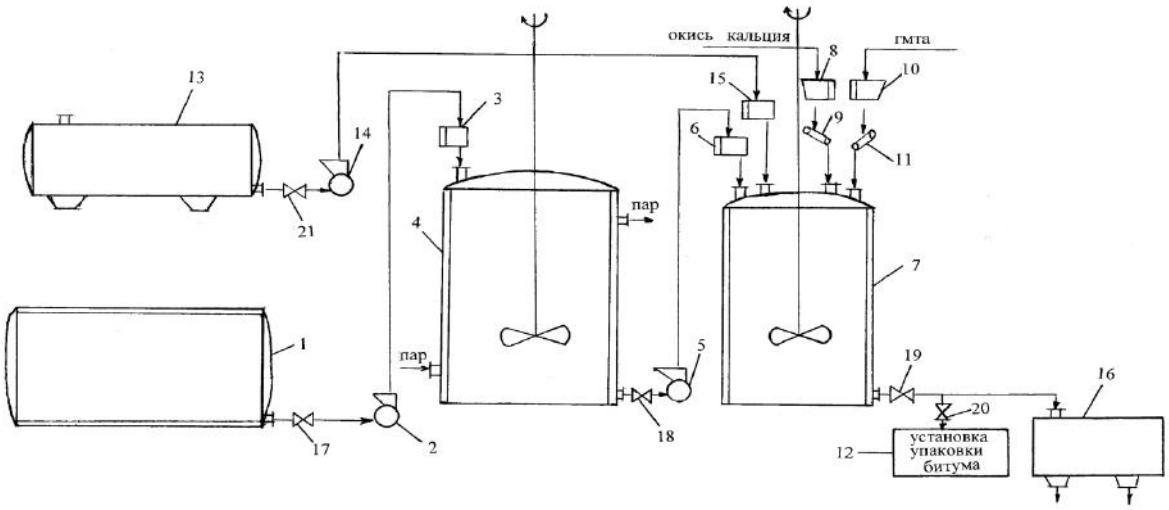
The physical and mechanical properties of the coatings have also been studied under industrial conditions, as evidenced by regulatory and technical documentation, production certificates and tests of "ANTIKOR" and "ANTIKOR-AUTO Mastics anticorrosive" coating control batches.

The tested coatings meet the requirements of technical conditions, the technology of their manufacture does not cause difficulties and can be reproduced in industrial conditions.

It is known that polyphenols, fatty acids, hydrocarbons, nitrogen and phosphorus-containing compounds, as well as products of gossypol transformation, are present in the gossypol resin composition. The presence of compounds of the naphthalene core also makes the products of gossypol resin modification thermo-, chemi- cally and radiation-resistant, and the presence of phenolic hydroxyls and aldehyde groups are reactive with high complexing properties. In many respects, it can successfully replace expensive anticorrosive coatings, as well as petroleum bitumen, the deficit of which is felt every year [3].

Based on the results of the studies presented in the previous sections, it is recommended to use the process schematic for the preparation of anticorrosion coatings and bitumen for building purposes (pic.) Based on gossypol, calcium oxide and hexamethylenetetramine resin. The proposed technology is based on the use of gossypol resin containing not more than 35.0% moisture, crystalline calcium oxide and hexamethylenetetramine. The technological process consists of the following stages:

- loading and evaporation of gossypol resin in the reactor;
- dissolution of calcium oxide and hexamethylenetetramine in gossypol resin;
- cooling and packaging of the resulting bitumen;
- obtaining an anticorrosive material by dissolving bitumen;
- packaging of the obtained anti-corrosion coating.



Pic. The main technological scheme for obtaining anticorrosive coatings and construction bitumen based on gossypol resin.

1-capacitance storage of gossypol resin 3, 6, 15 - flowmeters 9, 11 - weight batchers 16 - sealing device 2, 5, 14 - centrifugal pumps, 4, 7 - reactors 12 - packer for bitumen 17, 21 - valves 8, 10 - bins 13 - solvent storage capacity.

The technology of construction of bitumen and anticorrosive coatings on its basis is carried out in conventional reactors with steam heating and mechanical stirrers used in the paint and varnish industry. From the storage tank (1) gossypol resin is pumped through the flowmeter (3) through the flowmeter (3) into the reactor (4), heated to 60-80°C. After

loading the gossypol gum, the temperature in the reactor (4) rises to 110-120°C. In this case, foaming is usually observed, which indicates the moisture content of the gossypol resin. To reduce foaming, it is necessary to increase the intensity of resin mixing. After stirring for 35-40 minutes, the release of foam practically ceases, indicating the removal of 91-92% moisture from the gossypol resin. The resulting hot resin with a residual moisture content of 4.3-4.5% is pumped through the flowmeter (6) through the flowmeter (6) to the reactor (7), also successively from the hoppers (8) and (10) through the dispensers (9) and (11), calcium oxide and hexamethylenetetramine are obtained. The temperature in the reactor (7) is raised to 130-160°C, intensive mixing is carried out for 50-60 minutes. The homogeneous mass thus obtained is poured into molds, cooled and sent to the finished goods warehouse.

In order to obtain an anticorrosive coating, the homogeneous composition of the components is cooled in the reactor (7), and a solvent (white alcohol, gaseous or kerosene) flow meter (15) is supplied from the storage tank (13) through the pump (14). Dissolution of the anticorrosive material in solvents is carried out at a weight ratio of 1:3 at 65-70°C, stirring for 30-40 minutes. The resulting homogeneous solution is a finished product that tends to a packaging unit (16). Thus, it has been established that it is possible to obtain anticorrosive materials and construction bitumen from used oils and fats.

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UDK 666.621

MODIFICATION OF SIO_2-B_2O_3-NA_2O SYSTEM WITH CAO, MG PHENATE BAO OXIDES AND THEIR PROPERTIES.

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Absrtact: The effect of alkaline earth oxides on the physicochemical properties of easy-melting vitreous enamels for architectural and building products are studied. It was established that with the increase of ionic radions of the elements of modifier introduced into the vitreous decreases the viscosity of the molten glass. Also, the dependence of surface tension on the vitreous content of alkaline earth oxides is increased while output modifiers limits up to 20%.

Key Words: glass processing, alkali earth metals, quartz sand, surface tension.

Аннотация: Изучено влияние щелочноземельных оксидов на физико-химические свойства легкоплавких стеклоэмалей для архитектурно-строительных изделий. Установлено, что с увеличением ионных радиусов элементов-модификаторов, вводимы в стеклоэмали, снижается вязкость стекломассы. Также выявлена зависимость поверхностного натяжения стеклоэмали от содержания щелочноземельных оксидов.

Ключевые слова; стеклоэмаль, щелочно-земельных металлов, кварцевый песок, поверхность напряженность.

It is crucial to carry out scientific research to create relatively inexpensive products and methods based on local mineral raw materials. One of these methods is to process metal surfaces with glass processing. The main reasons for the use of this technique are the high durability of the atmosphere and moisture, acidic and alkaline resistance, and the high

durability of the materials that have been covered by them for a very long time without losing their properties, irradiation and insufficiency, absolutely harmless to living organisms, preservation of their appearance and color, resistance to light and sun rays, thermal stability to temperature up to 450^0C.

One of the most important factors in the study of glass-treated coatings is the study of the effects of components. One of the most important exploitative properties of glass processing is their thermal capacity [1], which provides a good overview of the source, according to the temperature of the bottle it changes according to the ΔC_p Na>Ca>Mg chain. In addition to the bottle content in the Na_2O-CaO-MgO-P_2O_5-Al_2O_3-TiO_2 system, the addition of MgO resulted in the strengthening of the glass glue [2], the effect of CaO / MgO ratio [3] on glaze and bottle compositions. Authors have discovered that the decrease in the CaO / MgO ratio leads to the increase in α- cordierite crystallization temperature of glass. The effect of the CaO/MgO ratio on the CaO-MgO-Al_2O_3-SiO_2 system shows that the proportions have an average value, crystallization of the glass mass is equal to maximal hexagonal prismatic crystals. The product obtained is characterized by high microcirculation [4]. In addition, the increase in the amount of Mg^{2+} and Ca^{2+} cations in the bottle leads to a reduction in the polymerization of the bottle shape, which results in the influence of oxygen atoms on [SiO_4] tetrahedrons and changes in the density of glass [5].

An analysis of the properties and properties of barium preservatives has been shown to increase the chemical stability of the bottle depending on the amount of barium oxide. Thus, the formation of the bonded bottles in the bottles -O-Ba^{2+}-O - can lead to a density of structure [6]. In another scientific source [7], the effect of BaO on crystallization of bottles has been studied in barium telluritic bottles and the increase in the value of bleaching is noted with the increase in BaO. According to the results of a research by Japanese scientist S.Tsumumitsu, two or three alkaline earth metal acids simultaneously change the glass structure and properties of the bottle simultaneously. The introduction of boron-aluminum bottles into 5% of the RO (SrO, MgO, CaO) induced by two charge modifiers has led to the change in the proportion of bottles [BO_3] and [BO_4], ie the coordination of the coincidental triangulation [9].

However, literature review suggests that the effect of alkaline earth metals on leaching of light liquids is poorly understood. The aim of this study was to investigate the effects of alkaline earth metals - Mg, Ca and Ba - sents on the viscosity and surface toughness of light weight lubricants. In order to obtain glass processing content, Ugun's quartz sand was used in the Kashkadarya region and this sand was enriched according to the method described in [10] to comply with the requirements of GOST 22551. The information about the high-grade quartz sands [11] is described in the source. Glass compositions are SiO_2 - 48.0 as base structure; B_2O_3-20,0; Na_2O-12.0; PO-20 content has been processed [12]. As auxiliary raw materials, carbonic salts of boric acid, calcium soda and calcium, magnesium

and barium ("T") were used. The content of the glass ammonia [13] was calculated based on the content of raw materials using the computation method specified in the source. The glass mass was taken at a temperature of 1350 ° C in 200 ml of corundum pellets in sillite heater lab. Maximum holding temperature is 40 min. The "spinning" of the glass mass was measured by the absence of "stones" and bubbles. The ready glass mass was poured onto the metal surface and cooled in the air. The visual inspection of all content indicates that they are well blotted. The viscosity and surface tension parameters obtained were determined by theoretical calculations and laboratory experiments. Laboratory tests were based on [14] and theoretical calculations were based on [15].

Table 1

Information on metals in group II of the periodic system

Element	Atomic number	Ion radius, Nm	Ion charge density, kph / m	R^{2+}-O, groove of the garden kJh · N_A
Be	4	0,034	282	263,97
Mg	12	0,078	123	155,03
Ca	20	0,106	92	134,08
Sr	38	0,127	80	134,08
Ba	56	0,143	70	134,08

As you know, theoretically many metals and glass and silicate coatings have a large effect on the metals they contain. The following table describes some of the metals in group II headings.

In this metal sequence, the against polarization effect of R^{2+} - O cations is expected to weaken silicon oxygen tetrahedrons and increase the viscosity of the glass due to the reduction of R^{2+} - O contact strength from Be to Ba cation. In practice, however, the results showed that the viscosity of the bottle decreased (Figure 1). Considering that the R^{2+} cation charge is 2 times the R^{+} cation charge, the bottle properties are affected by the crash. In the Be-Ba row there is a sharp reduction in the fetus, and its survival. In this direction, the grout of the tetrahedrons of the silicon dioxide weakens and leads to reduced viscosity.

As you know, dysfunction of glass mass is a factor determining the kinetics of the processes. Therefore, the corrosion resistance of glass coatings is associated with the location of the II group metal atoms in it. Corrosion activity of bottled coatings indicates that it is a substitute for the change in the chemical activity of metals in the main group of the group. This changes the size of the electron cloud of these metals from beryllium to barium.

The experimental results are shown in Figure 1. According to this, the properties of glass coatings synthesized at 1200 ^{0}C in the $48SiO_2$-$20B_2O_3$ + 12/R_20 + 20RO and $64SiO_2$-$16K_2O$ + 20RO system will vary proportionately with the increase in the nucleus of the

second-giant metal atoms. And from and until the bottle liquefaction increases the corrosion activity, the defensive ability decreases, and the viscosity of the skin decreases.

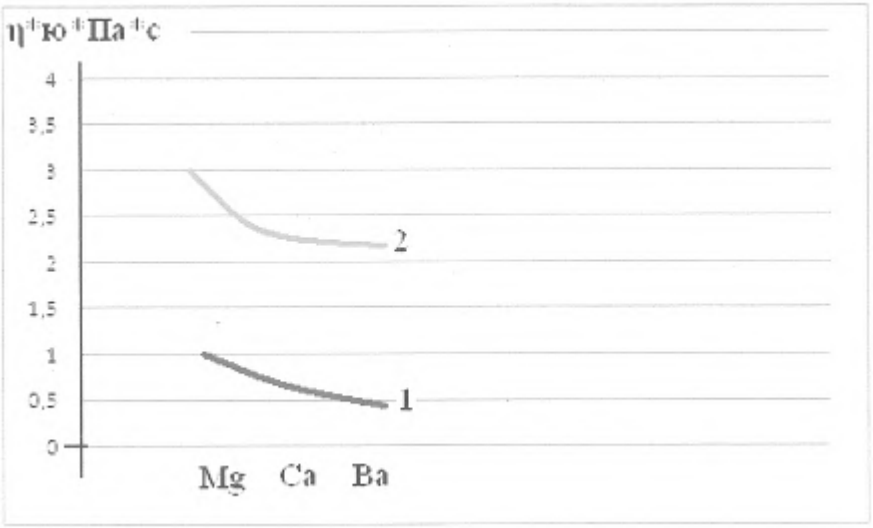
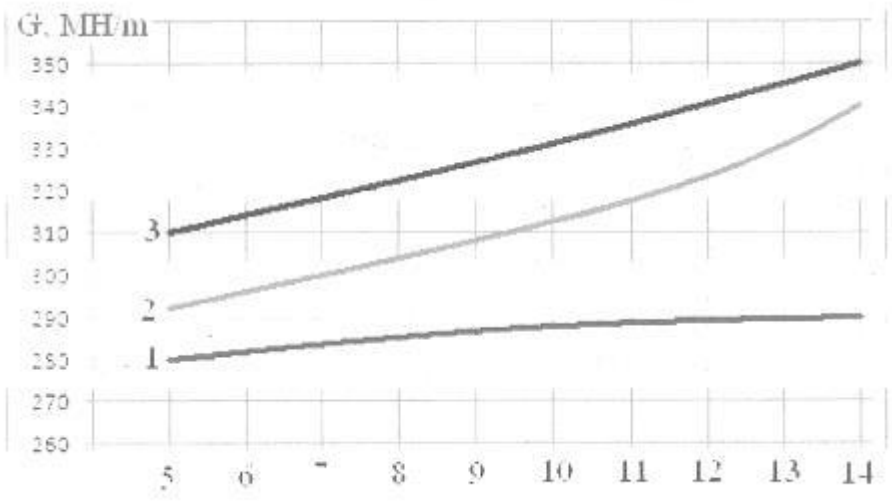


Figure 1. The effect of alkaline earth metals on the clay glass flushing fluid synthesized at 1200 ºC in the $48SiO_2$-$20B_2O_3$ + $12K_2O$ + 20PO (1) and $64SiO_2$-$16K_2O$ + 20RO (2) system.

The degree of wear and toughness of glass surfaces with glass bottles is significantly dependent on the surface tension of the glass [9]. As a result of many studies, silicate fluid and molecules interact with the metal surface at high temperatures have been shown to reduce the surface energy value in the "metal-glass fluid" system [12, 16]. This, in turn, will improve the level of association in the system and increase the coverage coverage. As you know, the smaller the surface tension, the greater the ability of the glass to absorb the metal surface [12]. The viscosity of the glass titer is dependent on a number of factors and it is difficult to determine the functional dependence. It is noted in the literature that the surface tension of the glass can be calculated in theoretical terms [15] and accordingly equal to

$$G = \frac{\sum Mi \cdot Gi}{\sum Mi}.$$

Here the surface tension coefficient: the percentage of each acid in the bottle, average portic coefficient of surface tension of oxides. The source shows that the surface tension values of glass fluids are in the range of 220 till 420 MN/m [17]. The surface tensile coefficient of glass processing at 1200 ° C was calculated using the above formula. The results obtained by theoretical calculations are illustrated in Figure 2. According to the results, alkaline earth metal oxides lead to the increase in the surface tension of the glass surface. As the value of all the oxides increases, the surface tension increases. Calculations show that the effect of Mg oxide is stronger than other proteins, and less oxidized Ba. Therefore, when covering the metal surfaces with the glass fibers in the above composition, it is possible to obtain more Ba and Be oxides and to obtain coarse metal coatings.



Component quantity, %

1-BaO_2-MgO_3-CaO

Figure 2. The effect of alkaline earth metals on the surface tension of glass processing

In conclusion, the influence of oxidized alkali metal oxides on the physical and chemical properties of bottles was investigated and the viscosity of the ionic radius decreases as the viscosity of the glass processing decreases. It also indicates an increase in surface tension by increasing the amount of oxides.

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EFFECT OF SOWING DATES ON BIOMETRIC PARAMETRS OF "GROM" CULTIVAR OF WINTER WHEAT IN KHOREZM REGION

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Abstract. The aim of our research is based on the study of the effect of different sowing dates on biometric parameters of Grom cultivar of winter wheat. The experiment was conducted on the field №119 of the Dildora-Bojimon farm of Yangibazar district of the Khorezm region during 2013-2014. Statistical analysis of the data showed that different sowing dates had a significantly affected on plant height (cm), number of total tillers and number of productive tillers m^{-2} of winter wheat.

Аннотация. Ушбу изланишнинг мақсади Хоразм вилояти шароитида кузги буғдой Гром навининг биометрик кўрсаткичларига турли хил экиш муддатларининг таъсирини ўрганиш. Дала тажрибаларини Хоразм вилоятининг Янгибозор тумани «Дилдора-Божимон» фермер хўжалиги №119 контур рақамли ер майдонида 2013-2014 йилларда ўтказилди. Статистик тахлил натижаларига кўра хар хил экиш муддатлари кузги буғдойнинг бўйига, умумий ва маҳсулдор поялар сонига сезиларли таъсир кўрсатади.

Резюме. Целью нашего исследования явилось на основе изучения влияние разных сроков посева на биометрические показатели сорта Гром озимой пшеницы в условиях Хорезмской области. Эксперимент проводился в поле №119 фермы Дилдора-Боджимон Янгибазарского района Хорезмской области в 2013-2014 годах. Статистический анализ данных показал, что различная дата посева оказала значительное влияние на высоту растения (см) и на количество общих и продуктивных стеблей на 1 $м^{-2}$.

Key words: winter wheat, sowing date, vegetation period, productive tillers

Калит сўзлар: кузги буғдой, экиш муддати, вегетация даври, маҳсулдор поялар

Ключевые слова: озимая пшеница, сроки посева, вегетационный период, продуктивные стебли

Introduction

One of the factors, which affect on yield of winter wheat in the Khorezm region is the dates of sowing. Different sowing dates can be affected on the biological-genetic characteristics of winter wheat that is their stages of growth and development on vegetation period. Biological parameters of winter wheat varieties can be determined by showing the optimum date of sowing in diverse places on soil and environmental conditions.

One of the factors of agricultural management that should be controlled by farmers is the dates of sowing, which is one of the most important factors in productivity (Sun et al., 2013). Winter wheat is a major grain crop in the world. Because winter wheat is one of the most popular cereal crops, which is widely used in production (Khan et al., 2007; Dagujieva et al., 2015; Asgar et al., 2017). Selection of appropriate sowing dates affects the growth and development, germination percentage and viscosity and cold tolerance (Schwarte et al., 2006).

Sowing dates in different regions are affected by different growth conditions such as the maximum and minimum temperature, daily radiation of the sun, rainfall, growth period and genetic potential of wheat. Wheat is mainly a winter crop and needs temperature, and light for optimal growth (Baloch et al., 2010). Phenology of wheat is generally considered as the variation occurred from emergence to maturity and the influence by sowing dates and the cultivars thus the duration and stages of phenological traits are significant indicators for potential yield of the crop (Fazal et al., 2015).

Materials and methods

A field experiment to evaluate effect of different sowing dates on biometrical parameters of winter wheat was carried out at the field №119 of the Dildora-Bojimon farm of Yangibazar district of the Khorezm region. The Grom cultivar of winter wheat is included in the State Register of Uzbekistan. The field experiment was comprised of four replications (control, 1/2/3) using a standard sub-plot size of 2x5 m², the total area of each sub-plot size is 10 m² , total test area is 1000 m², variants were placed on the four row. The winter wheat at the rate of 250 kg ha^{-1} in the depth of 4-5 cm was applied. The experiment was comprised of five sowing dates: D 1-1st of October, D 2-10th of October, D 3-20th of October, D 4-1st of November and in spring D5-1st of March and during consecutive two years of 2013-2014 in Khorezm region. We used the following doses of N_{150} P_{100} K_{75} and N_{200} $P_{140}K_{100}$ kg $ha^{-1}$for experiment. All the phosphorus and potassium doses were applied at the time of sowing, whereas nitrogen was applied in two split doses, half dose at the time of sowing and remaining half dose at the time of 1st irrigation. Other agronomic practices were done to maintain the crop growth.

Above mentioned phenological monitoring and biometrical measurements would be done according to the instructions and recommendations of Crop Science Research Institute; Uzbekistan Cotton Research Institute; Andijan Research Institute of grain and leguminous plants in irrigated lands in Tashkent: 2007 and Methods of field experience by B.A.Dospexov 2007.

Statistical analysis: The data were recorded on number total of tillers (m^{-2}) and productive tillers (m^{-2}), plant height (cm) and analyzed using a One Way ANOVA (Single factor) test in excel. Effects of different sowing date on biometric parameters of Grom cultivar of winter wheat was compared by the appropriate use of LSD 0.05.

Results and discussion: Results showed that the effect of different sowing dates on plant height and the number of tillers were significant (Table 1). Plant height (cm), total and productive tillers (m^{-2}) were one of the variable characteristic between different sowing dates and there were significantly affected on quality grain and yield of winter wheat of all sowing dates. Data regarding the plant height and number of total and productive tillers m^{-2} were significantly (p>O.05) affected by different sowing dates.

Table 1. Effects of different sowing dates on plant height (cm) and number of total tillers and productive tillers (m^{-2})

Sowing dates	Replication	Plant height, cm				Total tillers (m-2)	Productive tillers (m-2)
		1st of March	1st of April	1st of May	1st of June		
1.X.	Control	12,5	28,4	55,3	59,3	395,8	345,2
	1	14,2	34,1	76,0	80,0	651,9	580,5
	2	14,8	34,0	76,5	82,3	653,3	580,9
	3	15,2	35,1	77,0	85,0	676,8	581,1
	Mean	14,7	34,4	76,5	82,4	660,6	580,8
10.X.	Control	10,9	26,8	53,7	57,7	385,5	334,0
	1	12,6	32,5	74,4	78,4	641,6	569,3
	2	12,9	33,1	74,9	80,2	644,5	569,9
	3	13,6	33,5	75,4	83,4	666,5	570,3
	Mean	13,0	33,0	74,9	80,6	650,8	569,8

20.X.	Control	9,3	25,2	52,1	55,2	375,2	322,8
	1	11,0	30,9	72,8	75,9	631,3	558,1
	2	11,8	31,2	73,1	76,8	633,6	558,9
	3	12,0	31,9	73,8	80,9	656,2	559,0
	Mean	11,6	31,3	73,2	77,8	640,3	558,6
1.XI.	Control	7,4	23,6	49,8	52,4	356,9	297,5
	1	9,1	29,3	70,5	73,0	612,4	530,8
	2	9,8	29,9	70,8	75,5	622,8	530,9
	3	10,1	30,3	71,5	77,1	637,3	531,1
	Mean	9,6	29,8	70,9	75,2	624,1	530,9
1.III.	1	-	10,8	26,7	50,6	310,8	260,5
	2	-	13,6	31,5	60,4	352,8	301,0
	3	-	14,0	31,9	61,2	355,2	308,3
	4	-	14,5	32,4	62,2	418,9	350,2
	Mean	-	14,0	31,9	61,2	375,6	319,8
LSD 0,05		2.96				4.47	5.36

Plant height (cm): Statistical analysis of the data indicated that sowing dates influenced was to the plant height (cm) of Grom cultivar of winter wheat. In an experiment recorded that plant height (cm) reduced when sowing dates were delayed. The plant height of the 1st of November and the 1st of March was considerably reduced.

The results showed taller plant was 82.4 cm when sowing was done on the 1st of October, 80.6 cm when sowing was done on the 10th of October, 77.8 cm when sowing was done on the 20th of October, 75.2 cm when sowing was done on the 1st of November and whereas the shorter plant height was 61.2 cm when sowing was done on the 1st of March. Plant height has greater influence on yield of winter wheat.

Analysis of the date presented in table 1 and figure 1 indicated that the reduction in plant height for later sowing may be due to favorable climate conditions during vegetation period.

The results showed that the plant height (cm) of winter wheat was taller under early sowing.

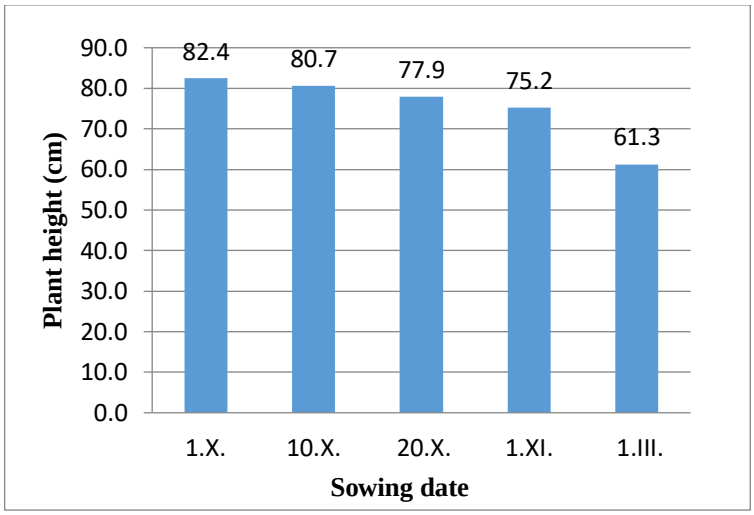

Figure 1. Comparison of mean plant height (cm) in different sowing dates

Total and Productive tillers m^{-2}: The different sowing dates significantly affected the number of tillers. The comparison of the mean values showed that on the 1st of October had the highest number of total and productive tillers m^{-2} than other sowing dates. And the comparison of the mean values of the number of total and productive tillers m^{-2} for date of sowing showed that on the 1st of March had the lowest of it. Data regarding number of productive tillers m^{-2} were significantly (p>O.05) affected by different sowing dates.

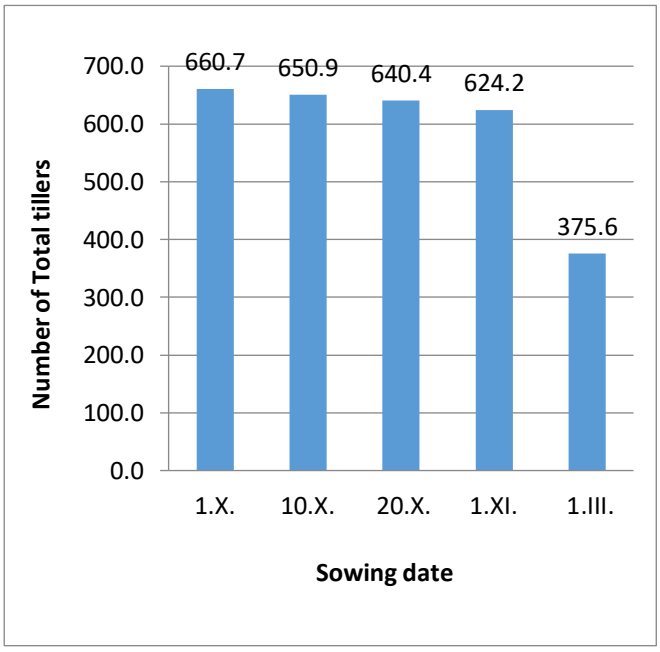

Figure 2. Comparison of mean number of total tillers (m^{-2}) in different sowing dates

Mean values of the data presented in Table 1and Figure 2 indicated that highest number of 580.8 productive tillers m^{-2} was produced when sowing was done on the 1st of October, 569.8 productive tillers m^{-2} was produced when sowing was done on the 10th of October, 558.6 productive tillers m^{-2} was produced when sowing was done on the 20th of October, low number of 530.9 productive tillers m^{-2} produced when sowing on the 1st of November while lowest number of 319.8 productive tillers m^{-2} was produced when sowing was done on the 1st of March.

Mean values of the data presented in Table 1 and Figure 2 indicated that highest number of 660.6 total tillers m^{-2} was produced when sowing was done on the 1st of October, 650.8 total tillers m^{-2} was produced when sowing was done on the 10th of October, 640.3 total tillers m^{-2} was produced when sowing was done on the 20th of October, low number of 624.1 total tillers m^{-2} produced when sowing on the 1st of November while lowest number of 375.6 total tillers m^{-2} was produced when sowing was done on the 1st of March.

