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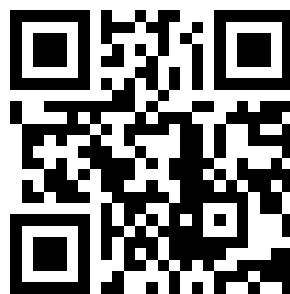
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ГИДРОТАҚСИМЛАГИЧ СУЮҚЛИК ОҚИМИНИ ДИНАМИК МОДЕЛЛАШТИРИШ

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АННОТАЦИЯ

Мақолада гидротақсимлагичнинг суюқлик сарфни аниқлаш математик модели, Matlab- Simulink дастурида динамик моделини тузиш ва симуляцияси масаласи кўрилган. Гидротақсимлагичдаги суюқлик оқими тадқиқ қилинган. Симуляция жараёнида золотникнинг тўлиқ очиқ, ёпиқ ва ярим очиқ бўлган ҳолатида суюқлик оқими, босим фарқлари натижалари олинган.

Калит сўзлар. золотник, гидротақсимлагич, суюқлик сарфи, Matlab-Simulink, статик тавсиф, суюқлик сарфи коэффициенти.

DYNAMICAL MODELING OF HYDRAULIC ACTUATOR FLOW RATE

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ABSTRACT

The article considers the mathematical model of determining the liquid consumption of a hydraulic actuator, the creation and simulation of a dynamic model in the Matlab-Simulink program. The fluid flow in the hydraulic actuators was studied. During the simulation, the results of fluid flow and pressure differences were obtained in fully open, closed and half-open positions of the spool valve.

Keywords. spool valve, hydraulic actuator, flow consumption, Matlab-Simulink, static description, liquid consumption coefficient.

КИРИШ

Замонавий саноат ишлаб чиқаришини гидравлик тизимлар ва электрогидравтоматикадан фойдаланишларсиз тасаввур қилиб бўлмайди. Бундай тизимларни лойиҳалашда тизимнинг ишончилиги, хавфсизлиги ва сифатини баҳолаш жуда муҳимдир. Бундай баҳолаш гидравлик узатмалар ва уларнинг асосини ташкил этувчи гидравлик тизим динамикасини ўрганиш асосида берилиши мумкин, бу эса гидравлика қурилмалари ва гидравлик узатмалар

билан автоматик бошқарув тизимларини яратишда якуний ҳисоблаш ва лойиҳалаш босқичи ҳисобланади. Тизимлар динамикасини математик моделлаштириш орқали ўрганиш мақсадга мувофиқдир, бу динамик тизимнинг хусусиятларини етарли даражада акс эттирувчи лойиҳалаштирилган тизимнинг математик моделини яратишга асосланади[1].

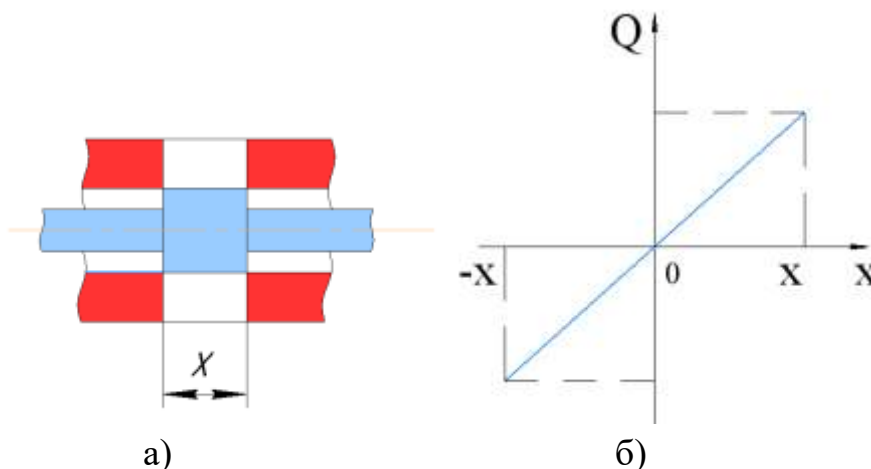
Математик моделни яратиш ва уни ЭХМда тадқиқ қилиш учун тизимнинг гидравлик схемаси ва барча элементларини динамик хусусиятларини ҳисобга олиш асос бўлиб хизмат қилади. Ҳисоблашни соддалаштириш мақсадида гидравлик тизимнинг ўзаро боғланган мураккаб элементларини қисмларга ажратиш усулига асосланиб тизимли ёндашилади. Гидравлик тизимнинг барча элементлари алгебраик, дифференциал-интеграл тенгламалар кўринишида математик тавсифланиб, дастурий таъминот ёрдамида кейинги тадқиқотлар учун қулай шаклда тақдим этилади. Бундай воситалар сифатида MatLab-Simulink, MathCad, Maple ва бошқалар каби турли хил математик пакетлар ва дастурий таъминот тизимларидан фойдаланиш мумкин. Баъзи ҳолларда Paskal, Delphi, C+ каби турли дастурлаш тилларидан моделлаштириш муҳити сифатида фойдаланиш мумкин [2].

Машинасозликда гидравлик тизимнинг моделни ишлаб чиқиш ва лойиҳалашда тизимда содир бўладиган статик ва динамик жараёнларни аниқ билишимиз керак. Тизимнинг визуал синовлари жуда самарали бўлиб, экспериментал (дала, лаборатория) синовларга қараганда анча арзон ва кам вақт талаб қилади. Синовларни ўтказиш хона шароитида компьютерлар ва математик симуляция (MATLAB-Simulink) дастурининг мавжудлиги жуда мураккаб гидравлик тизимларни ҳам симуляция қилиш, синаб кўриш ва бажариш имконини беради.

Асосий қисм. Гидротақсимлагич - бу ташқи бошқарув киришига қараб икки ёки ундан ортиқ гидравлик линияларда ишлайдиган суюқлик оқимини йўналтириш (ва бу йўналишларни ўзгартириш) учун хизмат қилувчи гидравлик қурилма.

Гидротақсимлагич мураккаб гидравлик қаршиликлар таъсирида ишлайди. Шунинг учун тақсимлагичнинг зичловчи элементларнинг герметиклиги таъминланиши керак. Агар герметиклик таъминланмаса, ишчи суюқлик гидротақсимлагичдан ўтганда энергия йўқотишлари содир бўлади, яъни суюқлик томонидан узатиладиган механик энергиянинг бир қисми зичловчи элементлардан сизиб чиқиб, энергиянинг йўқотилишига сабаб бўлиши мумкин. Шунинг учун, гидравлика тизимларининг ҳисоб-китобларини амалга оширишда гидротақсимлагичнинг гидравлик хусусиятларини билиш керак, уларга қуйидагилар қиради:

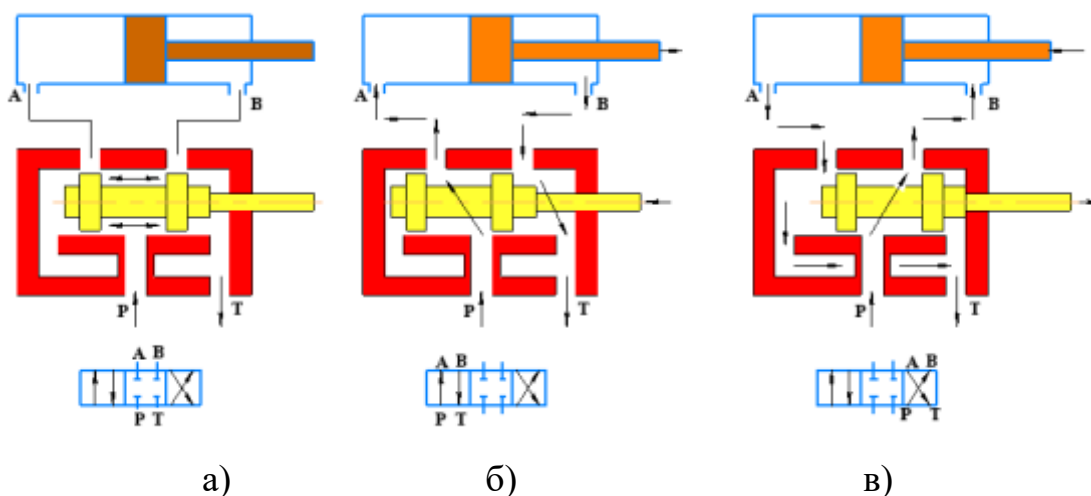
$\Delta p = f(Q)$ - тизимдаги босим фарқи характеристикаси (Δp – тақсимлагичдаги босим фарқи, Q - суюқлик оқими).



1-расм. Золотникнинг а) конструкцияси б) статик характеристикаси

Золотник нафақат оқим йўналишини ўзгартирибгина қолмай, балки ташқи таъсирларга мувофиқ ишлайдиган суюқликнинг оқими ва босимини ҳам тартибга солади. Бундай тақсимлагич золотниги сон-саноксиз оралик позицияларга эга бўлиши мумкин (2- расм а), б), в) - расм)[3].

Бошланғич позицияда тақсимлагичга келувчи барча А, В, Р ва Т портлар бир-биридан узилган, яъни беркитилган (2-расм, а). Золотник чапга сурилганда тақсимлагич иккинчи позицияга ўтади, бунда Р ва А, В ва Т портлар ўзаро жуфт-жуфт боғланади (2-расм, б). Золотник ўнгга сурилиб, учинчи позицияга ўтади ва Р ва В, А ва Т линиялар боғланади (2-расм, в). Бундай тақсимлагични кўпинча реверсив деб номланади, чунки у ижро органларининг йўналишини ўзгартириш ва уларни тўхтатиш учун хизмат қилади. Тақсимлагичнинг суюқлик сарфини аниқлаш тақсимлагичнинг умрбоқийлигини оширишга хизмат қилади.



2-расм. Золотникли гидротаксимлагичнинг ишлаш принципи:

а) берк холат; б ва в) очик холат.

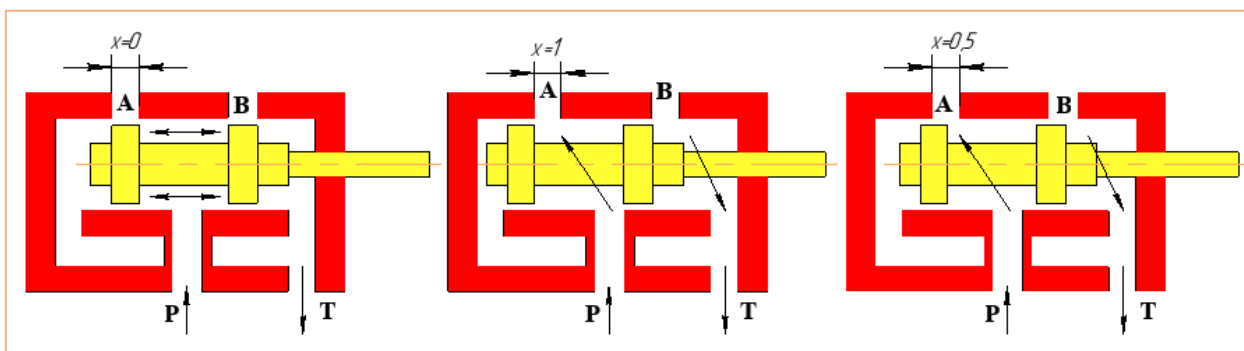
Математик модел. Золотникдан ўтган суюқлик сарфи қуйидагича аниқланади:

$$Q_1 = c_d A x \sqrt{\frac{2}{\rho} p_s - p_A} \quad (1)$$

бу ерда c_d – суюқлик сарфи коэффициентлари; A – золотник тирқиши юзаси; ρ – ишчи суюқлик зичлиги; p_s – киришдаги босим; p_A – чиқишдаги босим, x – золотникнинг тирқишга нисбатан жорий ҳолатидаги силжиши.

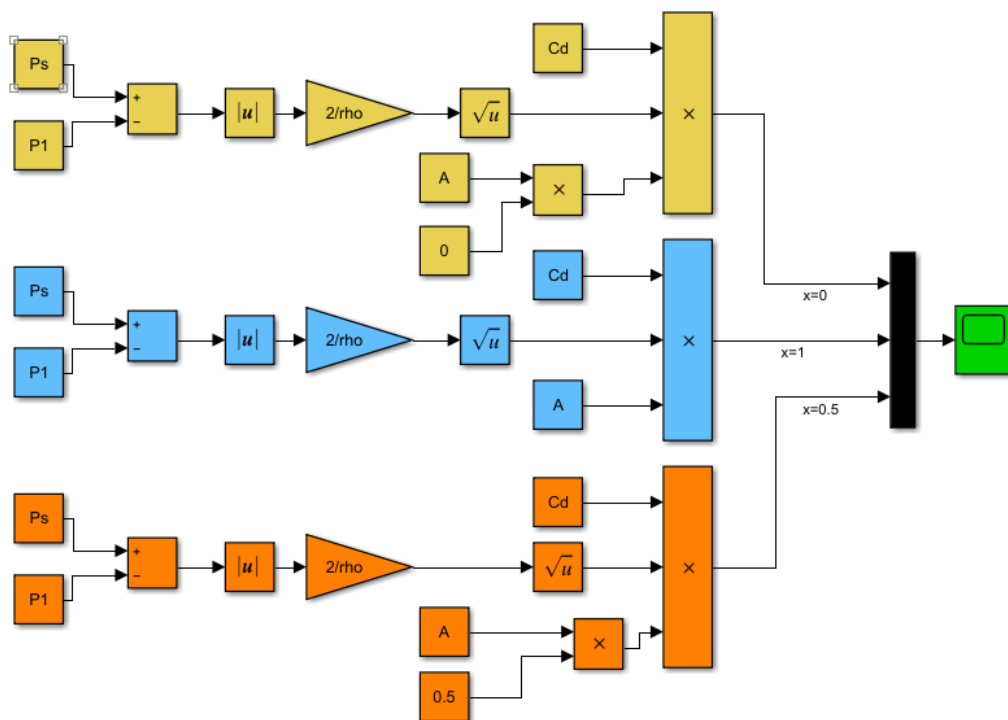
Simulink модел. Замоновий компьютер технологияларининг кенг ривожланиши билан мураккаб техник тизимларни лойиҳалашда муаммоларни ҳал қилишга ёндашувлар сезиларли даражада ўзгарди. Энг истиқболли дастур пакетларидан бири кенг ривожланган кенгайтмали MATLAB пакети (Toolboxes) ва Simulink пакети. MATLAB-Simulink муҳити тадқиқотчига тизимнинг структуравий (математик) тасвирдан тортиб реал вақт режимида тизим прототипини яратишгача бўлган турли имкониятларни тақдим этади [4,5].

Ишчи суюқлик кўпинча тақсимлагичдан битта позицияда бўлганда суюқлик икки марта оқиб ўтади: биринчиси гидроцилиндр томонга ва гидроцилиндрдан гидравлик бакка. Оқимнинг характеристикаларини олишда суюқликнинг тақсимлагичдан бир марта ўтишида ҳам (масалан, P киришдан A чиқишга) аниқлаш мумкин.



3-расм. Золотникнинг очилиш ҳолати

Тизимдаги суюқлик сарфи ифодаси (1) бўйича Simulink модел ишлаб чиқамиз (4-расм). Золотникнинг тўлиқ берк ҳолати, тўлиқ очик ҳолати ва ярим очилган ҳолатини кўриб чиқамиз (3-расм). Шу учта ҳолат учун Simulink дастурида тизимнинг суюқлик сарфи (оқими) моделини тузамиз.

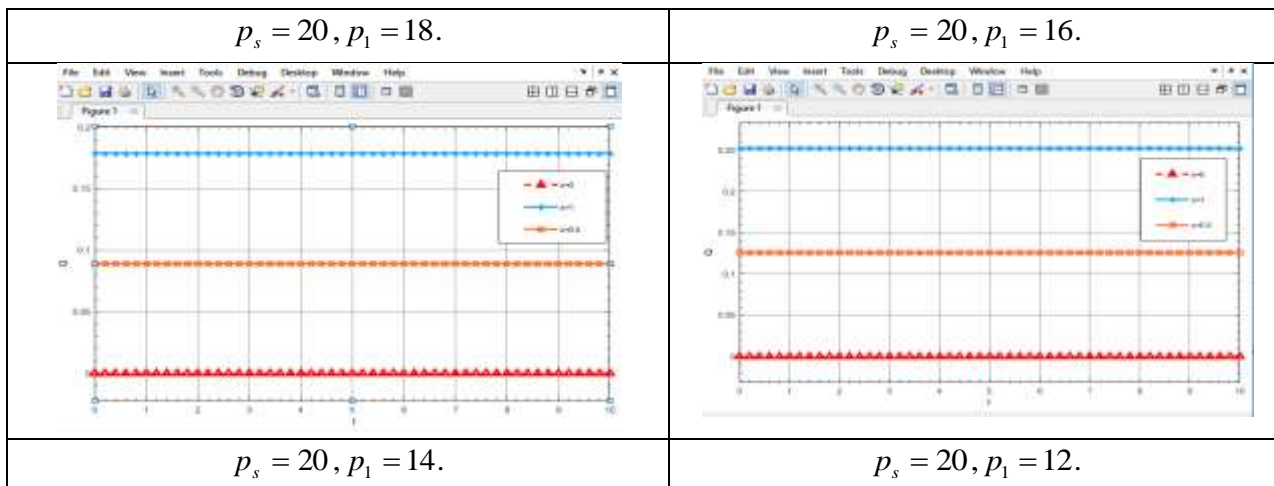


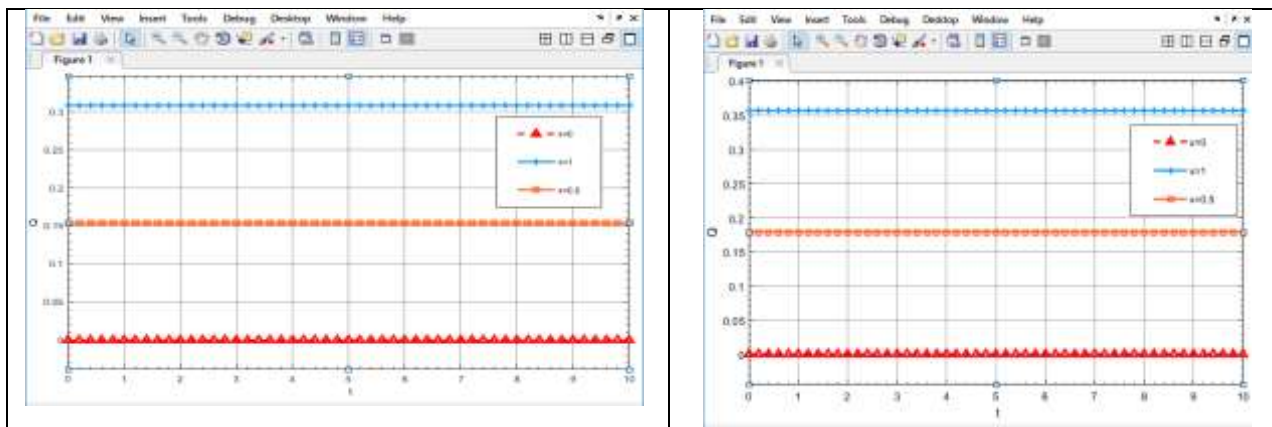
4-расм. Гидротақсимлагичнинг суюқлик сарфини аниқлаш Simulink модели

НАТИЖАЛАР

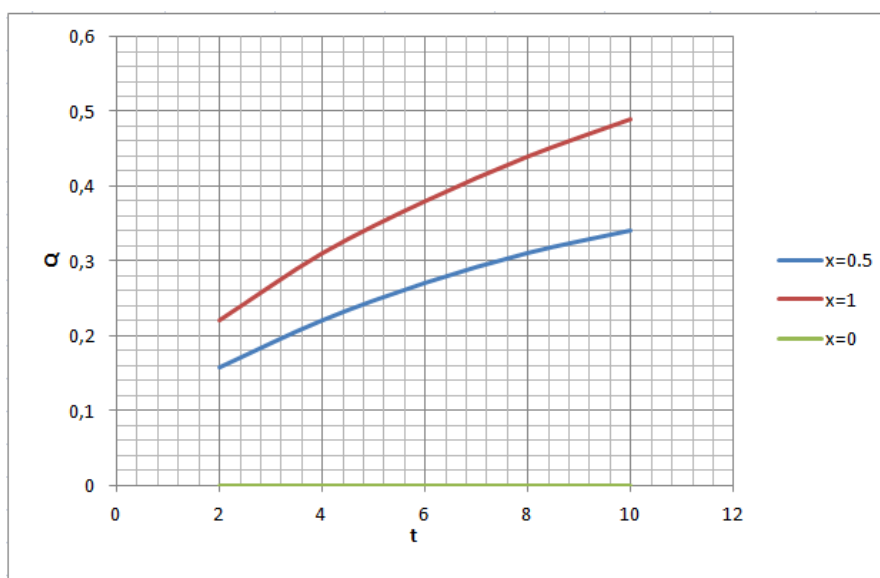
Гидротақсимлагич золотниги тирқишининг берк холати, тўлиқ очилган холати ва ярим очилган холатдаги симуляция олинди. Суюқлик сарфи коэффиценти $c_d = 0,8$ ва тақсимлагич тирқиши юзаси $A = 1,36 \cdot 10^{-4} m^2$, босим фарқи $\Delta p = 2;4;6;8$ қийматларидаги натижалари олинди (1-жадвал).

1-жадвал - гидротақсимлагич золотниги тирқишининг берк холати, тўлиқ очилган холати ва ярим очилган холатдаги суюқлик сарфининг вақт бирлигидаги ўзгариши





Олинган натижалар асосида тизимдаги босим фарқи Δp нинг вақтга боғлиқлик ҳолатида суюқлик оқими (сарфи) натижалари олинди (5-расм). $\Delta p = f(Q)$ - тизимдаги босим фарқи характеристикаси графиги қурилди (Δp – тақсимлагичдаги босим фарқи, Q - суюқлик оқими).



5-расм. Тақсимлагичдаги босим фарқига боғлиқ ҳолда вақт бирлигидаги суюқлик сарфи

ХУЛОСА

Золотникли гидротаксимлагичнинг суюқлик сарфини аниқлаш математик модели, Matlab- Simulink дастурида динамик моделини тузиш ва симуляцияси масаласи кўрилди. Гидротаксимлагич золотниги тирқишининг берк ҳолати, тўлиқ очилган ҳолати ва ярим очилган ҳолатдаги симуляция тадқиқ қилинди, натижалар олинди. Олинган натижалар асосида тизимдаги босим фарқи Δp нинг вақтга боғлиқлик ҳолатида суюқлик оқими (сарфи) графиги қурилди.

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ИНТЕРАКТИВНЫЕ МЕТОДЫ ОБУЧЕНИЯ РУССКОМУ ЯЗЫКУ В ВУЗАХ

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***Аннотация:** В статье речь идёт о применении интерактивных методов обучения русскому языку как иностранному в педагогических вузах, которые позволяют интенсифицировать учебный процесс, в результате чего у учащихся формируются и развиваются интеллектуальные способности общения в разных коммуникативных ситуациях.*

*При обучении русского языка как иностранного **актуальной проблемой** является совершенствование образовательного процесса с целью формирования необходимого набора компетенций. Попытки преподавателей русского языка актуализировать и модернизировать методы обучения являются необходимым условием для повышения качества образования и повышения уровня навыков и умения учащихся.*

***Ключевые слова:** интерактивные методы обучения, интеллектуальность, компетенция, инициатор, коммуникация, кейс стади.*

Интерактивный метод обучения – это метод, предполагающий взаимодействие между педагогом и учащимся в режиме диалога или беседы

В процессе интерактивного обучения учащийся становится активным субъектом образовательного процесса, так как усвоение материала осуществляется не путем передачи его, а в процессе собственной активности субъекта, ведь обучение идет через участие, взаимодействие.

На основе интерактивного метода педагог становится руководителем, инициатором самостоятельной творческой работы учащихся.

Применяя интерактивные методы обучения преподаватель должен ставить перед собой ряд важнейших образовательных целей:

- стимулировать мотивацию и интерес к формированию профессиональной компетенции;
- повышать уровень активности и самостоятельности студентов;

-развивать навыки анализа, критичности мышления, взаимодействия коммуникации; [1]

При использовании интерактивных методов необходимо придерживаться следующих основных правил:

- в работу должны быть вовлечены в той или иной мере все участники;
- надо позаботиться о психологической подготовке участников;
- оптимальное количество участников -25 человек;
- аудитория должна быть подготовлена с таким расчетом, чтобы участникам было легко пересаживаться для работы в больших или малых группах;
- необходимо четкое закрепление процедур и регламента;
- следует отнестись с вниманием к делению участников семинара на группы. [2]

На занятиях можно применять такие интерактивные методы обучения как *Кейс-стади* – это организация обучения с использованием описания реальных проблемных ситуаций [3]

Цель метода: научит студентов анализировать информацию, выявлять ключевые проблемы, выбирать альтернативные пути решения, оценивать их, находить оптимальный вариант и формулировать порядок действий.

Основные этапы создания кейса.

- 1.Определение целей.
- 2.Подбор необходимых источников.
3. Подготовка материала для кейса.

Структура и содержания кейса:

- предъявление темы урока, проблемы, вопросов, заданий;
- подробное описание спорных ситуаций;
- сопутствующие факты, варианты, альтернативы;
- учебно - методическое обеспечение;
- наглядный, раздаточный материал;
- режим работы с кейсом;
- критерии оценки работы

Преимущества метода кейс стади:

- формирует познавательную мотивация;
- повышает интерес к предмету;
- приобретаются коммуникативные умения.
- развивает мыслительные творческие способности.

Следующий метод мозговая атака.

Мозговая атака – это метод, при котором принимается любой ответ учащихся на заданный вопрос.

Цель метода: Развивать познавательные и творческие способности учащихся, умение работать в исследовательских группах, вести поиск оригинальных решений.

Алгоритм проведения:

1. Задать участникам определенную тему.
2. Предложить высказать свои мысли по этому поводу.
3. Записывать все прозвучавшие высказывания.
4. Когда все идеи и суждения высказаны нужно повторить, какое было дано задание и перечислить все, что записано преподавателем со слов участников

5. Завершить работу спросив участников, какие по их мнению, выводы можно сделать из получившихся результатов.

Преимущества метода мозговая атака:

- позволяет найти решение за короткий срок;
- помогает выявить альтернативные способы решения задач;
- мотивирует всех членов команды принимать активное участие в поиске решений;
- способствует развитию творческого мышления;
- повышает сплоченность команды и эффективность ее работы.

Заключение

Интерактивные методы являются инновационными формами обучения, которые способствует активизации познавательной деятельности учащихся, самостоятельному осмыслению учебного материала. В ходе использования интерактивных методов на занятиях создаются условия для самореализации личности учащихся творчески мыслить и находить рациональные пути решения различных ситуаций.

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USING TEAM PROJECT METHOD IN DISTANCE LEARNING

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Abstract. *In this paper is given distance learning problems, technologies, implementation forms and using effectives. Methods of distance learning is directed student project. Therefore, in paper is described two types of projects: individual and team. Also, using team projects in distance learning, advantages, barriers, stages with positions of the students in the term, ways of elimination of the problems are presented.*

Keywords: *distance learning, project, team project, tasks, distance learning stages, project stages, LMS.*

Introduction

“Every professor teaching online should consider team projects for his or her classes”.

Edward Volchok

Distance learning is a special type of learning, the main feature of which is the interactivity of the interaction of all participants in the educational process. The presence of a teacher is not necessary, since distance learning is a process of self-study of the material. Distance learning is characterized by both general pedagogical didactic principles of teaching and specific principles. The use of new information and telecommunication technologies allows for the interaction of distance learning participants, regardless of their location, using e-mail, chat, forum, video conference, webinar, online seminar.

The methodological feature of distance learning is that the assimilation of knowledge, skills and abilities provided by the curricula is carried out not in traditional forms of education (lectures, lessons, seminars, etc.), but through the independent work of the student using various means - carriers information. At the center of the distance learning process is not teaching, but learning, that is, the student's independent cognitive activity in mastering knowledge, skills and abilities. At the same time, the student must not only master the skills of working with a computer, but also how to work with educational information that he encounters in the process of distance learning.

At the same time, the characteristic features of distance learning are [1]:

- flexibility;
- modularity;
- economic efficiency;
- a new role of the teacher;
- specialized quality control of education.

There are various forms of implementation of distance learning technologies:

- correspondence training, in which the interaction between the student and the teacher is carried out through classical correspondence;
- CAST-technologies, in which separate packages of methodological materials are formed for the student on each topic studied, while the development of the educational program is carried out by him independently;
- network technologies, which use the capabilities of modern computer networks to provide students with access to various educational resources and communication with a teacher.

Main part

In distance learning systems are used two types of tasks directed methods: individual and team (group, cooperate).

Individual skills. Individual skills are abstract tasks. The development of skills for solving abstract problems that are far from everyday work is in demand in several cases. Solving abstract problems allows you to develop abstract-logical thinking, which is necessary for various types of activities. Appropriate learning games can be useful, in teaching, for example: it is often impossible for them to set a specific task, as for working specialists, since they are not yet familiar with the subject area. In addition, knowledge becomes obsolete during training, and skills from a narrow subject area may require updating.

Effective development of individual practical skills requires a combination of several factors [2]:

- a clear statement of the task, the less specifically the task is set, the greater the variability of the decisions made and the lower the effect of training;
- fast and unambiguous feedback that allows you to correct the behavior during the lesson so that the participant does not fix incorrect skills;
- multiple repetitions, allowing you to work out a skill to automatism, a good example of setting tasks of this type is, for example, working out emergency situations on simulators.

These situations can be overcome by multimedia information. Infographics, videos, voice acting help to perceive information faster. People remember [3]:

- 10% of what they hear;
- 20% of what they read;
- 70% of what they see and do.

Methods for distance learning can be recommended: demonstration, illustration, explanation, story, conversation, exercise, problem solving, memorization of educational material, written work, repetition.

In addition, when learning outside the organization, participants discuss some issues more openly and honestly than in the environment of their colleagues, in the presence of managers and subordinates.

Team skills. Teamwork skills can only be developed by solving collective problems. At the same time, it is important to take into account that teamwork depends on many factors (the number of people, their temperament, inclinations, corporate culture, the nature of the task being solved, etc.), and problem solving will be very different in different groups, therefore, in order to develop team skills when solving specific problems, it is desirable to work them out in the same group in which you have to act during the current work. When setting the task, it is also worth emphasizing the repeated development of skills, while not only the skills of an individual are important, but also the skills of interpersonal interaction and communication. No less than with individual work, feedback is important, and not only from observers, but also from other members of the group. In the case of developing team skills, it is better to focus on communication and interaction when setting a task, but it is important to take into account that when working out specific practical tasks, it will not be possible to completely get away from the influence of individually performed work on the result [4].

There are other groups of people whose teaching on abstract examples is more justified. The higher the position of a person in the hierarchy of the organization, the more often he is required to think outside the box and solve problems that go beyond the usual schemes. Also, the ability to think outside the box is suitable for solving problems necessary for some professions, for example, project work. The formulation of problems in this case should assume the half-variance of both the solutions themselves and the approaches to finding them. The condition of the problem may not provide all the information necessary for the solution in a form convenient for perception and work. The emphasis here is not on the multiple repetition of a certain solution scheme, but on the opportunity to try and compare different approaches and schemes.

The statement of the problem in this case should be built taking into account all that has been said and also assume many possible options for interaction between people and their groups. Often the conditions are different for different participants,

which suggests internal conflict between them or forces them to negotiate and find the best solution (Figure 1).

Abstract tasks			
Individual skills	<ul style="list-style-type: none"> – multivariate solutions and approaches; – various strategies; – several correct decisions 	<ul style="list-style-type: none"> – multivariate solutions and approaches; – various strategies; – several correct decisions; – interaction in various formats 	Command skills
	<ul style="list-style-type: none"> – a clear statement of the problem; – fast feedback; – repeated repetition 	<ul style="list-style-type: none"> – a clear statement of the problem; – feedback from group members; – repeated development of interaction in one format 	
Specific tasks			

Fig. 1. Key aspects of the problem statement

In distance learning, team projects have two added benefits [5]:

- helping students connect with one another (which helps counteract potential isolation);
- providing the experience of working on distributed teams (an increasingly common requirement in the workforce).

Depending on who the distance learning is for, what goals the training organizer sets, the content changes somewhat. This distance learning allows you to issue a team decision, to teach that you can achieve the best result only by being able to negotiate, not only within your group, but also with members of other teams. It is important not only to methodically organize and conduct distance learning, but also to make a full-fledged detailed analysis. Its implementation is no less important than the training itself. At the same time, the management has the opportunity to analyze the behavior of each employee and the team members have the opportunity to see how other participants in the training behave.

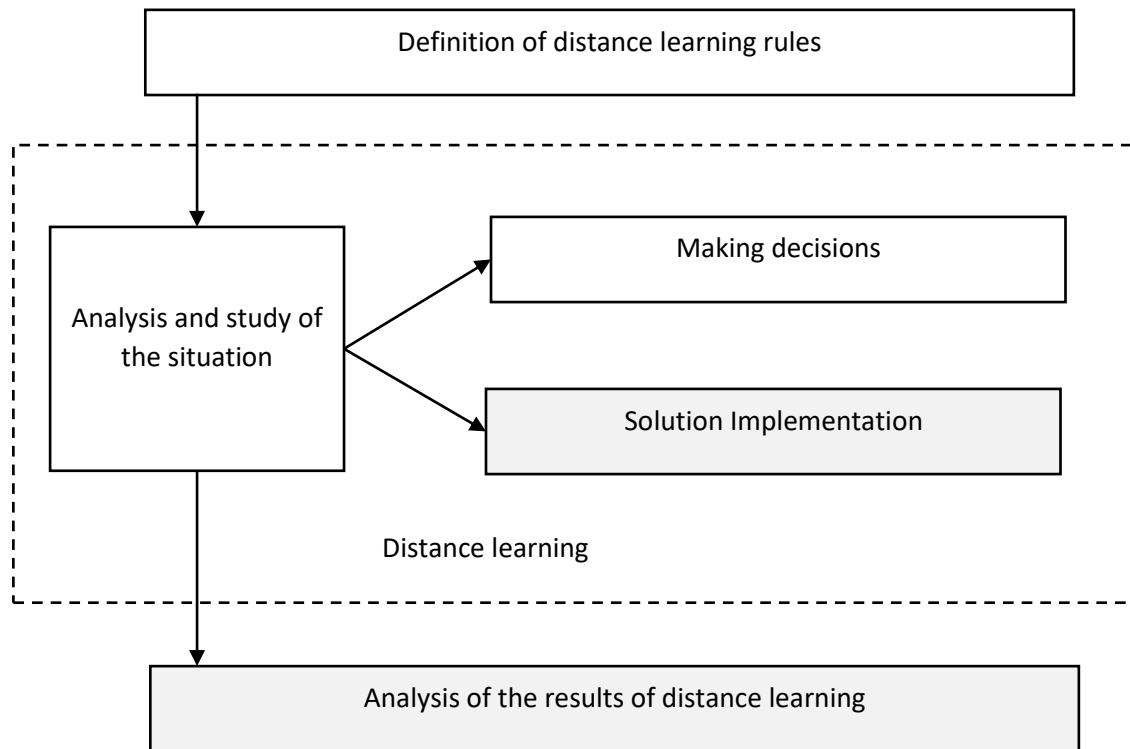


Fig. 2. Stages of distance learning

The distance learning process involves the implementation of several stages (Figure 2): determining the basic rules of distance learning, actually conducting the training and analyzing the results.

At the stage of defining the rules, the participants are given a task that they must complete in the learning process, the means and methods of its implementation are selected, and the roles are assigned. Distance learning may be preceded by a lecture course that introduces students to the methods of solving problems, the skills of which are developed in the process of learning itself. Actually, the training itself consists of sequentially conducted training modules, the number of which may be different. Each module involves a preliminary analysis and study of the situation.

During the work on the project, in order to ensure the students’ creative abilities and mutual relations, as well as the participation of each student in the project, a schedule of tasks of the executors is formed (Table 1).

Table 1. Community participant in the project and of duties distribution

	Leader	T-m 1	T-m 2	T-m 3	T-m 4	T-m 5
Task 1	control					
Task 2	control					
Task 3	control					
Task 4	control					
Task 5	control					

If the tasks are distributed depending on the abilities of the participants, the goal of the project will be easily achieved. Tasks of participants can be changed based on mutual agreement and consultation with the project manager. The project manager distributes the tasks to everyone and helps the necessary participants and consolidates all the results.

Table 2 shows the time of organization of the “Team Project” method, the tasks of the members and the expected results.

Table 2. Technological map of the educational session using the “Team project” method

Work stages and content	Due date	Activity	
		Teacher	Students
Preparation	First week	Defines project topics and purpose. Introduces learners to the essence of the design approach. It offers a number of topics, provides information about the content of the project, forms its scope, lists the types of work, their results and evaluation criteria.	They come together in small working groups, choose and discuss the topic of the project. Gets additional information as needed. Determines the goal, discusses the project tasks.
1. Planning	The second week	Offers ideas, makes additional suggestions. Recommends sources of information, methods of its collection and analysis. Defines the criteria and overall process for evaluating work order and milestones.	Selects an action plan: formulates tasks, determines direction and stages of execution, order, and distributes tasks among team members. They agree with the teacher the method of analysis of the results (report form).
2. Research. Intermediate presentation	During the first control week	He observes, advises, helps to find a source of information, is a source of information himself.	Interim reports are prepared on the basis of the learned knowledge and analysis as a solution to the assigned tasks.
3. Information analysis. Conclusions	The first and second control weeks	Manages the entire process, feedback is provided.	Analyzes the received information, forms results and conclusions.

Work stages and content	Due date	Activity	
		Teacher	Students
4. Report	During the second control week	A regular listener, asks targeted questions, empowers and motivates.	Submits report materials on the results of work and makes a presentation on the main results.
5. Evaluation of process and results	During the final control week	It evaluates the complete level of problem solving, group action strategy, learner strength, quality of use of resources, creative approach, possibility of continuity of work, quality of reporting, etc.	Through team discussion, they defend the results of the work and its progress, including the degree of completeness of problem solving and the strategy of action. Takes examples from the achievements of other teams.

Also, there are some challenges in online team projects [6]:

1. Different schedules, work pace, and time zones.
2. Impossible face-to-face opportunities.
3. Secure file sharing.
4. Different computer platforms or applications.
5. Different file formats.

In order to avoid these defects and causes, it is required to do the following:

- correct assessment of knowledge and skills of team members;
- distribution of tasks according to their capabilities;
- treating and encouraging all members equally;
- to evaluate their place and potential in the team in order to increase the responsibility of the members.

One of the main tasks of the project manager or leader is to identify and prevent the reasons that hinder the implementation of the “team project”. Therefore, the selection of a knowledgeable and thoughtful person as a project leader will improve the performance of the work.

Table 3 shows the comparative difference between the existing “Individual project” and the proposed “Team Project” methods in distance learning.

Table 3. The difference between “Individual project” and the proposed “Team Project” educational methods

Educational methods and features	Individual project	Team project
Methods of organization and implementation of educational activities	Self control	Consolidation of individually learned knowledge in the team
According to the type of search	Partly traceable	Research, algorithmic, collective conclusions
Evaluation criteria	5 points Evaluation at the end of the work	5 points Marking of the task -5 points Intermediate defenses - 5 points Final report - 5 points The grade is averaged
According to the control method	Gives to the teacher. A software manual is used	Gives to the teacher. With the help of technical means of education
According to methods of observation of cognitive activity	Using indirect guidance	Based on the comparison of the obtained results

Through the “team project” method, students’ teamwork skills are formed and the feeling of helping each other increases.

Based on the “team project”, students acquire knowledge that they do not have, using the opportunity of others. He also learns the shortcomings of the project manager and works on himself in order not to repeat these shortcomings in future leadership positions. The main thing is to have the ability to properly direct the team. In life, there are such leaders who try to talk less with him and reduce the relationship with him as much as possible. In the team project method, the leader is required to treat everyone equally, that is, to be a leader.

It causes team members to argue calmly and respectfully. The leader of the team should be able to distribute the work correctly and motivate the members. Student projects should consider incentives and bonuses for members in various ways.