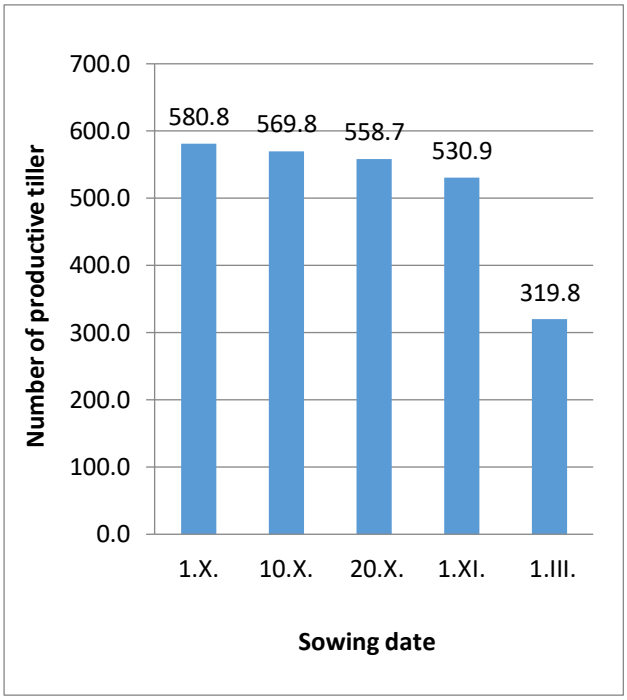

Figure 3. Comparison of mean number of productive tillers (m^{-2}) in different sowing dates

Conclusion

In this study, we concluded that plant height (cm) and number of tillers m^{-2} in vegetation period of Grom cultivar of winter wheat were significantly affected by different sowing dates.

Comparison of mean winter wheat on different sowing dates showed that the highest biomertic parameters were obtained on the 1st and 10th of October and delayed dates of sowing on the 20th of October and on the 1st of November reduced all biometric parameters. All biometric parameters of winter wheat were reduced when has sown on the 1st of March.

The early sowing dates on the 1st of October and the 10th of October resulted in better development during vegetative growth and the plant height was 82.4-80.7 cm, number of total tillers m^{-2} was 660.7-650.9 and number of productive tillers m^{-2} was 580.8-569.8 of winter wheat.

The delay in sowing on the 20th of October and the 1st of November resulted in a quickly decrease on plant height was 77.9-75.2 cm, number of total tillers m^{-2} was 640.4-624.2 and number of productive tillers m^{-2} was 558.7-530.9 of winter wheat. Decrease on plant height in spring on 1st of March was due to shorter growing period and the plant height was 61.3 cm, number of total tillers m^{-2} was 375.6 and number of productive tillers m^{-2} was 319.8 of winter wheat.

The results of spring sowing date on the 1st of March results gave minimum product of winter wheat. All biometric parameters were the lowest in the experiment.

The results lead that the better period of sowing winter wheat is on the 1st of October and the 10th of October because it is the good, optimal date for vegetation period and to get a high yield from winter wheat.

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IMPACT OF NEW THIOUREA DERIVATIVES ON LIPID PEROXIDATION ADJUVANT ARTHRITIS IN WHITE RATS

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Аннотация. Маколада ок каламушларда чакирилган адъювант артрит моделидаги липидлар перекисли оксидланишига тиомочевина янги унумли БИК-15 нинг таъсири урганилган. Препарат липидларнинг перекисли оксидланиш жадаллигини пасайтириб, антиоксидант тизим ферментлари (COD ва КТ) фаоллигини оширган, ушбу жихатдан БИК-15 бутадиондан устун экан.

Аннотация. В статье изучено влияние нового производного тиомочевины-БИК-15 на перекисное окисление липидов при адъювантном артрите у белых крыс. Препарат БИК-15 снижает интенсивности перекисного окисления липидов и повышает активности ферментов антиоксидантной системы (СОД и КТ), и в этом отношении он превосходит бутадион.

Annotation. New derivative thiourea and thiocarbamate on oxidation peroxide lipids at adjuvant arthritis at white rat in a clouse. In structure the influence new derivative thiocarbamate and thiourea on peroxide oxidation lipids is investigated at adjuvant arthritis at white rat. Preparation BIK-15 reduce of intensity peroxide lipids and raise of activity enzymes antioxidant of system (SOD, KT) and in this respect they surpass butadione and indometacin.

Калит сузлар: яллигланиш, липидларнинг перекисли оксидланиши, адъювант артрити, тиомочевина унуми, бутадион.

Ключевые слова: воспаление, перекисное окисление липидов, тиомочевины, адъювантный артрит, производное тиомочевины бутадион.

Key words: inflammation,thiourea, adjuvant arthritis, butadiene.

Drug regulation of inflammation, which plays a significant role in the pathogenesis of many diseases, one of the most urgent problems of modern pharmacology. [1]

However, when using the known anti-inflammatory agents often frequently observed adverse events and serious complications (bleeding and ulceration in the gastrointestinal tract, and others.) [1.2]. In this regard, research and study of new high-level and low-toxic

anti-inflammatory drugs are the actual problem and are of considerable practical interest.

We have previously reported that a novel thiourea has a pronounced anti-inflammatory activity [1].

The purpose of this work - the study of the impact of the new derivative of thiourea (FT-15) on some parameters of lipid peroxidation (LPO) and the activity of antioxidant enzymes in adjuvant arthritis (AA) in rats.

Material and methods. This compound was synthesized in the Department of Bioorganic and biological chemistry of the Tashkent Medical Academy and is a yellowish powder, poorly soluble in water. Therefore, it was taken up in a 3% slurry of starch intragastrically using a metal probe. Research was carried out on 24 white rats of both sexes weighing 170-180g mixed population.

It was used to compare a known nonsteroidal anti-inflammatory agent phenylbutazone, 100 mg / kg.

"Adjuvant arthritis" in rats invoked the classical way (Drogovoz SM et al. 2002).

The study drug was administered daily in doses of 50, 100 and 200 mg / kg once (after PAF inoculation day 14 in the study of preventive action and from 10 and 22 days in the study of treatment effects). The drugs and evaluated on the 14th day (prophylactic) and on the 22nd day (therapeutic).

Animals in the control group received the appropriate volume of the suspension 3% starch paste. In the blood serum of rats were determined: the conjugated diene (CD) [3]; malondialdehyde (MDA) [4]; Enzyme activity of superoxide dismutase (SOD) [5]; catalase activity [CT], [6].

Statistical processing was performed by the method of Student and Fisher.

Results and discussion. It was established that on the 14th day after playing a pathophysiological model of adjuvant arthritis (AA) in the blood serum of animals there are significant changes in LPO and antioxidant system (AOS).

A characteristic feature of damages in the system was the increase in the level of chemiluminescence (CL) at 119.1%, diene conjugates (DK_{233}) - by 58.2%, malondialdehyde (MDA) - by 238.2%, and in the assessment of the AOC - reduction enzyme activity of superoxide dismutase (SOD) by 50.0% and catalase (CT) - by 55.5% as compared with those of intact animals.

Consequently, when the AA celebrated expressed in violation of the processes of lipid peroxidation-AOS system of blood that can significantly affect the pharmacodynamics and pharmacokinetics we study drugs, and therefore their prophylactic and therapeutic efficacy.

Effect BIC-15 at doses of 50 and 100 mg / kg and the lipid peroxidation in the prophylactic AOS and therapeutic administration was studied in comparison with phenylbutazone (100 mg / kg). Studies have shown that in animals with AA phenylbutazone, 100 mg / kg virtually did not alter the serum levels of CL, and MDA

content reduced by 35.8% (P <0.05) (Table 1) compared with the control group data (AA animals not treated with drugs).

Therefore, in the studied dose of phenylbutazone has multidirectional preventive effect on the intensity of lipid peroxidation, and the primary indicators (CL) are not changed, and the secondary (MDA) are reduced.

Introduction The BIK 15 animals with AA decreased the LPO level in the blood serum. Under the action of BIK-15 decreased by 45.6 and 56.0% compared to the control level CL and MDA (P <0.01 (see. Table. 1).

At the same time, compared with the efficiency phenylbutazone BIC-15 ability to reduce the level of chemiluminescence was higher by 45.6%. (P <0.05), and to influence the MDA longer 31.4% (P <0.05).

Consequently, studies have shown that the FT-15 in their ability to reduce the performance XJ1 and MDA was much more active than phenylbutazone. Equally interesting results were obtained in studies of therapeutic action BIC-15 when administered to animals with AA. Appointment of phenylbutazone for therapeutic purposes in animals with AA compared to baseline does not lead to a significant reduction in the value of XJ1 (P> 0.5) (see. Table 1). At the same time, reduced MDA levels, compared with the original data by 28.3% (P> 0.05). When administered to animals for therapeutic purposes of the drug with the AA FT-15 observed a more pronounced decline in XJ1 and MDA. Thus BIK 15 100 mg / kg and reduced the level of chemiluminescence MDA- 5.7 (P> 0.05) and 48.0% (P <0.05). Thus, as can be seen from these data that the BIC-15 is 1.4 times stronger than the level of MDA decreases than phenylbutazone. There were no significant differences between the test compound and phenylbutazone for its ability to reduce administration at the medical level XJI us has not been revealed, but to influence the MDA BIK 15 phenylbutazone exceeded 1.4 times.

BIK 15 equal as phenylbutazone in animals with AA in the therapeutic administration for its ability to reduce the intensity of lipid peroxidation was less effective than for prophylactic administration.

Priorities identified prophylactic administration became the basis for a more detailed study of the impact of the BIK-15 compared phenylbutazone on indicators of oxidative stress in animals with AA.

Table 1. Effect of BIK-15 and phenylbutazone on lipid peroxidation during adjuvant arthritis, M ± m

Drug	Number of animals per group	Dose, mg /	Profilactic		Therapeutic administration	
			Level chemiluminescence, pulses / sec	MDA, nmol / mg lipids	Level chemiluminescence, pulses / sec	MDA, nmol / mg lipids
Intact	6	-	33,8±0,28	3,6±0,22	36,4±0,44	3,7±0,37
Control	6	-	72,4±0,52*	13,4±0,18*	137,3±4,7*	19,8±3,4*
BIK-15	6	100	39,4±0,47**,***	5,9±0,54*,**,***	129,5±4,8*	10,3±4,6*,**
Phenylbutazon	6	100	72,4±2,8*	8,6±1,2*,**	134,3±4,3*	14,2±2,7*

Note: * - p <0.05 compared to intact animals; ** - P <0.05 compared to control; *** - P <0.05 compared with the phenylbutazone.

The results showed that the "classic" NSAIDs phenylbutazone (unidirectional and has a strong antioxidant effect compared to the control decreased by 33.7% ($P < 0.05$), by the action of DK_{233} phenylbutazone CL intensity -. 31.0% ($P < 0.05$), MDA - by 34.8% ($P < 0.05$) (Table 2), and the activity of SOD and CT increased by 178.6 and 204.1% ($P < 0.001$), respectively (Table. 3).

Thus, a dose of 50 mg / kg caused a 15 BIK XJI decrease in serum with the blood of animals when administered AA 20.5% DK_{233} - 20.8% ($P < 0.05$), MDA - 31.3% ($P < 0.05$). At the same time the activity of SOD and CT increased by 164.3% and 195.9. At a dose of 100 mg / kg of FT-15 reduced the level XJI, DK_{233} and MDA 41.5; 43.7 and 56.5% ($P < 0.02$) and increased SOD activity and CT at 238.6 and 257.1% ($P < 0.001$).

Consequently, BIK-15 for prophylactic administration has a marked pharmacodynamic action aimed at suppressing the intensity of lipid peroxidation and increased activity of AOS enzymes in animals with AA model.

Conclusions.

1. Adjuvant arthritis in rats was accompanied by a significant increase in the content of lipid peroxidation and decreased activity of antioxidant enzymes SOD and CT.

2. New thiourea derivative FT-15 reduces the intensity of lipid peroxidation and increases the activity of antioxidant enzymes (SOD and CT), and in this respect it is superior to phenylbutazone.

3. Anti-inflammatory effect BIC-15 to some extent related to its antioxidant properties.

Table 2. Effect of BIK 15 and phenylbutazone on LPO levels in rats with adjuvant arthritis, M ± m

Group	Dose, mg / kg	CL imp / s	DK_{233}, nmol / mg lipids	MDA nmol / mg lipids
Intact	-	28,3±0,88	0,55±0,016	0,34±0,013
Control (animals with AA)	-	62,0±0,930*	0,87±0,020*	1,15±0,036*
Animals with AA + BIC-15	50	49,3±1,085*,**,***	0,68±0,024*,**,***	0,79±0,035*,**,***
Animals with AA + BIC-15	100	36,3±1,085*,**,***	0,49±0,013*,**,***	0,50±0,023*,**,***
Animals with AA + phenylbutazone	100	41,1±1,222*,**	0,6±0,022**,***	0,75±0,021*,**,***

Note: * - p <0.05 compared to intact animals; ** - P <0.05 as compared to controls (animals with AA); *** - P <0.05 compared with the phenylbutazone.

Table 3. Effect of BIK 15 and phenylbutazone the activity of SOD and CT in patients with adjuvant arthritis in rats, M ± m

Group	Dose, mg / kg	SOD, AU / ml	CT, MAb / mg protein
Intact	—	0,28 ±0,017	1,1±0,034
Control (animals with AA)	—	0,14±0,007*	
Animals with AA + BIC-15	50	0,37±0,020*,**,***	1,45±0,025*,**,***
Animals with AA + BIC-15	100	0,46±0,021*,**,***	1,75±0,064*,**,***
Animals with AA + phenylbutazone	100	0,39±0,021*,**,***	l,49±0,042*,**,***

Note: * - p <0.05 compared to intact animals; ** - P <0.05 as compared to controls (animals with AA); *** -P <0.05 compared with the phenylbutazone

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PECULIARITIES OF FOOD ALLERGY IN CHILDREN WITH ATOPIC DERMATITIS

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РЕЗЮМЕ

Представлены в статье, результаты оценки частоты и факторов риска развития пищевой аллергии, особенности ее этиологической структуре и иммунной признаки у детей АД, имеющих несколько фармакологически устойчивые хронические заболевания. Пищевая аллергия была зарегистрирована у 65% детей. Этиологическая структура пищевой сенсибилизации имеет свои особенности в соответствии с нозологией заболевания. Дети с атипичными признаками болезней показывают сочетание патогенетических механизмов развития пищевой аллергии.

Ключевые слова: атопический дерматит, пищевая аллергия, особенности проявления, типы аллергических реакций.

SUMMARY

The results of the evaluation of the frequency and risk factors of developing food allergies, particularly its etiological structure and immunological characteristics in children of HELL, which has several pharmacologically stable chronic diseases are presented in the article. Food allergy was detected in 65% of children. Etiological structure of food sensitiveness has its own characteristics in accordance with the nosology of the disease. Children with atypical signs of disease show a combination of pathogenic mechanisms of development of food allergy.

Key words: atopic dermatitis, food allergy, features symptoms, types of allergic reactions.

XULOSA: Taqdim etilgan maqolada farmakologik barqaror surunkali kasalliklar bilan oziq-ovqat allergiyasi boyicha chastota va xavf omillarini baholash,

ayniqsa, uning etiologik tuzilishi va immun tizim belgilari natijalari ko'rsatilgan. Oziq-ovqat allergiya bolalarda 65% xabar qilindi. Oziq-ovqat alergiyasi etiologik tuzilishi kasallikning surunkali kechishiga ko'ra, o'z xususiyatlari bor. Kasallikning atipik dermtit belgilari bilan bolalar oziq-ovqat allergiya rivojlanish patogenetik mexanizmlari birlashmasidanligini ko'rsatadi.

Kalit so'zlar: atopik dermatit, oziq-ovqat allergiya, immun alomatlari, allergik reaktsiyalar turlari.

INTRODUCTION. Presults of the research of most authors, confirms the presence of atopic dermatitis of complicated in…. among allergic diseases in children. Approximately, 80% of children who suffer from atopic dermatitis (AD) have complicated anamnesis in allergic diseases(food allergy, polynosis, bronchial asthma, recurrence of allergic reactions in parents) [1,2]. Food sensibleness impair almost all organs and systems of the organism directly or indirectly. Localization and the number of "shocked organs" included in pathologic process determines clinical picture of the disease that enables the multiple of its clinic manifestations. Because of absence of unique specific symptoms of food allergy and methods of diagnostics, all clinic manifestations of the disease has not been able to determine yet. Perhaps, that is why, no data about carried randomized investigations that enable to know about all clinic manifestations of food allergy, were given in the literature. It is considered to be admitted by all, that food allergy impairs gastro intestinal tract, skin and respiratory tract. These manifestations must be considered as signs of food allergy. Other manifestations of allergies are disorders of other organs and systems: cardio-vascular, nervous, blood creative, urinary, joint systems [2,3]. Mataligina O.A. and Voronsov I.M. suggest non typical manifestations of food allergy to consider as "mini" clinic symptoms and syndromes [4]. So, there are great difficulties of terminology as at present there are not any common admitted terms for expressing the poly organic character of impairment in allergology [4]. Poly morphism of symptoms of food allergy depends on the taking part of this or that immunologic mechanism. [6]. Difficulty in revealing the mechanisms of food allergy is in that one patient may have different combination of mechanisms that impair tissues [7]. In our opinion, the confirmation of it is the variety of literature data about leading mechanism in pathogenesis of food allergy. Some authors consider that reaginic type lies in most cases of the basis of food allergy in children with AD [8], others think that slow or immune complex type of allergic reactions are the cause for that [9]. In association with it, by the opinion of Wraitha D.,in usual practice of clinic manifestation that

occur in other types of allergic reaction, besides of immediate reactions, that as a rule are not related to manifestations of food allergy[10].

So, clinic manifestations of food allergy are characterized by non specific symptoms and because of it, the percentage of diagnostic mistakes among this group of patients remains as high up to present [11, 12]. The absence of adequate, pathogenic treatment is due to chronic course of the disease and results in the development of complicated forms. At the same time, immediateness and adequateness of diagnosis of food allergy enables to limit the treatment with applying only eliminated diet therapy independent on the number and degrees of impairment of organs involved in pathological process in most cases. It enables to refuse poly pragmasy [13].

Aim of the work: to determine the rate of risk factors of development of food allergy, its peculiarities of etiological structure and immunologic manifestations in children with AD.

Materials and methods: 88 children of 2-14 years of age (16% of them are children of preschool age and 84% of them are children over 8 years), who suffer from complicated course of different chronic pathology were included in examination. 25% of them were the patients who addressed directly to allergologist due to their typical manifestations of allergies (dermatitis, bronchial asthma). A large part (75%) consisted of the patients that were being treated in somatic departments due to basic disease or who were in the list of dispensary children's doctor or doctors of the specialty of neurology, rheumatology, othorhinolaryngology. All children had regular planned therapy of their basic disease (2-3 times a year). Criteria of including the patients in investigation: period of the disease that is not less than 6 months; ever recedive course of the disease; rate of complicatedness not less than once a month; non lasting effect from classic therapy. Standard clinic and instrumental methods of examination were applied. Due to introductions additional instrumental investigations were carried out: analysis of obvious eye picture, REG, EEG, MRT of cerebrum. All children had immunologic examinations with determination of the content of immunoglobulin A, M, G, E and CIC. Concentration of common immunoglobulin (A, M, G) in plasma of blood was determined by the method of radial immune diffusion by G. Mancini, the content of common and specific IgE –anticells – by indirect method of immune enzyme analysis, the level of CIC by the method of PEG-precipitation (polyethylene glycol precipitation). Diagnosis of food allergy was made on the basis of complex clinical-laboratory examination of patients with taking into consideration the data of allergologic anamnesis, analysis of food dairy, results of skin testing to food allergens, eliminating and provoking testing. Skin patterns were made with food allergens of joint stock of the society "Biomed" after I.M.Mechnikov.

due to basic clinic manifestations of the disease, 5 groups were discharged: 1st group (n=22) – diseased with arthralgia , 2nd group (n=20) diseased with encephalalgia, 3rd group (n=18) –diseased with gastritis and/or gastroduodenitis, 4th group(n=17) diseased with nasal bleeding, 5th group (n=11) – diseased with enuresis. The lasting of the disease composed: from 6 months up to 1 year- 17%, to 2-3 years - 35%, more than 3 years- 48% of cases. The rate of acuteness of the disease of both ever week and ever day was registered in 59% of patients and mostly in the group who suffered from encephalalgia (80%) and enuresis (75%). 22% of patients had acuteness of the disease from once up to 3 times a month, 24% of patients had irregular acuteness-(linked with overstrain, overcooling, meteo conditions and others). 45% of patients had the combination of the main disease with skin (atopic dermatitis) or respiratory (bronchial asthma, allergic rhinitis) manifestations of allergy.

Statistic work out of the data was carried out with the help of additional block of programs “Statistica 6.0”. for comparing the choice non parametric criteria Manna-Witney was used, the criteria level was taken as equal to 0.05.

Results and discussions: the analysis of rather spread clinic manifestations of chronic pathology in children showed that the following were determined in the pathology of encephalalgia: chronic headache - 42%, headache of cerebral angio dystonia - 20%, vegetative-vascular distonia- 18%, migraine - 13%, residual organic impairment of CNS - 6%; in the structure of arthralgia: arthralgia of unknown etiology - 58%, arthralgia of reactive arthritis - 42%; in the structure of gastro intestinal manifestations: chronic gastritis with normal acidity- 63%, chronic gastroduodenitis with normal acidity- 31%, erosive gastroduodenitis- 6%.

One knows that, the main risk factor of the development of food allergy is the complicated наследственность by atopsy and prenatal factors. Detailed study of risk factors of the development of food allergy revealed that the development of allergic reactions to food products with pathologic complicated influence practically at the same degree can be made by complicated heridetary allergy and pathologic course of pregnancy (65% and 52% with coincidence).

When studying the data of allergologic anamnesis we revealed that symptoms of allergy in the form of skin manifestations were registered in 61% patients at an early age for the first time. During the child’s further life, 60% of them had manifestations of food and/or medication intolerance. It is naturally that children who have the4 combination of manifestations(with typical forms of allergy), the percentage of this or that intolerance was more important than in children with isolated forms of the disease (85% against 15% coincidently).

Besides the heridetary complicatedness for the development of food allergy, sensibleness of the organism is also important. In connection with it, skin testing that

revealed sensitiveness to food allergens in 84 % of cases, is also important. Most of the patients (90%) had characterized peculiarity in skin testing was. And this is one of the causes of absence of clear connection of food consumption of and complaints to the food as the patients do not connect their sufferings with food allergies. In the structure of etiologic factors of food sensibleness the following were determined: hen's eggs (80%), corns (73%), meat (67%), cow's milk (55%) citrus fruits (42%), fish (45%). And depending on nasal forms of the disease etiological structure of food sensibleness have its peculiarities. By analyzing the structure of etiological factors of food sensibleness, it was determined that, the sensibleness to eggs was practically equal in all forms of the disease.(from 78% up to 86%). Sensibleness to other food allergens had different rates. So, most sensibleness to the following food was determined:

Patients with encephalalgia: corns(91%), eggs (75%), milk (63%), meat (56%);
Patients with arthralgia: eggs (85%), corns (70%), fish and meat (58%), milk (51%);
Patients with nasal bleeding: meat (93%), citrus fruits, eggs (75%), corns (69%);
Patients with enuresis: eggs (82%), meat (64%), milk and corns (55%);
Patients with gastritis: corns, eggs (78%), meat (69%).

Taking into consideration that the above mentioned food is of everyday diet, it is difficult to make a clear connection of the complications with consuming them (by the data of anamnesis) in most cases. In connection with it, in every case food allergy was confirmed by eliminating and provoking patterns. Due to their results по результатам которых у 65% examined children had food allergy depending on their clinical manifestations, they were registered to have different rates. In most cases food allergy is met in patients ill with encephalalgia (82%) and gastritis/ gastro-duodenitis (75%), a little seldom in patients with arthralgia (63%), nasal bleeding (53%) and enuresis (40%). The products that have the most frequent cause to the development of food allergy in the given group of children were: eggs (40%), corns (39%), milk (22%) and food additional (conservants, colors and others.) (22%). Such products as meat, fish, citrus fruits and nuts were rarely included in the causes of complaints (from 1,5% up to 3% of cases). So depending on clinical manifestations of the disease, the etiological structure of food allergens that caused allergic reactions are different. Frequent causes of considerable allergens in patients with encephalalgia were: milk (36%), corns (36%), eggs (29%); in patients with arthralgia -corns (67%), in patients with enuresis- eggs (75%), in patients with nasal bleeding- eggs (62%) and food additional (38%); in patients with gastritis - corns (42%), food additional (33%).

So, one product can cause an allergic reaction in any "shocked" organ. The investigation showed that the consumption of eggs, caused the appearance of nasal

bleeding and enuresis; consumption of corns caused arthralgia, gastritis/ gastroduodenitis, headache; consumption of milk can cause headache; consumption of food additional can cause nasal bleeding and gastritis. It is rather important to mark that in 59% of cases, food allergy only to one product was marked, in 6% of cases to 2 products and in 4% of cases to 3 and more products.

We know that, food allergy is a clinical manifestation of immunologic process. In combination of immune pathologic basis of allergic reaction cause, 4 types of allergic reactions are defined (Cell P. & Coombs R., 1998). On the basis of analysis of the data of clinic immunologic examination, we determined the leading immunologic mechanisms of development of non typical manifestations of food allergy. Types of allergic reactions were confirmed by:

I type: positive results of skin patterns during 20 minutes, early (during first 2 hours) or out of time (from 2 up to 6 hours) positive reactions when carrying provoking patterns.

II type: presence of increased level of common IgE and/or specific IgE/IgG- anti cells in the blood.

III type: out of time (from 6 up to 12 hours) positive reactions in carrying out provoking patterns, presence of increased level of ЦИК and immunoglobulin M,G in plasma of blood.

IV type: positive results of skin patterns after 24, 48, 72 hours, slow (after 24, 48, 72 and more hours) positive reactions in carrying out provoking patterns with increased level of immunoglobulin M, G in blood plasma.

Hyper sensitivity of immediate type was established in 77% patients, 28% of them had immune complex sensitivity, 55% of them had slow type of allergic response. Analysis of the received data enabled to reveal the peculiarities of immune response inside each clinical group. It was established that, each group of patients had the isolated types of allergic reactions very rarely, as in most cases they have them in combination of other pathogenic development of food allergy (table).

Table 1

Types of allergic reactions in patients with non typical manifestations of food allergy (%)

Clinical manifestations of food allergies	Types of allergic reactions by classification of P. Gell & R. Coombs		
	I	III	IV
Nasal bleeding	61	49	56
Cefalgin	51	33	45
artralgin	75**	22	54
G astrits	100*	17	40

Enuresis	100**	20	80

P.S.: * - p<0,001; ** - p<0,01 in horizontal lines.

So, in patients with gastritis and enuresis of food etiology the I type of allergic reaction is statistically frequently registered (p<0,001), comparing with patients of other groups. Patients with arthralgia (p<0,01), enuresis (p<0,01) and gastritis, gastro duodenitis (p<0,001) often had the combination of I and IV types of reaction. Patients with nasal bleeding and encephalalgia did not have statistically considerable difference in having this or that type immune response as they had practically the same rate of having I, III and IV types of reaction.

Conclusions: Bhigh rate of revealing food allergy (65%) among children with complicated course of different chronic pathology shows that, its clinic manifestation is multiple. Etiological structure of food allergy depending on nosology of the disease has peculiar features. Revealed changes of immunity readings confirm that different types of allergic reactions take part in the development of food allergy and in most cases, the combination of pathogenic mechanisms are marked. The received results enable to recommend to carry out specific allergologic diagnostics with the target of excluding food allergy to the children who suffer from different chronic diseases.

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CIVIL SOCIETY CONCEPT AND TRENDS OF ITS DEVELOPMENT IN TERRITORY OF UZBEKISTAN

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Abstract

The article describes the concept of civil society, its shapes and aspects of its development. It has been analyzed the historical evolution and development of civil society in territory of Uzbekistan.

Keywords: civil society, democratic state, self-governance, non-profit organization, social partnership, association.

Аннотация

Мақолада фуқаролик жамияти тушунчаси, унинг ривожланиш турлари ва жиҳатлари ёритилган. Фуқаролик жамиятини Ўзбекистон ҳудудида ривожланиш тариҳи таҳлил қилинган.

Калит сўзлар: фуқаролик жамияти, демократик давлат, ўзини ўзи бошқариш, нодавлат нотижорат ташкилотлар, ижтимоий ҳамкорлик, ассоциация.

Аннотация

В статье охарактеризованы понятие гражданского общества, его формы и аспекты развития. В статье анализированы исторические эволюции и развития гражданского общества на территории Узбекистан.

Ключевые слова: гражданское общества, демократическое государство, самоуправление, негосударственное некоммерческое организация, социальное партнерство, ассоциация.

Civil society is the societies with a high level of organization, based on a system of relationships and self-governance. There are various associations, public associations, and non-profit non-profit organizations that protect the rights, freedoms and interests of individuals and citizens in the society. They are independent of the government and are actively working on the principle of self-governance.

Hegel emphasizes the unity of private property as he describes the civil society. According to him, first of all, the system of private property-based needs, as well as religious, social groups, family, ethics, duties, culture, education, civil society.[1]

Contemporary Western scientific literature has the unity of associations that are part of the civil society. By scholars such as Sh.Benhabib, J. Koen, A.Arato, M. Walzer, the term "civil society" refers to voluntary associations, churches, and other public associations[2]. These structures have the right to make decisions at the local level and are not controlled by the public authorities. Michael Walzer also notes that volunteering is a key factor in building a civil society. According to him, civil society is literally a voluntary phenomenon, and family and government institutions are denied by civil society. The family has been denied the right to be a volunteer member of the family and, in any case, legitimate, the state's oppression of its citizens has led to the denial of the institution.[3]. L. Lamaski acknowledged this, saying that "civil society is a place of volunteerism built on the principles of liberalism." L. Lamaski connects families, neighbors, friends, various clubs, educational and philanthropic organizations into civil society. However, voluntary associations constitute a civil society.[4]

Looking at the history of developed countries, almost all of them can see that the state tries to intervene in the lives of civil society. The British scientist David Grin explains in his "Return to Civil Society" that M. Thatcher's period of education and healthcare has been reformed without government intervention by citizens. It illustrates how the reforming state has led to the misinterpretation of the civil society and its negative impact on it.[5]. The government is convinced that its intervention is always pursued for good purposes, such as civil society institutions. This process testifies to the unresolved issues in the public relations with civil society.