As a result of the project implementation, the stages of writing a report, formalizing it and handing it over to the receiver are also carried out. As a result, the problems that arise in the performance of the assignment in post-study activities are studied and eliminated.

Also, there are a number of characteristics inherent in a distance course, if it claims to be effective [7]:

- more thorough and detailed planning of the student's activity, its organization, a clear setting of tasks and learning objectives, delivery of the necessary training materials;
- the maximum possible interactivity between the student and the teacher, feedback between the student and the educational material, providing the possibility of group learning;
- the presence of effective feedback that allows the student to receive information about the correctness of their progress along the path from ignorance to knowledge;
- distance education is appropriate if it is organized for the purpose of training employees working in this field.

Implementation of the team project method in distance education is based on the following LMS capabilities:

Group sites: All learning management systems (LMSs) have group-specific sites where you can post documents relevant to the project (e.g., task descriptions, readings, resources) and assignment deliverables. On group sites, students can use team discussion boards to talk about their project, log contributions and update the project status. You can visit these discussion boards to monitor group dynamics and gauge progress.

Chat tool: A chat tool allows team members to interact synchronously with one another, with you, or with other groups any time, day or night. The LMS records the conversation for students who are off-line to check later.

Web conferencing tool: Web conferencing is a powerful tool for synchronous meetings. You and your students can see, hear, chat, and work on a whiteboard with one another. All participants can share screens and documents.

Conclusion

Project-based learning and team project are valuable tools for education. They teach teamwork and group dynamics, encourage a deeper and broader understanding of the course material and foster higher-level cognitive abilities. However, these results can be hindered if the project and the student teams are not properly prepared and supported.

The students must be prepared for how to effectively work in teams, and provided with the same online tools that facilitate sharing their ideas and formulating their final product.

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METHODS OF OBTAINING NEW TYPE MODIFIERS FOR METAL CONSTRUCTION EQUIPMENT RUST REMOVER

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Abstract. *The problem of improving the reliable and long-term service efficiency of all equipment in metallurgical industry systems, strengthening the resistance of metal structures to various environments is always one of the most important tasks. To date, the effects of corrosion in metals are often felt long before the service life specified in the project. At the moment, the performance and durability of these structures is determined only by the effectiveness of corrosion protection. Despite the fact that a lot of scientific research is being carried out on the prevention of metal corrosion in various sectors of the economy of rapidly developing countries, this issue is one of the issues that have not been fully resolved.*

Keywords: *Corrosion, modifier, metal, sulfuric acid, IK - spectroscopy, protection efficiency.*

INTRODUCTION

Currently, as a result of the corrosion of metals, industrial enterprises suffer a large amount of economic damage. Therefore, in order to prevent these damages, it is one of the important tasks of today to study the environment that causes the consequences of corrosion and to create the scientific basis of protection against it.

Due to the fact that metal corrosion causes billions of dollars in industrial losses every year, large investments are being made by the government in companies that produce anti-corrosion agents. The damage caused by corrosion is not only the loss of a large amount of metal, but also the failure of the plasticity, elasticity, heat and current conductivity of equipment and structures, and the impact on the quality of the manufactured product, as a result of the rapid wear of equipment, production failures and a decrease in production productivity.

It is known that a lot of scientific work has been carried out on the creation of new types of compounds that remove rust residues from the surface of metal structures. Most of them are synthesized on the basis of phosphoric acid. As a result of the reaction of phosphoric acid with metals, a film of iron phosphate derivatives soluble in aqueous medium is formed on its surface. Due to the easy oxidation of phosphates in the Iron(II) phosphate film, they do not have a high protective capacity [1; 310 p.].

METHODS

Experiments are based on modern methods of physico-chemical research, including IR-spectroscopic and electron microscopy studies, as well as standard physico-mechanical analysis.

RESULTS AND DISCUSSION

Nowadays, metal materials are an important material in the chemical industry, agro-industrial equipment, oil and gas plants, medical services, metallurgy and automobile industries. Corrosion of metals used in industry over time leads to the loss of the natural state of metal materials, pollution of the environment [2;37 p.].

In addition, the gases released as a result of corrosion affect the human body, the atmosphere, and drinking water pollution, and in turn, damage liquid metals, liquid salts, inorganic solutions, bases, acids and salts in various chemical processes in industry. Corrosion reduces the service life of industrial equipment for a long time and leads to various dangerous events. The problem of corrosion causes a large amount of economic damage and has a negative impact on the economy of any country [3; 47-52 p.].

Scientists such as F. Bentiss, M. Traisnel, L. Gengembre and M. Lagrenee have proposed several methods of solving corrosion problems, that is, they have focused on the development of economically effective, environmentally friendly and safe inhibitors [4 ; 194-201 pp.].

Today, scientists from all over the world suggest the use of inhibitors as anti-corrosion agents, because this method is recognized by the world community as the most effective method. In the scientific works of M. Bouayed, H. Rabaa and A. Shiri, they studied the anti-corrosion processes taking place in the anode and cathode, as well as the properties of adsorption of inhibitors on the metal surface. Chemical inhibitors reduce corrosion processes. Corrosion inhibitors are chemical substances, they are added to the corrosion medium in low concentration, bind to metal ion and adsorb. In this work, it was also reported that the inhibitor reduces the rate of corrosion [5; 501-509 pp.].

Based on the information of F.K. Kurbanov, anion-type inorganic, inorganic substances are always used as inhibitors for a neutral environment. In acid corrosion, organic substances are used, that is, organic substances containing nitrogen and oxygen in the form of amino, carboxyl and carbonyl are used. But until now, effective inhibitors for alkaline environment haven't been found [6;21p].

B.B. Damaskin and O.A. Petri's scientific studies used more zinc for metal protective coatings. They are mainly used to protect ferrous metals from atmospheric corrosion. The normal electrode potential for zinc is -0.76, and it is slightly negative compared to the electrode potential of iron (-0.44). Therefore, when zinc is in contact

with iron or steel in water or in the atmosphere, a galvanic couple is formed, in which no corrosion occurs, even if the iron serves as a cathode. The melting of the metal at the anode and the reduction of the oxidizer at the cathode, due to the long-term exposure of the metal to an aggressive environment, the corrosion process stabilizes at the cathode and a stationary state begins. In this case, the speeds of the anode and cathode reactions are equal ($I_a=I_k$). To reduce the rate of melting of metal in stationary conditions, 2 electrodes are achieved by reducing the rate of at least one of the reactions [7; 288 p.].

G.N. Amelina, I.I. Dzherin and S.N. The Lojkomoevs studied the results of research on the corrosion resistance of metals and alloys in the presence of liquid trifluoride bromine- BrF_3 in the presence of liquid trifluoride bromine- BrF_3 using common gravimetric and electrochemical methods. They provided necessary information and conducted test experiments to prevent corrosion [8; 1285-1291 p.].

H. Rachev and Stefanova studied the possibility of reducing the corrosion rate by the method of liquefaction. In this case, the metal creates high protective properties on its surface. Ligating components increase the protective properties of the surface layer. In this case, structural steels are alloyed with molybdenum, zinc and aluminum [9; 520-p.].

In the research works of A.I. Alsibeyva, corrosion retarders or inhibitors are added to the electrolyte to slow down the corrosion of metals. He commented that the introduction of inhibitors in the amount of no more than 1% into the corrosion environment leads to a decrease in the rate of corrosion of metals. In his scientific research, he justified the fact that inhibitors protect the desired metal in various environments: from air, aggressive gases, sea and underground water, coolants, acids and alkalis [10; 262 p.].

I.A. Rosenfeld and F.I. According to the Rubinsteins, cathodic protection is widely used now. This protection is mainly used in cases where the structure (underground pipeline, ship hull) containing sea water and underground water in the electrolyte environment is protected. The essence of such protection is that the structure is connected to a metal that is more active than the metal of the protective-protected structure. Magnesium, aluminum, zinc and their alloys are usually used as protectors in the protection of steel products. In the process of corrosion, the protector serves as an anode and is eroded. This protects the structure from decay. As the protector wears out, they are replaced with a new one. This is a shortcoming of cathodic protection, which can cause economic damage. The universal method of protecting metals from corrosion is covering the surface of metals with metallic and non-metallic coatings [11; 200 p; 12; 640 p.].

In the research work of S. Shamshiev, V.P. Guro, P.Yu. Shtirlov, local raw materials necessary for the synthesis of effective corrosion inhibitors were selected and test results were conducted. According to the test results, Na_2SiO_3 -10.00 highly inhibits the corrosion of carbon steel and some non-ferrous metals; sodium polyphosphate-1:00; content No. 1-1.00; composition No. 2-0.010; No. 3- content up to 1.00 was selected [13; 60-65 pp.].

Calcium and magnesium carbonates reduce the amount of cathodic products on the metal surface, increase the pH value of the alkaline environment and form a thin coating on the metal surface. These inhibitors are used as separating inhibitors, because they separate corrosion products from the metal surface that provide cathodic processes on the metal surface [14; 50-58 pp.].

In this article, the scientific research work on the preparation of rust removers based on phosphoric acid and organic and inorganic salts that meet the standard requirements is studied. It is known that when the ratio of H_3PO_4 is below 20%, the level of rust removal decreases. When an acid with a concentration of more than 22% is used in agar, it will also absorb rust and metal. Based on this, we decided to use 20-22% acid in research. Phosphoric and citric acids were selected as the main raw materials for the production of modifiers protecting industrial construction equipment from corrosion. It is known that a high concentration of phosphate and citric acids is widely used in cleaning metals from corrosion. In order to achieve high protection efficiency at a low concentration, organic and inorganic substances were added to them.

Experimental studies were carried out to study the effectiveness of different acids in removing rust. The experiments were conducted on a 50x50x5 mm rusty steel plate at a temperature of 25°C for 5-15 minutes at concentrations of 5-30%. The obtained research results are shown in the table below (Table 1).

As can be seen from the results of the table, it was found that the reduction of corrosion in 5-30% sulfuric acid is from 6 points to 8 points, that is, the corrosion resistance is not stable (Table 1, experiment No. 1). It was proved that the corrosion resistance of phosphoric acid is relatively stable in the range of concentration from 5 to 7 points (Table 1, experiment No. 3). In 5-30% citric acid, the reduction of corrosion was found to increase from 5 to 9 points (Table 1, experiment No. 6). As the concentration of citric acid increases, the aggregate state of citric acid changes, in which, as the dissociation of the acid decreases, its acidity also decreases, the washing levels decrease, that is, the citric acid turns into a crystalline state, the sphere of influence on the metal decreases. Low concentrations of citric acid have been found to have superior rust removal capabilities compared to acetic acid, making it a cost-effective and localized cleaning agent.

Table 1

RESEARCH RESULTS OF STUDYING THE RUST CLEANING EFFECT OF CITRIC ACID WITH DIFFERENT CONCENTRATIONS

№	Name of the tested acids	Concentration of tested acids, %	The initial mass of the sample, gr	Mass reduction of the sample at a temperature of 25°C, gr								
				Processing times, min								
				5 minutes			10 minutes			15 minutes		
				Mass after processing, gr	Mass reduction difference gr	Ball	Mass after processing, gr	Mass reduction difference gr	Ball	Mass after processing, gr	Mass reduction difference gr	Ball
1	Sulfuric acid	5	25,7163	25,5267	0,1896	6	25,2627	0,4536	6	24,7301	0,9862	7
		10	21,9071	21,5446	0,3625	6	21,3207	0,5864	7	20,9446	1,2145	8
		15	19,3327	18,7963	0,5364	7	18,0566	0,8261	7	17,8765	1,4562	8
		20	22,6781	21,892	0,7861	7	21,5455	1,1326	8	20,7516	1,9265	8
		25	25,3643	24,4495	0,9148	7	24,0076	1,3567	8	23,2184	2,1459	8
		30	21,8824	20,7566	1,1258	7	20,3562	1,5262	8	19,5176	2,3648	8
2	Hydrochloric acid	5	23,4135	23,1173	0,2962	6	23,0171	0,3964	6	22,734	0,6795	7
		10	22,5667	22,2099	0,3568	6	21,9706	0,5961	7	21,6703	0,8964	7
		15	21,1281	20,6014	0,5267	7	20,365	0,7631	7	19,807	1,3211	8
		20	24,4256	23,707	0,7186	7	23,5259	0,8997	7	23,012	1,4136	8
		25	22,8762	21,9531	0,9231	7	21,5521	1,3241	8	21,1303	1,7459	8
		30	23,6871	22,5626	1,1245	8	22,0089	1,6782	8	21,7182	1,9689	8
3	Phosphoric acid	5	24,5267	24,4755	0,0512	5	24,4725	0,0542	5	24,4033	0,1234	6
		10	21,6781	21,6066	0,0715	5	21,5896	0,0885	5	21,5244	0,1537	6
		15	25,1218	25,0227	0,0991	5	25,0176	0,1042	6	24,8451	0,2767	6
		20	23,0967	22,8044	0,2923	6	22,7474	0,3493	6	22,6646	0,4321	6
		25	24,5643	24,2129	0,3514	6	24,0768	0,4875	6	23,9051	0,6592	7
		30	22,8113	22,2788	0,5325	6	22,1327	0,6786	6	21,9168	0,8945	7
4	Nitric acid	5	24,1266	20,9808	3,1458	8	17,3854	6,7412	9	14,2302	9,8964	9
		10	25,7612	20,3029	5,4583	9	16,7953	8,9659	9	13,1938	12,5674	10
		15	23,7142	16,1881	7,5261	9	14,0559	9,6583	9	10,1493	13,5649	10
		20	24,6213	15,6559	8,9654	9	13,232	11,3893	10	0	0	0
		25	24,3241	14,1985	10,1256	10	11,9779	12,3462	10	0	0	0
		30	23,6781	11,3213	12,3568	10	9,5528	14,1253	10	0	0	0
5	Acetic acid	5	25,5863	24,3739	1,2124	8	24,1225	1,4638	8	23,8501	1,7362	8
		10	24,0741	22,5374	1,5367	8	22,283	1,7911	8	22,2476	1,8265	8
		15	24,6879	23,06	1,6279	8	22,8898	1,7981	8	22,8208	1,8671	8
		20	27,9018	26,1053	1,7965	8	25,9254	1,9764	8	25,7654	2,1364	8
		25	24,7132	22,7269	1,9863	8	22,3656	2,3476	8	22,1341	2,5791	8
		30	23,9613	21,3822	2,5791	8	21,1248	2,8365	8	21,0176	2,9437	8
6	Citric acid	5	22,3117	22,2568	0,0549	5	22,235	0,0767	5	22,212	0,0997	5
		10	22,2944	21,9558	0,3386	6	21,718	0,5764	6	21,4113	0,8831	7
		15	20,5643	18,8851	1,6792	8	18,6279	1,9364	8	17,0967	3,4676	8
		20	23,2268	20,1019	3,1249	8	17,981	5,2458	8	16,3134	6,9134	9
		25	26,7382	20,6003	6,1379	9	18,0929	8,6453	9	17,4591	9,2791	9
		30	25,8819	18,9088	6,9731	9	17,9104	7,9715	9	16,7473	9,1346	9

Table 2

**CHANGES IN THE EFFECTIVENESS OF REMOVING METALS
WHEN CITRIC ACID IS ADDED TO A 20-22% CONCENTRATION
SOLUTION OF H₃PO₄**

№	H ₃ PO ₄ concentration, %	Temperature, °C	C ₆ H ₈ O ₇ , %	Corrosion resistance of the cleaned surface			
				Rusty metal mass, g	Mass after processing, g	Corrosion rate, gr/m ²	According to the requirements of GOST 9.402- 2004, levels of cleaning, points
1	20	25	2	25,6479	25,5679	0,08	5
			4	23,6472	23,5572	0,09	5
			5	25,6427	25,5427	0,1	5
2	22	25	2	24,6973	24,6773	0,02	4
			4	22,8617	22,8217	0,04	4
			5	23,4572	23,3872	0,07	5
3	25	25	2	24,1375	24,0975	0,04	4
			4	22,4173	22,3873	0,03	4
			5	22,3491	22,2991	0,05	5

As can be seen from the results of the above table, the cleaning efficiency in the pilot study in which 2% citric acids were added to 20% phosphoric acid was 5 points (Table 1, No. 1: Experiment 1). It has been scientifically proven that the cleaning efficiency is 4 points, i.e. it is resistant to high corrosion (Table 2, experiment No. 2:4). From these indicators, it was found that the efficiency of rust removal is high even at low concentrations of known acids.

In experimental studies, anti-corrosion properties were studied using a mixture of substances listed in Table 3. When a joint mixture of substances is used against corrosion, their inhibitory power is several times higher than when each inhibitor is used separately. The inhibitory power of the mixture of potassium bichromate and zinc sulfate is greater than the sum of the effects of each of them at the highest concentration, stopping the corrosion of steel, and the power of the chromate inhibitor increases dramatically. According to the results of Table 3, it was determined that the mixtures of phosphoric acid with 22.0%, citric acid with 2.0%, potassium bichromate with 1.0%, and zinc sulfate with 1.5% are the most optimal composition.

Table 3

**DEGREE OF METALS CORROSION PROTECTION WHEN
OPTIMUM COMPOSITION OF POTASSIUM BICHROMATE AND ZINC
SULFATE IS INCLUDED**

№	H ₃ PO ₄ , %	C ₆ H ₈ O ₇ , %	K ₂ Cr ₂ O ₇ , %	ZnSO ₄ , %	Temperature °C	Rusty metal mass, g	Mass of metal after processing, g	Corrosion rate, g/m ²	Degree of protection, %
1	20	2	0,5	1,0	25	53.4651	53,4571	0,008	92.2
		4			25	50.0635	50,0585	0,005	94.3
		5			25	55.3417	55,3387	0,003	96.6
2	22	2	1,0	1,5	25	53.2543	53,2493	0,005	94.8
		4			25	52.1969	52,1929	0,004	95.3
		5			25	51.3941	51,3921	0,002	97.08
3	20	2	1,0	1,5	25	52.1408	52,1378	0,003	96.3
		4			25	52.0235	52,0215	0,002	97.06
		5			25	54.3782	54,3762	0,002	97.5
4	22	2	1,5	2,0	25	52.1937	52,1927	0,001	98.05
		4			25	52.5611	52,5601	0,001	98.15
		5			25	51.6347	51,6337	0,001	98.36
5	20	2	1,5	2,0	25	53.2925	53,2855	0,007	93.32
		4			25	51.2364	51,2324	0,004	95,9
		5			25	52.4218	52,4198	0,002	97.6
6	22	2	1,5	2,0	25	56.8142	56,7642	0,05	90.4
		4			25	52.3436	52,3386	0,005	94.5
		5			25	53.2094	53,2054	0,004	95,0

The results of IR spectroscopy are given below, and information about the position of the absorption bands in the vibrational spectrum of the groups of atoms in the obtained rust modifier was given. The IR-spectrum of the obtained composition was obtained in the range of 4000-400 cm⁻¹ using a sample in the form of a tablet with KBr on a UR-20-spectrophotometer. Based on the results of the IR spectroscopy analysis, valence vibrations of the SO₄²⁻ ion related to the ZnSO₄ added to the inhibitor composition were observed in the region of 603.72 cm⁻¹. The PO₄³⁻ ionic group belonging to orthophosphate acid is located at 1147.65 cm⁻¹; and the Cr₂O₇²⁻ ion contained in potassium bichromate is in the area of 1111.51 cm⁻¹; It was found that the -C-N= bond forming the hexamethylenetetramine ligand in the urotropin substance exhibits an absorption frequency in the region of 991.41 cm⁻¹.

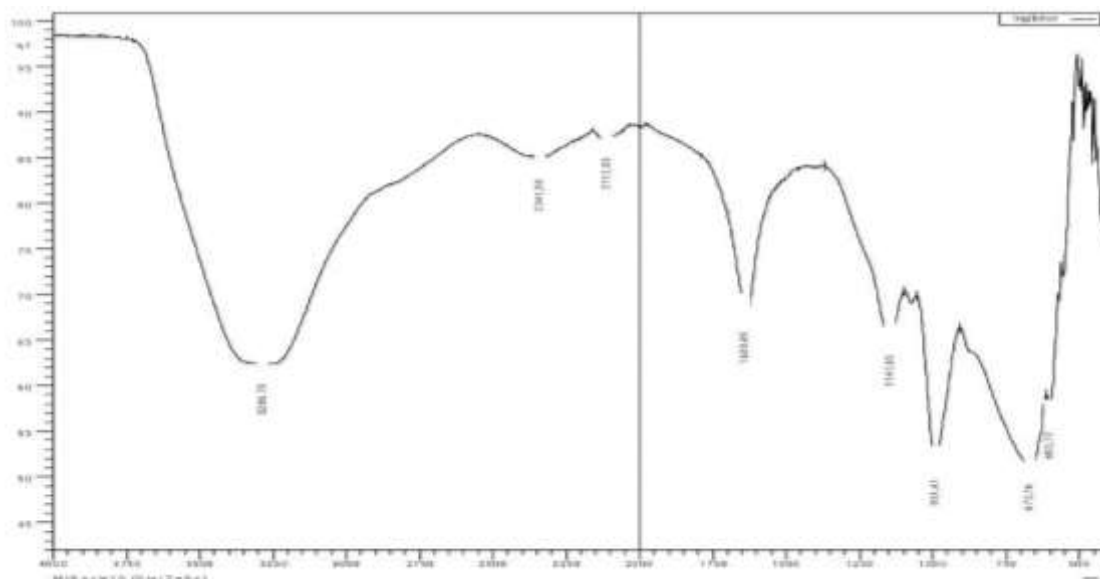
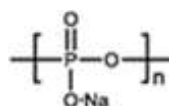


Figure 1. IR spectrum of the sample



It is the basis of sodium polyphosphate $\left[\begin{array}{c} \text{O} \\ \parallel \\ \text{P} - \text{O} \\ | \\ \text{O-Na} \end{array} \right]_n$ it was observed that the monomer shows absorption characteristic of valence and deformation vibrations in the regions of 2112.05 and 2341.58 cm^{-1} . The group of C=O atoms belonging to citric acid is valence in the area of 673.16 cm^{-1} ; It was found that -C-OH group of atoms exhibits absorption characteristic of valence and deformation vibrations in the areas of 3286.70 and 1639.49 cm^{-1} respectively.

Conclusions

From the above results, it can be concluded that the formed rust modifier has the ability to protect metals from acid corrosion. In accordance with the standard requirements of GOST 9.505-86, tests of this composition were conducted to evaluate the ability of acid corrosion inhibitors to protect them. The resulting composition was tested in hydrochloric and sulfuric acid solutions. The obtained results showed that this obtained composition is able to perform the function of an inhibitor with high efficiency in protecting against acid corrosion.

Based on the above, the main task of the research was to determine the optimal conditions for export of competitive rust modifiers based on local resources and industrial waste, as well as the use of urotropin as a local raw material for corrosion inhibition.

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SCIENTIFIC FOUNDATIONS FOR DEVELOPING A NEW GENERATION OF INSULATING MASTICS USING GOSSYPOL RESIN

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Abstract. *The processing of industrial waste and obtaining secondary products from them are crucial aspects of the national economy. Therefore, deriving bituminous mastics from gossypol tar, a byproduct of the oil industry, contributes to addressing waste-related issues. This approach underscores the significance of efficiently managing industrial waste to yield valuable secondary products, aligning with economic and environmental considerations.*

Key words. *Gossypol tar, uratrapin, SaO, rubber powder, KMTs, basalt, kaolin, asbestos, IR analysis.*

Introduction

Mastics play a crucial role in the manufacturing of ruberoid, willow, pergamine, as well as in the insulation of building foundations, roofing, basements, and swimming pools. The performance of waterproof mastics designed for roofing applications is influenced by various natural phenomena such as rain, snow, hail, wind, ultraviolet rays, and temperature fluctuations. Additionally, the mechanical and biological impacts of microorganisms contribute to the aging process of bituminous mastic compounds [1; p 159].

Cold bitumen and bituminous rubber mastics are typically produced centrally. The varnish is mixed with the filler for 8-10 minutes, and dewatered bitumen alloy heated to a temperature of 170-180 °C is gradually added to the mixer while continuously mixing. Subsequently, all components are mixed for 4-5 minutes until a homogeneous mass is achieved. The prepared mastic is then transferred to the collector using pumps. Quality control of raw materials for mastic preparation, as well as the finished mastic, is conducted either at the factory or in construction laboratories where work is in progress [2;p.555,3;p.35.,4;p. 281].

In modern construction, mastics find extensive use for various purposes and compositions, including the coverage of building and structure roofs. Waterproof mastics (SHM) generally exhibit high levels of water, abrasion, and heat resistance. Their interaction with metal, concrete, and polymer materials demonstrates a high degree of adhesion (from Latin adhaesio — prilipanie = stickiness). Notably, they are characterized by ecological cleanliness, biostability, fire resistance, and long service

life. Unique properties of mastics include the ability to apply them on wet and untreated surfaces and create coatings of different colors by incorporating dyes into their composition. In the author's previous research, conducted by Khozeev E.O., the interrelationship between the composition and properties of SHM, methods of obtaining bituminous compositions, and directions of their modification were explored [5; p. 39-42, 6; p. 159-162, 7; p.107-108].

Methods

The main components of the theoretically and practically researched work include: Gossypol resin - a by-product of the cottonseed oil industry, calcium oxide, rubber crumbs, talc, basalt, curing agent, asbestos, and KMTs.

Gossypol resin is inherently complex in nature, containing phenolic, hydroxyl group-containing aromatic compounds, and medium carboxyl groups. The composition of Gossypol resin includes phenol, aldehyde, carboxyl, carbonyl, and hydroxyl groups. However, these groups are not active under ordinary conditions. We have the ability to chemically activate Gossypol resin through thermal processing. Thermally activated Gossypol resin exhibits acidic properties and readily undergoes reactions with other reagents, forming simple and complex ethers, aliphatic amines, phosphatides, neutral salts, and other compounds.

The quantity of water not bound according to the requirements of GOST 18-114-73 in the composition of Gossypol resin is specified to be less than 1-2%. However, in the tar produced, the water content can be up to 5-10%. The presence of this water is crucial for the formation of the mastic, as it contributes to the polymerization process. Therefore, the removal of water from the composition before oxidation plays a significant role in the mastic production process.

Results and discussion

Materials for Ensuring the Stability of Constructions and Buildings in Various Natural and Climatic Zones: The use of constructions and materials in different natural and climatic zones requires the utilization of materials that respond to diverse conditions to ensure the stability of structures and constructions. Consequently, extensive research is conducted to obtain construction materials with enhanced characteristics. For instance, traditional methods involving various sealants and mastics are employed in roofing and waterproofing works. The most widely used type of mastic, based on bitumen derived from oil, forms the fundamental component of polymer-bitumen compositions. The objective of this study is to consolidate scientific concepts related to the technology of obtaining bitumens, focusing on their basic composition and the interrelation of their properties.

In the operational lifespan of buildings and structures, roofing and waterproofing coatings are exposed to atmospheric phenomena such as rain, snow, frost, wind, ultraviolet radiation, and temperature fluctuations. Furthermore, the mechanical loads on coatings and the biological effects caused by various microorganisms also play a significant role in the aging process of bituminous mastic compounds, as emphasized by scholars like Yartsev V.P. and Erofeev A.V [1; p.80].

Researcher Khozev E.O. has developed a conceptual framework for obtaining bitumen for construction mastics. Consequently, technologies for obtaining high-quality, oxidized, and compounded bitumens, as well as technological processes that contribute to the customization of bitumen properties, have been examined. These technologies take into account the physical-mechanical characteristics of bitumens, their resilience to climatic influences, and their durability. Thus, the development of technologies for obtaining bitumens is essential to ensure the required durability of construction mastics, as plain bitumens alone cannot provide the necessary properties. Therefore, further research is needed to create various modified and additive bitumen composites that meet the requirements of large-scale roofing and waterproofing coatings, to enhance their durability and adaptability to diverse climatic conditions [8].

Researchers T.L. Lazareva and N.I. Yarmolinskaya have developed new compositions used for repairing roads with bituminous mastics. For the preparation of polymer-bitumen mastics, carbonate crumbs dried at 105 °C and road bitumen of the BND 90\130 grade are heated to 160 °C in laboratory conditions. Carbonate crumbs are gradually introduced into the polymer-bitumen composition and mixed for 15-20 minutes at an estimated temperature of 169-180 °C. This mastic is then employed for road repairs [9; p. 38-39].

Scientist L.S. Sibgatullina, along with several other researchers, has addressed the challenges of creating long-lasting, environmentally friendly roofing and waterproofing materials. They proposed modifying bitumen and bitumen-polymer emulsions by reprocessing materials from the felt and roofing bitumen industry. The improvement of bitumen mastic properties involves suggesting a composition with a multifaceted impact mechanism. For this purpose, talcomagnesite has been introduced as a filler for bitumen mastics, and rubber has been utilized to optimize the distribution of particles. Moreover, dispersed emulsions with uniform distribution have been created. Bitumen mastics obtained from bitumen and bitumen-polymer emulsions have demonstrated optimal characteristics [10; p. 38-39].

Researcher V.S. Sokhadze has conducted scientific work on polymer-bitumen mastics. He has formulated guidelines for the preparation of polymer-bitumen mastics, which include the following components: butadiene-styrene thermoelastoplastic, talc as a filler, a plasticizer, and PN-6K petroleum. The mass ratios are as follows: bitumen

40.0-60.0%; butadiene-styrene thermoelastoplastic 2.0-14.0%; various dibutyl phthalate plasticizer 1.0-4.0%; PN-6K petroleum plasticizer 1.0-4.0%; and other components [11; Patent RU 2 345 107 C1].

The scientific sources mentioned above provide unique contributions and perspectives on various aspects. Nevertheless, their practical applications in industrial production have not been fully realized.

This article, based on gossypol resin and local resources, highlights the scientific foundations of obtaining insulation mastics that meet standard requirements.

In the initial stages of creating new types of oil-free mastics based on gossypol resin in the cottonseed oil industry, research was conducted to thermally oxidize and activate functional groups, followed by investigations to increase the density of the composition by introducing CaO. Experimental work was carried out by adding CaO to gossypol resin in the range of 0.5-2.5%. The temperature reached 220 °C, the reaction time was 180 minutes, and the stirring intensity was 120 times per minute, resulting in a mass loss of 5.6%. When treated with 2.5% CaO, the temperature reached 220 °C, the reaction time was 220 minutes, and the stirring intensity was 120 times per minute, resulting in a mass loss of 6.9%.

Table 1

The results of studies aimed at determining the effect of CaO on the needle penetration depth of mastic based on gossypol resin are as follows

№	Amount of CaO, %	Gossypol resin %	Total mass, g	Temperature, °C	Mass loss, %	Reaction time, min	Mixing intensity, min	Needle penetration depth
1	0,5	99,5	250	220	5,6	180	120	145
2	1,0	99,0	250	220	6,0	190	120	120
3	1,5	98,5	250	220	6,4	200	120	110
4	2,0	98,0	250	220	6,8	210	120	105
5	2,5	97,5	250	220	6,9	220	120	90

The research aimed at the creation of new types of oil-free mastics based on gossypol resin in the cottonseed oil industry proceeded through the initial stages of thermal oxidation and activation of functional groups, followed by experiments to increase the density of the composition by introducing CaO. Experimental work involved adding CaO in the range of 0.5-2.5% to gossypol resin. The temperature reached 220 °C, the reaction time was 180 minutes, and the stirring intensity was 120 times per minute, resulting in a mass loss of 5.6%. When treated with 2.5% CaO, the

temperature reached 220 °C, the reaction time was 220 minutes, and the stirring intensity was 120 times per minute, resulting in a mass loss of 6.9%.

In this process, 2% CaO was adopted as the optimal composition, the reaction time was 210 minutes, the temperature was 220 oC, and the mass loss was 6.8%. The needle penetration depth met GOST requirements when adding CaO 2%.

Further research is aimed at increasing the acid resistance of mastic based on gossypol resin. Here, the test results to determine the acid resistance of mastic in 20% sulfuric acid are presented in the table below (Table 2).

Table 2

Research aimed at increasing the acid resistance of mastic based on gossypol resin and the test results in sulfuric acid (20%).

№	Gossypol resin, %	Amount of urotro-pin, %	Total mass, g	Temperature, °C	Mass loss,%	Reaction time, min	Mixing intensity min	Acid resistance, % (in the case of sulfuric acid)
1	99,5	0,5	200	70	0,75	60	120	98,5
2	99,0	1,0	200	70	1,0	65	120	98,6
3	98,5	1.5	200	70	1,5	70	120	98,7
4	98,0	2.0	200	70	1,5	75	120	98,7
5	97,5	2.5	200	70	1,75	80	120	98,7

Research aimed at increasing the acid resistance of mastic based on gossypol resin consists of the following. As can be seen from the results of the table, experiments were conducted by adding 0.5-2.5% $(\text{CH}_2)_6\text{N}_4$ to gossypol resin. When adding 0.5% $(\text{CH}_2)_6\text{N}_4$, the temperature was 70 °C, the reaction time was 60 minutes, the intensity of mixing was 120 cycles per minute, and the mass loss in this process was 0.75%. When exposed to 2.5% urotropin, the temperature was 70 °C, the reaction time was 80 minutes, and the intensity of mixing was 120 times per minute, and the mass loss was found to be 1.75%. In this process, 0.5% urotropin was obtained as the optimal content.

The results of studies aimed at determining the relative elongation coefficient of mastic obtained on the basis of gossypol resin are given in the table below. In this work, rubber powder was used as a plasticizer and its effect on gossypol resin was studied.

Based on it, the table shows the amount of substances, temperature, intensity of mixing, reaction times and coefficients of relative elongation.

Table 3

The results of studies aimed at increasing the coefficient of relative elongation of mastic.

№	Amount of rubber powder, %	Gossypol resin, %	Total mass, g	Temperature, °C	Mixing intensity min	Mass loss, %	Reaction time, min	Stretchability, mm
1	1,0	99,0	200	60	120	0,5	30	33
2	2,0	98,0	200	60	120	1,0	35	37
3	3,0	97,0	200	60	120	1,5	40	38
4	4,0	96,0	200	60	120	1,5	45	39
5	5,0	95,0	200	60	120	1,6	50	39

In this work, aimed at increasing the relative elongation coefficient of mastic, rubber powder was added to gossypol resin in proportions of 1-5%. In this case, 1% rubber powder was included at a temperature of 60°C. It was determined that the reaction time was 30 minutes, the mixing intensity was 120 revolutions per minute, and the mass loss was 0.5%. When adding 2% rubber powder to the composition, the temperature was 60°C, and the reaction time was 35 minutes. When adding 5% rubber powder, the temperature was 60°C, the reaction time was 50 minutes, and the mass loss was 1.6%. As a result of experimental studies, 2% rubber powder was considered optimal.

To enhance stickiness, gossypol resin was treated with carboxymethylcellulose. The influence of KMS on the composition is crucial for determining the adhesion of the mastic that meets the requirements of GOST (Table 4).

To enhance the adhesion of gossypol resin-based mastic, 1.0-5.0% carboxymethylcellulose (KMS) was incorporated into the composition. The addition of 1% KMS occurred at a temperature of 220°C, with a reaction time of 60 minutes and a mass loss of 0.25%. This study determined that 2% KMS was the optimal content, meeting the adhesion requirements specified in GOST 15140-78.

Table 4**Results of studies aimed at increasing the adhesion of mastic based on gossypol resin**

№	Amo-unt of KMS, %	Gossypol resin %	Total mass, g	Tempe- rature, °C	Mixing intensity min	Mass loss, %	Reaction time, min	Change in adhesion,%
1	1,0	99,0	200	220	120	0,25	60	98
2	2,0	98,0	200	220	120	0,5	65	98
3	3,0	97,0	200	220	120	0,75	70	98
4	4,0	96,0	200	220	120	1,0	75	98
5	5,0	95,0	200	220	120	2,25	80	98

In the pursuit of increasing the heat resistance, hardness, and reducing the brittleness of oil-free mastics, investigations were conducted to examine the influence of mineral fillers on gossypol resin. Over time, bituminous mastic experiences deterioration due to exposure to various atmospheric phenomena such as rain, snow, lightning, wind, and ultraviolet rays, along with temperature changes. To mitigate this phenomenon, asbestos was introduced into the composition. The effects of asbestos, a mineral filler, on gossypol tar, are detailed in the table below.

According to the information provided above, the results table of the research indicates that experimental studies were conducted by incorporating 1.0-5.0% asbestos into gossypol resin. The addition of 1.0% asbestos was carried out at a temperature of 220°C, with a reaction time of 70 minutes, mixing intensity of 120 times per minute, and a determined mass loss of 0.5%. When 5% asbestos was introduced, the temperature was 220°C, and the reaction time extended to 90 minutes, with a mixing intensity of 120 times per minute, resulting in a mass loss of 1.0%. Throughout this process, 2% asbestos was identified as the optimal content, with a reaction time of 90 minutes, a temperature of 220°C, and a mass loss of 1.0%. The selection of 2% asbestos was based on the observation that there was almost no change in dielectric resistance.

Table 5**Research on the Influence of Mineral Filler Asbestos on Gossypol Resin**

№	Amount of asbestos %	Gossypol resin %	Total mass, g	Temperature, °C	Mixing intensity, min	Mass loss, %	Reaction time, min	Dielectric resistance, not less than kv/mm
1	1,0	99,0	200	220	180	0,5	70	5
2	2,0	98,0	200	220	180	0,5	75	5
3	3,0	97,0	200	220	180	0,75	80	5
4	4,0	96,0	200	220	180	0,75	85	5
5	5,0	95,0	200	220	180	1,0	90	5

In our subsequent research, we investigated the impact of kaolin, a mineral filler, on gossypol resin. Fillers are introduced into gossypol resin to enhance the mastic's heat resistance, and hardness, and reduce brittleness. In this case, kaolin was included in the composition to specifically address the reduction of mastic brittleness and the enhancement of its flexibility. The detailed results can be found in the table below (Table 6).

In the research, they conducted experiments by adding 1.0-5.0% kaolin into gossypol resin. They found that when 1.0% kaolin was added, the temperature reached 220°C, the reaction time was 70 minutes, and the mixing intensity was 120 times per minute, resulting in a mass loss of 1.0%. With 5.0% kaolin exposure, the temperature remained the same, but the reaction time extended to 90 minutes, and the stirring intensity remained at 120 times per minute, leading to a mass loss of 2.0%.

Table 6**The Results of the work on the Impact of Kaolin to Reduce the Brittleness of Mastic and Increase Its Elasticity**

№	Amount of Kaolin, %	Gossypol resin, %	Total mass, g	Temperature, °C	Mixing intensity, min	Mass loss, %	Reaction time, min	Flexibility mm. -15 °C
1	1,0	99,0	300	220	120	1,0	70	6,0
2	2,0	98,0	300	220	120	1,5	75	6,5
3	3,0	97,0	300	220	120	1,7	80	6,6
4	4,0	96,0	300	220	120	1,8	85	6,7
5	5,0	95,0	300	220	120	2,0	90	6,7

They concluded that the optimal composition was 2% kaolin, with a reaction time of 75 minutes, a temperature of 220°C, and a mass loss of 1.5%.

They also explored further research to enhance the mastic's resistance to high temperatures, and Table 7 presented their findings. They introduced basalt to gossypol resin under various conditions, with the color being gray or dark. To evaluate the heat resistance of the gossypol resin-based mastic under the influence of basalt, they compared it against the standards outlined in GOST.