The views of Navoi on a just society are very close to Farabi's views. Navoi wishes to create a "high society" in his works; Honors the "righteous king" and condemns injustice and injustice in society. It broadly explains the positive aspects of

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such qualities as justice, kindness, diligence, diligence, patriotism, honesty, humanism and heroism. Navoi believes that a just society can be built only by highly esteemed, spiritually-minded people. Therefore, the intellectual implies the idea of building a "high society" on the basis of the rise of human spirituality. It is divided into two people - "people of the people" and "family members", describing each one deeply. Navoi was a centralized, just monarchy system, a "righteous king".[1] But such a monarchy should not have absolute rights, it should govern the state, and rely on the opinion of scholars. In his book Mahbub-ul-qulub, Navoi says: "The righteous king is a mirror and this is behind your throat. It is the night of darkness, and it is the dark night. "[2]

We can not describe the history of Movarounnahr statehood and its development from the Islamic philosophy. Our ancestors carried out secular and religious sciences directly. Whether it is in a religious or a secular way, a human-society-state problem lies in its basis. Only one-on-one religious ideology-based, then colonial policy will pursue a progressive, national cultural heritage aimed at building a just society. As a result, science and education were influenced by the doctrine and the abstract ideas left on their own.

Jadids focuses on the development of spirituality in society. They are committed to raising national self-consciousness through the creation of new schools, publishing newspapers, publishing textbooks and textbooks, introducing new western culture and technology techniques, and promoting it in Turkistan through national-secular education, renewal and enrichment of spiritual life. to create. It is important to recognize that such a political approach is theoretical factor that directly contributes to the development of the foundations of a just-democratic state in society. Of course, they are far from the literal view of democracy. The sources of the struggle against colonialism in Turkmenistan and sources covering its socio-political foundations are reflected in the works of Munavvarqori[3], Behbudiy, Fitrat, Avloniy[4], Huvaydo and others.

In the late 19th and early 20th centuries in Central Asia, racism was associated with propaganda ideas against the policy of invasion. Russia began to pursue its policy when it became colonized the Central Asia. Jadidism was, in fact, a manifestation of the Enlightenment Movement, and its leaders have shown the educative way of

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[2] Navoiy A. Mahbub-ul-qulub // Complete collection of works. -14 vol. -T., 1998. -p.12.
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[4] Avloniy. Selected Works 1, 2. Spirituality. 1998; Behbudiy.. Selected Works, Spirituality. 1999. Fitrat. Selected Works 1, 2, 3, 2000-2003.

overthrowing the country and achieving national prosperity. Mahmudhodja Behbudiy played a leading role in promoting Ismail Gaspirinsky's ideas to Central Asia. He founded the "Shura Islam" organization. Munavvarqori Abdurashidov was one of the leaders of Jadidism in Turkestan. He established the "Shuroo Islam" organization. These organizations lived in Turkestan with the idea of separating them from Russian Empire . They were eager to establish the national-religious autonomy from Russia. Fitrat, Chulpon, and other members of the Jadid movement have shown to the people of the country only ways to get rid of this colonial policy by educating, educating. But in the era of the former Soviet regime, those members of the Jadid became under repression. But nowadays we see that these jadids were struggling to enlighten the people of the country and fight against the ignorance. They condemned the colonial policy and struggled to educate the local population.

Today, since the independence of our country, the civil society institutions have been widely used. Institutions of civil society are active in representative bodies at the governmental and regional levels. There are more than 9,000 NGOs in Uzbekistan.[1] In general, nongovernmental nonprofit organizations are different named in each country. Non-governmental organizations (NGOs) Non-profit organizations (NPOs).[2] According to the legislation of the Republic of Uzbekistan, such associations are called non-profit organizations. [3]

In Uzbekistan, civil society institutions play an important role in promoting the propaganda aimed at raising the socio-political awareness and culture of the population, along with educational institutions, government agencies and their law-enforcement agencies.

Specific objectives for expanding the participation of civil society institutions in the reform process were reflected in the Concept of further deepening democratic reforms and establishing civil society in the country, which was introduced by the first President of the Republic of Uzbekistan in 2012. Political parties, public organizations, NGOs actively participate in implementation of public health, education, environmental protection, employment and other socially significant public health programs. NGOs and civil society institutions today create the necessary conditions for increasing the social activity of the population, ensuring the balance of

[1] http://uza.uz/oz/documents/zbekiston-respublikasi-prezidenti-shavkat-mirziyeevning-oliy-22-12-2017
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[3] "On Non-Governmental Non-Commercial Organizations". Law of the Republic of Uzbekistan. 14.04.1999. Article №763-1.

interests in the society, the effective interaction of the society with the state and social partnership.

Representatives of the "third sector", operating on the basis of broad support of different sectors of the population, include the Youth Union of Uzbekistan, Mahalla, Soglom Avlod Uchun, Sen Yolg'iz emassan, Women's Committee of Uzbekistan, Ecological Movement, the Public Fund for Supporting Public Opinion and other public organizations.

It shows that the wide-ranging structure of civil society institutions in Uzbekistan has been shaped and displayed as an equal partner in building the country's future.

A non-profit non-profit organization is created to protect the rights and legitimate interests of individuals and legal entities, as well as to other democratic values, to achieve social, cultural and educational goals, to meet the spiritual and other non-material needs, to engage in charity activities and for other socially useful purposes. In developed countries, the practice of recruiting NGO leaders and employees to state structures is widespread. The practical experience gained by non-profit organizations in their work allows them to deeply understand the problems of the population and the region, to have a wider worldview of their solutions and to apply new non-standard mechanisms. Thus, today the NGO is becoming a resource of the society not only for the state, but also preparing the reserve of the state.

At present, many unions have joined the Independent Business National Federation as associations of interest groups representing the interests of the business community in the United States. In Germany, there are several groups of interests, such as the Federal Trade Union of German Trade Unions, the Federal Association of German Employers, the Federal Association of German Industrialists, the Taxpayer Association, the Association for Democratic Scholars, the German Sports Association. Craftsmen, students, doctors, cultural workers, various consumer associations and organizations are active at regional, regional and federal levels. There are about 4-5 thousand such associations operating in the GFR. In other developed countries, stakeholder groups are also a major part of society. More than 1 billion non-governmental organizations in USA. They account for 7.8% of the American population. In the United States, public organizations are the main partner of the state in health, education, culture, arts and social protection and welfare. Governments of other developed countries also rely on public organizations, primarily non-governmental non-profit organizations to address key economic,

social, environmental and other issues. In 22 developed countries, 4.9% of the employed population is directly employed in the non-state sector. This figure is 12.4 in the Netherlands, 11.5 in Ireland, 10.5 in Belgium, 9.2 in Israel, 7.2 in Australia, and 6.2 in the UK.[1].

In Russia, the role of NGOs plays an important role in improving social and economic life, implementing social innovations, solving social problems, eliminating health and education problems, shaping a healthy generation, promoting employment and developing democracy.[2] Currently, there are over 300,000 NGOs in the country.[3] They are 16.18% of all legal entities in the country. They include 43.6% of NGOs, 27.7% of public and religious organizations, 11.4% cooperatives, 4.2% of foundations and other organizations. However, government support for NGOs makes up 1.2% of their total funds. The main income was provided by donations from legal entities (46.3%), funds from individuals (9.8%), entrepreneurship income (8.4%), donations to foreign aid (6.8%), other funds (27 , 5%).

We pay taxes to the state, and the state will solve our social problems. Everyone fulfills their duty. This is a correct idea in one aspect. Indeed, the state itself is dealing with social issues first. However, no one state in the world can solve social problems in society alone. The social sphere is very broad: education, science, culture, arts, health, employment, etc.

So, let's look at the answer to the question of why NGOs are needed. In our opinion, NGOs:

It saves public expenditures (budgets). Because NGOs do not receive direct funding from the state budget. Grants provided by NGOs as grants and subsidies provide a more cost-effective solution to social problems;

- timely identifies and informs all social problems in society;

- provides advice on the solution of social problems, develops and implements new experiences;

- relieves the "headache" in the community, reduces the pressure, and so on.

Non-governmental organizations are usually pressing the government in developed countries and play an important role in providing advice to politicans on

[1] Anheyer Helmut. Civil society and the "third sector". "Deutschland" journal, 2000, No. 4 - pp.22-23
[2] http://www.socpolitika.ru/rus/ngo/research/document4693.shtm
[3] B. Ov-Freytag. Non-govermental organizations. "General Notebook" journal, No. 4 (50) 2017.

specific issues. In addition, these organizations have a wide membership base and their own internal sources of finance, such as trade unions, chambers, sports clubs, etc. They recruit (involve or hire) their members in a very narrow range of selected activists who are not involved in them, and these activists act on their behalf. Thus, world experience shows that, firstly, the process of transferring public functions gradually to public organizations is taking place; Secondly, the tendency of increasing the role of non-governmental civil institutions in addressing social, economic, political and cultural challenges is increasing; Thirdly, there are emerging trends in the solution of local issues through interstate civilian bodies; Fourthly, interest in civic institutions in education and culture as well as in the field of information technology is growing; fifth, large-scale, international, transnational nongovernmental nonprofit organizations are emerging.

As we have seen above, there is a historic potential to ensure the full independence of non-profit organizations and other civil society institutions. In Uzbekistan, all necessary organizational, legal and financial conditions for the formation and development of sustainable civil society institutes, which are supported by the broader strata of the population, consistently implement the principle "From a strong state to a strong civil society" created. It is only a matter of to further improve the mechanisms of its implementation with the modern methods in the sphere.

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NATIONAL TRADITIONS AND CEREMONIES AS A CRITERION FOR HIGH SPIRITUALITY

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Resume. The study of Uzbek customs and traditions plays an important part in today's scientific process. This article highlights the main goal of our people and especially young people to build confidence and belief in national-spiritual values.

Резюме. Ўзбек урф-одат ва маросимларини ўрганиш бугунги илмий жараёнда муҳим аҳамият касб этади. Ушбу мақолада халқимиз ва асосан ёшларнинг миллий-маънавий қадриятларга нисбатан ишонч ва эътиқодини мустаҳкамлаш асосий мақсад эканлиги баён этилган.

Резюме. Изучение узбекские обьичия, традиции и проведение мероприятий, уделяет особое внимание в современном, научном процессе. Основная цел этой статьи закрепить доверие и убеждение нашего народа и молодежи о национальном духовном достоинстве.

Key words. National culture, high spirituality, cultural heritage, values,inheritance, traditions, ceremonies, mentality.

Калит сўзлар. Миллий маданият, юксак маънавият, маданий мерос, қадриятлар, анъана, урф-одат, маросим, менталитет.

Ключевые слова. Национальная культура, высокое духовность, культурное наследство, достоинства, обычия, традиция, церемония, менталитет.

Introduction

Every nation in the world is unique with its valuable traditions and ceremonies. Naturally, such kind of values and traditions of different nations did not appear in a day or so. Several thousandfold experience of nations indicates that the demonstration of something into a valuable tradition requires a long period of time. Over the years, centuries, certain attitudes, notions, concepts, experiments stand a serious trial of generations and improve. If they are accepted by the following generations, and continue becoming a special tradition, then we may call them as our national traditions and values. If we describe with the words of President Islam Karimov, "the value is such a thing, has shaped its own place not only in our lifestyle, but also has got a stable position in our souls, which is not reflected in any official document and followed by the people"[1.83].

Uzbek national culture has got a long history. The most historical written sources can be seen in many religious, scientific, and literary works, ranging from Avesto up to now, for example in the genre of folklore, reflecting rich cultural heritage and unique ceremonies of the people. They are lifelong due to the fact that they have been repeatedly duplicated by the original, diverse traditions and ceremonies created throughout the centuries and by the people. Traditions and customs are traditionally has been living in the form of stable traditions connected with their religious beliefs. The traditions of the Uzbek people have been shaped by complex processes in the harmonization of cultural skills, traditions and customs of all the tribes and peoples participating in the formation of the Uzbek nation for centuries. They are very bright and diverse, and most of them appear in various family ceremonies.

From the very first days of independence, historically significant work has been done to restore the memory of our people, to study ancient traditions and rituals. During the years of independence, many books, articles and scientific researches on the culture and spiritual heritage of the Uzbek people were published. However, the size and scale of the national traditions and customs of the Uzbek people are so large that each of its fields or networks can be a separate source of research. Moreover, the

study of the nation-wide basis of nationalization in the context of today's transforming globalization of national values is one of the most important tasks of our self-preservation.

The state pays special attention to the further development of the spirituality of the people. During the years of independence, the first President of our country Islam Karimov has developed and implemented the Concept of spiritual perfection of our people, the convergence and development of national unity. A changing time and a renewed space logic is a requirement of time, since spiritual awakening, vigilance, enlargement, and comparisons are needed in the agendas of the need to build new qualities that have not yet been developed nationally. At the same time describing the concept of spirituality, the scientist M. Imomnazarov called it "divine light." It is well-known from this definition that the cultural heritage that is the basis of the spirituality of our people is that the traditions, customs and rituals that we have been inherited from our ancestors are an important criterion that nourishes our spiritual world, enriching our minds and thinking.

Today, it is crucial for us to avoid all kinds of harmful influences and to preserve and preserve our ancient traditions and values in our everyday circumstances, while preserving our national identity and unique qualities.

The first President of the Republic of Uzbekistan, I.A. Karimov, wanted to know the history of each nation, people and nationality, so our scholars have stated that the scientific history of the Uzbek people should constitute a comprehensive concept of the essence, spirituality and culture. "We know not the people, but the culture, the spirituality, and the history of the people. We look deep at the background of people"[2.144]. These words of the first President point to the fact that the study of Uzbek traditions and ceremonies, which are our national values, plays an important role in today's scientific process. The well-known ethnographer and historian I.M.Jabborov claimed: "Studying our historical heritage is not only of great scientific significance, but also an important factor in the enjoyment of the spiritual treasures created by our great ancestors, the solution of socio-political problems, and comprehensive human development" [3.3].

In order to create a moral and ethical environment in the community and raising a child through the development of a healthy, full-grown man:

Firstly, it is necessary to prepare today's younger generation to prepare them for family life through the formation of national values, including family traditions, customs and rituals,

Secondly, in the era of globalization, it is important to preserve the younger generation from the influence of negative and adverse ideas on our national values, as well as to bring them up as the worthy successors of our people's noble traditions and customs. Today, under the mask of "mass culture", people are worried about the dangers of moral degradation and violence, dissemination of ideas of egocentrism, the destruction of national traditions, which are the spiritual basis of our nation's centuries-old traditions and values, and their obliteration. The rich spiritual heritage of our ancestors, beautiful and unique national traditions and customs are the important factors in fighting against them. The preservation and maintenance of such national ceremonies and traditions imposes a great duty on every young generation.

Our first President Islam Karimov noted in his book "High Spirituality - Invincible Power" the following lines: "We consider the national heritage, the values and concepts that have passed through historic tests, meet our national interests, today's and future aspirations, meet the demands of development, and grow over the years."[4.82]. Certainly, the more we enjoy our people, especially young people, from this invaluable heritage, the more we get so much powerful educational material in raising our national spirituality and upholding the noble human qualities in our society. Indeed, national values serve as a benchmark for the daily life and lifestyle of the people. Through these values, various events and situations, new types of activities and drawings will be evaluated.

There are traditions, customs, traditions and rituals of the Uzbek people that can play a major role in upbringing young people as a comprehensively advanced generation, to introduce them to everyday life in the child's consciousness, everyday life - to prevent young people from being exposed to spiritual threats.

Based on the opinion of the experts, the following goals and objectives should be based on the national ideals of young people in their world outlook:

- If young people do not rely on national and spiritual values in their world, entirely strange values may replace it their minds and thoughts. There will be a lack of respect for their national spiritual values.
- Studying the current state of youth attitudes toward national and spiritual values can help to determine what values are most important in their practical work. The main purpose of the project is to strengthen the youth confidence and belief in national cultural heritage and values.
- The youth's commitment to national and spiritual values is based on the specific and sophisticated development path chosen by Uzbekistan and sets

clear goals for young people[5.16]. Our national values, passed centuries, are inherited from ancestors to generations. The ceremonies, customs, traditions and values of the Uzbek people are very abundant and beautiful. The high level of relationships in the talented youth, who are confident in the future of our country, especially researching for the future of the country, for its future, social spirit, national traditions and customs, will ensure the country's future.

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TRADITIONS AND CUSTOMS RELATED TO BREAD PRODUCTS IN KHOREZM OASIS DAILY LIFE

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Rezume. In this article, learning Uzbek Khorezm dishes, the superstitions connected with food, the process of transformation in traditional cuisine of Khorezm.

Резюме. Ушбу мақоланинг мақсади ўзбек анъанавий таомларини ўрганиш, шунингдек Хоразм таомлари билан боғлиқ бўлган урф-одат ва маросимларни тадқиқ қилишдан иборат.

Резюме. Основная цель этой статьи изучение узбекские традиционные блюда, обычаи и традиции связанные с блюдами Хорезма, трансформационный процесс в хорезмской традиционной кухне.
Key words. Values, Tradition, Tradition, Khorezm Meals, Rituals, Rituals related to food.
Калит сўзлар. Қадриятлар, анъана, урф-одат, Хоразм таомлари, маросим, таом билан боғлиқ ирим-сиримлар.
Ключевые слова. Традиции, церемонии, Хорезмские блюды, обычаи и приметы связанные с блюдами.

Introduction

Since ancient times, bread was the main food for human beings, the respectful attitude towards it and especially there was a respectful attitude among the local people of Central Asia. In particular, during the ceremony of Drvana - white bread was offered to the god Surish at the mazda ceremony of Zaroastrians. In addition all the food besides aqueous liquids that is offered to gods such as the meat, fruit, bread and others were called "mazda" in the Avesto dictionary. The surface, width and bread level of the bread is the symbol of the sun; it was created with absolute honesty and purity in comparison to the moon; The three fragrant stumps on top of it are good motives, noble words, good deeds. Water was considered as the symbol of greenery, as the fruit, and river are the symbols of summer pastures s and forests.

Indeed, the bread was precious in God's sight, and it was a sacred blessing of all family marriages. In Uzbek families, children are trained in the spirit of nourishment and non-extraction of the bread from childhood. Bread has never been trampled. Pressing the bread on the ground was a grave sin. The whole loaf of bread was broken by the head of the family at the table. Handling bread with knives or other cutting tools was regarded as disrespect for this sacred blessing. In all ceremonies except a mourning ceremony, almost all the guests brought bread with and in turn took the bread with them.

Bread is a sign of coexistence and amity when a dispute, disagreement, and uncertainty arise among people, in the way of reconciliation and promise on oath by taking the bread in hand. We can see the high esteem to the bread especially when the two loaves of most dignified and noble bread were broken small pieces at the wedding feast of young couples. The bread was always at all people as a preserving remedial from misfourtune and disaster during long journeys, mothers gave bread to bite for their children when they were circumcised by wishing fertility, abundance and while seeing off their children to the military service they fed them with a piece of loaf of

bread and wrapped it and hung on the wall in his room with the great hope of their coming back safe and sound.

Since ancient times, the bread has been a great blessing for our people since people obey the saying ‘there is no other food in your home but only bread’[1,35]. Baking bread is also original in oasis, as it mainly baked in ‘tandoor’ or outside-oven. The good appearance of the bread depended on the doughiness of the dough and the quality of yeast. In the oasis the yeast is called the ‘poyyr’ or ghee. For a nice baking dough, after dough has been exceeded it is made in balls,then diced and spread on a tray. It was then rested for a while, in order to prevent it from sun rays or taking it to outside, as it was understood that the bread would become "bladder" and the above points would be avoided [2. 141, 107].

Among the population of Khorezm oasis, bread baking was different according to seasons. For example, the bread was more softly kneaded in the winter while it would have to be very hard in the summer, which meant that the dough would not spread in the heat of the summer. Also, after the dough is kneaded, it is carefully guarded that children can not jump over without knowing it because it is considered non-nutritious.

The diversity of bread in Khorezm testifies to the fact that the population living in this region has a unique experience of baking it. Bread and ‘patyr’s (special type of bread baked without yeasting) had the following kinds such as ‘cho`rak’ bread, ullynon(large bread), bread with pumpkin, patyr types as buttermilk patyr (in Khiva, Yangariq, Baghot, Urgench districts), red patir or with tomato, tomadoorvadyk patyr, layered patyr, meat-patyr, onion bread, cereal bread, milk patyr, jizzali (leafy) patyr, mincedmeat patyr,green patyr and other varieties of bread were baked. Traditionally, the Tomordurvadik patyr was cooked in Khonqa district of the region, while in Khiva and Khazarasp districts the layered patyr was famous [3. Field records].

In addition, the corn bread was made from corn and sorghum flour, barley bread from barley flour, millet bread from millet flour, bran bread baked wheat bran and flour during the years of drought [4. Field records]. Later the corn-bread from millet and sorghum was no longer in consuming. The wheatbread was mostly preferred by the local people. Baking bread wheat flour was becoming more and more popular.

The bakers were especially distinguished among the workers who worked with the mills. In the documents, the bread maker, the baker's bread oven, is placed on the customer's desk as a bread oven, a bread oven assistant, and a bakers’ ruler. The bakers were preparing bread for the order and for sale on the market. Variety of breas was baked by bread bakers. Among them baking ‘cho’rak’ was the popular cooking. In some solemn ceremonies, the special type of bread ‘sugarbread’ - the preparation

of it with sugar beet was in tradition. In the mansion there was also a "sorghum bread" type, which is often made from the mixture of white sorghum and wheat flour [5. 43].

The Russian trader Abrosimov, who was in Khiva in mid XIX century, said that the bread of Khiva was a large bread made in ‘cho’rak’ or large pan, which a loaf of it was enough for one person whole day, and that it would be sold for 5 coins in the Khiva market [6. 31]. The bread in the Khiva khanate was baked in tandoors or outside- ovens. However, Abrosimov's writings suggest that the bread cooked in oven was also available in that period. Supposedly, this type of bread should be ‘chalpak’ (a type of cooked bread). Abrosimov might have come to the conclusion that the bread was cooked in Khiva, when he saw a piece of cooked bread dish in pan with butteroil in Khiva.

The bakers tried to place their bakeries in or near the market area. But it was not always possible. They had to rent or rent a land for the bakery and sale of bread in the market area. According to the 1960s, only 18 people were busy cooking bread in Khiva [7. 139]. It is clear from the available information that males were more engaged in baking.

At the beginning of the 20th century, ‘bo`lka-non’ or ‘bukhanka’ (rollbun bread) in the towns came into use and in the local language it was called "O'risnon"(Russian bread). This bread was very popular among the people [8. Field records]. At first black then white roll bun bread was originally sold.

In the spiritual life of the people of the region, bread and bakery traditions can be seen in the values such as belief in bread, conservation, preservation, and its nutrition. In the family, children are educated in the spirit of nourishment and nourishment from childhood.

Following to the “bread-breaking” tradition can be seen as a high appreciation of the bread and the symbol of bread can be noticed [9. 39-48, 123] by baking of various bread, the bread is the symbol of fertility and cooked at Navruz and other rituals related to agriculture. Not only bread, but also wheat straw was viewed as a symbol of productivity in Western Europe [11. 375] “Cho’chak non [12. Field records]” “The porcine bread” was baked as a healing of disease and “galin cho’rak(bread for the bride) [13. Field records], kuyov cho’rak(bread for the groom) [14. Field records]” were baked for the bride and the groom pointed to that the bride and groom may have happy and peaceful life.

Many calendars, festivals and family rituals performed in Khorezm's Uzbeks are often accompanied by a series of bread-related customs and traditions that will continue from making til they are baked in oven and served to the people. For example, if the ‘supra’(special cloth on which the flour is sidted and dough is made by putting the dishon it) spread, of course, it was emphasized that this woman was to

collect it, as it was considered to be a part of the provision and share [15. Field records].

When the dough is made, there is no other way to wash the hands, since the dough is purity, so it is not necessary to mix it with another affair. Women started doing wudu 'before making dough, cooking, and began to work with blessings ‘bismillahi rahmannir rahim’. When making dough the knife is not used, bread is not cut with a knife, as it is bewlieved to bring misfortune to the doer person cutting it [16. 214].

In the Khorezm oasis, bread and meat were placed in the bride’s safe as the share of the groom [17. Field records]. As elderly people say, many immoral and evil forces on the ground cannot come to the place with bread [18. Field records]. For this reason, to prevent from the evil eye and a cure of the evil forces, the bread was put under the pillow along with other magical ingredients and a crib, of a newborn baby or a crafted child. At first dried cow dung were used to heat the fresh baking tandoor. The idea was that if the cow dung was burned for the first time, there would be plenty of bread and fertility in this house [19. 311].

In the Khorezm oasis, it is said that in the festivals, holidays, celebrations of the birth of children, or the property of the owner of the house another bread dish ‘bughursoq’ is cooked as ‘mushkuli kushod’. Even a they told fortune looking at it. That is, the name of the pregnant woman has been told and the bughursoq thrown into the heated oil. If the dough had swollen, the boy believed to be born and the girl would be born if it was cracked. In Khorezm, it is made in the form of an abdominal rhombic as in Bukhara, Samarkand, Kashkadarya and Surkhandarya regions while in Fergana and Tashkent it was cooked in the round shape.

Another type of bread is qatlama(folding), which is often made with the patyr, and mostly made from a bridegroom in engagement ceremony before wedding to the bridle. Elderly grandmothersslіced them and served to the guest participants by wishing them such happiness, they spread a ‘qoghoki rumol’(big white kerchief) putting loaves of ‘patyr and qatlama’ and sweets on it, folding them together. Therefore, in the oasis when there is patyr and qatlama on the table usually they ask, "Whose wedding is upcoming? "

The ‘qatlama’ is also consumed by the majority of Central Asian peoples, mainly in thin, valley Turks called it ‘chewati’, by qurama people as yuqma. Between the fine dough, the oil is cooked in a boil. The butter spread among the thin layers of round dough and fried in heated oil.

Thus, from the above considerations, bread can be seen as the most delicate and caloric aspect of Uzbeks, as well as the most holy and sacred blessing. In addition,

local people have said that bread is a magic power that can prevent bad things from happening, and many related customs and traditions have been accomplished.

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SANDIQLI QALA-THE EARLY MIDDLE AGE MONUMENT IN SOUTH KHOREZM

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Annotation. This article implies the results of archeological excavations implemented in the early Middle Age monument – Sandiqli qala in South Khorezm.

Аннотация. Мақолада Жанубий Хоразмнинг илк ўрта аср ёдгорлиги Сандиқли қалъасида олиб борилган археологик қазишмалар натижалари ёритилган.

Аннотация. В статье освещается результаты проводённых археологических раскопок в раннесредневеком памятнике крепосте Сандикли Южного Хорезма.

Key words: monument, South Khorezm, Khazarasp, pandus, burj, defensive wall.

Калит сўзлар: ёдгорлик, Жанубий Хоразм, Хазорасп, пандус, бурж, мудофаа девори.

Ключевые слова: памятник, Южный Хорезм, Хазарасп, пандус, башня, оборонительная стена.

As we know, in the Khorezm region archeological monuments pertaining to the early Middle Ages were investigated thoroughly, especially on the right bank of the Amudarya. Cultural relics related to that period were partially preserved on the left bank of the river that inhabited intensively. They have not been studied completely.

Most archeological excavations were satisfied with field investigations, mostly, this process involved the identification of their ages, locations, stratigraphy and topography. [3, p 25-26]. Sandiqli qala is one of the less delved vestiges. The monument of Sandiqli qala is located in the territory of Mukhomon village, 3,5km south-west from Khazarasp. Initially, this vestige was studied by M.Mambetullaev in 1973-1974 while drawing archeological map of Khorezm region.

Nowadays, the formation of that relic is in the square shape, its size 114x114 m , occupies approximately 1,2 hectare. The angles of that square shows four sides of the world. The trace of the collapsed wall can be easily seen along the perimeter (except oriental direction). The hill in the size of 22x28 in North- western corner resembles an arch.

Almost whole western part of the monument eroded seriously. The entrance to that monument was available only by pandus between southern wall. Width of the pandus is 25m.

In 2014, scholars of Urgench State University and Mamun Academy in corporation implemented the first archeological research in the monument of Sandiqli qala which is situated in Mukhomon village in Khazarasp.

The aim of that research included studying how the relic came to the existence, its developmental stages, protection system and internal structure along with the importance of the monument in the territory of South Khorezm during the ancient and the early Middle Age. To study abovementioned matters, excavations in 2 areas, transheya in one area and shurf in one area were fulfilled.

Shurf and transheya did not give results as expected. Important achievements were seen in the first and second excavations. Western and South-western walls if monument were scrutinized, especially, the surface of the wall was cleaned from soil and others so as to study, its outer and inner boundaries were found.

Defensive wall was built on thin grey sand-hill and the alliance of brown muddy soil along with pebbles. The total thickness of the defensive wall constitutes 8,7m, preserved height of it is 3m.

If it is seen by outer and inner parts that will be obvious that defensive walls were built by means of different shape of adobe; 35x35x10, 36x36x10, 38x38x10 cm. Such sorts of adobe were widely used to construct the early Middle Age monuments in Khorezm [7, p 249,251]. The remains of the burj of defensive walls in South-western corner of the relic were carefully examined. As a result, the probability of the wall of the burj in the quadrate shape became apparent by the wall construction.

Merely few artifacts were found during the excavation carried in this area. Identified remains of crockies belonging to 2 periods, namely; 6-8 centuries, as well as 11- 12 centuries were studied. The structure of the defensive walls also shows that this monument belonged to 2 different historical periods.

The first historical period was 5-8 centuries, defensive walls were built from fundament up to top with different 35x35x10, 36x36x10, 37x37x10, 38x38x10 cm sizes of adobe. Probably, these walls consisted of two rows. Moreover, the corner burj was mounted as a square shape, these traditional styles pertained to Ancient Age continued in the first centuries of the Middle Age.