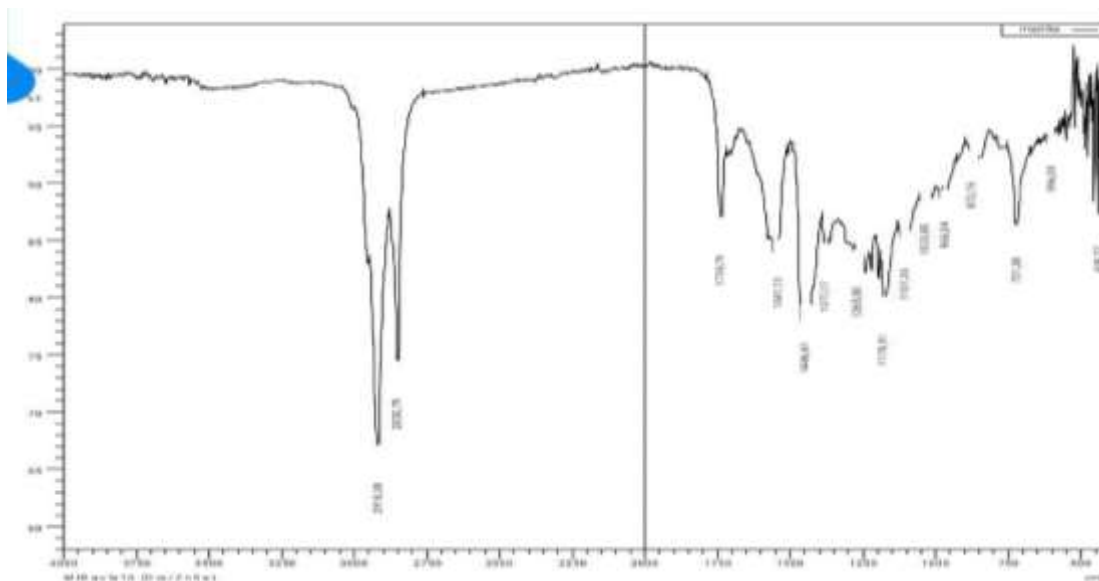
Table 7

The outcomes of investigations focused on enhancing the mastic's resistance to high temperatures under the influence of basalt

№	Basalt amount, %	Gossypol resin, %	Total mass, g	Stirring intensity, min	Mass loss, %	Reaction time, min	Heat resistance, °C
1	1,0	99,0	200	120	0,5	60	85
2	2,0	98,0	200	120	1,0	65	88
3	3,0	97,0	200	120	1,0	70	89
4	4,0	96,0	200	120	1,25	75	89
5	5,0	95,0	200	120	1,5	80	90

As evident from the table results, experimentation involved incorporating 1.0-5.0% basalt into gossypol resin. With the addition of 1.0% basalt, the process operated at 220 °C, a reaction time of 60 minutes, a mixing intensity of 120 times per minute, and a mass loss of 0.5%. When exposed to 5.0% basalt, the temperature was 220 °C, the reaction time was 80 minutes, and the mixing intensity remained at 120 times per minute, resulting in a mass loss of 1.5%. The optimal composition was determined as 2% basalt, with a reaction time of 65 minutes, a temperature of 220 °C, and a mass loss of 1.0%.

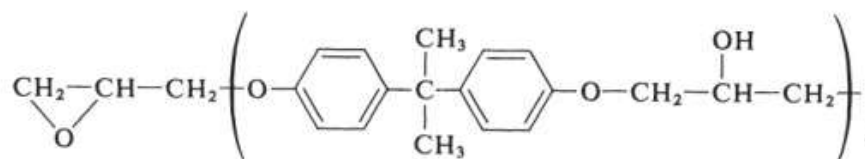
Several studies were conducted to perform IR analysis for the formulation of a novel composition of oil-free mastics, as outlined in the table below.



IR analysis of mastic substance

Based on the results of the FTIR spectroscopy analysis, specific vibrations related to the CO₃²⁻ ion, associated with the main component calcite CaCO₃ of basalt in the mastic composition, were identified at 873.75 and 1739.79 cm⁻¹ regions. Additionally, vibrations corresponding to the -OH group in the asbestos component were observed at 439.77 and 596.00 cm⁻¹ regions, representing valence and deformation oscillations. The Ca=O group of atoms indicated a stretching frequency at 1377.17 cm⁻¹. The SiO₂ group, which constitutes the essential part of the mastic, demonstrated valence and deformation vibrations at 966.34 and 721.38 cm⁻¹ regions.

The structural formula commonly used to represent rubber is expressed as follows.



The absorption frequencies associated with the -C-H group of atoms in carboxymethylcellulose were detected at 2850.79 cm⁻¹, the -SN₂ group of atoms at 1446.61 cm⁻¹, and the ether bond -O- at 1178.51 cm⁻¹.

The deformation vibration of the S=S bond, part of the naphthyl group constituting gossypol in the mastic substance, was observed in the region of 1541.12 cm⁻¹.

Conclusion

In conclusion, it can be summarized that the prominent peaks identified in the IR spectrum of the mastic correspond to the vibrational frequencies of crucial chemical groups. Notably, the intense peaks at 2918.30 cm⁻¹ for the -C-H group of atoms in the

rubber, 1446.61 cm⁻¹ for the SN2 group in the carboxycellulose composition, and 2850.79 cm⁻¹ for the -C-H group underscore the distinctive chemical characteristics of the mastic. This, in turn, signifies the potential of the chemical components' composition to interact proportionally and influence the chemical properties of the mastic.

Furthermore, this study sets the stage for further enrichment of the mastic's chemical composition. The detailed insights gained from the IR spectroscopy analysis provide a foundation for exploring the chemical nuances of the mastic substance. Future endeavors could focus on fine-tuning the composition, considering the identified chemical groups and their corresponding vibrational frequencies. This nuanced approach holds promise for refining the chemical properties of the mastic, leading to potential advancements in its applications and performance characteristics.

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THE ROLE OF GAMES IN IMPROVING LANGUAGE SKILLS

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Annotatsiya: O‘yinlarning til ko‘nikmalarini oshirishda ishlatilishi, dinamik va qiziqarli yo‘l bo‘lib, har yoshdagi o‘quvchilarga foyda keltirishi mumkin. O‘yinlarning til ko‘nikmalarini oshirishdagi roli aytilgan vaqti o‘chirib beradi, yangi tilni o‘rganish o‘rniga.

Kalit so‘zlar: Vocabulary expansion, kontekstual o‘rganish, grammatika amaliyoti, tinglovchi va tushunish, kommunikatsiya ko‘nikmalari, madaniy tushuncha, motivatsiya va tortishish, kritik fikr.

Annotation: In this article the use of games in improving language skills is a dynamic and engaging approach that can benefit learners of all ages, The use of games can play a significant role in improving language skills, whether it’s learning a new language.

Keywords: Vocabulary expansion, contextual learning, grammar practice, listening and comprehension, communication skills, cultural understanding, motivation and engagement, critical thinking.

By incorporating games into language learning, educators and learners alike can create a dynamic and interactive learning environment, that addresses various aspects of language acquisition. Games not only make language learning more enjoyable but also provide meaningful opportunities for practice and improvement across different language skills. The use of games can play a significant role in improving language skills, whether it’s learning a new language or enhancing proficiency in one’s native language. Here are several ways in which games contribute to language skill development:

Vocabulary Expansion: Word games, crossword puzzles, and vocabulary-building games help learners expand their word bank. **Contextual Learning:** Games provide a context for language use, making it more meaningful and memorable. This contextual learning aids in better retention. **Grammar Practice:** Games can incorporate grammar rules in a fun and interactive way. Board games or online games with grammar challenges offer practical practice. **Listening and Comprehension:**

Language-based games often involve listening and comprehension skills. This is particularly beneficial for learners to develop their understanding of spoken language. **Communication Skills:** Games that involve communication, such as role-playing games or language-focused group activities, encourage learners to express themselves and communicate effectively. **Cultural Understanding:** Language games can introduce cultural elements, idioms, and colloquial expressions, enhancing learners' cultural understanding and language authenticity. **Motivation and Engagement:** Games make the learning process enjoyable and engaging, increasing motivation for language learners. This can lead to more consistent and sustained practice. **Critical Thinking:** Some games, especially those involving problem-solving or decision-making, stimulate critical thinking and reasoning skills in the language being learned. **Social Interaction:** Multiplayer language games encourage social interaction and communication in the target language, fostering a collaborative learning environment. **Confidence Building:** Success in language games can boost learners' confidence, encouraging them to take on more challenging language tasks. **Adaptability:** Language games can be adapted to various proficiency levels, making them suitable for beginners to advanced learners. **Repetition and Reinforcement:** Games often involve repetition, which reinforces language concepts and helps learners internalize grammar rules and vocabulary. **Real-life Applications:** Simulation or role-playing games provide opportunities for learners to apply language skills in real-life scenarios, improving practical language use. **Flexibility:** Language games can be easily integrated into different learning environments, whether in a classroom, online, or as part of self-directed study. **Feedback Mechanism:** Many language games offer immediate feedback, allowing learners to correct errors and learn from mistakes in a constructive manner.

Overall, incorporating games into language learning provides a dynamic and interactive approach that complements traditional teaching methods. It not only helps learners acquire language skills but also creates an enjoyable and motivating language learning experience.

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MAJOR PROBLEMS STUDENTS IN LITERATURE CLASSES

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Annotatsiya: *Adabiyot darslaridagi talabalar uchun asosiy muammolar, o'quvchi uchun qo'llanma tuzilishi va materialga haqiqiy qiziqish yaratishda yordam berish, himoya qiluvchi o'quv muhitini rivojlantirish hamda o'quvchilarning adabiyot materialiga haqiqiy qiziqishni rivojlantirish, adabiyot darslarida o'quvchilarning tajribasini ko'paytirish uchun muhimdir.*

Kalit so'zlar: *Qiyinchilik bildiradigan matnlar, kritik tahlil, vaqt boshqarish, yozish ko'nikmalari, qatnashish, adabiyot terminologiyasi, tafsilotlar tarjimasi, adabiyot nazariyasi tushunish.*

Annotation: *Major problems students in literature classes, Encouraging a supportive learning environment and helping students develop a genuine interest in the material can also enhance their experience in literature classes*

Keywords: *Complex texts, critical analysis, time management, writing skills, engagement, literary terminology, interpretation differences, grasping literary theory.*

Students may encounter various challenges in literature classes, and some of the major problems include:

Complex Texts: Literature classes often involve the study of complex and challenging texts. Students may find it difficult to understand the language, themes, and historical context of the works. Complex texts in literature refer to writings that are intricate, sophisticated, and often challenging to understand due to their rich language, intricate structures, and layered meanings. These texts are a common feature in literature classes and can pose various challenges for students.

Critical Analysis: Analyzing literature requires critical thinking skills. Students may struggle with interpreting symbolism, identifying themes, and understanding the author's purpose and message. Critical analysis in literature involves examining a text closely, evaluating its components, and interpreting its meaning beyond the surface level.

Time Management: Literature courses often involve reading extensive materials within a limited time. Balancing the reading load with other academic and personal

responsibilities can be challenging. Time management is a crucial aspect of success in literature classes, as it involves efficiently allocating time for various tasks, such as reading, assignments, and exam preparation.

Writing Skills: Literature classes typically involve writing essays and analytical papers. Some students may struggle with expressing their thoughts coherently, forming strong arguments, or properly citing sources. Developing strong writing skills is essential for success in literature classes. Here are key aspects to focus on to enhance your writing skills in the context of literature: **Understanding the Assignment:**

- 1) Read the assignment prompt carefully to ensure a clear understanding of the task.
- 2) Identify the purpose, audience, and specific requirements of the assignment.

Engagement: Lack of interest or engagement with the assigned readings can be a significant problem. If students are not interested in the material, it can affect their motivation to participate in class discussions and complete assignments.

Literary Terminology: Understanding and using literary terms can be daunting for students. They may find it challenging to grasp concepts like symbolism, allegory, and meter, affecting their ability to discuss and analyze literature effectively. Literary terminology encompasses a range of terms and concepts used to analyze and describe elements within literary works. Familiarizing yourself with these terms enhances your ability to engage with literature critically.

Cultural and Historical Context: Literature often reflects the cultural and historical context of the time it was written. Students may struggle to connect with works that are set in unfamiliar time periods or cultures. Understanding the cultural and historical context is crucial for interpreting and analyzing literature effectively. The cultural and historical background in which a literary work is produced influences its themes, characters, and overall meaning.

Interpretation Differences: Literature is subjective, and different readers may interpret texts in various ways. Students may find it challenging to navigate different interpretations and perspectives in a class setting.

Participation Anxiety: Some students may feel hesitant to participate in class discussions, especially if they are not confident in their understanding of the material or fear judgment from peers.

Grasping Literary Theory: Literature classes may introduce various literary theories and approaches. Students may find it challenging to understand and apply these theories to their analyses.

To address these challenges, educators often provide support through clear explanations, discussions, and guidance on critical analysis and writing skills. Encouraging a supportive learning environment and helping students develop a genuine interest in the material can also enhance their experience in literature classes.

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SIYOSIY DISKURSDA METAFORANING KOGNITIV XUSUSIYATLARI

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Annotatsiya: Maqolada metaforaning kognitiv funksiyasi, o'zbek, rus va ingliz tili siyosiy diskursida metaforaning kognitiv tahlili beriladi.

Kalit so'zlar: siyosiy diskurs, kognitiv funksiya, ilmiy diskurs, konseptual metafora, metaforik modellash, metaforik obraz, konseptual tahlil, kognitiv tahlil.

Abstract: The article discusses cognitive function of metaphor and gives cognitive analysis of metaphor in Uzbek, Russian and English political discourse.

Key words: political discourse, cognitive function, scientific discourse, conceptual metaphor, metaphorical modelling, concept analysis, cognitive analysis.

Аннотация: в данной статье рассматривается когнитивная функция метафоры, когнитивный анализ метафоры в узбекском, русском и английском политическом дискурсе.

Ключевые слова: политический дискурс, когнитивная функция, научный дискурс, концептуальная метафора, метафорическое моделирование, метафорический образ, концептуальный анализ, когнитивный анализ.

Metafora tushunchasiga an'anaviy yondashuvda nomlanishning bir predmetdan ikkinchisiga ko'chirilishi, ikki buyum yoki hodisa taqqoslanayotgan paytda birining alomatlari yoki sifatleri boshqasiga ko'chirilishi tushunilgan. Tadqiqotchilarning ta'kidlashicha, metaforalarning ishlatilishi nomlanishlar arsenalini (til leksikonini) boyitadi, nutqni bezaydi va adresatga ta'sir ko'rsatadi. Shu bilan birga, metaforiklik ba'zan fikrlash aniqligi va oydinligiga ham halaqit beradi deb tushunishgan.

Hozirgi davr tadqiqotchilari esa inson nafaqat o'z fikrlarini metaforalar yordamida ifodalaydi, balki metaforalar bilan fikrlaydi, o'zi yashayotgan dunyoni metaforalar bilan anglaydi hamda muloqot faoliyati jarayonida adresat ongidagi dunyoning til manzarasini o'zgartirishga harakat qiladi degan fikrni olg'a surmoqdalar. Bundan kelib chiqadiki, metaforiklik – bu ijodiy tafakkur qilishning tabiiy yo'li, u dunyoni bilishning asosiy yo'lidan og'ish emas va nutqni bezash usuli ham emas.

Metaforani ko'zguga o'xshatishadi, bunda kimningdir yoqtirishi yoki yoqtirmasligidan qat'iy nazar, milliy ong aks etadi, xususan, siyosiy hayot mohiyati va inson maishiy hayotining turli sohalarning o'zaro bog'liqligi ham aks etadi.

Siyosiy diskursda metaforaning asosiy funksiyalaridan biri – bu kognitiv funksiya. Hozirgi davrda metafora bilan fikrlash oqilona, mantiqiy (ratsional) tafakkur qilishdan kam ahamiyatga ega emas deb hisoblanmoqda. Shunga ko'ra, metaforani asosiy mental operatsiya, dunyoni bilish va kategoriyalarga bo'lish usuli deb tushunishadi. Metafora kognitiv jarayonlarda ham inson ongi o'xshash imkoniyatlarining namoyon bo'lishida muhim rol o'ynaydi.

Yangi, murakkab, oxirigacha tushunarli bo'lmagan narsalarga murojaat qilganda inson qandaydir tanishroq, tushunarliroq sohalarning elementlaridan foydalanishga harakat qiladi. Murakkabligi va yuqori darajada mavhumligi bilan ajralib turadigan siyosiy diskursni metaforik modelleshda inson o'ziga yaxshi tanish bo'lgan sohalardan eng oddiy va konkret obrazlardan foydalanadi.

J. Lakoff va M. Johsonning “Biz birga yashayotgan metaforalar” (Metaphors we live by) tadqiqoti kognitiv metafora nazariyasiga asos soldi [4].

Zamonaviy tilshunoslikda metafora bilan fikrlash ratsional fikrlash kabi muhim ahamiyatga ega deb qaralmoqda. Bundan kelib chiqadiki, metafora asosiy aqliy operatsiya, dunyoni bilish va kategoriyalashtirish usuli sifatida tushuniladi. Fikrlash faoliyati jarayonida analogiya ratsional fikrlashning formallashtirilgan tartibidan ko'ra kam rol o'ynamaydi. Yangi, murakkabroq, oxirigacha tushunarli bo'lmagan narsaga murojaat qilganda inson fikrlash uchun tanishroq, tushunarliroq bo'lgan soha elementlaridan foydalanadi.

Murakkabligi va yuqori darajada mavhumligi bilan ajralib turadigan siyosiy sohani metaforik modelleshda esa inson ko'pincha o'ziga yaxshi tanish bo'lgan sohalardan, oddiyroq va konkret obrazlardan foydalanadi.

Masalan, quyidagi parchada mualliflar Rossiya milliy vatanparvar ittifoqi tushgan murakkab vaziyatni rus lisoniy ongi uchun odatiy bo'lgan “o'simliklar dunyosi” manbasiga xos bo'lgan metafora bilan xarakterlashga harakat qilishadi:

O'tgan yilda NPSR (Rossiya milliy vatanparvarlik harakati) bo'ron shoxlarini sindirgan va barglarini yulgan daraxtga o'xshardi. Bo'ron uning sarg'aygan barglarini, hali pishmagan mevalarini, pakana, beqaror kurtaklarini yulib ketgan. Mana shu eskirgan va uringan og'och ostida Podberezkin, Lapshin va Tulevlar hech kimga keraksiz holda yotishibdi...

Metafora - fikrlashning alohida usuli, inson tafakkurining analogli fikrlashi namoyon bo'ladigan tilning har kungi realligi. Metaforik obrazlar insonning intellektual tizimida mavjud, bu inson o'ylaydigan va harakat qiladigan o'ziga xos turdagi sxemalardir [3]. O'zbekistonda siyosiy islohotlar doimo rivojlanish jarayonida, yangi, hozircha nomsiz realiyalar uchun ba'zan metaforalar ishlatiladi.

O‘zbekiston Respublikasi Prezidenti Shavkat Mirziyoyev “Yangi O‘zbekiston” gazetasi bosh muharriri savollariga javob berib, shunday dedi:

“... Hozirgi vaqtda mamlakatimizda yana bir muhim Uyg‘onish jarayoni kechmoqda. Shuning uchun “Yangi O‘zbekiston” va “Uchinchi Renessans” so‘zlari hayotimizda o‘zaro uyg‘un va hamohang bo‘lib yangramoqda, xalqimizni ulug‘ maqsadlar sari ruhlantirmoqda.

...Agar biz bundan besh yil oldin qabul qilgan Harakatlar strategiyasining tub mazmun-mohiyatini muxtasar ifoda etadigan bo‘lsak, ushbu noyob hujjatda o‘z oldimizga Yangi O‘zbekistonni barpo etish va Uchinchi Renessans poydevorini yaratishdek buyuk vazifalarni strategik maqsad qilib qo‘ygan edik” [5].

“Yangi O‘zbekiston” yurtimizda o‘tkazilayotgan siyosiy islohotlar yangi davrining nomlanishi.

Boshqa holatlarda metafora allaqachon mavjud bo‘lgan, lekin qandaydir sabablarga ko‘ra muallifni qoniqtirmaydigan nomlanishlar o‘rniga boshqacha nomlanish bilan namoyon bo‘ladi. Metafora yordamida ma‘lum bir hodisa kategoriyaga ajratiladi va bu ushbu hodisaning mohiyatini yaxshiroq aniqlashga va unga o‘z munosabatini bildirishga yordam beradi. Masalan, davlat mulkini xususiy shaxslarga berish jarayoni *xususiyashtirish* deb nomlangan. Lekin, murosasiz oppozitsiya vakillari Rossiyada o‘tkazilgan xususiyashtirishni *talonchilik* deb ataydi, ya‘ni metafora yordamida shunga muvofiq keladigan harakatlarni “jinoiy harakatlar” kategoriyasiga kiritadi va ularning salbiy bahosini ta‘kidlaydi. *Bu kapitalning jamlanishi emas, balki mamlakatni vijdotsizlik, andishasizlik bilan banditlarcha talon-taroj qilish. Hozir talonchilik davom etmoqda va uning oxiri ko‘rinmaydi* (G. Zyuganov).

Topilgan obraz asta-sekin oydinlashib, tafsilotlari ma‘lum bo‘la boshlaydi: agar xususiyashtirish talonchilik bo‘lsa, unda uning tashkilotchilari va qatnashchilari – banditlar, mamlakat prezidenti esa, banda boshlig‘i, cho‘qintirgan otasidir. Xususiyashtirishga qarshi bo‘lganlar esa, qonun himoyasida turgan, jinoyatchilikka to‘sqinlik qiluvchi kishilar sifatida qabul qilinadi. Metaforalarning bunday tizimi kommunistik matbuotda doim ishlatilgan hamda kommunistik ong uchun xarakterli bo‘lgan sobiq ittifoqdagi Rossiyaning metaforik modelini yaratgan [3].

Ko‘p hollarda metafora oxirigacha anglanmagan nimanidir taqdim etish uchun imkon beradi, metafora bilan tasniflangan ob‘ektning mohiyati haqida ozroq bo‘lsa-da faraz qilishga yordam beradi. Bu ilmiy diskurs uchun xos bo‘lsa-da, siyosiy diskurs ham bundan mustasno emas. Masalan, o‘tgan asrning 80 – yillari o‘rtalarida Yevropadagi davlatlar o‘rtasidagi munosabatlarni ifodalashda *umumyevropa uyi* metaforasi ishlatila boshladi, postcovet davrida bu metafora *temir parda* konfrontatsion metaforasi bilan almashdi. Kechagi dushmanlar o‘rtasidagi munosabatlar hali noma‘lum edi, lekin metafora yaxshi tanish bo‘lgan tushunchali

asosni ishlatib, hech bo'lmaganda munosabatlarning umumiy prinsiplari haqida tasavvurni yaratdi.

Til faqat fikrlash quroli emas, balki axborotni yetkazish vositasi hamdir. Kishi metafora bilan fikrlar ekan, mutlaqo tabiiyki, axborotni ham metafora bilan yetkazadi.

Yana bir misol. T. Blerning 1997 yil 2 – dekabrda sport kampaniyasidagi irqchilikka qarshi so'zlagan nutqini ko'rib chiqamiz. Bu nutq qora tanli kishilarga nisbatan tolerantlikka chaqirishning yorqin namunasi. Bler jamoatchilikni butun Yevropa uchun nozik va hayajonli muammo bo'lgan irqchilikka qarshi ma'lum bir choralar ko'rishga undaydi. Bu zamonaviy jamiyatda va sportda qora tanli kishilar bilan konfliktga yechim topish va ommada ma'lum bir ijobiy emotsiyalar uyg'otishga harakat qilingan yetarli darajada to'g'ri idrok qilingan nutqdir.

1. ...Sport – and particularly football – is the international language. ... In the past the cancer of racism has too often scarred our game – the sound of revolting monkey chanting whenever a black player got the ball. Bananas thrown on the pitch. Black players and fans verbally intimidated...

Bu yerda voqealarni taqdim etishda kontrast kuzatiladi. Rasizm konseptual metaforalar bilan mutlaqo yovuzlik timsoli bo'lib ko'rsatiladi. Irqchilik – kasallik, irqchilik – qo'pol hayvonlar dunyosi, bu tagiga chizilgan frazalarda o'z diskursiv ifodasini topgan. Qanchalik paradoksal bo'lmasin, bu diskurs parchasi tolerantlikka yo'naltirilgan sifatida markirlangan, va faqat the International language birikmasi uchun emas, - o'z maqsadiga ko'ra butun parcha tolerantlikka chaqirishdir, irqchilik bunda absolyut yovuzlikdir.

Endi keyingi nutqqa e'tiborni qaratsak, bunda tolerantlik prinsipi ma'lum sabablarga ko'ra gapiruvchi tomonidan ma'lum sabablarga ko'ra buziladi. Masalan, Uynston Cherrillning sovet-german urushi haqidagi nutqi, bu nutq gapiruvchining Gitler va fashistlar Germaniyasiga qarshi nafratidan guvohlik beradi, bu - bir tomondan haqqoniy nafrat, ikkinchi tomondan fashistlar Germaniyasining butun Yevropaga qarshi bosqinchilik agressiyasiga qarshi norozilik.

*... Hitler is a monster of wickedness, insatiable in his lust for blood and plunder...
... and jackal, Mussolini ...*

Bu yerda kognitiv metaforaning diskursiv reallashishi kuzatiladi: siyosat = hayvonlar dunyosi, keyingi voqealar davomida siyosiy arbob=yovuz yirtqich; metaforaning diskursiv markerlari “maxluq-yirtqich” semantik maydonidagi lersemalar.

... Not content with having all Europe under his heel or else terrorised into various forms of abject submission, he must now carry his work of butchery and desolation among the vast multitudes of Russia and of Asia...

Bu yerda “qassobning faoliyati” assosiativ maydoni bilan kognitiv metaforaning keyingi diskursiv rivojlanishi kuzatiladi.

...*The Nazi regime ... excels in all forms of human wickedness, in the efficiency of its cruelty and ferocious aggression...*

Butchery semantik maydoniga tegishli *wickedness, cruelty, ferocity* leksemalarining diskursiv metaforalashishida keyingi detallashuvlar.

Diskursning kognitiv tahlili metodining ikki aspekti bor: matn tahlil, kontekst tahlil. Matn tahlil fonetik, grafik, morfologik, sintaktik, semantik, ya'ni barcha darajadagi til strukturalarini o'z ichiga oladi. Kontekstual tahlil esa barcha ekstralingvistik faktorlarni o'z ichiga oladi: zamon, makon, faoliyat sferalari, diskurs ishtirokchilari, ularning ijtimoiy roli, ularning o'zaro munosabatlarining xarakteri va diskurs qatnashchilarining kognitiv xarakteristikasi kabilar [8].

Siyosiy diskursda metaforaning ishlatilishi tahliliga diskursiv-kognitiv yondashuv muhim ahamiyatga ega. Lekin, kognitiv nazariyaning ko'p qirralari hali ochilmasdan qolmoqda. Fikrimizcha, bundan keyingi tadqiqotlarda kognitiv xususiyatlarning yangi qirralarini ochish uchun izlanishlar olib boriladi.

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THE THEORETICAL FOUNDATIONS OF IMPROVING STUDENTS' READING PROFICIENCY BASED ON MODERN TRENDS

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Annotation. *his article delves into the transformative impact of modern educational trends on the development of students' literacy skills in the 21st century. It explores key facets such as digital literacy, media literacy, Gamification in Education, Virtual and Augmented Reality (VR & AR, Nano Technologies in Education, Virtual Reality and Artificial Intelligence (VR & AI, Utilization of Big Data in Education:, K-12 Digital Learning Programs, Blockchain in Education, Personalized Learning, STEAM Curriculum, Subscription-Based Learning Models, Focus on Comprehensive. Through a comprehensive examination of these trends, the article highlights how contemporary education goes beyond traditional literacy paradigms, preparing students to navigate a complex, interconnected world. By embracing diverse learning modalities and fostering critical thinking, educators aim to cultivate literate individuals capable of thriving in a rapidly evolving information landscape.*

Key words. *innovation, integration, mechanism, technology, Nano Technologies in Education, Virtual Reality and Artificial Intelligence (VR & AI, Utilization of Big Data in Education:, K-12 Digital Learning Programs, Blockchain in Education, Personalized Learning, Gamification in Education, STEAM Curriculum.*

Introduction. In recent years, in our republic, the normative foundations of independent and free thinking of the young generation, expansion of worldview, perception of events happening around, development of literacy of students are being created on the based on multimedia educational resources. There is an increase in the opportunities for the educational system to raise a generation that is well-rounded, intellectually, physically and spiritually, and to improve the

quality of primary education, which is the basis of future education. The conceptual basis of "adapting the secondary education system to the requirements of the times"¹ provided for in the fourth direction of the development strategy of the Republic of Uzbekistan for 2022-2026 was defined as an important priority task. This expands the possibilities of improving the educational process of primary school students based on the programs of new pedagogical technologies.

In the 21st century, recognition has been given to education as a fundamental factor in ensuring sustainable development globally, and the international education concept, defined until 2030, has been identified as a crucial task under the banner of "creating opportunities for quality education throughout life"². In this education system, the use of technologies directed towards enhancing the methodological preparedness of educators, especially those teaching in the initial grades, has expanded, facilitating the utilization of technologies aimed at fostering creative thinking.

Globally, efforts are underway to modernize information technologies in the field of education, to study their didactic foundations, and to refine the methodology and methodology of developing new approaches, tools, and resources, with a focus on modeling both reproductive and productive levels of students' cognitive activity through scientific and practical research³. As a result of these research endeavors, the aim is to cultivate independent, critical thinking in students, foster positive attitudes towards the environment, and enhance qualities such as responsibility and social activity, all while establishing a material-technical base for the use of information technologies in the educational process, producing educational materials.

The initial steps have been taken to strengthen the role of the education system in nurturing intellectually competent learners, and efforts are being made to create conditions for the development of the professional competence of initial-grade teachers by introducing innovative pedagogical and information-communication technologies into their activities^{4,5}.

Research Object and Applied Methods

The object of the research was the process of effectiveness of developing the reading literacy of elementary school students based on modern trends as a research subject has been studied, and in this regard, the main focus has been on effective assessment, with didactic requirements for assessment being taught. In outlining the

¹ Decree of the President of the Republic of Uzbekistan No. PF-60 dated January 28, 2022 "On the development strategy of the new Uzbekistan for 2022-2026".

²Incheon declaration/Education 2030: Towards inclusive and equitable quality education and lifelong learning for all (World Education Forum, 19-22 may 2015, Incheon, Republic of Korea).

research topic, classification, description, contextual, complex, and functional analysis methods have been used.

Obtained Results and their Analysis.

The theoretical and practical significance of organizing the educational process of a general education school with the help of modern trends is presented in the studies of scientists, such as Y.N. Egorova, V.N. Ageev, Y.G. Drews, S.G. Antonova, I.M. Krasilnikova, N.A. Glagoleva, O.S. Ushakova, E.M. Strunina. The issues of organizing primary education using modern trends were studied by U.A. Masharipova, M.I. Toshpulatova, A.V. Sadikova, M.A. Kenzhaeva, M.N. Tsoi.

Over the centuries it has been proven that the development of a nation is always associated with the upbringing of the younger generation. The more attention is paid to the development of youth, the more prosperous and happier the future will be. Since the main activity of young people is to gain knowledge and comprehend the world around them, the school plays an important role as one of the factors responsible for their education and upbringing. Efforts directed at schools and the development of the educational process also make a significant contribution to the development of youth. Today, time is rapidly developing, and as a result, modern trends are influencing the educational process. The modern trends in the educational process are:

Gamification in Education: Gamification is one of the teaching methods that aims to engage students in the learning process by incorporating elements of video games and game-like elements. The gamification technique provides students with the opportunity to independently progress. Additionally, game-based methods have proven to enhance cognitive abilities, such as problem-solving skills, and are highly beneficial for increasing activities and competition in the classroom.

Virtual and Augmented Reality (VR & AR): As technology advances, virtual and augmented reality are rapidly developing in the education sector. According to "Market Research Future" (MRFR) studies, the use of VR and AR in education is expected to grow by 18.2% from 2022 to 2027. These technologies revolutionize the teaching methodologies in the education sector, offering immersive experiences for both teachers and students. Virtual and augmented reality technologies provide extensive possibilities for enhancing understanding of complex concepts, especially in courses related to science, technology, engineering, arts, and mathematics (STEAM).

Nano Technologies in Education: Nano-learning technology, also known as microlearning, divides complex topics into smaller, easily digestible segments. This method aims to provide students with concise and defined topics, allowing for quicker learning within a short, uninterrupted learning process. Nano-learning involves short, multimedia-based learning materials and assignments, facilitating students' quick comprehension and retention of large amounts of information.

Virtual Reality and Artificial Intelligence (VR & AI): Artificial intelligence (AI) in education involves AI systems influencing and assisting human interactions, particularly in revolutionizing and innovating the education sector. According to forecasts, the value of AI in the education sector is expected to reach \$3.68 billion by 2023. AI tools and technologies assist in quickly assessing documents, providing personalized learning experiences, and aiding in the delivery of intelligent content to students. They also support the use of tutoring programs for students.

Utilization of Big Data in Education: The term "Big Data" refers to the vast amount of data that is challenging to manage. Recently, the increasing use of online tools and software in education has led to the generation of a large volume of data. Big Data is instrumental in improving student outcomes, creating personalized programs for each student, and analyzing students' behaviors more closely and accurately.

K-12 Digital Learning Programs: The K-12 digital learning system is a concept that has gained popularity in countries such as the United States, Canada, and various European nations. According to the National Center for Education Statistics (NCES), the number of K-12 schools in the United States is increasing, and the K-12 education system is recognized for its collaborative approach between teachers and students, fostering closer interaction and enhancing students' ability to learn.

Blockchain in Education: Blockchain technology provides a mechanism that makes it virtually impossible or extremely difficult to alter, tamper with, or manipulate information. In the education sector, blockchain enhances security by allowing institutions to store a vast amount of student information in a highly secure manner. Blockchain is also beneficial for securely storing valuable certificates and managing academic achievements.

Personalized Learning: Personalized learning is an innovative and effective approach to education, tailoring the learning experience to each student's strengths, needs, preferences, and interests. It allows students to learn at their own pace and provides them with the flexibility to access content and resources conveniently. This approach includes using online platforms that offer a customized curriculum and provide technical capabilities for hosting seminars and presentations.

STEAM Curriculum: The STEAM (Science, Technology, Engineering, Arts, and Mathematics) curriculum has emerged as a significant change in the approach to education in the 21st century. STEAM integrates various disciplines to foster creativity and innovation. It not only teaches subjects but also encourages students to ask questions, conduct experiments, and engage in problem-solving, enhancing their critical thinking skills.

Subscription-Based Learning Models: Subscription-based learning models have gained prominence in recent years, offering quality education promises to

students. These models involve students paying a monthly or yearly fee to access learning materials and courses. These platforms make learning convenient for students, providing technical capabilities for attending seminars and workshops without the need for a one-time payment.

Focus on Comprehensive Education: Educational scenarios are evolving towards ensuring the overall and complex development of students. Responsible individuals, such as teachers, play a crucial role in guiding students with well-defined and responsible approaches to cope with the challenges of students' lives. Teachers are increasingly using complex teaching methodologies to teach the right skills to students to prepare them for a rapidly changing world. Complex learning brings significant benefits, including the growth of intellectual and emotional intelligence and the enhancement of problem-solving abilities.

Conclusion. The development of students' literacy skills in the 21st century extends far beyond the conventional reading and writing paradigms. Modern educational trends aim to equip students with a comprehensive set of literacy skills, encompassing digital, media, critical, multimodal, global, and collaborative literacy. As educators embrace these trends, they empower students to navigate the complexities of the modern world, fostering literate individuals who can thrive in an information-rich and interconnected society.

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IKKINCHI TARTIBLI GRONUOLL CHEGARALANISHLI BOSHQARUVLAR UCHUN TUTISH MASALASI

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***Annotatsiya.** Ushbu maqolada boshqaruvlar Granoull chegaralanishga ega holda ikkinchi tartibli differensial o‘yinlar uchun tutish masalasi o‘rganiladi. Bunda quvlovchi uchun parallel quvish strategiyasi quriladi va uning yordamida tutish masalasi uchun yetarli shartlar keltiriladi.*

***Kalit so‘zlar:** Differensial o‘yin, geometrik chegaralanish, parallel quvish strategiyasi, quvlovchi, qochuvchi, tezlanish, Granoull chegaralanishli.*

ЗАДАЧА СОХРАНЕНИЯ ГРОНУЛА ВТОРОГО ПОРЯДКА ДЛЯ ГРАНИЧНЫХ УПРАВЛЕНИЙ

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***Аннотация.** В работе рассматривается дифференциальная игра второго порядка при геометрических ограничениях на управления игроков. При этом предлагается стратегия параллельного преследования для преследователя и при помощи этой стратегии решается задача преследования.*

***Ключевые слова:** дифференциальная игра, геометрическое ограничение, стратегия параллельного преследования, преследователь, убегающий, ускорения.*

A SECOND-ORDER GRONOULL CONSERVATION PROBLEM FOR BOUNDARY CONTROLS

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***Abstract:** This paper investigates the problem of holding for second-order differential games with control Granoull boundedness. In this case, a parallel pursuit strategy is constructed for the pursuer and with its help, sufficient conditions for the capture problem are given.*

***Key words:** Differential game, geometric boundedness, parallel pursuit strategy, chaser, escaper, acceleration, Granoull bounded.*

Let **P** and **E** objects with opposite aim be given in \mathbf{R}^n space and their movements based on the following differential equations and initial conditions

$$\mathbf{P} : \ddot{x} = u, \quad x_1 - kx_0 = 0, \quad |u(t)|^2 \leq \rho^2 + 2l \int_0^t |u(s)|^2 ds, \quad (1)$$

$$\mathbf{E} : \ddot{y} = v, \quad y_1 - ky_0 = 0, \quad |v(t)|^2 \leq \sigma^2 + 2l \int_0^t |v(s)|^2 ds, \quad (2)$$

where $x, y, u, v \in \mathbf{R}^n$; x – a position of **P** object in \mathbf{R}^n space, $x_0 = x(0)$, $x_1 = \dot{x}(0)$ – its initial position and velocity respectively at $t=0$; u – a controlled acceleration of the pursuer, mapping $u : [0, \infty) \rightarrow \mathbf{R}^n$ and it is chosen as a measurable function with respect to time; we denote a set of all measurable functions $u(\cdot)$ such that satisfies the condition $|u(t)|^2 \leq \rho^2 + 2l \int_0^t |u(s)|^2 ds$ by G_P . y – a position of **E** object in \mathbf{R}^n space, $y_0 = y(0)$, $y_1 = \dot{y}(0)$ – its initial position and velocity respectively at $t=0$; v – a controlled acceleration of the evader, mapping $v : [0, \infty) \rightarrow \mathbf{R}^n$ and it is chosen as a measurable function with respect to time; we

denote a set of all measurable functions $v(\cdot)$ such that satisfies the condition $|v(t)|^2 \leq \sigma^2 + 2l \int_0^t |v(s)|^2 ds$ by G_E .

Definition 1. For a trio of $(x_0, x_1, u(\cdot)), u(\cdot) \in G_p$, the solution of the equation (1), that is, $x(t) = x_0 + x_1 t + \int_0^t \int_0^s u(\tau) d\tau ds$ is called a trajectory of the pursuer on interval $t \geq 0$.

Definition 2. For a trio of $(y_0, y_1, v(\cdot)), v(\cdot) \in G_E$, the solution of the equation (2), that is, $y(t) = y_0 + y_1 t + \int_0^t \int_0^s v(\tau) d\tau ds$ is called a trajectory of the evader on interval $t \geq 0$.

Definition 3. The pursuit problem for the differential game (1) - (2) is called to be solved if there exists such control function $u^*(\cdot) \in G_p$ of the pursuer for any control function $v(\cdot) \in G_E$ of the evader and the following equality is carried out at some finite time t^*

$$x(t^*) = y(t^*). \quad (3)$$

Definition 4. For the problem (1)-(2), time T is called a guaranteed pursuit time if it is equal to an upper boundary of all the finite values of pursuit time t^* which the equality (3) is true.

Definition 5. For the differential game (1) - (2), the following function is called Π -strategy of the pursuer ([3]-[4]):

$$u(v) = v - \lambda(v) \xi_0, \quad (4)$$

where $\xi_0 = \frac{z_0}{|z_0|}$, $\lambda(v) = (v, \xi_0) + \sqrt{(v, \xi_0)^2 + \delta e^{2lt}}$, $\delta = \rho^2 - \sigma^2 \geq 0$,

(v, ξ_0) is a scalar multiplication of vectors v and ξ_0 in the space \mathbf{R}^n .