The second period, 9-13 AD , reconstructions were held in the main wall. The middle of the adobe walls filled with wattle and daub and the wall was built by the row materials. In this period, the defensive walls consisted of just a row. Material evidences that found during the archeological researches show that life existed here until the Mongolian conquest.

The monument of Sandiqli qala was planned almost in the square shape (114x114). As we know, square or quadrangle burjs are considered to be style used in the ancient age. Analysis shows that such burjs appeared in the territory of Khorezm and Central Asia in the Middle Age and partially were developed in Middle Age monuments. Likewise, it might effect on building firm constructions.

The existence of square or quadrangle burjs in the late ancient period monuments like Tuproqqala [2,p 56-72, 6,p 113-115], Anqaqala [6,p113-115], Dumanqala [6 p 118] might influence on building firm constructions in the early Middle Ages. In Kuchkaqala [6 p115] belonged to the early Middle Ages, Buronqala No.1, Noibqala No.1 and No.2 related to 9-11centuries square or quadrangle burjs indicate that ancient age traditional defensive architecture lasted partly. Such above mentioned shape of burjs were found in different parts of Central Asia, the monument Urtaqurgan in Tashkent [5,p 323], Qalai Qahqaha [5,p 220], Yunusobod Oqtepa [5, p 285] , Koson in Fergana region [5, p296] were built in this architectural style.

The construction of Sandiqli qala seemingly, played an important role in the planning of Khazarasp that is far 3,5km. According to the conclusions of the first investigators of Khazarasp history, the area of it was 280x294m[1p 195] which is almost quadrate. The monument resembles the small model of Khazarasp. The gate built in the middle of southern wall and quadrangle sketch burjs can prove above hypothesis.

It is supposed the ruler of Khazarasp might order to build a small sample of Khazarasp so as to sustain its view in the Middle Ages.

Thus, archeological artifacts found in Sandiqli qala related to 5-13 AD indicate to the cultural economy of Khazarasp and how architecture and the knowledge of defensive residential constructions were developed and lasted by our ancestors. The quadrate layout of the monument, defensive elements display how our ancestors acquired high knowledge in terms of building. Archeological evidences found in Sandiqli qala have vital role to imply socio-economy and ethno-cultural relations in the early and developed Middle Ages in Khorezm.

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THE TERM "TRANSITION PERIOD" AND ITS FEATURES OF APPPEARANCE

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Аннотация

“Ўтиш даври” адабиётларда жуда кам ўрганилган мавзу бўлиб, мазкур масалани ўрганиш мухим аҳамиятга эга. “Ўтиш даври”, ўта кенг ва мураккаб тушунча бўлиб давлатлар тараққиётини бир босқичдан иккинчи босқичга кириб бориши билан боғлиқ жараён ҳисобланади, ҳамда барча давлатлар бу даврни бошидан кечирадилар. “Ўтиш даври”га илмий адабиётларда муаллифлар томонидан берилган таърифлар ва ёндашувлар мазкур мақолада ўз аксини топган.

Калит сўзлар: “Ўтиш даври”, мамлакат, давлат, “транзитология”, модернизация, иқтисодий, сиёсий, маънавий соҳалар, жамият, фаровонлик.

Аннотация

Тема переходного периода в научных источниках мало освещена, однако её изучение имеет для науки большое значение. Понятие “переходный период” является широкой и сложной и все государства при переходе с одного этапа развития на другой переживают этот процесс. В данной статье отражены различные определения и подходы понятия переходного периода освещённые в научных литературах.

Ключевые слова: “Переходный период”, страна, государство, “транзитология”, модернизация, экономическая, политическая, духовная сферы, общество, благополучие.

Annotation

"Transition period" is a very rarely studied subject in literature, but its study is of great importance for science. The concept of a "transition period" is broad and complex, and during this period, states transform from one stage of development to another and certainly all states experience this process. Various definitions and approaches of the concept of the “transition period” are illuminated in this scientific literature.

Key words: "Transition period", country, state, "transitology", modernization, economic, political, spiritual spheres, society, well-being.

“The transitional period” has been studied very little in scientific literature as an independent subject. The main reason for this is that,it is difficult to clearly define the problem of its precise criteria and the beginning, as well as the ending. In addition, some scholars say that the "transitional period" continues until the society develops to the level of civil society, and claim that it is a continuous process, while the others state that it is more important to examine the processes of it than the term and essence of the "transitional period".

In short, the study of the transitional period is behind its growing demand. The study of this issue has both theoretical and practical significance for Uzbekistan, which is experiencing a complex "transitional period" today. Studying it allows us to define the levels of society we are building and to give us a clear idea of what happens when we reach it.

The transitional period is an intermediate period that occurs during the development of all states. It is a general rule for any country. Because,states cannot suddenly rise to the level of high development as soon as they arise, but they are formed first and experience certain stages of development. The processes of the formation, development and rise of each state were studied by scientists and are still being studied today.

But the questions, what is the transitional period?, why it is called the transitional period? – are studied very little in our scientific literature. To answer that question, there is a need for a concept that combines ideas about the transitional period. Particularly, this need is intensifying in the development of countries' diversity, problems and the ways in which they can be solved.

In fact, what should be understood when we refer to the transitional period? The Spirituality Glossary defines the transitional period as "a transition from one

stage to another, from a specific quality to a qualitatively new state of development of humanity, states, peoples and nations."

Prof. M.Girgizbaev believes that "the period of transition is a short period of time (several decades), during which the administrative and command system is abolished or it is radically changed, and the basis of the market economy is formed."

Leonid Levitin, a scientist who deals with the transitional period, writes: "Usually, they clearly understand the words of the transitional period, and think that it is between the past and the future. In the emergence of the transitional period, according to such views, the past - the cause, the future - will appear as an intention". As it is seen from this comment, "transitional period" means "intermediate." Of course, such a view can be an important basis for the development of the theory of transition.

There are various opinions about the transitional period, and attempts to formulate their clear-cut theory are continuing. In fact, the transitional period is a broad and very complex concept, which is the process of transition of the countries' evolution from one stage to another. The breadth of the problem is that the scale of the problems that arise at the outset of the transition period is quite extensive, and the lack of clear-cut standards in one's country experiences, the ability to develop a "model" for each country and to turn it into reality. Another complexity of this is that each country has a necessity to effectively utilize existing domestic capacities and that the need for an organized intellectual layer, which is capable of consistently solving common goals and objectives, is inevitable. This process is a common law that countries need to take from the very beginning to their next stage.

Transition from one socio-economic stage to another is a general rule, but the processes of transition to these stages differ from each other. The prevalence of them is the need to move to a new level as a result of the failure of the old to meet the demands of the development. In this sense, the main direction in the transitional period is not "a return," but a "forward", a rise from the bottom to the top, or to a higher level of development than before.

Despitethe various attempts to save the old regime, the bloodshed, and the various tragedies faced by the nation, Regardless the degrees which they occur,the main trend of the transitional period still remains unchanged.

The scientific course that examines the transitional period is called "transitology" and derived from the Latin word "transitus" - "transition". In transitology, transitional period is defined as part of social life, the stage of social development, its main content - modernization, the renewal of the economic, political and spiritual aspects of the society. The highest point of this period is to reach a stable

economic growth, as well as stabilizing the political and social structures of the country.

However, it is necessary to answer the question of what size criterion should this “modernization” be? Indeed, "time" is just a moving, progressive process. If this is the case, when will the transition be accomplished? Is there a criterion of completeness, or is it a continuous process as "time"?

In fact, in our interpretation above to the transitional period we referred to it as a necessary period to transform from one socio-economic regime to another. And in accordance with our conceptual idea, it is a gradual process that will end after a certain period of time, and the society will begin to live at a higher stage of development than ever before. We need to understand and imagine this process clearly. Otherwise, the humanity would live experiencing this process, and there would be wrong conclusion that this is an endless process.

In our view, the duration of the "transitional period" or more precisely the "intermediate" stage that is necessary to move from one socio-economic, political order to the next, ends with the emergence of a new socio-economic, political system, and a process of sustainable development.

The conceptual idea here is that humanity does not live only through the "transition period," but as it has the beginning, it has alsoits “ending”. This "ending" shows the degrees of development andmakes it possible to distinguish one regime from another. The end of the transitional period ends with the normal working conditions of the new system. Under these circumstances, the stable functioning of the mechanisms of the new socio-economic, political system in various spheres of the time, at the needs and levels of the development, will be released. More precisely, from the point of view of the time, the process of sustainable development occurs in the life of the state.

From this point of view, it is possible to agree with Leonid Levitin's view that he considered transitional period as a "modernization" criterion. His definition "the period can be called as “transitional” when such a modernization has reached its definite end, more precisely, when the country achieves sustainable economic development and political stability" can be regarded as correct in case we consider it from the point of view of the time.Humanity and processes of socities’ development can be evaluated fairly, if we consider it like this.

Indeed, the full support of the needs of the people and the growth of society's progress are only possible when the civil society is established. However, it is not scientifically correct to view civil society as a "last resort" that can satisfy the needs of human beings, the society that has risen to the highest position and does not need any further

development. Because, only the necessity arises development. From the moment the necessity ceased to exist, the development will stop too.
However, it is still difficult to show the place where the humanity is living in a fully civil society. In this sense, today humanity looks at itas an ideal and is active in its construction.
When we think about the transition period, it should be noted that all the systems up to civil society cannot fully satisfy the needs of people, so that they can move from one to the other objectively as the need arises. This, in turn, entails a transition to a new system.

Certainly, in spite of the fact that there have been tensions, huge social difficulties, even wars and bloodshed in the lives of people during the transition from one socioeconomic system to another, the emergence of one socioeconomic system from another has been an objective necessity.
However, transition to a society based on democratic principles varies by a number of specific features. They are: First, in some countries, democratic processes have emerged in a system of market economy andit is revealed through its efforts to provide for the welfare of the people. Truly, this process did not take place smoothly, but it was too complicated and suffered great losses. The choice of the right way to deal with these complex problems, in short, the development of society for the benefit of the people, has led capitalism to become a society that ensures the full rights and freedoms of the people and for public "capitalism"; Secondly, some countries, that haven’t seen the potential of market mechanisms, have been lead violently from the path of transition to a communist society, which provides with scientifically fraudulent "people's welfare."
The experience of choosing this path indicates that: a) it is impossible to accelerate the development of the society artificially; b) The use of force and violencedoes not radically alter the life of the community and that force and violence, may continue to be used to achieve priorities; c) confirms that the duration of the transitional period should not be assessed according to the fullness of the rule of the political power, but the welfare of the people and the freedom to achieve it in all areas should be main criterion;
d) It is impossible to move to a democratic society without revealing all the opportunities of the market economy, and that the market relations themselves cannot be artificially implemented, and certainly a certain transitional period will be necessary;
Based on the above, the following conclusions can be made:

First, until now, the independent theory of transition has not been developed. Consequently, countries are trying to "shift away" to a democratic society without overcoming a certain historical stage. This, in turn, creates great catastrophes in some situations in their lives;

Second, democratic processes cannot be "exported" to countries that live in conditions where market relations are not established. Such attempts may lead countriesto instability. In this process, democracy should not be "exported" to countries, but should be directed to the creation of conditions for its formation;

Thirdly, “the transitional period” is not a socioeconomic, or political system, but a historical intermediate stage for the formation of that system.

Fourthly, no matter how different the transition period is, it is necessary for all socio-economic and political systems. Because itprepares opportunities for a new society. These opportunities will be necessary not only for the economy, but also for the people who live in the same society to "adapt" themselves to a new one.

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INVALUABLE CONTRIBUTION OF OUR ANCESTRY INTO THE WORLD SCIENCE DEVELOPMENT

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Аннотация: В статье рассматривается историческое наследие учёных и мыслитетлей средневекового востока особенное наследия, великого хорейзмица АЛ-Хорезмий.

Ключевые слова: алгоритм, ал-жабр, арифметика, десятеричная позиционная система, климат, трактат, древняя Хорезмская цивилизация.

Аннотация: Мақолада ўрта асрда шарқ олимлари ва мутафаккирларининг тарихий мероси, жумладан буюк хоразмлик аллома Ал-Хоразмийнинг ўлмас асарлари тахлил қилинган.

Kalit so`zlar: алгоритм, ал-жабр, арифметика, ўнли саноқ системаси, климат, таракатат, қадимий хоразм цивилизацияси.

Abstract. The article illustrates historical heritage of middle age scientists' especially great Khorezmian thinker Al-Khorezmys scientific creations.

Keywords: algorithm, algebra, arithmetic, decide number system, climate, tractate, ancient khorezmian civilization.

In the Resolution of the First President of the Republic of Uzbekistan Islam Karimov "On preparation and holding celebration of the 23rd anniversary of the state independence of the Republic of Uzbekistan" of July 1, 2014, main areas of health, science, culture, art and sport are mentioned as a priority areas of the corresponding program of activities.

In Uzbekistan, over the years of independence, much has been done to preserve and enrich its historical, cultural and intellectual heritage. Evidenced by the results of

the International Scientific Conference “Historical heritage of scientists and philosophers of the medieval East, its role and significance for modern civilization”, organized on the initiative of the head of our state in Samarkand.

The main goal of the conference were scientists attended from more than 40 countries of the world, deep study and comprehension of the intransient significance of the historical and scientific heritage of scientists.

According to the estimates of international experts and other representatives the conference was held at a very high level, it is of great importance for further study of the priceless heritage of our great ancestors.

In their speech at the opening of the conference, the First President of Uzbekistan Islam Karimov paid special attention, in particular, to the scientific heritage of the great Khwarezmians Al-Khwarizmi, Al-Beruni, Mahmud al-Zamakhshari and other scientists.

When we talk about the great scientific discoveries of the early period of the medieval East, among the first we call the name of Muhammad Ibn Musa Al-Khwarizmi, who made an invaluable contribution and modern mathematics, trigonometry and geography. He was the first to substantiate and introduce the decimal positioning system of calculus, the zero sign and polar coordinates, which became turning points in the development of mathematics and astronomy. ... Al-Khwarizmi merits in the development of world science are universally recognized, his name and works, unique among scientists of the medieval East, are immortalized in modern scientific terms, such as “algorithm” and “algebra” the head of our state noted.

These words inspired me, the Khorezmian, who studies the history of his native land, the priceless works of scholars and philosophers of ancient Khorezm. I believe that every our land must know the names of the great ancestors of the region, their contribution to the development of world civilization and is proud of them. Therefore, I would like to share some thoughts on this matter.

Khorezm, speaking in modern language, is the land of an ancient, original civilization, since ancient times it has been famous for its scientists who left their mark on the development of the universal civilization.

The Khorezmians developed back in pre-Achaemenid times, in the third millennium BC. as evidenced by archaeological research, large cities existed here already in the IV-V centuries. BC. Their inhabitants had their own language, their writing in the IV-II centuries. BC. This language, now not preserved, was still in use at the time of Beruni (XI century). In ancient Khorezm high development reached in the fields of architecture, monumental sculpture, painting and music.

The largest researcher of the ancient Khorezm civilization S.P. Tolstov wrote: “Antique Khorezm created an artistic culture. The monumental architecture striking with the proud grandeur of its forms, the magnificent plasticity of monumental clay statues, terracotta statues and reliefs, the subtle art of the ancient Khwarezmian medalists and finally, the rich range of graphic and pictorial examples of murals constitute in general a deeply original and integral complex indicating independence and the maturity of figurative thinking and artistic mastery of the creators of ancient Khorezm civilization.”

The contribution of our ancestor Muhammad Al-Khwarizmi to the development of world science is truly unique. His works not only absorbed all the achievements of science and culture, preceding the epoch and his time, but also significantly broadened the boundaries of the human mind, highlighting new horizons for the further development of natural and social sciences.

His name associated with rapid development of mathematics, separation of algebra from its complex into an independent branch of knowledge, transition from borrowing to the compilation of the first stationary astronomical observatories in order to verify the data of ancient Greek, Persian and Indian astronomers, measuring the size of the earth, the appearance of the first special works on geography and monuments of cartography. It is not coincidence that the prominent European historian J. Sarton connected the whole period of world science of the first half of the IX century with the name Al-Khwarizmi, and he himself described as “the greatest mathematician of his time and one of the greatest of all time”.

His arithmetic treatise paved the way for the spread in Europe of a decimal positional numbering system and actions in system that the whole world and we are using today. The name Al-Khwarizmi in the Latinized form “Algorizmi” has long been understood in Europe as arithmetic, based on Indian numerals. Only in the first half of the 16th century. It began to be called its modern definition of “arithmetic”.

Creatively understanding the works and schemes of ancient scholars, Al-Khwarizmi gave rise to the development of Arabic geographical scientific literature. His astronomical tables contributed to the development of spherical astronomy in the East and in Europe.

As a member of the organizing committee and participant of the international conference dedicated to the 1200 anniversary of Al-Khwarizmi in Urgench, I can list the scientific works by that time studied that have reached us. Among them “A Brief Book on the Allocation of Algebra and Almuka-bala”, “The Book of the Indian Account”, “The Book of Addition and Subtraction”, “The Book of the Picture of the Earth”, “Zidzh”, “The Book of Action from the Astrolabe”, “Book about the sundial”, “The Book of History” and others. The very names of these scientific works can not

but impress. Many of them are preserved in Arabic originals; others are translated into Latin and other languages.

Many scientists do not suspect, but this is so, Al-Khwarizmi's algebraic treatise was written before the arithmetic. At the beginning of the arithmetic treatise, he wrote: "I have already discovered in the book algebras and almuka-bala, replenishment and opposition, that every number is compound. "The words "aljabr" and "almuka-bala" in the name of the path mean "replenishment" and "opposition" - two basic algebraic operations in the middle Ages. The word "Alzharb" (in the Latin transcription "algebra") gave the name to a new science, the basis of which, by right, laid Al-Khwarizmi.

The treatise "Zidzh" Al-Khwarizmi was one of the earliest astronomical works in the Arab caliphate. The greatest attention paid to his analysis by another great compatriot Abu Rayhon Beruni. He wrote three works on this work of Al-Khwarizmi.

Scientists believe that the "Zidzh" Al-Khwarizmi, as well as its arithmetic and algebraic tracts, appeared at the time when it became necessary to develop these areas in science, up to the era of Ulugbek, creating the basis for subsequent astronomical work in Europe.

In his work "The Book of the picture of the earth" Al-Khwarizmi indicated the geographical coordinates of 2402 points of our planet, united in sections on cities, mountains, seas, islands and rivers. Cities, mountains and rivers are divided into seven "climates" with the addition of that is south of the "first climate" and north of the "seventh climate". His brilliant merit is that he introduced the first systematic exposition of geography in full accordance with the theory of climates. He breaks the "inhabited quarter" of the earth into seven climates. At the same time, he describes not individual regions, countries and their geographical locations, like Ptolemy, but describes points located alternately from 1 to 7 climates.

Being the earliest composition in the Medieval East, the geographic treatise of Al-Khwarizmi, his views on the formation of climates played a significant role in the further development of geography. His theory of climates greatly facilitated the study of inhabited land by climatic zones. Babur in his "Babur-nama" used this theory of climates in the description of geographical places.

In addition, the composition of Al-Khwarizmi was the first in the Middle Ages composition in mathematical geography, which marked beginning of this trend in science.

Analysis of the most important works of Al-Khwarizmi indicate that he was the founder of a number of new directions in the medieval sciences of the East.

His ideas contributed to the development of mathematics, astronomy and other sciences in Europe. In general, for many centuries scientists of different countries

habe been studying the life and scientific heritage of Al-Khwarizmi. In Uzbekistan also given great importance to the topic. To date, the revived Khorezm Academy of Mamun Urgench State University, branches of the Tashkent University of Information Technologies and the Tashkent Medical Academy, many professional colleges and academic lyceums, and more than 10 scientific institutions function in the region.

The Urgench State University named after Al-Khwarizmi has a physic-mathematical faculty with considerable intellectual potential. At the university, an "electronic university" system has been created, including a turnstile system, an electronic library. Developments of scientists at the university: "Automation of information exchange processes in universities", "Electronic program for determining the rating of teachers", "Information system for evaluating the activities of faculty" and others were presented at the VI first republican fair of innovative ideas, projects and developments, evaluation.

State grants of applied and innovative nature realized in Urgench branch of Tashkent University of Information Technologies, professors and students, students being researched in various areas of information technologies.

According to the State Test Center of the Republic of Uzbekistan, graduates of professional colleges and academic lyceums of the region receive the highest scores from mathematics in university entrance exams. Among them there are participants of the world, republican Olympiads in mathematics.

It is no accident therefore that the First President of the Republic of Uzbekistan, Islam Karimov, in his report on 1000 litanies of the Khorezm Academy of Mamun expressed his confidence that the land of Khorezm is rich in young "Al-Khwarizmi, Beruni, Zamakhshari and others".

The youth of Khorezm study the great heritage of their ancestors and achieve significant success.

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HOLI-IDEAS AT THE CENTRAL ASIAN PEOPLE'S SPIRITUAL HERITAGE AND THEIR ROLE IN SUCCESS OF THE SOCIETY

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Annotation. In this article author has analyzed scientifically and morally and provided summary about the ideas of religious tolerance and international amicableness in the Islam religion sources and points of views of Central-Asian philosophers. Furthermore, the author has enlightened importance of hospitality in our national-moral heritage in terms of religious and providing social stability, as well as, fighting against religious extremism.

Аннотация. Ушбу мақолада муаллиф ислом манбалари ва ўрта аср Марказий Осиё алломалари қарашларидаги диний бағрикенглик, миллатлараро тотувлик ғояларини илмий-маънавий жиҳатдан таҳлил қилган ва хулосалар берган. Шунингдек миллий-маънавий меъросимиздаги бағрикенглик ғояларининг жамиятда динлараро ҳамжиҳатлик ва ижтимоий барқарорликни таъминлашда, диний экстремизмга қарши курашдаги аҳамиятини ёритган.

Аннотация. В данной статье автором с научно-духовной точки зрения анализируются вопросы религиозной толерантности и межнационального согласия, содержащиеся в исламских источниках и взглядах средневековых Центрально Азиатских мыслителей. Кроме этого, в статье освещена значимость идей толерантности в обеспечении межрелигиозного согласия и социальной стабильности, в борьбе против религиозного экстремизма.

Key words: The of further actions**,** Islam religion, Koran, hadis, tolerance, commonwealth, «Hidaya», extremism.

Калит сўзлар: Ҳаракатлар стратегияси, Ислом дини, Қуръон, ҳадис, бағрикенглик, ҳамжиҳатлик, «Ҳидоя», экстремизм.

Ключевые слова: Стратегий действии**,** Религия ислама, Коран, хадис, толерантность, содружество, «Хидая», экстремизм.

In this article, the author analyzes and gives conclusions from scientifically-spiritual analysis of Islamic tolerance and ideas of interethnic harmony in the views of Islamic scholars and medieval Central Asian scholars. He also highlighted the importance of tolerance in our national-spiritual world in the promotion of interfaith harmony and social stability in the society, as well as fighting against religious extremism.

It is known that one of the most important factors of the development of the country and the development of society is peace and harmony. Peace, tolerance, friendship, and solidarity among peoples constitute the foundation of society's sustainability. It is becoming more and more important in today's complex and globalization processes.

In Uzbekistan since the early years of independence, special attention was paid to the relations of religious tolerance, interethnic friendship and harmony, as well as the formation of a friendly neighborhood atmosphere. Today, this issue is one of the main directions of Uzbekistan's foreign and domestic policy. The fifth prior direction of the "Strategy for Action in the Five Priorities of Development of the Republic of Uzbekistan in 2017-2021", adopted by the President of the Republic of Uzbekistan Sh. Mirziyoev on February7, 2017, is aimed at ensuring security, religious tolerance and inter-ethnic harmony in the region.[1]

The goal of improving relations in this area is to strengthen friendship and co-operation among nations and nationalities living in the country, thus promoting peace and security in the region. “The peoples of our country are connected by a thousand years of brotherhood and good neighborly relations. History, religion, common culture and traditions unite us."[2]

So, we need to study and widely present the rich values of our national values, religious moral values and the humanistic views of our great allies. This is because the study and propagation of this fact plays an important role in the development of religious tolerance, interethnic harmony, peace and tranquility in society, and social

[1]The Presidential Decree of the Republic of Uzbekistan dated February 7, 2017 "On the Strategy for the Further Development of the Republic of Uzbekistan". Newspaper "Khalq Suzi" on February28, 8th edition, 2017

[2] Sh.M.Mirziyoev. The President’s Speech of the Republic at the international conference "Central Asia: common history and common future, cooperation for sustainable development and progress", which was held on November 10, 2017 in Samarkand. Newspaper "Khalq Suzi" №228, November 11, 2017

stability in Uzbekistan, where many multiethnic and diverse citizens live in Central Asia.

Particularly, the wide promotion of the pure Islamic religion and its important sources, such as the Koran, hadith, Islamic fiqh, humanitarian considerations of many great Central Asian great thinkers such as al-Bukhariy, at-Termiziy, Bahouddin Naqshband, Ahmad Yassaviy, Abdukhalik Gijduvoniy, Zamakhshari, Farabi, Beruni, Ibn Sina is essential. Indeed, the main purpose and the ideas of humanity in Islamic doctrines and sources is to support the ideas such as inter-human friendship, solidarity, respect and affection, by condemning the ignorance of humanity, mutual enmity and conflict, and shedding blood.

For example, in the "Qur'an", it is natural for people to differ from each other in nationality and religion, but that does not cause enmity, conflict and war between them, that the difference between peoples and religions does not prevent them from living in harmony and coexistence, on the contrary, and are invited to live as friends. The following verse is revealed as follows: "People were only one nation (one religion). Then they are divided.[1] "And We have created you from a man(Adam) and a woman(Eve), and have made you into peoples and tribes, that you may know one another."[2]

Alovuddin Mansur explains that "Division of people into different tribes is not for the sake of disputing with one another in order to deal with one another, but to meet one another, to cooperate and that they may establish the land which they have been ‘Khalifa’ or the owner. "[3]

The humanistic view of such tolerance and interethnic harmony can be found in many hadiths and in Muslim jurisprudence. In particular, it is stated in the hadiths that shedding blood, executing unjustly, oppressing others, and prohibiting such acts are forbidden to other worshipers, and it is permissible to treat them with kindness and mercy. For example, it was narrated in ‘Jome as-Saheeh: "The Messenger of Allah, may Allah bless him and grant him peace, said, 'O Messenger of Allah, He cut off my

[1] Holy Quran. Line “Yunus”. Verse 19. Publishing house Chulpon, 1992. (Translated and commented by Alouddin Mansur). Page 138

[2] The Holy Quran. Line al-Hujurot. Comments on Verse 13. Page 392

[3] Ismail al-Bukhoriy. "Hadith". ‘Al-Jomiy as-Sahih’(Trustworthy Collection) Vol. IV p. 315, Tashkent, 1992

hand with a sword and ran across a tree and said, 'If I surrender to Allah, will I kill him after this?' He said, 'No, do not kill him!' "[1]

Therefore, it is necessary to be merciful to the non-native or disbeliever in any situation. Issues of tolerance have been legally enshrined in the Islamic jurisprudence (fiqh). For example, Burhonuddin Margonani's "Hidoya", an important legal document of the Islamic religion, states that socio-economic, moral and ethical relationships with other religions and nationalities are tolerated in terms of tolerance: "One of the Muslims is a guarantor of protection, if he finds the advantage at the stock exchange and in the yard of any of these strangers, he must return it to its owner. If he did so, he would be away from the unfaithfulness. Indeed, the Islam prohibits treachery and has been given security under the condition of not betraying people.[2]

In this source, the issue of tolerance has been set out on commercial matters, and taxpayers are required to pay the same amount of tax from the non-native taxpayers, and all religions are equal in this case. Muslims who live in other Muslim countries are called "zimmîy", and according to the 'Shariat' religious rule, their religion, soul, and property are the responsibility of Muslims.[3] In other words, Muslim law is the responsibility of the Muslim state to protect their material and spiritual rights, their lives, beliefs, traditions and cultural heritage.

Although Hidayah has been condemned to accept the "zakât" in the religion of Islam, believers in other religions are also convicted of giving charity and other types of charity: "The Messenger of Allah (Peace and blessings of Allaah be upon him) said to Muoz(prophet), "Take zakat(tax) from the rich people of Muslims and give it to their poor people." Zimmîy is given alms other than zakât (i.e. 'fitr'[4] serving, ushr[5] and kaffârat[6])."[7]

Indeed, the great spiritual heritage of the peoples of Central Asia and the above-mentioned humanitarian attitudes have played a great role in the social-life for

[1] Burhoniddin Margonaniy. "Hidoya". Vol. I, Zakat Book. p. 386.Tashkent. 2002

[2] Burhoniddin Margonaniy. "Hidoya". Vol. I, Zakat Book. p. 386.Tashkent. 2002

[3] Islam. Encyclopedia. Tashkent. «National Encyclopedia of Uzbekistan». p. 94.2004

[4] Fitr*-the charity serving given at the end of the month of Ramadan.

[5] The Ushr (Arab - one-tenth) is a tax in the Muslim countries, sometimes in the form of cash (sometimes with money), to the state, sometimes to the poor, or to the orphans.

[6] Kafforot- a charity serving given when something forbidden had been done unintentionally by the muslim.

[7] Burhoniddin Margonanii. "Hidoya". Volume I. Zakat Book, p.406.Tashkent. 2002.

centuries in the friendly and harmonious existence of people of different nationalities and religions.

In the history of socio-philosophical thoughts of the medieval Central Asian peoples, ideas of promoting inter-religious and interethnic respect and interethnic friendship and solidarity and religious tolerance have played a major role in the humanistic views of great thinkers such as Abu Nasr Farabi, Abu Rayhan Beruniy, Ibn Sino. In their works, they broadly described humanistic ideas such as interethnic and interfaith friendship, cooperation, trust and solidarity, and socially-legitimate justification of its significance in the peaceful and harmonious life of the society. Particularly, the philosopher Forobiy states that the main reason for the stability and prosperity of society is the mutual support and co-existence of people, because they cannot live without each other's help. The scholar said that: "Man is made up of his own nature that he needs many things for his own existence and achievement of the highest perfection. All of this cannot be achieved alone and needs a team of people to reach them. Each member of this team will provide him / her with any of the things he / she needs. That is why, through the unity of many people who help each other, human beings can attain maturity. "[1]

An important moral and moral side of its foreboding is that when he divides human societies into a sincere community and an ignorant community, he emphasizes the mutual co-existence and cohesion of people rather than nationality and religious beliefs and claimed: “The inhabitants of such a city were united not only for the commonality of space, race, and traditions.

In the case of social security it is obligatory to receive the tax ‘zakât’, because none of these factors are present in the besieged city, nor does it indicate that the city has the advantage or privilege.[2]

Similar humanistic ideas can be found in the views of the scientist Beruniy, he even enriches ideas of tolerance with his scientific views. Scientist says that the foundation of human society is the creation of things that are necessary for life, helping one another to protect themselves from any disaster, as well as being a partner and compassionate and united into a safe life. "Human needs are so diverse that they cannot satisfy one's needs alone ... Only a team of people can satisfy their own needs."[3] Also “... And the lack of a person's abundance and low self-sufficiency is

[1] Xayrullaev M.M. Forobiy. Tashkent. 1975. P.p. 302-303. 2001.
[2] Abu Nasr Forobiy. About Virtue, happiness and maturity. Tashkent. "The Writer", page 29,

[3] Abu Rayhan Beruniy. Collecting Facts to Know the Heritage(Mineralogy) M., 1963. S. 16.

that due to the lack of means of self-defense, and because of the abundance of enemies, he or she has an association in society with each of them in the society, they are in a helping hand and are engaged in a job that meets their needs and others."[1]

From these thoughts, we can conclude that in our country, in Uzbekistan, where more than 140 nationalities and people of different religious backgrounds reside[2], where there is a tendency for strengthening peace and interethnic friendship, preventing various national and religious conflicts and hostility, we should use the above sources as a spiritual-ideological weapon in the struggle. By studying and analyzing the humanistic ideas in these sources as well as promoting those to the general public and the younger generation will have a positive effect on the struggle against various illicit ideas existing in today's globalization. Indeed, "Islam is not a religion of terrorism or extremism, but rather a good example of the goodness, we should study the nobility and tolerance that our forefathers have read and understood. It's our purpose to illuminate the world of ignorance with true enlightenment. "[3] Undoubtedly, in a society where the principles of tolerance and solidarity are prioritized, all-out strong social and political stability will emerge.

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MODERN PROBLEMS OF TOURISM AND ECONOMICS

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THE CORPORATE GOVERNANCE AND ITS ROLE IN THE DEVELOPMENT

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Abstract: One of the essential factors of development is considered the corporate governance that is cited as the tool of attracting investments. The article represents scientific-theoretical definitions, models, history and properties development of corporate governance in the Republic of Uzbekistan.

Key words: Corporate governance, factor of development, investment, scientific-theoretical definition, model, history.

Аннотация: Корпоративное управление является одним из наиболее важных факторов в развитии страны, которое считается важным инструментом

в привлечении инвестиций. В этой статье изложены признанные научные теоретические определения, модели, история и свойств развития корпоративного управления в Республике Узбекистан.

Ключевые слова: корпоративное управление, фактор развития, инвестиции, научно-теоретическое определение, модель, история.

Аннотация: Корпоратив бошқарув мамлакат тараққиётининг муҳим омилларидан бири бўлиб, инвестицияларни жалб этишнинг муҳим воситаси саналади. Ушбу мақолада корпоратив бошқарувнинг мутахассис олимлар ва амалиётчилар томонидан эътироф этилган илмий назарий таърифи, модделлари, тарихи ҳамда корпоротив бошқарувнинг Ўзбекистон Республикасида шаклланиши ва ривожланиш хусусиятлари ёритилган.

Калит сўзлар: Корпоратив бошқарув, тараққиёт омили, илмий-назарий таъриф, модел, тарих.

There are more than hundred books, article, researches have been written about corporate governance. Although, the academic frameworks, practical companies and media infrastructures are paying attentions for new governance system. Corporate governance is structured system that influence the way an institution is administrated. It is relationship between principal players like shareholders, board of directors and management. It is aimed to recognize the goals for which the corporation is managed and influence of other stakeholders including suppliers, customers, employees, and creditors. Moreover, the governing structure is based on legal, regulatory, institutional and ethical environment of the community. In XX century might be considered as the era of management, the early XXI century is assumed to be on governance.

While looking the definitions by academic and practitioners, they have provide their individual each conceptions. For example, scholars like Peter Crow [1] defined it as “the act of steering, guiding and piloting—describes what boards do when in session”[2]. In some points, his definition came to same as Richard Leblanc [3], “the corporate governance is the control of management in the best interests of the company, including accountability to shareholders who elect directors and auditors and vote on say on pay” [4].

The figure 1 shows the advantages of corporate governance leads improvement in the company’s governance practices such as accountability, compliance and decision-making processes. On other hand, it reduces the conflicts. Corporate governance improves the management and oversight of executive performances by linking executive remuneration to the company’s financial results. This creates favorable conditions not only for planning the smooth succession and continuity of

the company's executives, but also for sustaining the company's long-term development. In the decision-making process managers, directors and shareholders are all likely to make more informed, quicker and better decisions when the company's governance structure allows them to clearly understand their respective roles and responsibilities, as well as when communication processes are regulated in an effective manner.

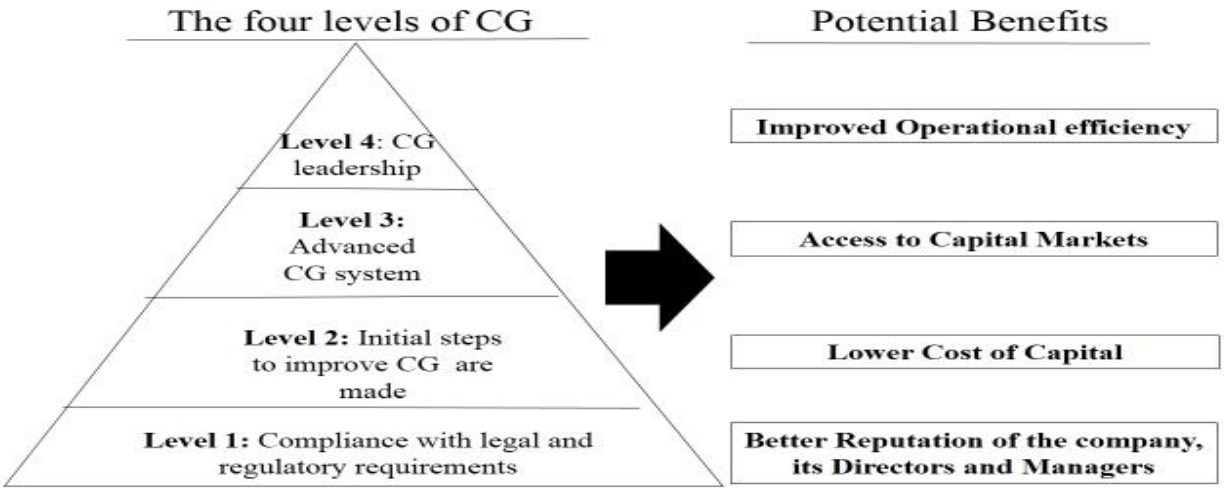
Figure 1. Advantages of corporate governance

Source: IMF, March 2014

According to the International Finance Corporation (IFC) group members, namely, Dr. Davit Karapetyan and Sebastian Molineus (2004) have been conducted research for Russian Federation corporations and named the research "the Russia Corporate Governance Manual" program [5]. There they have explored the levels and benefits in order to encourage fairness for at well-governed companies care to have cheaper and better access to the capital. The program encourages accountability, fairness, and transparency in corporate governance system. According to them, there are four levels and potential benefits of corporate governance are depicted in Figure 2.

The first level is named "compliance with legal and regulatory requirements" and its potential benefits better reputation of the company, its directors and manages. The second level goes to steps of initial to develop corporate governance have made in order to lower the cost of capital. The third level is about developed system corporate governance and it lead to access to capital market. The last level is being leader in corporate governance due to improved operational efficiency.

Figure 2. Level and potential benefits of Corporate Governance



Source: IMF, March 2014

The corporate governance system - an organizational model that is designed to regulate the relationship between the managers of the companies and owners. On the other hand, coordinating objectives of various stakeholders to ensure the effective operation of companies. There are several models of corporate governance. There are variety forms of corporate governances that can be divided into groups, tending to two opposite models: (1) American (exterior) model; (2) German (interior) model.

The (Anglo) American model. American (outsider) model is the management model joint-stock companies based on the high level of impact outsiders in relation to joint-stock company and in mechanism of controlling over company. In other words, the participants of model are managing directors, directors, shareholders, government structures, the exchanges, consulting firms.

The Anglo-American model is typical for the US, UK, Australia, Canada, New Zealand. The interest of shareholders are represented by a large number of separate small investors who are depending on management of corporation. The role of stock market is increasing, through it the control over the corporation managing. The model requires mandatory approval of shareholders, elections the board of directors and appointment of auditors, implementation changes in the charter of the company and in assets.

The German model. The German (insider) model is the governance joint-stock companies based mainly on use of internal methods. The model is typical for Central European and the Nordic countries. It is based on the principles of social interactions: all interested members (shareholders, managers, employees, banks, non-governmental organizations) are able to participate in decision-making process. The model is characterized weakly focus on governance in orientation for the stock

markets and shareholders' value, as the result the company controls its competitiveness and performance.

The main differences are considered the models between the American and German corporate governances are as follows [6]: (1) there is interest of shareholders in American model, mainly the interests of private shareholders are spread from each other, and thereby they are in dependence on management of corporations. In this context, the role of market increases as counterbalance through the control over the management joint-stock companies; (2) the German model the shareholders represent a set of fairly large blocks of shares holders, and they can be united in order to conduct their common interests, on basis of it they have control over the management of the company. In this situation, the role of market is reduced as the exterior controller or the corporation controls its competitiveness and its affairs.

Perspectives of implementation of corporate governance in Uzbekistan. Nowadays, many of the local manufacturers are re-launched based on the principles of corporate governance in order to improve the efficiency of joint-stock company operations and to create favorable conditions for investment environment.

There are regulations, Decree by the first President of the Republic of Uzbekistan in 2015, April 24 is focused on the measures to improve the modern corporate governance. The creation of favorable conditions for investment and increasing focus on attraction of foreign direct investment in Uzbekistan is considered as one of the crucial issues that are continuously discussed and supported in government level. Therefore, it is important to consider a number of regulations adopted by the Uzbek government in order to have a close look at the implications of the adopted regulations.

According to the annual speech of the first president of Republic of Uzbekistan, due to denationalization and privatization policy in Uzbekistan there are over 1100 joint - stock companies that total authorized capital more than 11.7 trillion sums were established and run successfully. The trend has risen for 5.3 fold than the last decade [7]. However, the development stage of corporatization in our country indicates the several unsolved problems in the corporate governance system and the distribution of incomes in joint-stock companies.

Especially, it comes to the joint-stock companies, where the state is owner of shares and the shareholders are in minorities. Therefore, the shareholders are alienated from the management and decision-making due to insignificant volume and fragmentation share packages. As a result, still the director of the company implements the decisions, who are not interested in using effectively sources, widening the product assortments, reducing products' cost price and increasing the competitiveness. The directors remain an adherent of the conservative management.

In consequence of it, the managerial personnel cannot conduct independently affairs, until commands come.

The most acceptable and justified options occur form of ownership that when the shareholders along with domestic and foreign investors in the Uzbekistan conditions. There are over 625 such companies, which are established with the participation of foreign investments of 90 countries [8]. There are companies that fully based on foreign capitals and the method of corporate governance.

The most vulnerable shareholders. The remaining conservative framework of management the interest of the minority shareholders are least of all. In accordance with Article 82 of the law, it may be established the committee of minority of shareholders. The members might to be selected by shareholders at the general meeting, but they do not nominate candidates to the Board of Supervisors. The committee of minorities do not include positions of directors, managers, supervisors, and inspectors. The decisions of the committee of minorities are accepted simply by the vote. They can not interfere in economic affairs, but at the same time, there is not allowed to interfere by the Board of Supervisors or the Board of Executive.

The conclusion. Based on the analysis the framework of models, the conclusion has come: Firstly, there are two models of corporate governance. The implementation the models are based on the factors and structures of the models. The models lay on the fundamental basses of corporate governance. Secondly, there are no general model of corporate governance. The models in the specific countries are not meant identifiably. There are specific parts neither public governance nor corporate governance. Thirdly, structuring the national or local model of corporate governances, the countries try to combine with values and traditions. Last but not least, in the framework of specific management the German model is characterized as an effectiveness in control, stabilities in interior and exterior relations and the less of percentage of bankruptcy and conflicts. It is presumed for long-term developments. Therefore, the German model is suitable for local practice.

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ECOTOURISM OF UZBEKISTAN: POTENTIAL AND OPPORTUNITIES

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Abstract. The article discusses ecotourism potential of Uzbekistan and its future perspectives in the development of tourism industry.

Аннотация. МақолададаЎзбекистоннинг экотуристик салоҳияти ва унинг туризм индустриясини ривожлантиришдаги келажак истиқболлари келтирилган.

Резюме. В статье обсуждается экотуризм Узбекистана и его перспективы в развитии индустрии туризма.

Key words: tourism, ecotourism, mass tourism, natural environment, biodiversity, ecological culture

Калитсўзлар: туризм, экотуризм, оммавий туризм, атроф-муҳит, биологик ҳар-хиллик, экологик маьданият

Ключевые слова: туризм, экотуризм, массовый туризм, окружающая среда, биоразнообразие, экологическая культура

The tourism sector is one of the most significant economic activities in many countries worldwide. Its direct economic impact has substantial influences on their GDPs. Tourism’s total contribution to the global economy has risen to 10,2% of global GDP (US $7,6 trillion),not only outpacing the wider economy, but also growing faster than other important sectors such as financial and business services, transport and manufacturing. In total, nearly 290 million jobs were supported according to Travel & Tourism in 2016 (Travel & Tourism Economic Impact 2017 world).

The government of Uzbekistan pays a vast deal of attention on the development of the tourist industry: the development of services defined as one of the top priorities of socio-economic growth of the country. Despite the existing tourism infrastructure, the volume, types, and quality of tourism services provided, and the distribution of available tourism capacities by regions, Uzbekistan's rich, varied tourism and recreational potential remains low. In fact, the direct contribution of Travel & Tourism to GDP in 2016 was UZS 2,002.6bn (1.0% of GDP). This is forecasted to increase by 7.2% to UZS 2,147.3bn in 2017. This primarily reflects the economic activity generated by industries such as hotels, travel agents, airlines, and other passenger transportation. The direct contribution of Travel & Tourism to GDP is expected to grow by 6.2% to UZS3,924.8bn (1.0% of GDP) by 2027. (Travel & Tourism, Economic Impact 2017, Uzbekistan)

Therefore, only on December 2, 2016, the President of the Republic of Uzbekistan Shavkat Mirziyoyev directed number of changes to push tourism sector as whole. Accordingly, Decree on "Measures to ensure the rapid development of tourism in the Republic of Uzbekistan”, that was outsourced on national magazine “Xalq so’zi” on December 7, 2016, introduces the status of this strategic sector of the economy, sustainable development, structural change and the diversification of the

economy, employment, and directs it into a powerful tool for improving the quality of life of the population.

The share of ecotourism in the total volume of the world tourism industry in recent years has reached more than 10%, and its growth rate is two to three times higher than the pace of the entire tourism industry.

Ecotourism is one of the fastest growing sectors of the tourism industry. According to the definition of the International Union for Conservation of Nature (IUCN), "ecological tourism (ecotourism) is a journey with responsibility to the environment in relation to undisturbed natural areas, for the purpose of studying and enjoying the nature, its cultural attractions. A trip that promotes nature protection, has a "soft" impact on the environment, ensures active socio-economic participation of local residents and benefits from this activity. "

The purpose of ecotourism– using nature wisely in tourism in order to ensure the ecologic safety and sustainable development of current and future generations. In order to implement the aim of ecotourism, it is enough to put forward the planned program written in “the Concept of developing ecotourism in Uzbekistan”. The importance of implementing the following tasks in developing ecotourism in the republic is noted in this concept:

- Developing special laws in forming ecotourism industry and creating their legal mechanism;
- Developing theoretical basics of the subject, education and practice of ecotourism;
    - Improving the ecologic knowledge and culture of the people;
    - Establishing the education and upbringing of ecotourism;
    - Training and retraining the ecotourism professionals;
    - Assessing the ecotourism objects widely and run their cadastre;
    - Establishing the monitoring of ecotourism;
    - Zoning the national state areas according to ecotourism;
- Developing tactic and strategic programs and arrangements of countries and organizations related to ecotourism;
    - Saving the biodiversity.

Minimizing the impact in tourism field

Increasing the sense of politics, culture and care in recipient country

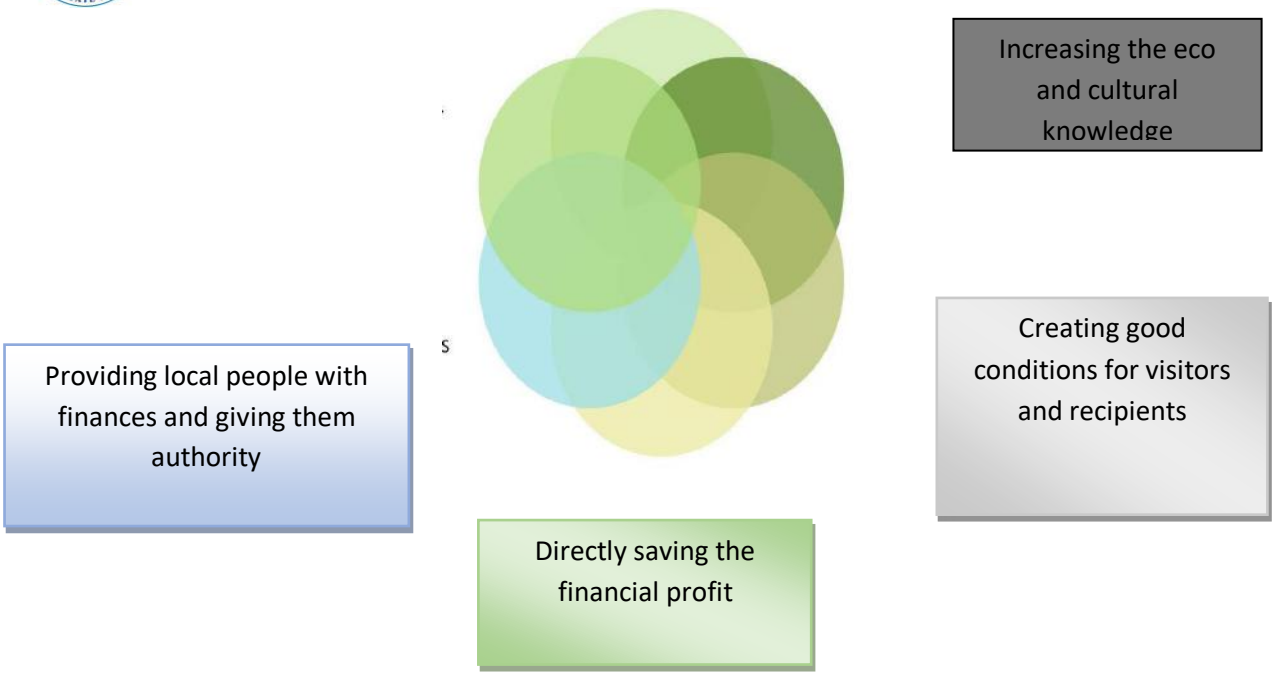

Fig.1. Main principles of ecotourism
Resource: www.ecotourism.org

It is possible to form ecologic culture of people based on the principles of ecotourism above.

Ecotourism is a specific type of nature tourism. It aims to conserve the environment and improve the wellbeing of local people. To attract eco travelers, you have to specialize your products to meet these needs. At present time, many hotels are trying to offer eco-friendly environment in their accommodation. They even have special programs developed for that reason.

However, it is important to understand clearly both advantages and disadvantages before entering this specific type of tourism and making it prior destination for tourists in the country. In the following table, benefits and drawbacks, the main differences between ecotourism and massive tourism can be seen:

№	**Comparison indicators**	**Ecological tourism**	**Mass tourism**
1	Management of demand and supply (number of visitors)	Demand for eco-tourism services and number of visitors fit socio-economic, ecological potential and opportunities of	Always try to increase the number of visitors and demand for tourist services, the number of visitors usually limited by material and technical capacity.

		recreational zones, they set directions, features and volume of demand for such services	
2	Behavior of visitors and their attitude towards the nature	Behavior of visitors does not affect the local conditions and traditions. They try to strictly follow behavioral model that is based on comprehensive understanding of local conditions during the whole stay	They behave the same way as they do back at home, they continue their usual behavioral model during their visit
3	Attitude towards the nature	Consumerism and consumeristic attitude is not important when it comes to the nature, that is, visitors value the nature more.	Consumerism dominates in the relationship between visitor and the nature, nature objects are valued based on the value they bring to the consumer
4	Ecotourism processes	Ecologically clean, less polluted, energy saving, resource saving, safe for local people's health processes are priority	Ecologically dangerous, more polluted, energy-consuming, dangerous for people's health
5	Attitude to environmental standards	Strict standards are followed	Low standards are followed
	Capital assets	Assets and buildings that meet ecological standards	Lack of eco-friendly capital assets and buildings
6	Mutual relationship of visitors and local inhabitants	Relationship is based on mutual respect and understanding	Relations are of a formal nature
7	Use of earned income	Certain portion of earned income goes to restore	Earned income usually remains at disposal of tour

		recreational resource base and beautification of local area, also enhancement of service technology	organizers. Goals are mainly focused on benefit and profit

Table-1. Difference between Ecotourism and Mass tourism, benefits and drawbacks[1]

Problems and challenges existing in ecotourism are the following ones:

- infrastructure does not satisfy the demands;
- lack of highly qualified personnel serving in ecotourism sphere;
- absence of created ecotourist routes to the major ecotourism destinations of the country;
- existence of unsatisfactory level of educational-public and interest raising activities among locals to be occupied in ecotourist destinations;
- the fact that the advertisement of inner and international ecotourism have not been announced in both local and international tourism markets;
- low level of ecological knowledge among people.

As an evidence of this problem we can demonstrate statistics data of the State Committee of developing tourism in Uzbekistan. In spite of a great tourist potential of our country, especially despite a great number of tourists wanting to visit our country on ecotourism purposes tourism industry in our country is not developed in a satisfactory degree.

Nowadays ecotourism is quite a new type of tourism. It should be propagated. First of all it should be explained that ecotourism is not only beneficial for economy but also for local people, as well as ecotourism is considered to be a wise way of preserving nature. Local people living in certain places should be attracted to work in ecotourism; it means that they must serve as specialists there. In order to develop ecotourism it would be demanded to form ecological culture and education among people. At the very moment it is of importance to create and improve data resources informing about ecotourism and organizations related to it. Furthermore, the order of obtaining license for small hotels and guest houses outside the city should be simplified. The most important point is that a strong control should be instilled against nature being damaged by ecotourism, flowing capital ruining traditions and preserved objects.

By developing ecotourism in the country, we will attain the following results:

[1]О.Х.Хамидов. Ўзбекистонда экологик туризмни ривожлантиришни бошқаришни такомиллаштириш: муаммо ва ечимлар. – Т.: “Иқтисодиёт”-2016, 11-12 б.

- Rising the degree of population's benightedness in ecotourism;
- It will serve as a reason for forming locals' attitude towards protected places as ones of esthetic and economical value and working together in developing ecotourism;
- It will improve social and economic conditions in places and create job positions for locals;
- Appearing of additional financial supporting sources.

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5) http://lex.uz – Database of normative acts of the Republic of Uzbekistan

UDC: 330.338.2 (101.54)

FEATURES OF IMPROVING THE EFFECTIVENESS OF STATE-BUSINESS RELATIONS IN UZBEKISTAN

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Annotatsiya: Maqolada davlat va biznes hamkorlik munosabatlari samaradorligini yaxshilovchi xususiyatlar bayon etilgan. Hamkorlik munosabatlarining amaliyotdagi ahamiyati O'zbekiston misolida ko'rib chiqiladi.

Annotation: In this article, it is emphasized that the features which provide improvement in effectiveness of state-business partnerships. The value of collaborative relations in practice is analyzed on the example of Uzbekistan.

Резюме: В статье излагается улучшающие особенности эффективности партнерские отношения государство и бизнеса. Значение отношений сотрудничества на практике анализируется на примере Республики Узбекистан.

Kalit so'zlar: davlat va biznes, tadbirkorlik, xususiy sektor

Keywords: state and business, entrepreneurship, private sector.

Ключевые слова: государство и бизнес, предпринимательство, частный сектор.

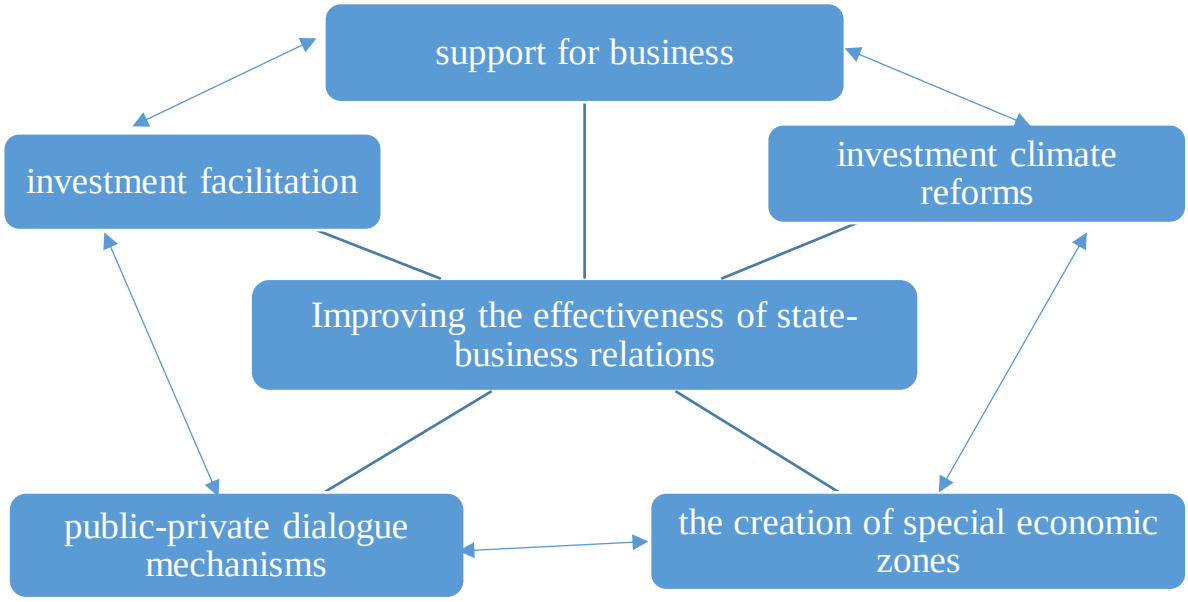
Introduction. In contemporary situation of the world, it is known that upgrading countries economy with private capital plays a central role in the economy of both developed and developing countries. In recent years, private sector has shown as a main force of increasing income of countries, at the same time it has become the main provider of financing and developer of social life. In this case, it is important to mention the words of The President Shavkat Mirziyoyev which are " When we say "active entrepreneurs", we mean business people capable of producing competive products, most importantly-creating new jobs that benefit not only themselves and their family, but the whole society". In particular, the state can create a number of socio-economic conditions by using ability of private sector and through this, private enterprises serve as a provider of social needs to ensure effective market economy.

Materials and analysis. Effective SBRs lead to a more optimal allocation of resources in the economy, including an increased effectiveness of government involvement in supporting private sector activities and removing obstacles. Synergistic or effective state-business relations are seen as a key determinant of economic growth and structural transformation in low income countries (Hausmann 2014). They are important in several areas of policy and practice, including macroeconomics, trade, industrial development, taxation, public expenditure, infrastructure, competition, anti-corruption, transparency and accountability, and private sector development.

Current approaches to improve the effectiveness of state-business relations are:

Figure1

Features of improving the effectiveness of state-business relations



Investment climate (IC) reforms are regulatory reforms that promote private sector growth by reducing bureaucratic obstacles, costs and time constraints to do business and improve the efficiency of legal institutions (World Bank 2015).

Special Economic Zones (SEZs) are geographical spaces in which firms are provided with regulatory or financial incentives. Typically, in a SEZ, 'the rules of business are different from those that prevail in the national territory. These rules principally deal with investment conditions, international trade and customs, taxation, and the regulatory environment; whereby the zone is given a business environment that is intended to be more liberal from a policy perspective and more effective from an administrative perspective than that of the national territory.