Lemma 1 (Granwoll). Suppose, let a mapping $\varphi(t): [0, \infty) \rightarrow \mathbf{R}^n$ be bounded, nonnegative and measurable function. Moreover, $l \geq 0$ and $\rho > 0$ are constant and for the given if an inequality $|\varphi(t)|^2 \leq \rho^2 + 2l \int_0^t |\varphi(s)|^2 ds$ is carried out, then a relation $\varphi(t) \leq \rho e^{lt}$ is always true.

Lemma 2. If $\rho \geq \sigma$, then the following inequality is true for the function $\lambda(v, \xi_0)$:

$$e^{lt}(\rho - \sigma) \leq \lambda(v, \xi_0) \leq e^{lt}(\rho + \sigma).$$

Theorem. If for the second order differential game (1) – (2) with Granvoll constraint a condition $\rho > \sigma$ is true, then the pursuit problem is solved by Π -strategy (4) on interval $(0, t)$ and an approach function between the objects becomes as follows:

$$f(l, t, |z_0|, \rho, \sigma, k) = |z_0|(kt + 1) - \frac{\rho - \sigma}{l^2} e^{lt} + \frac{\rho - \sigma}{l^2} + \frac{\rho - \sigma}{l} t$$

Proof. Suppose, let the pursuer choose a strategy in the form (4) when the evader chooses any control function $v(\cdot) \in G_E$. Then according to the equations (1) and (2) we define the following Caratheodory's equation

$$\ddot{z} = -\lambda(v(t))\xi_0, \quad \dot{z}(0) - kz(0) = 0,$$

Hence the following solution will be found by the given initial conditions

$$z(t) = z_0(kt + 1) - \xi_0 \int_0^t \int_0^s \lambda(v(\tau), \xi_0) d\tau ds$$

or

$$|z(t)| = |z_0|(kt + 1) - \int_0^t \int_0^s ((v, \xi_0) + \sqrt{(v, \xi_0)^2 + \delta e^{2lt}}) d\tau ds.$$

We form the following inequalities in relation to **Lemma 1**

$$|z(t)| \leq |z_0|(kt + 1) - \int_0^t \int_0^s e^{l\tau}(\rho - \sigma) d\tau ds \Rightarrow$$

$$|z(t)| \leq |z_0|(kt + 1) - \frac{\rho - \sigma}{l^2} e^{lt} + \frac{\rho - \sigma}{l^2} + \frac{\rho - \sigma}{l} t$$

If we say $f(l, t, |z_0|, \rho, \sigma, k) = |z_0|(kt + 1) - \frac{\rho - \sigma}{l^2} e^{lt} + \frac{\rho - \sigma}{l^2} + \frac{\rho - \sigma}{l} t$ (5),

then define a positive solution t^* such that the function (5) equals to zero

$$\frac{\rho - \sigma}{l^2} e^{lt} = |z_0|(kt + 1) + \frac{\rho - \sigma}{l^2} + \frac{\rho - \sigma}{l} t.$$

We will form the following equality by simplifying the latest relation

$$e^{lt} = t \left(\frac{|z_0|kl^2}{\rho - \sigma} + l \right) + \frac{|z_0|l^2}{\rho - \sigma} + 1$$

where $A = \frac{|z_0|kl^2}{\rho - \sigma} + l$, $B = \frac{|z_0|l^2}{\rho - \sigma} + 1$, $B > 1$. Therefore, we have the following equation

$$e^{lt} = At + B \tag{6}$$

In order to define a pursuit time we will consider some cases of the equation (5).

1. Let be $A < 0 \Rightarrow k < \frac{\sigma - \rho}{|z_0|l}$. Then the equation (5) has a unique positive solution t^* and this solution is a pursuit time (Fig-1).

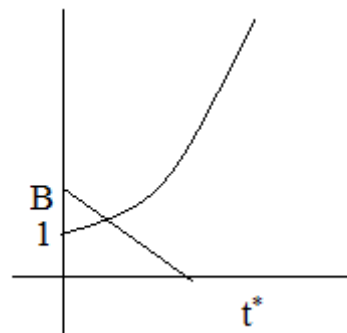


Figure-1

2. Let be $A = 0 \Rightarrow k = \frac{\sigma - \rho}{|z_0|l}$. Then a solution of the equation (5) is

$$t^* = \frac{\ln\left(\frac{|z_0|l^2}{\rho - \sigma} + 1\right)}{l}, \text{ and this solution is a pursuit time (Fig-2).}$$

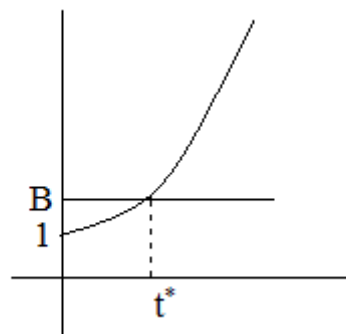


Figure-2

3. Let be $A > 0 \Rightarrow k > \frac{\sigma - \rho}{|z_0|l}$. Then the equation (5) has a positive solution t^* and this solution is a pursuit time (Fig-3).

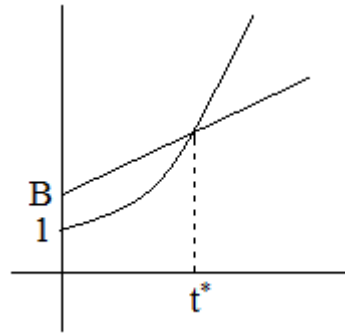


Figure-3

In conclusion, the relation (3) is true in all values of interval $t \geq 0$ according to the inequality $|z(t)| \leq f(k, t, \rho, \sigma, l, |z_0|)$ and properties of (5), i.e., the evasion problem is solved. Proved.

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THE UZBEK-TURKISH VISION OF THE SILK ROAD IN THE CONTEMPORARY INTERNATIONAL RELATIONS

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Abstract: *Turkey's Silk Road Initiative, which was launched in 2008 at the "International Forum on the Role of Customs Administration in Facilitating and Promoting Trade among Silk Road Countries" in Antalya, Turkey. The Antalya forum focused on the simplification of border crossing procedures among Silk Road countries. Seventeen Silk Road countries. According to the former Turkish Minister of Customs and Trade Hayati Yazici – "...the Silk Road will become one of the most important economic routes of the global economy, transporting large amounts of goods from Central Asia to Europe and vice versa.."*

The Marmara Group (<http://www.marmaragrubu.org/economic-summits>) debated the New Silk Road initiative of China at the 18th Eurasia Economy Summit organized in Istanbul on April 7 2015, with 44 countries participating.

Turkey is believed that the Silk Road initiatives will enable to upgrade Uzbekistan-East Asia-Turkish cooperation and bring more economic opportunities and trade links for the Turkish people, improve their living standards and boost the country's economic growth.

Uzbekistan is the major and richest market for Turkey. Within this perspective the China, Central Asia, ASEAN and Turkey collaboration initiated the founding of Asian Infrastructure Investment Bank (AIIB) to finance the infrastructure. The bank was functional in October in 2015, and Turkey is among its founding members. It is the top of the agenda in order to revitalize the ancient Silk Road.

Keywords: *Turkey, Silk Road, Asia, Uzbekistan, Eurasia, Central Asia, China.*

INTRODUCTION.

The Great Silk Road is one of the examples of long-term mutually beneficial cooperation in economic, political, cultural and other spheres between countries and peoples with different religious and ethnic traditions in the history of ancient civilizations of the world. In ancient times, some major trade routes were formed, such as the Salt Road, which passed through the African continent, mainly through the Sahara Desert. Among these routes, the most important and famous in the world was

the Great Silk Road, which stretched from the shores of the Atlantic Ocean to the shores of the Pacific Ocean, crossing the entire Asian continent and connecting the Mediterranean countries with the Central Asia to Far East in antiquity and the early middle Ages. The Great Silk Road is not simply a product of the overall economic and trade development of countries along the line. For many millennia, it has constantly served to bring different peoples together, exchange ideas and knowledge, mutual enrichment of languages and cultures, promoting broad cultural interaction and exchange between the peoples of the East and West, making an indelible contribution to the history of human civilization.

The ancient Central Asian silk routes laid out by the Timurid empire (*Turko barlos* tribe's leader Amir Temur and the Timurids being in-laws of the line of Genghis Khan, founder of the Mongol Empire. Members of the Timurid dynasty had established two significant empires in history, the Timurid Empire (1370-1507) based in Central Asia, Afghanistan, Persia, and the *Baburid* Empire (1526-1857) based in the Indian subcontinent) that constituted the ancient silk road. Rather than track through Russia, most would go below the Caspian and Black seas to reach Turkey and Europe.

Until now, there was no generalized study, which would be comprehensively considered diplomatic relations of the Chinese Qing dynasty in the context of their interaction with neighboring Central Asian people by the way that the Central Asia's Sinology in relatively poorly studied of the historical period of XIIIth, XIXth-XXth century. Lots of "white spots" and remains in the study of foreign policy of Chinese Qing Empire with Kashgar roads that the trades linked with Uzbek khanates/states and Turkey

Although currently published - mainly in Chinese - a significant number of general sketches of the Russian-Chinese, Japanese-Chinese relations, the fundamental scientific history of this relationship, supported by all available sources, to be written. Since it took almost forty years, and during that time was released a number of books in the West, Japan and China, less in Uzbekistan.

METHODOLOGY.

Uzbekistan is the major and richest market for Turkey. Within this perspective the China, Central Asia, ASEAN and Turkey collaboration initiated the founding of Asian Infrastructure Investment Bank (AIIB) to finance the infrastructure. The bank was functional in October in 2015, and Turkey is among its founding members. It is the top of the agenda in order to revitalize the ancient Silk Road.

Turkey's Silk Road initiative was launched in 2008 at the "International Forum on the Role of Customs Administration on Facilitating and Promoting Trade among Silk Road Countries" in Antalya, Turkey. The Antalya forum focused on the simplification of border crossing procedures among Silk Road countries. Seventeen Silk Road

countries. According to the former Turkish Minister of Customs and Trade Hayati Yazici, the Silk Road will become one of the most important economic routes of the global economy, transporting large amounts of goods from Central Asia to Europe and vice versa

In Turkey, the Marmara Group Strategic and Social Research Foundation is closely monitoring the Silk Road initiative. The Marmara Group debated the New Silk Road initiative of China at the 18th Eurasia Economy Summit organized in Istanbul on April 7 2015, with 44 countries participating.

LITERATURE REVIEW.

Today's existing literatures on the subject is characterized by two features in common: Books are either too specific, cover specific "narrow" period or "narrow" issue, or written too popular, but it does not cover of the Central Asian-Turkey-China relations as a whole. To date, there are not any comprehensive analytical study of the relationship between the regions. At the same time, especially after the collapse of the Soviet Union, in the scientific revolution introduced new East Asian written sources, especially Japan and Chinese sources, and various domestic archives. All this seems to be implicitly suggested the need to develop in this area of the new integrated conceptual approach to the study of Central Asia and West Asia, on the one hand, requires a multifaceted synthesis of facts and data, and the other - a higher level of conceptualization.

Turkish researchers note that Turkey is seeking to improve relations with Uzbekistan and China through the Silk Road, considering this as an alternative option for its development. In particular, E. Günay explores in one of his articles the problems and prospects for the integration of the BRI and the Turkish "Central Corridor" project (Günay, 2019: 157–175). A. Altai writes that Turkey's reconciliation with China does not mean its distance from the West. Turkey wants to diversify its economic relations rather than replace the West with China (Altay ,2020:).

An inevitable topic for Turkish scholars when studying Turkish views on relations with China through the Silk Road or BRI remains the history of the Uyghurs from ancient times to the present. Some Turkish authors argue that the Uyghur issue is not an internal matter of China and that Turkey cannot remain silent about human rights violations in the Xinjiang Uyghur Autonomous Region of China (Karaca R. K., 2007, 219–259; Günay B., 2005, 110–112).

If we look to Chinese scholarly work, then we can understand that the China's Marxism is leading to the fact that they have focused a studying the problems of the peasantry and the workers' uprising, and the role of "national minorities", i.e. non-Chinese people (*Mongols, Tibetans, Uighurs and others*) inhabiting in the territory of the country. In the second half of the XXth century the group of historians has used the

"truthfulness notes Qing Dynasty", the concept of which is identical to the concept of official annals. However, in recent two decades, Chinese scientists were forced to revise their own history. For example, in the pages of the Chinese editions began to appear evaluation Silk Road policy opposite mentioned above.

Western historiography learn new methods, which sought to apply to the history of China. Individual moments that characterize certain features of the foreign policy of Turkey in respect of neighboring countries, noted American historians for example George Fairbank is not quite right in asserting that "the Chinese world order" could exist only for the Chinese side. Is it possible to deny that the "Chinese world order" objectively existed in many of the neighboring countries of China and quite a long time but for us the most close and interesting assertion J. Fairbank that the Chinese point of view of the surrounding country "was justified, and cultural motifs oriented policy.

Unlike Chinese colleagues, Turkish scholars generally believe that Chinese scientists have difficulty in applying methodological approaches in their studies and are based on the official Chinese version of events (as in the study of Central Asia-China relations through the Silk Road - the official imperial historiography), thereby keeping the same approach to the history that has been practiced in China since ancient time. In accordance with this approach, Source books selects only those factors, which correspond to the "core" of the concept, and all other materials are rejected or ignored as unreliable

However, none of above-mentioned works were not directly studied of "Sinocentrism" as a basis for foreign policy of the China in the late XIXth and first quarter of the XXth century.

RESULTS.

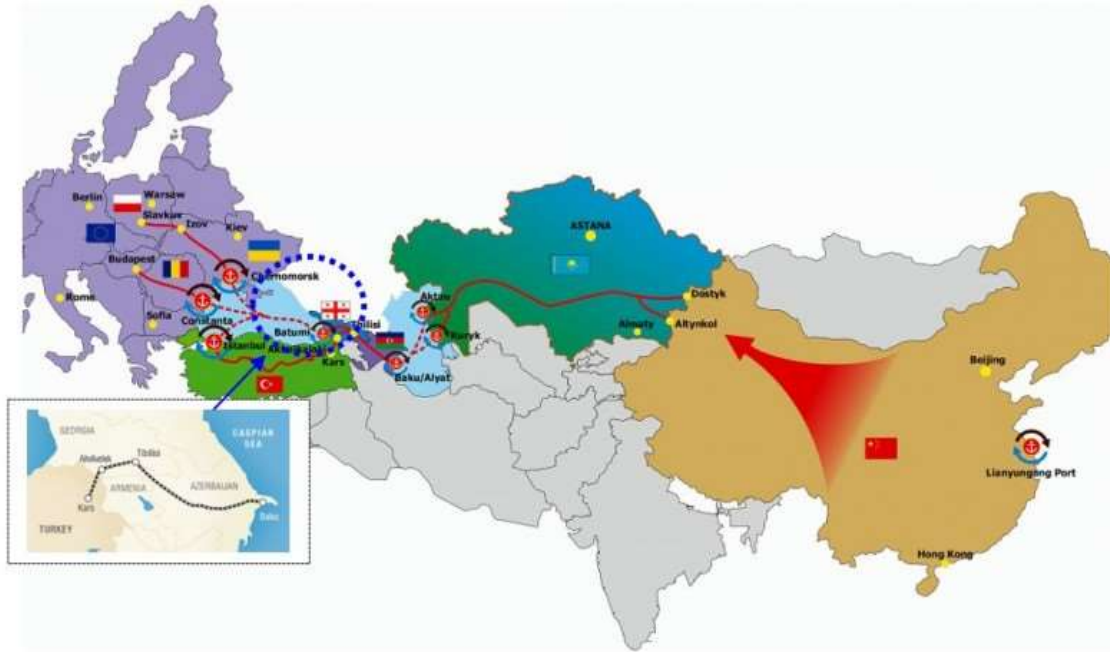
In the middle ages, Silk Road started from the city of Xi'an (Xi'an (Chinese: 西安), formerly romanized as Sian, is the capital of Shaanxi province), located in the northwest of China passing through Turkic Xingjian (Currently located in the northwestern border of China, Xinjiang (Full Name: "Xinjiang Uygur Autonomous Region") is the largest province in China), Ferghana valley (It used to be called ferghana, during the Kushan empire. The ancient kingdom referred to as Dayuan. Thus, the area has traditionally been ethnically diverse, with substantial Uzbek, Tajik, and Kyrgyz populations which tend to live in large pockets rather than within easily discernible borders. The area is also home to significant Russian, Kashgarian, Kipchak, Bukharan Jew, and Romani minorities), Samarkand (The historic town of Samarkand, located in a large oasis in the valley of the Zerafshan River, in the north-eastern region of Uzbekistan, is considered the crossroads of world cultures with a history of over two and a half millennia), Bukhara (The Historic Centre of Bukhara, situated on the Silk Roads, is more than two thousand years old. It is one of the best

examples of well-preserved Islamic cities of Central Asia. Today Bukhara viloyat is one of the region of the Republic of Uzbekistan), Merv (The Park “Ancient Merv” is the oldest and most completely preserved of the oasis cities along the Silk Roads in Central Asia. It is located in the territory of Mary velayat of Turkmenistan) regions across mountains, deserts and following Persian (Current territory of Iran) multiple routes on its path to Anatolia Turkey. It ended in Europe going through Thrace (Thrace is a historical and geographic area in southeast Europe, centered on the modern borders of Bulgaria, Greece, and Turkey). Silk Road branched into two arms in Iran, one to Latakia of Syria and the other to Anatolia.

Turkey, according Davutoglu (Oğuzlu, Türk Dış Politikasında Davutoğlu Dönemi. URL:

http://www.orsam.org.tr/tr/trUploads/Yazilar/Dosyalar/2009912_tar%C4%B1k.makint.pdf), is unique because of location at the crossroads of regions of Europe and Asia and traditions inherited from the Ottoman Empire. It is obvious that Turkey - "central country", located in the heart of Eurasia and having multiple identities. Turkey is again taking the position as a key investment and cooperation partner that will help bridge East and West. Located in both Asia and Europe, Turkey has long held a unique role as a cultural and economic center. During the times of the ancient silk road, trade flourished between continents and across regions, with Turkey serving as the central exchange post.

Today Turkey foreign policy welcomes the initiative of China to establish the Silk Road Economic Belt that will strengthen historical ties of countries on the historical Silk Road in political, transportation, commercial, financial, and civic society areas as a regional economic integration model, since such an initiative will bring prosperity to the people of these countries (Chinese Business Review, 2014: 736). Turkey hope more benefit through the Silk Road Initiatives. Ankara and Beijing have proclaimed as the most important task - for short years to triple the turnover, bringing it to 2020 to 100 billion US dollars (<http://www.iimes.ru/rus/sat/2010/28-11-10.htm>). Meanwhile, Turkey undertook a proactive policy, later known as “Middle Corridor Initiative,” aiming to set up a transport route from the Anatolia to Central Asia and China (Republic of Turkey Ministry of Foreign Affairs, 2018:). With the completion of the Baku–Tbilisi–Kars railway (BTK) railway link, Turkey has achieved in connecting its national railways to the Trans-Caspian International Transport Route (TITR) — an important part of the China-Turkey-Europe transit corridor — extending from the Caspian Sea to Central Asia and China.



Source: Compiled from TITR Association and Azerbaijan State News Agency maps.

Turkish Minister of Economy highlights Turkey's interest in shaping the future of Eurasia together with the other participating countries. Turkey has often stressed the importance of its historic, ethnic, linguistic and cultural ties with Central Asia and in many cases these ties helped advance significant multilateral projects between Turkey and Central Asian republics.

Following the dissolution of the Union of Soviet Socialist Republics (December 26, 1991) independent republics have been established, e.g. Azerbaijan, Kazakhstan, Kyrgyzstan, Turkmenistan and Uzbekistan. These republics are members of United Nations and also retain close links with Russia and form multilateral organizations such as the *Union State*, the *Eurasian Customs Union*, and *Eurasian Economic Union*, except Uzbekistan.

Uzbekistan economy mainly relies on commodity production including cotton, natural silk, gold, uranium and natural gas. *Aral Sea* and *Fergana Valley* make Uzbekistan unique. Home market capacity with a population of 31 million creates the largest consumption group in the region. Geographically has an important place in Central Asia. The country, which was situated on the Silk Road, lost its importance in international trade and logistics with the opening of *Suez Canal*.