Public-private dialog mechanism. Accurate relations between government and business assosations. This includes following processes:

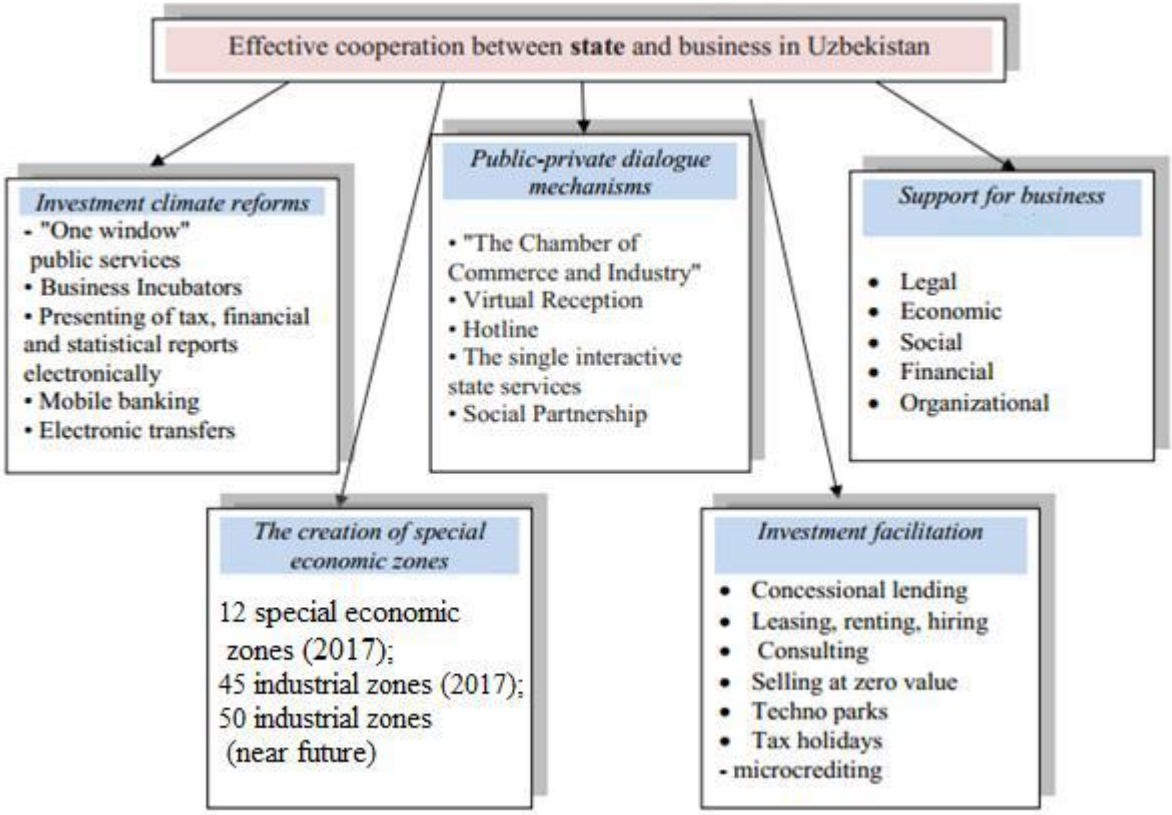
- promoting better diagnosis of investment climate problems and design of policy reforms;
- making policy reforms easier to implement;
- promoting transparency and good governance;
- building an atmosphere of mutual trust and understanding between the public and private sectors (Herzberg and Wright 2013).

Investment facilitation. It includes all types of state support in addition to given opportunities. As well as, it helps to save costs in running business and leads to developing of business through creating new facilities for them.

Support for business. All kind of helping business with doing their activity. It is essential part of the reforms because it includes great range of activity related to business.

There is a particular role of business to develop social life in Uzbekistan. In particular, small enterprises have become the main supplier to implement that purpose. Hence, nowadays Uzbekistan is carrying out effective cooperation with the business in order to solve socio-economic problems of population in community. Enterprises are playing active role to supply various types of social services. At the same time, it is being provided harmony of state and business relations.

Figure 2



Source. Developed by author based on information about state-business relations

As The President of the Republic of Uzbekistan Shavkat Mirziyoyev emphasized "Our first priority should be to provide all-round support to entrepreneurs, in particular, to create favorable conditions for the important and introduction of high-tech products and the latest scientific achievements in production. We also need to create broad opportunities for them upgrade their skills, internship in leading foreign companies and organizations, and implement mutually beneficial cooperation with them". It is noted that creating close consultation between the state and business, also establishing reliable and accurate mechanism of them are important. The government of Uzbekistan is supporting all the enterprises by giving additional privileges and opportunities for new forms of business activities which lead to saving cost and time to start their own businesses and in implementation of

them. The figure above explains the implementation of the partnership between state and business in Uzbekistan (Figure 2).

Conclusion. Development of state and business relations plays an important role in the life of each country. In condition of limited financial resources, state can find financial partner or helper for socio-economic spheres by developing state and business relations. At the same time, entrepreneurial activity plays the role of driving the engine and carrying out the changes in society and participate with the state to solve social problems. In other words, the private partner is seen for the state as "Machine of special purposes". To realize this purpose state should use all the means of supporting for business. Government expands the scope of work and facilities for the private sector. Government and business goals meet at the same point, this process will lead to the improvement of the socio-economic situation. In condition of limited state budget and increasing demand of population for a normal life requirements, the development of these relations remains the main challenge in each the country's economy.

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UDC: 811111

TRADITIONAL AND CONCEPTUAL METAPHOR IN THE ENGLISH LANGUAGE

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Annotatsiya. Ushbu maqola an'anaviy va konseptual metafora mohiyatiga bag'ishlangan bo'lib, unda ingliz tilida metaforaning o'rganlish uslubi haqida so'z boradi. Maqolada konseptual metafora va stilistik uslub sifatidagi metafora farqlanadi.

Аннотация. Статья иллюстрирует понятия традиционной и концептуальной метафоры и описывает стиль исследованияметафоры на английском языке. В этой статье сравниваются концептуальные метафоры с метафорическими лингвистическими выражениями.

Annotation. The article illustrates the notions of traditional and conceptual metaphor, and describes the investigation style of metaphor in the English language. In this article, it is contrasted conceptual metaphors with metaphorical linguistic expressions.

Kalit so'zlar: metafora, konseptual metafora, an'anaviy metafora, metafora stilistik birliklari (stilistik uslub), konseptual soha, manba sohasi, xaritalash, nishon, manba.

Ключевые слова: метафора, концептуальная метафора, традиционная метафора, метафорические лингвистические выражения, концептуальный домен, источниковый домен, картирование (построение соответствий), цель, источник.

Key words: metaphor, conceptual metaphor, traditional metaphor, metaphorical linguistic expressions (stylistic device), conceptual domain, source domain, mappings, target, source.

At present metaphor started to be taken into consideration from other directions too. As a result, metaphor is considered as a fruit of mind, not language. This kind of attitude began with the contribution of Lakoff and Johnson[1], and further investigated thoroughly by other linguists. Kovecses[2] is one of the linguists who follow their direction, and even made his own conclusions. Differentiating traditional and

[1] Lakoff G.& Johnson M.,Metaphors We Live By,-University of Chicago Press,1980
[2] Kovecses Z. Metaphor. A practical introduction. Oxford University Press. 2002.

conceptual metaphors, he puts forward such issue. “Consider the way native speakers of English often talk about life — either their own lives or those of others:

People might say that they try to give their children an education so they will get a good start in life. If their children act out, they hope that they are just going through a stage and that they will get over it. Parents hope that their children won't be burdened with financial worries or ill health and, if they face such difficulties, that they will be able to overcome them. Parents hope that their children will have a long life span and that they will go far in life. But they also know that their children, as all mortals, will reach the end of the road.[1]

This way of speaking about life would be regarded by most speakers of English as normal and natural for everyday purposes. The use of phrases such as to get a good start, to go through a stage, to get over something, to be burdened, to overcome something, a long life span, to go far in life, to reach the end of the road, and so on would not count as using particularly picturesque or literary language. Below is a list of additional phrases that speakers of English use to talk about the concept of life:

He's without direction in life.

I'm where I want to be in life.

I'm at a crossroads in my life.

She'll go places in life.

He's never let anyone get in his way.

She's gone through a lot in life.

Given all these examples, we can see that a large part of the way we speak about life in English derives from the way we speak about journeys. In light of such examples, it seems that speakers of English make extensive use of the domain of journey to think about the highly abstract and elusive concept of life. The question is: Why do they draw so heavily on the domain of journey in their effort to comprehend life? Cognitive linguists suggest that they do so because thinking about the abstract concept of life is facilitated by the more concrete concept of journey.”[2]

Traditional metaphor is simply based on a likeness of objects. It is used for special purposes, i.e. to give special “effect” to our speech; when metaphor is used, we name one thing with another (A is B[3]); not all people can handle to use metaphors, as it can demand effort; and finally without it we can also somehow manage our speech and daily life. Bear in mind that these attitudes were in the past, not in the far past, but until middle, more exactly eighties of twentieth century, these sort of contentions were put forward.

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[1] *(based on Winter, 1995, p. 235)*

[2] Kovecses Z. Metaphor. A practical introduction. Oxford University Press. 2002. p. 3

[3] Ermetova J. Manual on the English stylistics. Urgench, 2007

A new view of metaphor that challenged all these aspects of the powerful traditional theory in a coherent and systematic way was first developed by George Lakoff and Mark Johnson in 1980 in their seminal study: Metaphors We Live By. Their conception has become known as the "cognitive linguistic view of metaphor." Lakoff and Johnson challenged the deeply entrenched view of metaphor by claiming that (1) metaphor is a property of concepts, and not of words; (2) the function of metaphor is to better understand certain concepts, and not just some artistic or esthetic purpose; (3) metaphor is often not based on similarity; (4) metaphor is used effortlessly in everyday life by ordinary people, not just by special talented people; and (5) metaphor, far from being a superfluous though pleasing linguistic ornament, is an inevitable process of human thought and reasoning.[1]

As one can see that these viewpoints changed everything, the contention's each band can oppose to the former traditional view and make more sense. Metaphor is indeed the result of mind rather than words. If we want to say something how actually we do this?! We first think (actually our brain does it) and deliver our thought by tongue, that is to by our speech. More often we use metaphor (or any other stylistic device) not only for artistic or aesthetic purpose, but also for stressing our point or sometimes we merely use it without any purpose. It is not only used by speakers, orators and writers, even most ordinary people use it. (Everyone says what a happy, sunny girl she was.[2]) It is an evitable part of our life, as human being tends to use fewer words and explain themselves from all the beginning.

In the cognitive linguistic view, metaphor is defined as understanding one conceptual domain in terms of another conceptual domain. Examples of this include when we talk and think about life in terms of journeys, about arguments in terms of war, about love also in terms of journeys, about theories in terms of buildings, about ideas in terms of food, about social organizations in terms of plants, and many others. A convenient shorthand way of capturing this view of metaphor is the following: conceptual domain (a) is conceptual domain (b), which is what is called a conceptual metaphor. A conceptual metaphor consists of two conceptual domains, in which one domain is understood in terms of another. A conceptual domain is any coherent organization of experience. Thus, for example, we have coherently organized knowledge about journeys that we rely on in understanding life. We will discuss the nature of this knowledge below.

We thus need to distinguish conceptual metaphor from metaphorical linguistic expressions. The latter are words or other linguistic expressions that come from the

[1] Kovecses Z. Metaphor. A practical introduction. Oxford University Press. 2002 p. vii
[2] ibid p. viii

language or terminology of the more concrete conceptual domain (i.e., domain b). Thus, all the expressions above that have to do with life and that come from the domain of journey are linguistic metaphorical expressions, whereas the corresponding conceptual metaphor that they make manifest is life is a journey. The use of small capital letters indicates that the particular wording does not occur in language as such, but it underlies conceptually all the metaphorical expressions listed underneath it.

The two domains that participate in conceptual metaphor have special names. The conceptual domain from which we draw metaphorical expressions to understand another conceptual domain is called source domain, while the conceptual domain that is understood this way is the target domain. Thus, life, arguments, love, theory, ideas, social organizations, and others are target domains, while journeys, war, buildings, food, plants, and others are source domains. The target domain is the domain that we try to understand through the use of the source domain. [1]

So, it means there is a clear distinction between metaphorical linguistic expressions (which we call as traditional metaphor) and conceptual metaphor. We should clearly understand the difference between them, because all metaphorical linguistic expressions can fall into one single conceptual metaphor.

Lakoff and Johnson prove this by citing proper examples. One can see in the ARGUMENT IS WAR metaphor that expressions from the vocabulary of war, e.g., attack a position, indefensible, strategy, new line of attack, win, gain ground, etc., form a systematic way of talking about the battling aspects of arguing. It is no accident that these expressions mean what they mean when we use them to talk about arguments. A portion of the conceptual network of battle partially characterizes the concept of an argument, and the language follows suit. Since metaphorical expressions in our language are tied to metaphorical concepts in a systematic way, we can use metaphorical linguistic expressions to study the nature of metaphorical concepts and to gain an understanding of the metaphorical nature of our activities.

To get an idea of how metaphorical expressions in everyday language can give us insight into the metaphorical nature of the concepts that structure our everyday activities, let us consider the metaphorical concept TIME IS MONEY as it is reflected in contemporary English.

TIME IS MONEY

You're wasting my time.

This gadget will save you hours.

I don't have the time to give you.

How do you spend your time these days?

[1] Kovecses Z. Metaphor. A practical introduction. Oxford University Press. 2002. p. 4

That flat tire cost me an hour.
I've invested a lot of time in her.
I don't have enough time to spare for that.
You're running out of time.
You need to budget your time.
Put aside some time for ping pong.
Is that worth yourwhile?
Do you have much time left?
He's living on borrowed time.
You don't use your time profitably.
I lost a lot of time when I got sick.
Thank you for your time.

You can see from the above examples that all of them fall into the concept TIME IS MONEY. Words in italics are metaphorical linguistic expressions, whereas the word in capital words is conceptual metaphor. Money is more concrete than time, as we mentioned above concrete notions are used to define and clarify abstract notions, and they (time and money) have similar features too, such as both of them are valuable, earning money usually depends somehow on time. Several traditional metaphors can be properly comprised to one single conceptual metaphor.

Time in our culture is a valuable commodity. It is a limited resource that we use to accomplish our goals. Because of the way that the concept of work has developed in modern Western culture, where work is typically associated with the time it takes and time is precisely quantified, it has become customary to pay people by the hour, week, or year. In our culture TIME IS MONEY in many ways: telephone message units, hourly wages, hotel room rates, yearly budgets, interest on loans, and paying your debt to society by "serving time." These practices are relatively new in the history of the human race, and by no means do they exist in all cultures. They have arisen in modern industrialized societies and structure our basic everyday activities in a very profound way. Corresponding to the fact that we act as if time is a valuable commodity — a limited resource, even money — we conceive of time that way. Thus we understand and experience time as the kind of thing that can be spent, wasted, budgeted, invested wisely or poorly, saved, or squandered.

TIME IS MONEY, TIME IS A LIMITED RESOURCE and TIME IS A VALUABLE COMMODITY are all metaphorical concepts.

They are metaphorical since we are using our everyday experiences with money, limited resources, and valuable things to conceptualize time.[1]

Let us see more examples. The words in italics are metaphorical linguistic expressions, whereas the words in capital words are conceptual metaphors.

AN ARGUMENT IS WAR

Your claims are indefensible.

He attacked every weak point in my argument.

His criticisms were right on target.

I demolished his argument.

I've never won an argument with him.

You disagree? Okay, shoot!

If you use that strategy, he'll wipe you out.

He shot down all of my arguments.

LOVE IS A JOURNEY

Look how far we've come.

We're at a crossroads.

We'll just have to go our separate ways.

We can't turn back now.

I don't think this relationship is going anywhere.

Where are we?

We're stuck.

It's been a long, bumpy road.

This relationship is a dead-end street.

We're just spinning our wheels.

Our marriage is on the rocks.

We've gotten off the track.

This relationship is foundering.

THEORIES ARE BUILDINGS

Is that the foundation for your theory?

The theory needs more support.

We need to construct a strong argument for that.

We need to buttress the theory with solid arguments.

The theory will stand or fall on the strength of that argument.

So far we have put together only the framework of the theory.

IDEAS ARE FOOD

[1] Lakoff G.& Johnson M.,Metaphors We Live By,-University of Chicago Press,1980 p.9

All this paper has in it are raw facts, half-baked ideas, and warmed-over theories.

There are too many facts here for me to digest them all.

I just can't swallow that claim.

Let me stew over that for a while.

That's food for thought.

She devoured the book.

Let's let that idea simmer on the back burner for a while.

This is just a small sample of all the possible linguistic expressions that speakers of English commonly and conventionally employ to talk about the target domains above. We can state the nature of the relationship between the conceptual metaphors and the metaphorical linguistic expressions in the following way: the linguistic expressions (i.e., ways of talking) make explicit, or are manifestations of, the conceptual metaphors (i.e., ways of thinking). To put the same thing differently, it is the metaphorical linguistic expressions that reveal the existence of the conceptual metaphors. The terminology of a source domain that is utilized in the metaphorical process is one kind of evidence for the existence of conceptual metaphor.[1]

So far we have used the word "to understand" to characterize the relationship between two concepts (a and b) in the metaphorical process. But what does it mean exactly that a is understood in terms of b ? The answer is that there is a set of systematic correspondences between the source and the target in the sense that constituent conceptual elements of b correspond to constituent elements of a. Technically, these conceptual correspondences are often referred to as mappings.

Source: journey	Target: love
the travelers	=> the lovers
the vehicle	=> the love relationship itself
the journey	=> events in the relationship
the distance covered	=> the progress made
the obstacles encountered	=> the difficulties experienced
decisions about which way to go	=> choices about what to do
the destination of the journey	=> the goal(s) of the relationship

This is the systematic set of correspondences, or mappings, that characterize the **love is a journey** conceptual metaphor. Constituent elements of conceptual **domain a** are in systematic correspondence with constituent elements of conceptual **domain b**. From this discussion it might seem that the elements in the target domain have been there all along and that people came up with this metaphor because there

[1] Kovecses Z. Metaphor. A practical introduction. Oxford University Press. 2002. p. 5

were preexisting similarities between the elements in the two domains. This is not so. The domain of love did not have these elements before it was structured by the domain of journey. It was the application of the journey domain to the love domain that provided the concept of love with this particular structure or set of elements. In a way, it was the concept of journey that "created" the concept of love. To see that this is so, try to do a thought experiment. Try to imagine the goal, choice, difficulty, progress, etc. aspects of love without making use of the journey domain. Can you think of the goal of a love relationship without at the same time thinking of trying to reach a destination at the end of a journey? Can you think of the progress made in a love relationship without at the same time imagining the distance covered in a journey? Can you think of the choices made in a love relationship without thinking of choosing a direction in a journey? The difficulty of doing this shows that the target of love is not structured independently of and prior to the domain of journey. Another piece of evidence for the view that the target of love is not structured independently of any source domains is the following. In talking about the elements that structure a target domain, it is often difficult to name the elements without recourse to the language of the source. In the present example, we talk about the goals associated with love, but this is just a slightly "disguised" way of talking about destinations given in the source; the word goal has an additional literal or physical use—not just a metaphorical one. In the same way, the word progress also has a literal or physical meaning and it comes from a word meaning "step, go." These examples show that many elements of target concepts come from source domains and are not preexisting.[1]

All in all, we have seen and analyzed the main information about traditional metaphor and conceptual one in the English language. It used to be thought that only certain people could use metaphor, which opposed the idea of almost all people can and use metaphors in their everyday speech. All traditional metaphors can fall into certain conceptual metaphors. We use them either unconsciously or deliberately, but in both cases we want our speech to be more effective, appealing or unique. We use mappings, that is to say similarities between illustrated and illustrating domains, with the help of we can create several metaphorical devices.

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Dictionaries

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UDC 30

THE MAIN FEATURES OF TEACHING FOREIGN LANGUAGES AT PRE AND PRIMARY SCHOOLS.

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Annotations. This article describes the features of learning foreign languages at pre and primary schools. The process of learning a foreign language in the elementary school need to remain creative. You need to create a comfortable psychological environment. The teacher needs to understand that he should help the child as early as possible to overcome the language barrier and to instill in him a love of learning a foreign language.
Key words: foreign languages, develop, task, learn, memorize.

Аннотация. В данной статье отражены особенности изучения иностранного языка дошкольной и в начальной школе. Процесс обучения иностранному языку в начальной школе должен оставаться творческим. Необходимо создавать комфортную психологическую обстановку. Учителю необходимо понять, что ему следует помочь ребенку как можно раньше преодолеть языковой барьер и привить ему любовь к изучению иностранного языка.
Ключевые слова: иностранные языки, развивать, задача, изучать, запоминать.

Аннотация. Ушбу мақолада мактабгача ва бошланғич синфларда чет тилларни ўрганишнинг ўзига хос хусусиятлари кўрсатиб берилган. Бошланғич синфларда чет тилларни ўргатиш жараёни ижодкорона олиб борилиши керак. Қулай психологик муҳит яратилиши керак. Ўқитувчи боладаги тил ўрганишдаги тўсиқларни енгишида ва чет тилларни ўрганишга бўлган мухаббатини кучайтиршда иложи борича эртароқ ёрдам бериши керак.
Калит сўзлар: чет тиллар, ривожлантириш, топшириқ, ўрганиш, эслаб қолиш.

Younger students overwhelmingly begin to learn foreign languages with interest, they initially present a high motivation, the children want to hear people who speak in foreign language, and themselves to speak it. They want to learn how to greet and say goodbye in foreign language, learn the names of surrounding objects. The

teacher's task is to satisfy their desires, to maintain and develop interest in the language. Feature of foreign language teaching at the early stage involves the education of the pupils ' ability to listen carefully to the teacher or companion; the ability to politely react; to apply something to report.

Thus, the study of the foreign language shapes the ability to communicate. Feature of learning to read shapes the ability to carefully read the proposals and not to glide over the surface, which often can be observed in children when reading in English.

It is necessary to distinguish the training of preschool children in kindergarten and the education of children in primary school, since there are some psychological age characteristics that must be taken into account. Here are some of them:

1. A child aged 5-6 years old easily learns words and sentences in a foreign language and directly connects them with objects and actions. He uses the word that comes to his mind first. Moreover, it is easier for a child to learn a sentence than an isolated word. Very often a child uses foreign words in his native speech, not noticing it. Therefore, when teaching children a foreign language, it is necessary to give a word in a certain speech cliché. For example, a doll.

Give me a doll. There are some dolls on the table.

Give me the doll. (The teacher points out the doll she wants the child to give her.)

Under this condition, children will not confuse English and Russian words in the sentence. This is not observed in primary school. Children of primary school are more careful in speech. They use either English or Russian sentences. They do not learn sentences only as a semantic unit, but as a model, a stereotype for constructing other proposals by analogy.

The ability to imitate preschool children is better than that of younger schoolchildren. They like to repeat sounds, words and sentences. They try to pronounce them, imitating the teacher. Teaching the pronunciation of junior students is also based on imitative abilities, although some explanations may be given. That is, the teacher can not only show the students how to pronounce this or that sound, but also how it is formed. For example, move the language slightly back and say the sound of [a:] -car.

The leading activity of children aged 5-6 years is a game. He lives in a world of different games. Even if he helps the grown-ups around the house, water the flowers, take care of the garden, he just plays, pretending to be an adult. This factor must be taken into account when teaching foreign languages to pre-school children and offer them various games.

At the initial stage learning languages should develop the skills of intellectual work. It is necessary to perform oral and written tasks. Children must learn to navigate freely in the textbook, use a dictionary and reference books.

Some observations show that children enjoy listening to the English language; they themselves want to repeat what they have heard and they like to pronounce English sounds, words, sentences.

For memorizing vocabulary at the early stage, you can use rhymes, poems, songs; pictures, videos and audio recordings. For efficiency of memorization are widely used in various types of games where even the weakest student can be smart and active. In teaching English at the initial stage, the foundations of educational and information skills are laid.

Some types of tasks and exercises.

1. Listen to the text and guess the meaning of some English words.
2. Listen to the text and name the words that you have already learned.
3. Listen to the text and clap your hands if (the teacher calls the situation or condition).
4. The teacher shows the pictures, the students name the words.
5. The teacher divides the phrase into word forms, the student collects the phrase.
6. Pronounce after the teacher (sounds, words, expressions)

Durability of assimilation of knowledge is provided by bright presentation of material at acquaintance with it students when they establish the corresponding images and associations when at the time of acquaintance feelings, thinking are touched visual, acoustic, speech analyzers turn on; the chance of independent creative application is given.

Preschool age is unique for the mastery of the language due to such mental characteristics of the child as the rapid memorization of language information, the ability to analyze and systematize speech flows in different languages, without confusing these languages and their means of expression, the special ability to imitate, the lack of language barrier.

Learning a foreign language at an early age has a beneficial effect on the overall mental development of the child, his speech abilities, and broadening his general horizons. The teaching of a foreign language has a beneficial effect on the development of the child’s speech and in the native language have a high level of memory; they significantly increase the stability of attention.

Learning a foreign language for preschool children is considered as one of the important preliminary stages preparing a child for, laying the right pronunciation, accumulating lexical stock, the ability to understand foreign speech by hearing and participate in a simple conversation.

Lessons should be followed by music. Without musical education full intellectual development of the child is impossible. Music awakens energy of thinking even in the most inert children. Use of songs at a lesson helps to diversify the scenario of a lesson, gives the chance to move because songs are often sung in the movement, and game. The game accompanied with music attract interest, takes and develops imaginations, induces to creative reproduction not only game, but also speech actions as verses promote formation of an articulation, support various grammatical structures and lexicon.

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FORMING MEDIA CULTURE IN STUDENTS AS A MAIN PEDAGOGICAL TOOL

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Аннотация.

Ушбу мақолада талабаларнинг медиа маданиятини шакллантиришда махсус педагогик ёндашув ва воситалар талаб этилиши кўрсатилган.Шунингдек,талабалар медиамаданиятбўйича эгаллаган билим ва кўникмалар уларга бошқа фанларни ҳам ўрганишга хизмат қилиш тажрибаси ёртилган.

Аннотация.

В статье освещается необходимость специальных педагогических подходов и средств в формировании медиакультуры студентов.А также излагается опыт студентов по повышению знаний и навыков по медиакультуре, который полезен им для овладения другими предметами.

Annotation

The research investigates special pedagogical toolsto formulate media culture in students. In addition, the experience of students to increase knowledge and skills of media culture is useful to learn other subjects as well.

Калит сўзлар: медиа маданият, олий таълим стратегияси, Moodle, медиа педагогика, педагоглар хамкорлиги, чет эл тажрибаси.

Ключевые слова: медиа культура, стратегия высшего образования, Moodle, медиа педагогика, сотрудничество педагогов, зарубежный опыт.

Key words: media culture, strategy higher education, Moodle, media pedagogy, cooperation teachers, foreign experience.

Introduction:

"On the Strategy of Actions for the Further Development of the Republic of Uzbekistan", which provides for the Strategy of Action for the five priority development directions of the Republic of Uzbekistan in 2017-2021, which foresees measures for the "development of the social sphere" - and special attention is paid to "improving the quality and development of higher education"[1] Improving the quality of teaching in higher educational institutions, using the new means of media pedagogy –theModular Object–Dynamic Learning Environment (Moodle)–Open-source learning platform and the introduction of mass open online courses(MOOC).

As you know, MOOC, Massive open online courses, is a form of distance education with the possibility of teaching various courses with mass interactive participation of teachers and students, using e-learning technologies and open access via the Internet.

To determine the media culture we turn to the history of the world of media education which began in Germany in the XVII century, with the initiative of the famous pedagogue Jan Amos Komensky (1592-1670), which had very optimistic attitude to novelty–the press. Ya.A.Komensky was convinced that the newspaper can develop linguistic abilities of students, while giving them useful information on current events and geography.

However, only the 60th years of the 20thcentury, German teachers began to consider the media not only as a "technical training" or "support tool" for the lesson, but also as a subject for a separate study. So the study of media culture has come to school, as a rule, in an integrated form of the obligatory courses. In Germany, media education courses included in the social sciences, geography, art, etc. Relying on the opinion of many German teachers, the study of media culture should help the development of civic consciousness of students to develop their critical thinking. Today, about 72% of German teachers with different specialists use elements of media education in their classrooms.

From the experience of national education, it can be referred to the work of M.Quronov: "The main task of the modern media pedagogy is the process of forming a youth media enlightenment and it is necessary to teach young people the proper selection of media resources, as well as giving some knowledge on the effective use of new information technologies "[2] contributing to the achievement of a new level in addressing the educational and upbringing process, strengthening the social bond between students, academic staff and administration.

Media (from the latin «media», «means of mass communication») – the technical tool to create recording, copying, printing, storage, distribution and perception of information exchange between its subject (the author of a media text) and the object (mass audience) [3].

Regarding the concept of "media culture", it is the branch of contemporary cultural theories, denoting a particular type of culture of the information age, which is the intermediary between the state and society, and in our case, between students, faculty, support staff and administration.

As a result of 158918-TEMPUS-12009-1-AT-TEMPUS-JPCR project "CANDI: Teaching Competency and Infrastructure for e-Learning and Retraining" [4]Urgench State University implemented local network of the University

http://dl.urdu.uz/moodle/–Moodle that possess interfaces on the Uzbek Latin, Cyrillic Russian and English languages.

Number of prospective teachers, who are experienced after having participated on mobility program Erasmus Mundus Action2 Lot-9 project Silkroad Universities towards Europe (SILKROUTE) 545765-EM-1-2013-1-IT-ERA Mundus EMA-21, try experimented the use of this softwareto promote media education on information technology, as well as students as consumers of the newly created database of educational resources with new features reverse contact with teachers on the subjects introduced by teachers in this database Moodle.

The need to implement Moodle into teaching requires faculty improve media education through the development of skills of perception, creative development and logical processing of the content they create on the subject of teaching materials, including the syllabus, case studies, in particular students will have access to various kinds of digital resources, video, audio presentations on the local intranet of the University in the case of having login and password for access to the Internet andstudents can study On-Line.

In order to improve the efficiency of courses through the use of Moodle at the university held the following activities:

- providing continuous technical support,
- strengthening material and technical base with a high level embedded in academic classes information-computer communication
-systemizing training courses for academic, administrative staffand support them.

The case stands for ensuring information and computer technology in the classroom, where the classes are planned to conduct on Moodle platform, providing efficient use of academic timethat the teacher is responsible for the quality of training, education, research materials on the topic of the specific subject before using online materials.

Quality indicator of teaching activities which are included in the list ofrating universities, also depends on the level of information culture of the teacher - media culture which is manifested in the ability "as a guide" to direct the attention of students in search for useful educational electronic resources. At the same time, theymust actively be involved in the subsequent intellectual and creative development of content to provide outstanding information on the subject.

Today, society is aware of strong influence of media on life, which gives rise to a comprehension of the social role of media and, as a consequence, convinces media educators to further development of media education.

Taking into account the contemporary interests of students in media technology and Internet resources, it is time for teachers to meet the needs of students by creating on the basis of substantive educational media materials, which are developed on the basis of analysis of political, social, national and economic aspects of the country.

Specificity of the Internet, mobile communications, e-mail, social networks widens the social memory of students, teachers of educational institutions. Thus, the participants in the process of creating the national educational space - Ziyonet, the Moodle system, form the elements of "global" and "local" thinking, respectively, as a participant of media culture.

In order to protect against negative influences on the thinking of young people, programs were developed for:

- Digitization and computerization of information resource centers of educational institutions;

-Creation of publicly available Web of science databases, into world information resources Springer, Elsevier, Scopus.

-Creating and expanding Uzbek language national educational segment on the Internet.

On the example of teachingtechnical subjects on English language, it must be stated that effectiveness of Moodle provides two-way activeness of participants in the educational process, "teacher-student" and "student-teacher".

Self-study system allows students to increase the knowledge and skills in the implementation of the search, storage and use of information and its transformation and modification. Especially you must specify to increase their confidence in dealing with a variety of storage media used for these purposes, the modern technology, mobile communications, computer, communication, test, language translator, search software.

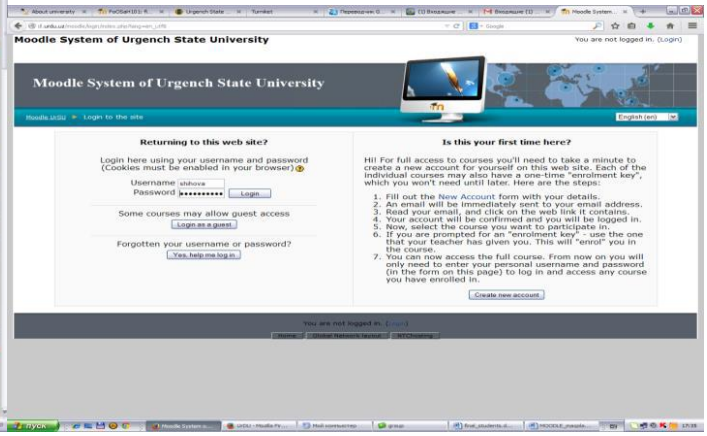
Motivating element of using Moodle system for students as user, was the ability to monitor and study the dynamics of growth of performance rating of their own knowledge on the subject, thus the problem with the fair assessment of students' knowledge is excluded by teachers` side.

According to PD “On measures for further enhancement of the system of teaching of foreign languages” and approval of state educational standards for foreign language of continuing education on the fourth year of bachelor students of the faculties (which are non-philology of English**)**, based on the degree of International Standards of Europe B2(independently communicate degree of learning foreign language)[5]and C1 (freely communicate degree of learning foreign language) the final year students of Chemical technique faculty of Urgench State University are

taught on the subject of Fundamentals of occupational safety and health in English language.

The main purpose of teaching English language in all the grades of Higher Education in the Republic of Uzbekistan is forming communicative competence of students in English in order to be active in the branch of their profession, science, daily life in the multicultural world and help them for using the knowledge and experience of their special subject in English language in communication process.

For further enhancement of the students' listening comprehension, speaking skill, reading comprehension, lexical competence, sociolinguistic competence and pragmatic competence, audio and video multimedia resources, power point presentation materials, question movies, laboratory tasks, test chapters, case study and the e-book FOSH (Fundamentals of Occupational Safety and Health) were replaced one by one in next list (order): Site, faculty andsubjects of teaching, Editing data of lectures, practical works, seminars and testing materials, Enterusers to web siteMoodle by using ID,Turn editing on, Enter add resources full text, audio-, visual presentation of study materials, Casestudies, Upload files, Feedback, evaluation of students knowledge, creating data base and give possibility to do monitoring of using Moodle system during teaching of teachers, learning of students and the volume of there link during study processes.



After the lessons students have to answer at least ten questions of each topic in order to use effectively from the independent classes.All the students have personal login and password for entering to Virtual Moodle System, taking any information about the subject and independently studying. Students can consolidate their intellect by effectively using the information in this Moodle system outside of classes.

Thus, the challenge of teaching the technical subject «Fundamentals of occupational safety and health» in English language to chemical engineering students with

introduction of Moodle system demanded huge effort of cooperation with the employees of the Information Resource Center of the University and with the teachers of the Department of English for special purposes in technical fields.

As a result, we can give a proposal to use Moodle as a pedagogical tool to improve the skills of teachers in the use of different types and sources of information, as well as improving the pedagogical approach of elements in the formation of the media culture of students by developing critical, independent and creative thinking of .

In particular, it is necessary to indicate that this method has allowed the creation of a training base is always available on a special subject in the English language for the Uzbek-speaking students in technical areas of higher educational institutions of the Republic.

Students in the presence of a login and password, after authentification, have access to this resource as Internet and Intranet with using search engines, translation programs for key words on this topic can be independently designed and laid out master teacher "one window" difference kinds of media resources.

The results of this approach, solutions of a new strategy for the continuous education of Uzbekistan, on the formation of learning resources and teaching English to students of special items of technical areas discussedat the Tashkent State Polytechnic University of the Republic of Uzbekistan, on scientific councilof scientists of basic staff on "Fundamentals of Occupational safety and health", which was adopted decision to extend this innovative teaching method.

As a result, it should be pointed out that such a pedagogical approach in conducting classes enables the formation of students' media culture, which includes a culture of information transmission and a culture of its perception, the ability to read, analyze, evaluate media texts in all other subjects and for the whole active life.

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UDK 371.127:371.10

PEDAGOGICAL APPROACHES TO THE INFORMATION CULTURE.

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Annotation. This article is devoted to the need for information literacy, information concept, information culture, work with information, and the formation of information culture.

Аннотация. В этой статье речь идёт о информационной грамотности, понятии информации, информационной культуре, работе с информацией, а также о необходимости формирования информационной культуры.

Аннотация. Ушбу мақола ахборот саводхонлик, ахборот тушунчаси, ахборот маданияти, ахборотлар билан ишлаш, ахборот маданиятининг шакллантириш заруратига бағишланган**.**

Keywords: information, information culture, information processing, informational tools.

Ключевые слова: информация, информационная культура, работа с информацией, информационные средства.

Калит сўзлар: ахборот, ахборот маданияти, ахборотлар билан ишлаш, информацион воситалар.

Various information flows are used for a variety of purposes. In some of our youths, we can see that there is a great deal of information flows, where it can not be used properly.

We can see that information becomes a crucial resource in the development of modern civilization, just as a tool for managing the society and humanity, as an instrument of economic and political processes.

Accelerated development of information and communication technologies, continuous dissemination of information, lead to the transformation of humanity into an advanced society.

The Russian scientist N.I. Gendina described that culture of information is that it reflects the basics of knowledge, skills, and sources of information in a person.[1]

[1] Gendina N.I. Information culture of the teacher // Orientations of cultural policy: Information release-1998.-№4.-C.94-98.

The need for the formation of information culture necessitates new paradigms of education in society. Globalization, acceleration of secularism, progress in moral, religious, political, and economic spheres are manifested in the views of talented people reflected in the education of human civilization in the 20th and 21st centuries.

The term "information culture" was first appeared in the Russian press in the 1970s. This concept was first used by bibliographer KB Vychansky and B.Salmirzova in the articles "Libraries and readers on informational culture", E. Shapiro's "On the way to reducing uncertainty of information requirements"[1].

International organization UNESCO reported that in the late 1960's and early 70's, sociologists and philosophers, D. Bell, Toffler, M. McQueen, E. Masudas tried to shape the concept of an informed society. In order to create the conception of developing the knowledge of society UNESCO studied the list of ever-changing developments, the dynamics of the surrounding world and preferred to all it as a "conception of developing progress"[2].

Since 2001, UNESCO has launched programs called "Information for All", "Development of Human Knowledge and Capacity in the Information Age" and "Information Technology for Education, Science, Culture and Communication".

It is essential to have an "informational culture" in order to live in the information society. The new requirements to the education system are based on the knowledge that develops society.

The main purpose of the training process is to provide the person with the opportunity to work in the future, not only for professional training, but also to obtain information on different fields, to receive, to sort, to process, to express their opinion, to improve existing and new knowledge. The impact of changes in the education system is reflected in the concept of "new paradigm of education." The paradigm of the new educational paradigm is based on the "lifelong learning" slogan, which means that in the future, the society has to constantly update its knowledge of the field for the development of the state[3].

The content of today's education is characterized by the following factors:

- The ability to interact with new information at a considerable level, continuously formulate and independently learn new knowledge;

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- mastering the information from different sources, forming the knowledge independently;
- filling professional knowledge and skills with "professional competence".

The rapidly growing gigantic flow of information can make it harder to find reliable information, including the lack of necessary information. In the modern information society, the speed of technics and technology, the control of the consciousness and behavior of the person, can endanger humanity in the future.

Nowadays, the virtual world, the occurrence of various forms of virtual communication, poses a serious threat to the upbringing of young people. This is why it is becoming necessary to improve the fields of "information culture", "information literacy" and "media development" all over the world.

In our view, it is appropriate to teach in a new environment of living and in a highly organized information environment, preparation for occupational activity, independent work in that environment, the effective use of its potential, and the prevention of negative impacts in higher education institutions.

The International Organization for the Personality of the Informational Society (UNESCO) and the International Association of Libraries (IFLA) have established the conception of information literacy[1].

The concept of "information literacy" was introduced in the United States in 1977 and was used in the National Education Reform Program. The American Library Association, which has made a major contribution to the development of this concept, described it as "a person with the ability to evaluate, present and use information"[2].

IFLA has developed a "Information Literacy Manual for Education throughout Life" in 2006. In this manual the contents of "information culture", "information literacy" are explained. The relationship between information culture and the lifelong learning process has been examined, the international standards on information culture have been developed, the role of organizational structures in the educational process, and the importance of teaching theory and teaching process in teaching information literacy have been highlighted.

According to IFLA standards the main component of information culture: to find and obtain information (critically and comprehensively evaluate user information), set requirements for information (randomly and efficiently selects information),

[1] Formation Information society in the XXI century/ Comp. E.I. Kuzmin V.R. Firsov. Russian Committee of the UNESCO Information for All Program – St.Petersburg, 2006, c-640.

[2] Gendina N.I. Information Literacy and Personal Information Culture: International and Russian approaches to solving the problem.Open Education. № 5. 2007. C-60.

information selection, fragmentation, analysis, synthesis, , Generalization and commenting, use (finds new ways of presenting, presenting and using information to the user, acquisition of information such as self-knowledge), application in practice, information production, intellectuality, legitimate use and transfer of ethical standards.

The IFLA's "information culture" concept has been recognized internationally by the world community, the need of developing people's ability of using special information in the current process of globalization is highlighted.

In conclusion, we can say that the concept of "culture" doesn't occur just today.it is required to substatiate this concept scientificly in order to make people use this tool much in the society. Every country, every society develops because of the result of exchanging of information. For this reason, to develop information culture in our youth, to teach them how to get, select, rework on information is one of the most pessing challenge of today.

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THE EFFECTIVENESS OF DEVELOPING HAND AND FOOT STRENGTH BY USING NON-STANDARD EXERCISES

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Абстракт:Тренеры, занимающиеся силовой подготовкой, предпосылкой современного обучения, упражнения, основанные на научных и теоретических соображениях, которые делают упражнения без весов и весовых упражнений по игровым методам, очень эффективны в развитии сильных сторон мышц рук и ног.

Ключевые слова: коучинг, игровые методы, горизонтальное положение.

Abstrakt: Kuchli mashg'ulotlarda qatnashadigan murabbiylar, zamonaviy ta'limning sharti, mashqlarni mashq qilishda og'irlik va og'irliksiz mashqlarni bajarish uchun ilmiy va nazariy asoslarga asoslangan mashqlar qo'l va oyoq mushaklarining kuchli rivojlanishida juda samarali.

Kalit so'zlar: murabbiylik, o'yin uslublari, gorizontal holat.

Abstract: Coaches involved in strength training, a prerequisite of modern training, exercise based on scientific and theoretical considerations that to do exercise without weights and weight exercises on game methods are highly effective in developing the strengths of hand and leg muscles.

Key words: coaching, game methods, horizontal position.

1. Introduction

In sporting practice, there are at least three interconnected directions for improving the quality of the strength: maximum strength, explosive strength and strength of endurance. Topographically, the development of strength is divided into many directions. As we know, the strength condition is increased with rise different dumbbells and to do some special exercises but it would be ineffective if active recreation is not given for muscles during the period. Organizing lessons in the manner is one of the main parts of training because it protects tennis players from muscles tension and ensures as progressive development. Improving the strength of the arms and leg muscles for tennis players is of primary importance. However, it should be noted that it should be noted that many young coaches give athletes special

standardized difficult exercise in developing this quality in order to achieve high success dramatically but these exercises usually finish with injuries there was a time when strength training for tennis was not standard practice even among the professional players. As recently as the 1980's, John McEnroe famously shunned working out in the gym. To keep himself fit, he would just play as many matches as possible including a lot of doubles. He could get away with this because his talent for the game was simply out of this world. John McEnroe had unbelievable ball control, touch, court sense and anticipation. However, most of his contemporaries had begun to incorporate lifting weights into their training programs. The player who would immediately succeed McEnroe as world number one, Ivan Lendl, was a total gym rat. On the women's side, Martina Navratilova became a pioneer for female tennis players as she became one of the first women to emphasize strength training for tennis. Today, all top pros work out in the gym one way or another; those who don't get left behind. At best, they become merely talented under achievers. The importance of strength training for tennis cannot be emphasized enough. Obviously, a strong player is also one who is able to hit the ball harder. Aside from power, ball control can also be improved. This is because proper stroke mechanics can be more easily learned if the muscles and joints are well-conditioned. Another crucial reason why strength training for tennis is now mandatory for competitive players is that it helps protect against injuries. Tennis is a sport that places a lot of repetitive stress on certain joints like the shoulders, elbows and wrists. The trunk and back are strenuously worked out with all the twisting and coiling involved in hitting serves and ground strokes.

2. Method

From a biopsychological point of view, especially in the preparation of young athletes would be effective if to do exercises with average weight or game exercises.Because such kinds of exercises prevent from muscle soreness and tissue tension. That is why; we conducted research at sport college of Khorezm region on it. Using this pedagogical research, we have learned the effectiveness of developing hands and legs' strength among young tennis players at control and experimental groups.

The results of the research showed that, workouts on high bar has showed 6,4 times, 7,4 times on parallel bars and 8,6 times in horizontal position by tennis players before to start research. After 6 months of traditional training increased from 6,4 to 7,2 times on high bars, from 7,4 to 8,6 times on parallel bars and from 8,6 to 10,2 times on horizontal position(1 timetable).

Variation of hand force in control and experimental groups with different effective exercises "Table 1"

Tests	**Groups**	**Before (experiment)**	**After (experiment)**
High bar	Control	6,4	7,2
	Experimental	6,2	12,6
Flex of hands on Parallel bars	Control	7,4	8,6
	Experimental	7,8	15,8
Flex of hands on horizontal position	Control	8,6	10,2
	Experimental	9,0	18,2

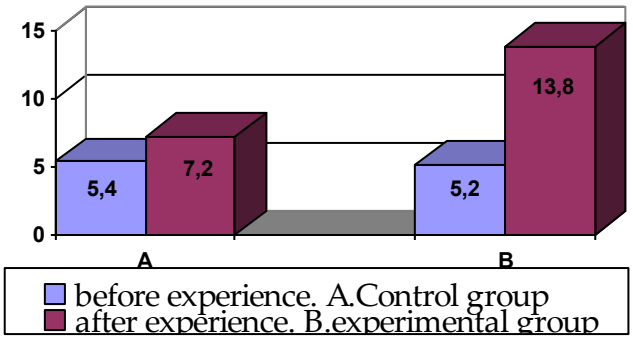
It is indisputable fact that the strength of flex muscles is vital for tennis players. From this point of view, the test exercises performed in the parallel bars and horizontal bar were an objective criterion for assessing the muscle strength.

In the control group, these test data showed that muscle strength was weak. The results of the test performed during 6 months showed less development (1.2 and 1.6 times) in horizontal bar and parallel bars. The result shows that power-up exercises were used less during the past period of time.The experimental group was determined that the non-standard power game exercises are more effective than standard exercises.

Thus, the results obtained before the experiments in this group did not differ significantly with the control group. However, after six months of experiments, the amount of work in high bar were increased 6.4 times ,in parallel bars were 8.0 times and 9.2 times more horizontally.This situation demonstrates how effective the experimental exercises.

It is a test that shows the strength of the leg muscles indicated that unusual power exercises with games is more effective than usual exercises. For example the effectiveness of the exercises to lift up 25kg load on the shoulder in order to increase the strength of the leg muscles impacts less than unusual game methods.

Growth of foot strength in control and experimental groups under 6 months of training.



"Table 2"

In order to increase power of leg muscles, athletes in control and experimental groups squatted with 15kg 5,4 and 5,2 times before the experiment and the both results were showed nearly same results. During the 6 months were though with different methods such as game methods in experiment group and usual method in control group. After the experiment, the both results indicated different results to each other. Namely, you can see on bar chart the effectiveness in control group did not increase but the numbers of squatting with 15kg increased to 13,8 times in experiment group.

The obtained results and their comparative analysis show that, Exercise based on scientific and theoretical considerations that to do exercise without weights and weight exercises on game methods are highly effective in developing the strengths of hand and leg muscles. Over the course of six months, these sessions have accumulated a great deal of curiosity and activity in children involved in experiments.

3. Useful information

Strength athletics, more generally known as strongman competitions, is a sport which tests competitors' strength in a variety of different ways. Some of the disciplines are similar to those in power lifting and some power lifters have also successfully competed in strongman competitions. However, strongman events also test physical endurance to a degree not found in power lifting or other strength-based sports. Competitions designed to test the strength of participants have a long history going back many centuries before the television of strongman competitions in the 1970s. This ancient heritage can still be seen in a number of traditional events, the most famous of which is the arguably traditional Highland Games, which itself is a source of many events now practiced in modern strongman competitions. Different competitions may be structured very differently with some strength athletic competitions, such as the World's Strongest Man, being slanted towards dynamic tests of strength, whilst others pivot around tests of pure static strength such as the Arnold

Strongman Classic. Displaying one's strength took two particular forms of note: as a pure exhibition and within the confines of sporting competition. Within the British Isles records, many centuries old, relay more formally the existence of organized events. Formalization and annual Highland gatherings began around 1820 when Sir Walter Scott encouraged the revival of Highland Culture. By 1848, such was the status of such games that Queen Victoria attended the Braemar Highland Games. The strongmen of the world of weightlifting and circus acts were also exhibiting their prowess. A number of famous names emerged at the turn of the 19th century. Thomas Inch, still remembered today for his Grip Strength. and his Challenge Dumbbell, known as the Inch Dumbbell, that "has defied thousands of strong men over the last hundred years...Many a strength athlete tried but failed to break it off the ground. Other notable names in this genre were Louis Cyr, Joseph Greenstein, and Louis Uni(Apollon) who was famously able to knockout a horse with a single punch - an event popular in this era. See also World's Strongest Man. The most famous event is one of the oldest, namely the World's Strongest Man competition, still described by a number of highly respected authorities in the sport as the premier event in strongman. The concept behind "The World's Strongest Men", as it was originally named, was developed in 1977 for CBS by Lang star Inc. David Webster, a Scot who later received an OBE for his services to sport, was the head coordinator of the competition from its inception. Dr Douglas Edmunds, seven-times Scottish shot and discus champion and twice world caber champion worked with Webster and when David Webster retired from his position Edmunds took over. These two men were responsible for inviting the competitors and choosing the events. They selected men who had shown prowess in the mainstream fields of strength sports such as the heavy field athletics events, such as shot put, as well as power lifters and bodybuilders. The idea was to create a spectacle that would test the purveyors of these now disparate disciplines against one another on the elements that remained common to all, strength. The show was a great success making household names of men such as Geoff Capes, Bill Kazmaier and Jón Páll Sigmarsson. It was replicated at national level as well, with events such as Britain's Strongest Man first being televised in 1979 by the BBC. In the meantime, in 1982, CBS sold the rights to the BBC, who in turn sold the rights to TWI. In the early days, the competitors were shifting from unpaid amateur sports to what was deemed a professional sporting activity. To maintain the competitive base as well tapping the obvious public interest, other events sprang up and by the mid-1980s a number of other international gatherings had become regular features, most notably the World Muscle Power Championships and the World Strongman Challenge.

4. Conclusion

1. The role of physical conditions in the training of qualified athletes is immense, especially the strength condition and to increase the quality. From this is what we have learned from the analyze literature we noticed that in every sport and in different age-based athletes is developed the strength conditions with based on different approaches.

2. There are no general conclusions or recommendations on this subject. It also became clear that mainly to increase the strength condition the coaches used weight lifting, gymnastics and simple exercises. But, nearly they did not use from different game methods in order to develop the condition.

3. According to the results of the pedagogical experiment, the young people increased their skills in six months, so non-standard game exercises were smarter than usual training sessions. If the experimental and experimental groups have almost no alignment with the muscles of the muscles, the younger tennis players who have not done so after the end of their pedagogical researches have been relatively progressive.

4. The experimental group was determined that the non-standard power game exercises are more effective than standard exercises. Thus, the results obtained before the experiments in this group did not differ significantly with the control group. However, after six months of experiments, the amount of work in high bar were increased 6.4 times ,in parallel bars were 8.0 times and 9.2 times more horizontally.This situation demonstrates how effective the experimental exercises.

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PHYSICAL READINESS AND EFFECTIVE RISING OPPORTUNITIES OF 10-12 YEARS OLD SPRINTER SCHOOLCHILDREN

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Аннотация. Мақолада қисқа масофага югурувчиларнинг йиллик циклдаги тайёргарлигини режалаштириш ва ташкил этиш масалалари ёритилган.

Аннотация. В данной статье освещаются планирование и организация подготовки спринтеров в годичном цикле

Annotation. In this article there were illustrated the issues of organizing and planning the trainings of sprinters in a yearly cycle.

Калит сўзлар: машғулот юкламалари, қисқа масофа, жисмоний тайёргарликнинг ўсиши, индивидуалаштириш, юклама хажми, жисмоний ривожланиш, режалаштириш, функционал тадқиқотлар, тезкорлик, саралаш, машғулотларни ташкил этиш, воситалари ва методлар, замонавий технология, таълим, малака.

Ключевые слова: тренировочные нагрузки, спринт, прирост физической подготовленности, индивидуальный подход, объём частицы, физическое развитие, быстрота, отбор, организация занятий, методы и средства, современная технология, образование, навык.

Keywords: workloads, short distance, rising of physical readiness, individualization, load capacity, physical development, planning, functional research, operability, selection, training, tools and techniques, modern technology, education, qualifications.

Physical culture and sports are developing further thanks to the targeted policies of the Government of the Republic of Uzbekistan. Decrees of the President of the Republic of Uzbekistan and a number of important decisions of the Cabinet of

Ministers of the Republic of Uzbekistan are aimed at improving the system and structure of athletes.

The development of physical culture and sports in our country, as well as the harmonious and perfectly upbringing the younger generation reached the level of the state policy. It is being carried out on the basis of the Laws of the Republic of Uzbekistan "On Education", "National Program for Personnel Training" and "On Physical Training and Sports" (the 4th of September, 2015), "State Policy for Youth", the Decree of the President of the Republic of Uzbekistan and the Decree of the Cabinet of Ministers on the active involvement of the population, especially the younger generation in the field of physical culture and sports, and orders of the Ministry.

At present, reforms in our political, social, economic and spiritual-enlightenment life under the leadership of our President Sh.M. Mirziyoev constitute the creation of new educational, sports and recreational activities, with new content, forms and tools, beyond the unique opportunities created for them and also solving the most important tasks, such as upbringing of our growing young generation as worthy children[1].

The analysis of the scientific and methodical literature and practical experience of our native and foreign specialists show that the system of training athletes is a complicated and multifaceted process at all stages. This is primarily due to the strict compliance of the training process to specific requirements specifically to one or another type of sport. Adolescence exercises need to be followed by exercises that require stable situations, initial situations, and hanging. Physical training of young athletes is one of the most important components of sports training, which is understood as a process of comprehensive development of the body, strengthening of health, improvement of physical abilities and creation of a stable functional base for all other types of preparation.

The effectiveness of human action is determined by the quality and speed of the movement. Most scientists believe that the sensitive (optimal) period for the quality and speed of movement is 5-7 and 8-12 years. Therefore, the quality of work (coordination, technique, etc.) and it is desirable that these young people develop their speeds [2] [3].

As you know, the quality and speed of the work depends on the size, severity of the sporting practice and the duration of the work.

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[1] Sh. Mirziyoyev 'We will build up great future with our generous and noble people'. Uzbekistan. T. 2017

[2] Verxoshanskiy Yu. V. 'Basic specific heavy trainings in sport'. M: 'Physical culture and sport'. 1998. N. 331.

[3] Lyax V. I. Conception of coordinational training in sport. Theory and practice of physical culture. N5. 1999 P 40-46

The longer the motion takes, the lower the quality and the speed of the movement.

However, the better the physical training of the trainees, the higher the quality and the speed of the work can last for a long time [1].

The aim of this research is devoted to learn the physical training and opportunities of effective rising for 10-12 year-olds chosen as short-distance race runners in light athletics.

Alpomish" standard requirements served as criterion in evaluating the degree of physical quality development of pupils aged 10-12 who participated in the study (28) "(Table 1).

Twenty-eight pupils selected for short-track athletic circles participated in training (14) and experimental (14) groups.

Table 1

For students aged 10 to 12 years, the "Alpomish" normative requirements

#	Normative exercises	Measurement unit	Normative indicators	
1	60 m running	second	9,9	9,6
2	Cross - 1000 m	minute	4:10,0	4:05,0
3	Length jump	cm	340	380
4	Throwing tennis ball	m	30	35
5	Horizontal bar	times	4	6
6	Rope hanging	m	2,8	3,0

Pupils from the training group were trained according to the traditional program.

In the experimental group, besides traditional exercises, there were also the following moving games were used to develop different physical qualities: for the quality of power: "pull into the circle", "pull out from the circle" , "horizontal bars"; for the quality of adroitness "grab the smiling wood", "relay-race over the obstacles", "white poplar or blue poplar"; for the quality of durability "come on, reach me", "long running down (2 times in 10 minutes)"; for the speed quality: "run the ladder", "hunters and ducks"; for jumping quality "limping crow", "relay-race wearing a sack on a foot"[2].

The experiment was conducted for 6 months. The results showed that traditional and non-traditional sessions conducted during 6 months had a different effect on physical training of the two groups participating in the study. (Table 2)

[1] Matveev Specific general theory of sport and the system of training sportsmen. Kiev Olympic literature 1999 31p

[2] Phillip V. P. The theory and methods of teenaged sportsmen. Physical culture and sport. M 1987 31p.

Table 2

Changing the physical qualities of control and experimental groups through traditional and non-traditional exercises

T/p	Testing exercises	Before the experiment	After the experiment
		x±G	x±G
1	60 m running	10,70±0,60 10,50±0,50	10,50±070 9,20±0,60
2	Cross - 1000 m	4,35±1,12 4,38±1,07	4,15±1,07 3,97±1,11
3	Length jump	3,16±0,83 3,20±0,77	3,06±0,92 2,88±1,12
4	Throwing tennis ball	28,2±2,17 29,10±1,98	29,60±2,01 36,20±2,00
5	Horizontal bar	4,80±0,60 4,00±0,90	5,20±0,80 8,80±0,80
6	Rope hanging	2,20±0,40 2,40±0,60	2,80±0,60 3,40±0,80

In particular, the results of pre-experimental studies did not differ much from the control and experimental groups. For example, the 60m race run was 10.7 seconds in the control group and 10.5 seconds in the experimental group.

Running 1000 m crosses 4, 45,0 and 4; 48,02 minutes; long jump 3,16 and 3,20 m, throwing tennis balls 28,2 and 29,1 m, horizontal bars 6,8 and 7,0 times and rope hangings equal to 22 and 24 meters respectively. If we compare these indicators to the "Alpomish" standard for the same age, it is clear that the physical training of young runners who are involved in the survey is considerably weaker. Indicators, such as fast-jumping, throwing a tennis racket, and power quality (hanging on the rope), were even lower than the "Alpomish" standard requirements. This situation indicates that children involved in the study did not have physical exercise during their previous participation in the athletics circle (pre-school institutions, elementary classes). Another factor that confirms this conclusion is that physical fitness levels did not end with positive dynamics, even in children of the control group who participated in traditional exercises during 6 months. (See Table 2) Thus, if the exercise load used during the training session is not higher than the physical and functional capacity of the trainees, and the effectiveness of these exercises can not be controlled, or the

volume and severity of loading may not be adjusted according to the results of the exercise, physical progress may not be affected progressively.

In the experimental group, special exercises, which were additionally used in traditional exercises, showed their effectiveness. In particular, the results of all the test exercises show that the physical characteristics of children involved in the experimental group were significantly higher than that in the control group.

At the same time, the traditional physical and technical exercises used in the control group were not explained by progressive dynamics.

Conventional exercises and special motion games used in the experimental group were shown to be an effective tool for the development of physical qualities. Thus, the results of the conducted pedagogical experiments highlight the necessity of systematic use of complex exercises, which are used in training of young runners. Physical exercises that are shaped by such exercise and special action games expand the possibilities for effective training of young athletes.

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BASIS OF OCCUPATIONAL CREATIVITY OF MODERN TEACHER

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Annotatsiya. Maqolada kuzatuv va ilmiy ishlar sohasidagi amallarning shakllanishi tasvirlangan. Unda talabalarni o‘qitishdagi amaliy jarayonlar va talablar, hamda o‘rganuvchilar bilan o‘qituvchilarning ta’lim tizimidagi muammolari va bu borada barcha vazifalari tugatilishi lozimligi bayon qilinadi.

Аннотация. В статье описывается формирование деятельности в области наблюдения и исследований. В ней изложены практические задачи и требования к учащимся, а также проблемы, с которыми сталкиваются учащиеся в системе образования.

Annotation. The article describes the aspects of formation of qualifications in the sphere of investigation and research work. There expressed the practical activities in teaching students and requirements and problems of learners as well as teachers in the education system, and all the duties that are considered to be completed.

Kalit so‘zlar: o‘quv va ta’lim, ta’lim oluvchi, ustoz va o‘qituvchi, zamonaviy ta’lim, uzluksiz ta’lim, ta’limning davomiyligi.

Ключевые слова: обучение и воспитание, обучаемый преподаватель, современное образование, преемственность образования, непрерывность образования.

Key words: training and education, trainee, instructor and teacher, modern education, continuity of education, continuous education

One of the essential peculiarities of modern education is to acquire students critical thinking and independent research. One can not succeed without defining the characters and capabilities of their learners. Effective methodology depends on knowing the team and group of students deeply.

In this period which is considered to be the century of information technology and communication, without arming the learner with high technology, and without creating the materials of the lesson, it will be impossible to bring-up independent and

sensible humankinds. Because of this consideration the decree «about developing the state national program between 2004 and 2009 » by the first president of the Republic of Uzbekistan which was written on the 21st of May in 2004 and in several decisions which was issued based on the above decree, in particular, stating the value of potentials and paying wide attention to direct her/his attention to educational activities.

In brochure «Idea of National Independence: Principal idea and tendency» there was noted that «Science and scientific establishments play a vital role to mould the ideology of national independenc. Furthermore, process of ecceleration of technology, science and technics and enhancements, deepening the terms of social meanings, in condition of ideological process and its globalisaton devote as the essential factors in sphere of education.[1]

Unless several qualities that are necessary for youth, they remain as an ineffective ones. So the professional qualities of a teacher and demands for those as follows:

Scientific-creativity. Teacher is a specialist who undertakes scientific reality and updates based research. Higher school directs the future teacher through creativity, only a healthy perspective and look at the world in their hearts.

Teacher creativity plays a vital role for developing critical and creative thinking, generating a content of artistic and aesthetic taste, and shaping healthy worldwide, improving the oral and written skills of students. Identity in organizing classes, contrary, discovering in methodological way improves efficiency of a lesson.

Organization. Teacher has to own the quality of organization inside, without this he/she is not able do the formation of students friendly who are united around.

In a workplace where students are united friendly together lessons and courses can be organized meaningfully and interestingly. Teacher who has no ability to attract students using his/her proficiency, extra features and teachers who can not become a model for everyone is disqualified from their chance to direct learner in a right way. Because learners do not follow these type of supervisors and even do not show any enthusiasm.[2]

Teacher is a person who has ability dote on students, who can unite them in the same area and who does not spare himself to give true knowledge to learners.

Another one of the vital indicators of Educational specialist is an ability to imprint himself in student`s soul and to establish a stable team within them.

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One of the important edges of young learners is their Investigation. Youth assimilate the experience of research work during their participation in conferences, writing self-studies, scientific articles, and essays and even during analyses of some scientific books and novels at school.

Scientific Research. This intellectual sides of teachers are represented in process of their research and in preparation to their practical training. Scientific research gives a chance to provide fluency of critical thinking, real and accurate work and distinctive up-bringing in the sphere of knowledge.[1]

Several weaknesses which one can face to among candidates and young teachers who graduated from Higher Schools and Supreme Universities is which we do not notice any scientific, practical effectiveness. Quality and effectiveness of lessons belong to creativity and constancy and permanent research work of a teacher. Besides these, teacher should know to make use of practical information, pedagogical and psychological methods and all the theoretical knowledge during their occupational periods.

Drawing attention to the connection between practice and theory. Practical Occupation of teacher is much closer to research occupation. Because teachers make tries to use theoretical and methodological experiences which they learned during their research work. So, practical ability of pedagogical specialist to give common direction in new information is required.[2]

Teacher shows all his/her strengths, knowledge and experiences during practical activities. This polishes his/her job skills. Teacher plays functional role to make use of untypical ways of experiences and new methods. Teacher uses the methods in teaching which can meet the requirements of our period. Successful students engaged in the activity of high educational effect, teaching, creative thinking, the use of forms.

Teacher training collect the necessary information, data and materials for them, as well as how to predetermined paths, which form pupils. Teachers and educational role must not forget the need to be responsible to creativity. Because the teachers in their classrooms learning providers, first of all, the knowledge of students on the basis of education, education is meant to have demonstrated results in student behavior, watches practitioner.

Educational overestimate the influence of parents in the education of children in a family, when children at school when the teacher a strong influence on the personality of the student. They live together in one place (A place to live, especially in rural areas) not only in class with one another, will have to communicate in

[1] Rakhimov B.H. The role of research work in the training of a highly qualified specialist.// International Scientific Journal of the International Academy of Sciences. 2008.№1 G.Balashev.c-28-30.

[2] The idea of national independence: the basic concepts and principles.-T.: Uzbekistan, 2000.P.63

everyday social situations. The living conditions in the family of the student, a teacher, a good relationship with others, and can be treated accordingly. In Every step of the way teachers and students meet with each other and interact. In this way, they learn each other's personal qualities, not only at school, students studying all aspects of social life, the teacher started talking. In practice, a complete system of selection of educational material and teaching, research students and the activities of its orientation, training, concluding what determines the need for the analysis of literary texts, or both. Thus, the teacher's pedagogical practice of constantly developing, changing, leading to event.[1]

In conclusion, the teacher-student organization at the time, in practice, research, and all the necessary professional qualities, such as creativity provide the desired level of development. High school graduate experts in certain scientific thinking, but in practice it occurs in the issue of how to implement the very difficult course. For school students methodologically the requirement of further improvement of the system of directing the students in the science of psychology, pedagogy and academic researchers to clearly define the specific characteristics of one of the most important pedagogical challenges. However, teachers are in need for mastering the scientific research laws. This science directs teachers to work in any situation into a qualified specialist. After all, the spiritual development of members of the community depends on the level of scientific horizons.

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STUDYING OF ARTISTIC-DESIGN SKILLS BY THE FUTURE DECORATIVE ART TEACHERS

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Abstract. In given article the attention is accented on development of abilities and skills of art designing of students during out-of-class lessons.

Аннотатция. Ушбу мақолада бўлажак тасвирий санъат ўқитувчиларининг бадиий конструкторлик маҳорати ва куникмалари аудиториядан ташқари машғулотларда ривожлантирилиши кўрсатиб ўтилган.

Аннотатция. В данной статье внимание акцентируется на развитие способностей и навыков художественного конструирования студентов во время внеаудиторных занятий.

Key words: art-design skill, intellectual-creative skills, abstract, objective, visual, constructive-fantastic intuitive, metaphorical, improvisational skills.

Калит сўзлар: бадиий-конструкторлик, интеллектуал-ижодий, абстракт, объектив, визуал, конструктив-фантастик, интуитив, метафорик, импровизациявий.

Ключевые слова: художественно-конструкторское мастерство, интеллектуально–творческое умение, абстрактные, объективные, визуальные, конструктивно-фантастические, интуитивные, метафорические, импровизационные умения.

The artistic design skills, qualifications and abilities studied at school and now at higher educational institutions by the future decorative art teachers will be developed and improved during out-of- class lessons.

Artistic-design skill- appears on the basis of existed imaginations and is done by intellectual-creative tasks (on types of thinking) on the basis of artistic-constructing. In this, previous most efficient methods, styles, and methodical reference points are used. Artistic-designing are divided into the following: ideological-meaningful, figurative, logical-analytical, practical and visual – observing, compositional,

regional, volumetric-regional and artistic, creative imagination and imaginative, intuitive, metaphoric, improvisational types.

Future decorative art teachers` thinking is explored how to form the following intellectual-intellectual skill and abilities like on the basis of imaginatively-abstract and objective perception, situational- on the basis of visual, creating the character of his imagination, constructive-fantastic, private-fantastic idea in perception of not so real view.

We imagine the examples of intellectual-creative tasks, artistic-designing solution and artistic-designingknowledge, how to be formed of the creative thinking ability pointed to the sent creative imagination (for example, by means of music with depicting in one`s picture).

Fantasies-on the basis of abstract and objective perception.

Fantastical thinking exists in the following system: "Impression= memory-experience=thinking-dream=perception=restore (in the picture)=discussing oneself". Methodology of "Ink spot" is used on the Rorschach`s method. **Aim:** to identify more similarities as much as possible with the objects existing in the amorph spot contours. This directs the students to live spiritedly in style of objective perception and subjective consciousness (even produces non real fantastical images).

Point methodology is used in transmitting the fantastic transformation with the simple point. As a result, the grammatical points and many points; button, small balloon, ball, big balloon, the Earth, the Sun, black hole originate the immensity of the dialectic character.

Natural structure turned over-concrete matter fantastic abstract from the simple point. "Imagination- character" formula is proven. Such skill of dreaming is necessary during the artistic- designing process.

Situational thinking on the basis of visual.

Names of the following 12 written situational pictures methods which consist of one word are activated: one word name, many word me (by using 12 words). For example, small view: a man who is reading a newspaper in the seat in the park, a man (passer-by) is passing without paying attention to his friendly greeting, only saying hi to him.

12 one word transcripts-by choosing:

1. Newspaper
2. Greeting
3. Goodness
4. Park
5. Having a rest
7. Walker
8. Mistake
9. Inattention
10. Reader
11. Absent-mindedness

6. Pride 12. Grievance

The small landscape is known as "goodness", "inattention" and " Grievance ". Hence, his emotional-psychological context is emphasized. Multilingual heading: "Greetings and greed", "Inattention or pride", "Goodness and inattention". Here ethical-ethical aspects are positioned. Students are thus able to master the story-oriented aspect of the art constellation solution.

Creating an image of your own imagination.

Task 1. Emotional- to create a new image with the emotional and fantastical imagination power which is actually absent. The image should be in the form of view in the region and at the time, and it is desirable to have fantastical compositions combined into a fantastic whole (in the picture).

Task 2: Creating composite combinations of "own" things through the plant, animal and dead nature world through the "The images of Country of Wonders" fantasy and association. **Aim:** to select objects, to create fantastic images using combinatorial methods, to explain the content of the picture. The results of the "personal" image of the created images are as follows: **"Butterfly in a man's image", "Sea-image: quiet, vibrant, frightening-wind", "Bird-fish-man", "In the parallel world", "Fantastic dream" and etc.** They have exit in on the boundary of a great fantasy, broad intellectual character, and a traditional composite stereotype. Plots: consists of the types on static, dynamic, structural attitude**.** The fantasy is that the "figurative synthesis" has been strengthened as a means of stimulation, and agglutination has the "inspired" direction. Everything is governed by thinking, the firm composition and meaning of the image are evident. The idea of creating non existing complex image activates in maximum the students` fantastical abilities in the artistic design process.

Design-fantastical perception is not so realistic picture.

Task 1. There is offered a picture of a "Duck with a hat on the boat". Thinking about the real and fantastical splot in the image of a duck.

Questions:

1. What is described? 2. Is it closer to the truth or fantastic? 3. What is thought? 4. Why do not the detail close to reality prevent the picture to consider as fantastic?

Students' conclusions: real details do not interfere in a fantasy image, but they enhance the brightness of its non-real image.

Task 2. Creating the maximum number of the fantastic images with the indicated objects (birds, snakes).

Result: Creating frames on "Impossible friendship", " Alliance of snake-birds", "Preaimed various tasks", "Changing with details" and other topics.

Task 3. The task is complicated: to create the artistic design of a fantastical image with an extraordinary composition (in the picture), be ready to use the essence of the image and the meaning of the constructive solution (explanation).

Results: "The Earth's groaning" images of a ram: a weeping, tormented earth is extending it`s hand to the other planets, " SORS" anthem: The chorus of animals that are included in the “Red Book” are singing the anthem for getting rid of, “Meeting on the moon": Cosmonauts` communication with the resident`s on the moon wages and others.

Note: The brightest pictures are studied and discussed collectively by the skilled authors.

We make conclusions by summarizing the observations on the progress of the tasks, results and discussion of the tasks 1, 2, 3, and introduce them to students.

As a result of the homework, students are encouraged to pursue artistic and creative work, interests appear to create complex images, there is observed the aspiration for formal design of the image, and there is viewed a fantasy and creative tendency. This is very important in the artistic design of the building, and there is observed the location in contact of the multi-compact objects which are connected with structure, generally with functionally, their location indistance, selection of composite method, composites compatibility of images, their peculiar contents, and their meanings, applying to the natural images.

In a contact positioning composition- used placements such as horizontal, vertical diagonal, there images, imaginations and memories, their structural – content qualities and typical peculiarities, mostly are the unique. . Such imaginative images of the the students` intellectual –creative works results , mainly placing in dynamic plots, they are created differently according to their meanings, so future art design teachers` artistic design is based on thinking.

Private-fantastic idea. Interview is made with the object and it`s fantastic character in artistic-design and is offered to create private-artistic fantastic character (in the picture.

Students are offered to think and creation of the private-fantastic idea. Then thinking over: May fantastic ideas appear in the team? Practicum is held in the student`s team on bearing of spontant –improvised ideas.

Aim: Ordinary group household, potential-creative situation for dreaming on a complex of ideas object-one student`s authorship bag (in a figurative meaning).

Task: It is discussed as a type of team game by joining of fantasy and humor; spontaneous creative process indicates the process how to be appeared of unexpected ideas which can be expressed as design-project matters.

So, in an ordinary vital situation for dreaming improvisation performers of the household stage –students` group; a student-object, more clearly, discussion of his bag prepared by himself, the most capable and comfortable, short, in which all his hope is taken into consideration functionally. There, the interviewers say their surprises, and then share their opinions about improving it, moreover, nobody knows their opinions cause of the speed of their opinions like throwing the ball to each other, the interviewers are in a serious view.

This intellectual game can be named as improvisational exercise cause of it`s benefit. Such an ordinary experience convinces students the possibility of appearing interesting ideas in a friendly creative team.

Students should perform their deep artistic-design knowledge and artistic design skills, solve the artistic design matters spiritedly-creatively, individually and in a team work, have artistic design of designing work, achieve to create fully, individual-original designing work which are defined by their meanings-meaningful load, compositional flatness, the beauty of the lines, bright image and expressive aartistics. Future decorative art teachers should know how to form the pupils interests and abilities for artistic design by which meaning, by which form, by which methods, methodologies and tools and direct their artistic-design knowledge and artistic design skills to their future pedagogical activity.

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UCD: 371.38

WORK ON FOREIGN-LANGUAGE TEXT: AN INTERACTIVE METHOD.

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Аннотация: Қуйидаги мақолада хозирги кунда муваффақиятга эришган таълим технологияларидан бири – хорижий матнни босқичма-босқич ўқиш таълими хақида сўз боради. Ўқиш ва тингловчиларни ўқитиш, ўқишдан олдинги ва ўқишдан кейинги босқичларда ишлатиладиган интерактив усуллар, ўқувчиларга нафақат тилни ўрганиш имкониятини, балки чет тилини алоқа воситаси сифатида фойдаланиш имконини беради.

Ключевые слова: технология, чтения, метод,текст, цель.

Аннотация: В этой статье описывается одно из успешных разработок образовательной технологии - этапное чтение иностранного текста. Обучая студентов чтению и прослушиванию, необходимо наблюдать за чтением, чтением и после чтения этапами работы. Интерактивные методы, используемые поэтапно, давая студентам возможность развивать не только языковые навыки, но и позволять им использовать иностранный язык в качестве средства коммуникации.

Таянч иборалар: технология, ўқиш, метод, матн, мақсад.

Annotation: This article describes one of the successful developments of educational technology - stage reading of foreign text. Teaching students reading and listening, it is necessary to observe pre-reading, while-reading and post-reading phases of work. Interactive methods used in stages, giving students the opportunity to develop not only language skills, but also allow them to use a foreign language as a means of communication

Key words: technology, reading, method, text, goal.

Introduction. Teaching a foreign language, the teacher actively uses text that is both a goal and a learning aid. In the process of working with texts, students acquire skills of operating the language material; learn to differentiate, to reconstruct, to transform and to construct linguistic units in order to solve certain communication problems.

Interactive methods are enhanced pedagogical interaction, the mutual influence of participants of educational process through the prism of his personality, personal experience of life. Interaction is characterized by a high degree of intensity of

communication of its participants, their communication, exchange of activities, change and variety of their types, forms and techniques, a focused reflection of participants in its activities and successful interactions. [3]

The Contents of the Article. In the methodological literature provides a detailed description of numerous interactive methods. Dwell on those which, in our opinion, the most acceptable for working with foreign language text. The choice of method depends, first and foremost, from the stage of work on the text. Consider the possibility and mechanism of the use of interactive methods at different stages of work with the text in the teaching of reading and listening.

Pre-reading stage involves group and pair work students to the Board, handouts, fragments of text, live communication. Its purpose is the removal of language difficulties in understanding the content of the text, the formation of linguistic guessing skills of word formation, the analysis of the meanings of individual words and phrases. [1- p. 63-67]

The use of interactive methods in pre-reading phase activates the process of thinking before directly reading or perception of the text by ear. Students have the opportunity to use the already accumulated knowledge and personal experience on the subject, building their assumptions on the possible content of the text. At this stage I actively use the following interactive methods: "Association", "the Prediction header text", "Possible proposals".

The method of "Association" To the proposed concept (key word from the text) you need to choose 2-3 words with which it is associated. On the blackboard with chalk written concept. Students in a notebook to record your Association, then call them. the teacher records the recurring Association on the Board. The group decides which Association is the most successful.

Method "Prediction by title of the text", Students are split into pairs and in pairs discuss the possible content of the text. (Scanning and Skimming) One by one, each couple expressed out loud their assumptions. After the presentation of the text, assumptions are compared with real content. [2- p. 16-20]

The methods of «Possible proposals», Students are placed in a circle. The teacher asks students to review a few key words from the text and asks for 20-30 seconds to come up with one or more phrases/sentences with these words. Each student writes their own phrases/sentences in a notebook, after which they alternately sounded. After listening to or reading the text it turns out, what assumptions were correct. [5- p. 28-31]

The use of interactive methods in the text phase focuses on the extraction of main and secondary information from the text by being washed of the text, lexical and

semantic basis of unification the semantic segments into a unified whole. Efficient at this point, I find methods: "finish the sentence", "Find error", "keyword".

The method of "complete the phrase" Students are encouraged to complete the sentence in accordance with read/listened to by the text, Express your opinion about reading/listening. With the same phrase, the teacher can refer to 2-3 training. It is desirable that each completed sentence.

Method "Find the error" the Students are divided into groups of 3-4 people, get the lyrics with distorted information. As re-listening/reading find and fix bugs. Each group reads their information explains your choice. [4]

Method "keyword" Teacher gives the students slips of paper with printed key words (students work in pairs). Trainees must have the strips in accordance with the logic and content of the text, and then compose your sentences with the key words. Answers alternately sounded.

Post-reading stage includes forms of work aimed at understanding control the content of the text and its interpretation: question-answering exercises, differentiated retelling, extension and continuation of the story of the students, preparation of the text, composing a story by analogy, making a dialogue on the theme of a story, dramatize, etc. Listen to or read the text is the basis for the creation of new texts. The same text can be commented, to interpret. On the fiction text, you can create texts-message texts-descriptions, texts-discourses, texts, comments, etc.

Interactive methods for post-reading stage of work on the text provide opportunities to apply children of their own unique life experience, his attitude in the process of solving communicative tasks, the development of logical thinking, imagination, memory, attention. My students are happy to participate in the work, organized with the help of such methods as: "a Dozen questions", "Interview", "Change source", "chain of Logic".

Method "Dozen questions" Each student is asked to answer 12 questions on the content read/listened to the text (questions are prepared by teacher in advance, the last questions addressed to the life experiences or evaluative). The work is carried out in pairs alternately.

The method of "Logical chain" .Every student is encouraged to choose one of the cards on which is written a word or phrase. This card and its holder become one of the links in a logical chain, you need to build, organize interaction with other participants. After cards are dealt, the teacher encourages them to organize communication among themselves, which resulted in the need to build 2 logical chains – the one on the left, the other right in the classroom. When the chain is built, participants are detailed stories; points of the plan are the words and phrases on the cards.

In addition to the above methods work effectively are role-playing and dramatization. Role-playing game possesses great educational opportunities: represents the most accurate model of communication, has great potential motivational and incentive plan, promotes the formation of educational cooperation and partnership contributes to the expansion of the sphere of communication, is of great educational value. Games-dramatization, basically, reproduce the experience of a lifetime on the script, they are useful for the development of imagination and imaginative, expressive speech, because the participants not only to rethink the author's text, but they are co-authors of the improvised scenes. [6]

Conclusion. To summarize above teaching students reading and listening, it is necessary to observe pre-reading, while-reading and post-reading phases of work. Interactive methods used in stages, giving students the opportunity to develop not only language skills, but also allow them to use a foreign language as a means of communication, they develop imagination, memory, logical thinking. I believe that this increases the motivation to learn a foreign language, promotes the formation of students ' communicative competence.

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USE OF “HOT SEAT” TECHNIQUE IN DEVELOPING STUDENTS’ SPEAKING SKILLS

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Annotation: The article informs the importance of using “Hot Seat” technique to improve the students speaking skills in teaching English language. It gives the techniques of developing learners thinking and critical skills by asking questions.

Key words: technique, speaking skills, communicative competence, self-confidence, character, share opinions.

Аннотация:Ушбу мақола инглиз тилини ўргатишда талабаларнинг гапириш кўникмасини яхшилаш мақсадида “Hot Seat” услубидан фойдаланишнинг афзалликлари хақида маълумот беради. Ўрганувчиларнинг саволлар сўраш орқали фикрлаш ва таҳлил қилиш малакаларини ривожлантириш усуллари кўрсатиб ўтилган.

Калит сўзлар: услуб, гапириш кўникмаси, коммуникатив компетенция, ўзига ишонч, характер, фикр алмашиш.

Аннотация: В этой статье сообщается о важности использования техники “Hot Seat” для улучшения навыков говорящих на английском языке. дает методы развития мышления учащихся и критические навыки, задавая вопросы.

Клечевые слова: способ, устные навыки, коммуникативная, компетенция, самоуверенность, характер, делиться мнениями.

Nowadays it is not daring to say that the ability to speak at least one foreign language is a necessity. "Language is arguably the defining characteristic of the human species and knowledge of language in general, as well as ability to use one's first and, at least one other language, should be one of the defining characteristics of the educated individual"[1]. The world has become smaller. It is said it has turned into the size of the so-called "global village". We are living in the time of immense technological inventions where communication among people has expanded way

[1] Nunan D. Second Language Teaching & Learning. Boston: Heinle&Heinle Publishers, 1999. – p.73

beyond their local speech communities[1]. Today receiving education, language education not excepting, is not an issue connected exclusively with schools; the time requires everyone to learn throughout their lifetimes. Therefore learning a second language has become a means of keeping up with the pace of the rapidly changing world. Nowadays a foreign/second language forms a permanent part of all types of curriculum, from primary schools to universities, not mentioning an employment where a person, in most cases, can hardly survive without this ability. The demands of the contemporary society together with the position of English as an international language may present a reason for learning this language in particular[2].

Communicative intent is always given a prime position in every CLT activity. In a communicative class, students are provided with opportunities to use the language a great deal through communicative activities. There are various classifications of activities that are typically found in a communicative language classroom. Paulston and Bruder, for example, in their book Teaching English as a Second Language: Techniques and Procedures classified the activity types that they thought were of maximum benefit in enabling students to attain communicative competence into the some categories. Many of your students will agree that it is useful to speak English well, and they will be motivated to learn the language. You can support their interest in learning English by providing interesting topics for them to talk about in your classes. If students are interested in a topic and have something to say about it, then they are more likely to speak in class and participate actively in learning.[3] In this case I applied one of the interesting activities.

As an ESL instructor of high-beginning adult students, my students are always asking for more speaking practice. I've used an interactive speaking activity called Hot Seat (HS) that gives students opportunities to interact in English, to practice certain grammatical structures or vocabulary, and to get to know each other well. No preparation or materials are required in this activity. One student sits in the "Hot Seat" chair in the front of the room. While in the HS, the student has control of the class. She is responsible for calling on students who have a question and addressing them directly, by name, rather than looking at the teacher. The audience is responsible for listening to each other to avoid repetition of questions, for asking inoffensive questions, and incorporating pre-determined themes, vocabulary, or grammar structures as much as possible. HS becomes a communication session by and for the students – I disappear into the audience and make note each question as it is asked

[1] Ellis R. Second Language Acquisition. Oxford: Oxford University Press, 1997. – p.3

[2] McKay S.L. Teaching English as an International Language: Rethinking Goals and Approaches. Oxford: Oxford University Press, 2002. – p.18

[3] Paulston and Bruder. "Teaching English as a Second Language".

and the name of the student who asked the question. Although there are bound to be mistakes, my job is to write down the students' questions in the structurally correct form, while the students' job is to use various clarification techniques if their fragmented questions or answers have not been understood. The HS student knows how to refuse to answer a question if he chooses. For students who have limited experience in the classroom, this student-led process of asking and answering, turn-taking, clarifying, and taking responsibility provides an excellent opportunity to practice classroom protocol and behaviors.

"Hot seat" activity is good for practicing asking and answering questions. It places the discussion in the hands of the students, with one student as the leader. It can be used at almost for all levels, because the students will create questions themselves. It can be used for both factual information and for sharing opinions. It's very useful to improve their grammar skills also. By the help of asking questions they have an opportunity to use the correct form of word order of the interrogative form. By this technique learners revise and reinforce all previous word and phrases they have learnt during the class. Hot Seat technique develops students thinking and critical skills.

- Procedure:

1. Select a student for the Hot Seat. This person will be the leader for the class.
2. Assign a topic for the activity. For novice students, an appropriate topic questions might be about his/her family. With more advanced students, topics should be connected to the content of the class.
3. Chairs should be arranged so that the Hot Seat student is seated in front of the others, in a position where all other students are visible.
4. Remind students of the rules:

a. All questions are addressed to the Hot Seat student, not to the class at large.
b. Only the Hot Seat student may answer questions.
c. For each question, the student in the Hot Seat can answer, ask for clarification, or refuse to answer (particularly important if the topic is personal).
d. Questions must be related to the chosen topic. Students may be penalized for asking inappropriate/unrelated questions.

5. As the leader, the Hot Seat student is responsible for calling on his/her classmates. When called on, the student asks a question of the Hot Seat student. Throughout the activity, the teacher can monitor student questions and answers for both content understanding and language use.
6. After a set amount of time or a set number of questions, the Hot Seat student retires and replaces with another.
7. At the end of the class, the teacher may want to address persistent grammar problems heard during the activity or any important questions that were not

answered by the Hot Seat student.

Tips:

- Before doing this activity for the first time, students and teacher should discuss appropriate and inappropriate questions.
- This can serve as either an end of the unit review or a speaking assessment.
- If you find that students not in the Hot Seat are having trouble paying attention, ask them to take notes on the information provided by the student on the hot seat. This can help improve both listening and paraphrasing skills.[1].

Organizing learners to do this activity is the most important and difficult role that to be performed by the teacher, the good organization leads to the success of those activities. When organizing an activity the teacher has to well inform learners about the issue of the activity, the procedure they should take while doing this activity, to put the learners in pairs or groups, giving them clear instructions about their task, and preparing feedback. Meanwhile, it is well-advised for the teacher to examine the amount of learners' understanding of the instructions before starting doing the activity.

Variations:

- On the day of the activity the teacher will place one chair at the front of the room. This is the “hot seat". Then the teacher will either call on students or ask for volunteers to come up to the hot seat. In this activity, one student is selected to come to the front of the class and take the "hot seat." The hot seat is located a few feet in front of a chalkboard, whiteboard, or chart. The student sits in a chair facing his or her classmates and with his or her back to the board or chart. The teacher or a classmate writes a word to the board or chart. The student in the hot seat is unable to see the word. He asks questions from the class in order to guess the word written on the blackboard. His classmates give him prompts to find the word.
- Ask the Hot Seat student to represent a particular figure from a text being read in class. The students will then pose questions to the character, which the Hot Seat student will answer as the character. So such interesting activities could involve.
- Hot seat technique may be used for developing a role in the drama lesson or rehearsals, or analyzing a play post-performance. Even done without preparation, it is an excellent way of fleshing out a character. Characters may be hot-seated individually, in pairs or small groups. The technique is additionally useful for

[1]Adapted from: Young, S. (2005). Interactive Student Generated Questioning Techniques. http://www.cal.org/caela/esl_resources/questtech.html

developing questioning skills with the rest of the group. This activity can be used as a whole-class activity. Playing Hot Seat is a fun way to help students form their opinions about the behavior of characters. This game begins by the teacher informing the class that they will play Hot Seat later in the week and asking students to create a list of five to ten questions to ask a set number of characters. This work may be done in class or as homework. Each question should seek to help understand why the character was involved in certain actions or why they said specific quotes. Questions may also be broad based such as asking a character if they are good or evil or what their life philosophy is.

Teachers can help to connect the students to the world outside the classroom by assigning questions to ask someone and share the answers, or by inviting guest speakers into the class to answer the questions within the group.

Hot Seat encourages student communication both inside and outside the classroom by providing scaffolding to students in a variety of ways. By recycling the students' own questions, students become more invested in the process of communication and become better at tracking their own progress.

I like to do this activity as an extra credit assignment near the end of the marking period. It is a fun way to see which students are brave enough to volunteer to come to the front of the class. I also give extra points for students who raise their hands to ask questions of the person in the hot seat. This activity motivates students to get practice for speeches. The hot seat activity builds self-confidence and is typically a lot of fun for all involved.

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