German geographer *Ferdinand von Richthofen* coined the term in 1877 for the ancient overland trade route through Central Asia. Since then, many routes that linked China to the outside world have been called "*Silk Roads*" or "*Silk Routes*" despite the fact that silk was neither the earliest nor the most commonly traded commodity on any of these routes.

The New Silk Road concept was seriously taken into consideration in the 1990s after the Soviet Union's collapse (Gan Junxian, 2010: 66)

For Turkey is a modality of projecting its influence into Central Asia. For Russia, «Silk Road» represents the Trans-Siberian. Finally, for China, «Silk Road» although it is presented as a bridge to Turkey, in reality, it is a power platform into Eurasia.

It is the European Union's intention, through TRACECA, through diversify of transport rout to reduce dependence on Russia. China's main targets is Europe, and it uses Turkey, Central Asia or Russia just as means of transit, without a special interest, except a certain stability and security.

CONCLUSION.

Turkey is believed that the Silk Road initiatives will enable to upgrade East Asia, Central Asia-Turkish cooperation and bring more economic opportunities and trade links for the Turkish people, improve their living standards and boost the country's economic growth.

The successful development of continental trade requires close and effective coordination through Silk Road program between the Turkey and the transit countries of Central Asia. Such coordination must be based on their common interests as defined through careful analyses by both sides and by close consultation between them. Rather than define their common interests narrowly in terms of trade, the two sides should extend the inquiry into all matters that will be affected by the opening of Eurasian land corridors along historical Silk Road, including nearly all sectors of their economies, diversification, governmental institutions, national and regional security, and demography.

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O‘ZBEKISTON TASVIRIY SAN’ATIDA O‘ROL TANSIQBOYEV IJODI VA FAOLIYATI

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Annotatsiya:

Ushbu maqolada O‘rol Tansiqboyevning ijodiy faoliyati, usha davr ijtimoiy hayoti, xalq turmush-tarzi haqida yozilgan.

O‘rol Tansiqboyevning asarlarida ilgari surilgan g‘oya chuqur mazmunga ega bo‘lib, tomoshabinda katta qiziqish uyg‘otadi. San’at asarlari o‘z mazmunida borliqni aks ettiribgina qolmasdan, ayni vaqtda ular rassomning g‘oyalarini ham ifodalay olgan.

KALIT SO‘ZLAR: *Tasavvur, rassom, rang, surat, ijod, odamlar, davr, manzara.*

ТВОРЧЕСТВО И ДЕЯТЕЛЬНОСТЬ УРОЛА ТАНСИКБАЕВА В ИЗОБРАЗИТЕЛЬНОМ ИСКУССТВЕ УЗБЕКИСТАНА

Аннотация:

В данной статье описывается творческая деятельность Орола Тансикбоева, общественная жизнь того времени, жизнь народа.

Идея, представленная в произведении Орола Тансикбаева, имеет глубокий смысл и вызывает большой интерес у зрителя. Произведения искусства могут не только отражать в своем содержании существование, но и выражать идеи творца.

КЛЮЧЕВЫЕ СЛОВА: *Воображение, художник, цвет, картина, творчество, люди, эпоха, пейзаж.*

CREATIVITY AND ACTIVITY OF UROL TANSIKBAEV IN THE FINE ARTS OF UZBEKISTAN

Annotation:

This article describes the creative activity of Orol Tansikboev, the social life of that time, the life of the people.

The idea presented in the work of Orol Tansikbaev has a deep meaning and is of great interest to the viewer. Works of art can not only reflect existence in their content, but also express the ideas of the creator.

KEYWORDS:

Imagination, artist, color, painting, creativity, people, era, landscape.

Yurtimizning go‘zal tabiatini tasvirlovchi hamda insonning murakkab aql-zakovati, tafakkurini, tabiatda sodir bo‘lib turadigan katta-kichik o‘zgarishlarni, uzluksiz falsafiy g‘oyalar va fantastik obrazlarni ta‘sirchan ifodalovchi tasviriy san‘at hayotimizda muhim o‘rinni egallab kelmoqda.

Xususan san‘at asarlari inson tomonidan ko‘rib mushohada etiladi. Ijodkorning ichki dunyosi, borliqni, uning go‘zalligini ranglar orqali ko‘rish va tasavvur etish, haqiqiy san‘at asarini qadrlashni o‘rgatadi. Tasviriy san‘atda hodisa, voqea va ko‘rinishlar doirasining to‘laligi turli yo‘nalishlardagi janrlar orqali ochib beriladi[1,38].

Rassomlar o‘z asarlarida hayotni qanday ko‘rsalar o‘shanday emas, balki undagi alohida e‘tiborga molik, xarakterli ko‘rinishlarini tushurib qoldiradilar, eng muhimlarini esa bo‘rttirib ko‘rsatadilar. Tanlash va bo‘rttirish orqali narsa va hodisalarning kishilar tafakkuri va hissiyotlariga samarali ta‘sir ko‘rsatishga erishadilar. Borliqni shunchaki biladigan kishigina emas, balki u avvalo, boy tasavvur va tafakkur qilish qobiliyatiga ega bo‘lgan ijodkordir[2,47].

Ana shunday ijodkor rassomlarimizdan biri O‘rol Tansiqboyev rangtasvir ustasi bo‘lib, o‘z ijodining daslabki yillarida anchagina asarlar yaratgan.

U ijodida borliqni shunchaki aks ettiribgina qolmay, balki unga asoslangan holda tasavvur etadi. Demak, san‘at asarlari o‘z mazmunida borliqni aks ettiribgina qolmasdan, ayni paytda ular rassomning g‘oyalarini ifodalaydi, tomoshabin ongini boyitadi.

Shu bilan birga bunday asarlar kishilar ruhiyatiga ta‘sir ko‘rsatib, ular ma‘naviy olamini, bilim va tajribasini kengaytiradi. Shuni aytish kerakki, ma‘naviy ishlab chiqarish eng avvalo, mehnatning ijodiy harakterini namoyon qiladigan sohadir. Inson ma‘naviy dunyoqarashini shakllanishida ma‘naviy sohalarning shakllanishi muhim ahamiyat kasb etadi[3,6].

O‘rol Tansiqboyevning inson ma‘naviy dunyoqarashini shakllanishiga xissa qo‘shuvchi eng sara ijod davri 1940 yildan so‘ng boshlandi. U ikkinchi jahon urushi bo‘lgan joylarga O‘zbekiston delegatsiyasi tarkibida borib, u yerlardan katta taasurotlar bilan qaytadi, natijada ozod etilgan yerlarda bir qator asarlar yaratadi. Bu yillarda yaratgan asarlarida rassom fashistlar bilan kurashayotgan kishilarning mardligi, vijdonini pokligi, ma‘naviy go‘zalligi, mehnatsevarligi, xaloskorligi, dushmanga nisbatan shafqatsizligi kabi olijanob fazilatlarini kuylaydi.

Urushdan keyingi yillarda O‘rol Tansiqboyev katta o‘lchovda asarlar yarata boshladi. Bunday asarlar qatoriga “Sholichilik kolxozida hosil yig‘ib olish”, “Bahor”, “Paxtani sug‘orish”, “Jonajon o‘lka”, “Issiqko‘l oqshomi”, “Tog‘da” kabilarni kiritish mumkin[14].

Rassom ijodining gullagan davrida yaratgan asarlaridan biri “O‘zbekistonda mart” deb atalgan. Uning bu asarida bahordagi quyosh taftidan bahra ola boshlagan maysazorlar, daryoga olib boruvchi so‘qmoq, daryo qirg‘og‘ining baland – pastliklari, qiyg‘os gullagan daraxtlar, o‘ziga sig‘may oqayotgan daryo, daryoning narigi tomonidagi tepaliklar, qori erib tugamagan tog‘lar, quyosh nurlariga hamohang tusga kirgan bulutlar kishiga zavq bag‘ishlaydi.

Umuman suratda bahor manzarasi nihoyatda hayajonli ifodalangan bo‘lib, u kishidan bahor fasli tabiatni va kishilarni uyqudan uyg‘otgandek kayfiyat hosil qiladi. Buni bahorgi quyosh nurlarida bahra ola boshlagan va o‘tloq bag‘rida yonboshlagan bolalar, o‘tlab yurgan hayvonlar tasviridan ham bilsa bo‘ladi.

O‘. Tansiqboyev o‘zining urushdan keyingi ijodida, respublikada qurilayotgan kanallar, suv ombori, elektrositansiyalar, neft qidiruv ishlari bilan hamohang tabiat manzaralarini tasvirlashga xarakat qildi.

Kompozitsiya markazidagi elektrastantsiya erta tongda zangori tusga kirgan cheti ko‘rinmas o‘lka dengizni mahkam tutib turgandek tuyuladi. Asarni kuzatgan odam sahroga jon bag‘ishlovchi mo‘jizakor manzaraning sehrli olamiga kirib qoladi. Unda olisdagi bo‘y cho‘zgan musaffo dengiz qariga ko‘milgan shodlik va nafosatga boy tong yorishib kelayotganini qalbdan his etadi.

Bu suratda tasvirlangan narsalar juda oddiy, lekin sehrlidir. Chunki dengiz, osmon va yerning bepoyonligi koloritning jozibadorligi, mayinligi kishini o‘ziga tortadi. Manzarada suv, cho‘l, tog‘ va fazoning yirik hamda umumiydashgan holda berilganligi sababli u nihoyatda salobatli ko‘rinadi.

O‘. Tansiqboyev ijodiga xos bo‘lgan asarlaridan yana biri “Tog‘dagi qishloq oqshomi”dir. Asar vertikal holdagi kompozitsiya bo‘lib, una Respublikamizning tog‘li go‘zal qishloqlarimizdan biri kechki payt tasvirlangan. Unda uzoqlarda yastanib yotgan moviy tog‘lar, chiroqlarini endigina yoqqan xonadonlar, qishloq yonidagi oqib o‘tgan soy, bu yerlarda kishilar va bolalar tasviri ko‘zga tashlanadi[15].

Bu odam shakllari manzaraga hamohang tarzda hayot bag‘ishlaydi. Suratdan ko‘rinib turibdiki, kech kirib, oqshom og‘ushida quyosh botgan va tog‘ cho‘qqilari – yu, qoyali toshlarni tun o‘z qariga tortmoqda.

Tepaliklardan tushib kelayotgan qo‘ylarni marashi, soyning shovillashi, chigirtkalarining chirillashi eshitilayotgandek tuyuladi. Kechki yog‘du bag‘rida.yu uning zavqini tortayotgan bolalar tasviri, u yer, bu yerdan ko‘zga tashlanadi.

O‘. Tansiqboyevning diqqatga sazovor rasmlarida yana biri, “Sirdaryo” nomli asari Moskvadagi Tretyankov gareleyasida saqlanadi. Uning asarlariga xos xarakterli xususiyatlar Ona – vatanga muhabbat, uni ulug‘lashdir.

Rassom asarida tabiatning keng qamrovli va osmon o‘par tog‘lar, ilon izi uzoqlarga kelgan yo‘llar, moviy osmon, osmon bilan tutashib ketgan go‘zal hayotiy

manzaralar tasvirlanadi. O‘zbekistonning takrorlanmas go‘zalligiga bag‘ishlangan asarlari nihoyatda rang-barang bo‘lib, uning asarlari chet yellarda ham ma‘lum va mashhurdir.

O‘.Tansiqboyevning “Jonajon o‘lka”, “Tog‘ oqshomi” manzarasi, “Kattaqo‘rg‘on suv ombori”, “Issiqko‘l oqshomi”, “Tog‘larda”, “Mening qo‘shig‘im” kabi ko‘plab mashhur asarlari mavjuddir. Uning yetuk asarlaridan biri “Mening qo‘shig‘im” asari bo‘lib, tabiiy ranglar jilosi bir-biriga uyg‘unlashib ketgan bu kartinada birinchi planda gullarning qiyg‘os ochilgan payti tasvirlangan,

XX asrning 50 yillarida uzbek manzara janrida O‘rol Tansiqboyev karvonboshi bo‘ldi. Qishloq xo‘jalik mavzusiga oid asarlar yarata boshladi. 1950 yilda “O‘zbekistonda bahor”, “Paxtani sug‘orish” asarini yaratdi[15].

Rassom tomonidan ishlangan “Paxtani sug‘orish” asari ham yuksak mazmunga ega xususan, XX asrning so‘nggi o‘n yilliklariga kelib mamlakat ichki hayotini qamrab olgan jiddiy iqtisodiy nuqsonlar qishloq xo‘jaligini o‘z domiga torta boshladi. O‘zbekiston asosan xomashyo yetishtirib beradigan mintaqa hisoblangani sababli, respublika qishloq xo‘jaligi rivoji boshqa ittifoqdosh respublikalarga nisbatan ancha og‘ir, ziddiyatli jarayonlar ta‘sirida qoldi.

O‘rta Osiyo, ayniqsa O‘zbekiston qishloq xo‘jaligining “Paxta” xomashyo kompleksi atrofida rivojlantirishi bu yillarda o‘z salbiy ta‘sirini ko‘rsata boshlagan edi.

O‘zbekiston mamlakatning asosiy paxta xom ashyosi bilan ta‘minlovchi mintaqasi bo‘lganligi sababli qo‘shib yozishlar illati rivojlangan joy O‘zbekiston deb qaraldi va mamlakat miqyosida katta harakatlar boshlanib, O‘zbekiston birinchi nishonga olingan respublikalardan bo‘lib qoldi.

Ushbu o‘zbek xalqiga qaratilgan nohaq siyosat va ayblovdan O‘zbekiston jumladan, uning viloyatlari ahli juda og‘ir, tuzatib bo‘lmaydigan moddiy va ma‘naviy zararga duchor bo‘ldilar.

Rassom asarida bepayon paxta dalasi tasvirlangan bo‘lib, unda o‘zbek xalqining mehnatsevarligi o‘z aksini topgan.

Uzoqdan ko‘rinib turgan moviy tog‘lar, yastanib yotgan ko‘m-ko‘k daraxtlar tabiatning go‘zal manzarasi kishiga zavq bag‘ishlaydi. Mirishkor dehqonlarning kechayu-kunduz paxta dalasida mehnat qilishlari asarda ifodalangan.

Xulosa qilib aytganda rassom dunyo qarashining kengligi, teran fikrlash qobiliyatining yuksakligi uning asarlarida yaqqol ko‘zga tashlanadi. Ayni murakkab bir davrda ijod qilish, xalq dardi bilan yashash, uni his qilish shu bilan birga ijtimoiy hayot, aholi turmush tarzini o‘z asarlarida mohirona tasvirlay olganligi ijodkorning eng katta yutug‘idir.

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EMMISSION AND ABSORPTION OF GREENHOUSE GASES BY SOIL, ECOLOGICAL PROBLEMS

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Abstract: Soils are a source and sink of greenhouse gases (GHG) such as carbon dioxide (CO₂), methane (CH₄) and nitrous oxide (N₂O). Since the volumes of concentration and flux can be large, accurate quantitative estimates are needed to obtain the data on global GHG fluxes required for forecasting global changes and climate studies. This review shows the role of soils as one of the important sources and regulators of the content of CH₄, CO₂, N₂O in the troposphere, and also presents the main methods for monitoring greenhouse gases. The influence of natural and anthropogenic factors on the emission and absorption of CH₄, CO₂, N₂O by the soil cover has been analyzed. Original diagrams are presented showing the global fluxes of CH₄, CO₂, N₂O by various ecosystems, including the pedosphere. The estimation of methane emission and distribution of its content in the main types of soils of the Rostov region is carried out. The mechanisms of CH₄, CO₂, N₂O generation in soils and their possible influence on the calcium-carbonate balance, which plays an important role in the regulation of biogeochemical processes in the pedosphere, are considered. The performed analysis and generalization of research data on various types of soils makes it possible to shed light not only on their contribution to the global methane emission, but also to approach the understanding of processes and parameters that are important from the point of view of agrochemistry, such as, in fact, carbonate-calcium equilibrium and redox potential in modern soils. An inventory of sources and an assessment of the inter-reservoir gas mass transfer in the pedosphere-atmosphere system allows one to start developing a strategy to reduce greenhouse gas emissions that will help curb the rate of global climate change.

Key words: Greenhouse gases, carbon dioxide, methane, nitrous oxide, fluxes, emissions, soils.

Introduction. Global climate change has been the central topic of many scientific studies over the past decades. According to modern concepts, an increase in the concentration of greenhouse gases in the atmosphere, caused, among other things, by anthropogenic activities, leads to an intensification of the greenhouse effect, as a result of which its average global temperature gradually increases. The Earth's climate has never been constant. Even in the absence of anthropogenic impact, it changed noticeably. The presence of naturally occurring greenhouse gases such as H₂O, CO₂, CH₄, N₂O and O₃ in the Earth's atmosphere ensured the existence of the greenhouse effect in the pre-industrial period [1]. The greenhouse effect refers to the absorption by the atmosphere of thermal radiation from the earth's surface and the re-radiation of part of this absorption back to the earth's surface, thereby preventing the loss of the flow of this radiation into space. With an increase in the content of greenhouse gases in the atmosphere, the amount of thermal radiation absorbed by them and, consequently, re-emitted towards the earth's surface increases, which in turn leads to an increase in air temperature at the earth's surface [1, 2]. An increase in the temperature of the surface layer of the atmosphere is the most noticeable of all changes in climate variables, and is far from the only one. Other changes include an increase in temperature amplitudes (increasing climate continentality); changes in precipitation (the level of precipitation increases on average across the planet, but decreases in dry regions), as well as an increase in the unevenness of precipitation; a general reduction in the area of mountain and surface glaciers, as well as thawing of permafrost; rising sea levels; increase in the frequency and intensity of hydrometeorological natural disasters [3].

According to a number of authors [3, 4], most of the atmospheric methane and other greenhouse gases are of biogenic bacterial origin, so its emission into the atmosphere is completely controlled by flows from the earth's surface. Today, the pedosphere is one of the least studied sources of emission of biogenic methane and other greenhouse gases into the atmosphere. . Both in foreign and domestic scientific literature, there is a fragmentary nature of data assessing the emission and consumption of greenhouse gases by various types of soils and there is no unified methodology for measuring greenhouse gas fluxes, which negatively affects the quality of data comparison, obtained experimentally. Meanwhile, at the present stage of development of civilization, it is extremely important to properly study soils as possible a possible source of greenhouse gases, from the point of view of the contribution of the pedosphere to the process of global warming. Greenhouse gas emissions from soils also need to be studied to calculate global budgets, since 35% of CO₂, 47% of CH₄, 53% of N₂O and 21% of nitrogen oxide (NO) corresponding to global annual emissions are attributed to soil degassing [5].

The main greenhouse gases of atmospheric and soil air. Greenhouse gases (GHGs) include atmospheric chemical compounds of natural and anthropogenic origin that absorb and emit radiation in the same infrared range as the earth's surface, atmosphere and clouds.

Carbon dioxide (CO₂), methane (CH₄) and nitrous oxide (N₂O) are considered to be the main “anthropogenic” greenhouse gases, the increase in concentration in the atmosphere, which, according to some scientists, is one of the main causes of global climate change [1, 5]. Currently, the contribution of carbon dioxide to the enhancement of the greenhouse effect is about 80%, methane – 18–19%, the remaining 1–2% comes from nitrous oxide, some other gases and ozone [4]. The greenhouse effect of different gases can be summarized by comparing their impact with that of CO₂. For methane, the conversion factor is 21, for nitrous oxide – 310, and for some fluorinated gases – even several thousand [6]. The greenhouse effect of different gases can be summarized by comparing their impact with that of CO₂. For methane, the conversion factor is 21, for nitrous oxide – 310, and for some fluorinated gases – even several thousand [7]. Greenhouse gases remain in the atmosphere for quite a long time; their life span is many decades. Once a greenhouse gas enters the atmosphere, it can remain there for a very long time, thereby contributing to further climate change. CO₂ emission from soil is determined by the respiration of soil microorganisms and plant roots, while the activity of heterotrophic microorganisms that mineralize soil organic matter accounts for approximately 70% of soil CO₂ emission. The total CO₂ flux from the soil includes several components: microbial decomposition of root exudates and root remains, root respiration of plants, microbial decomposition of humic substances, additional microbial decomposition of humus due to the increased activity of microorganisms in the rhizosphere. CO₂ emission can be an indicator of the intensity of decomposition of soil organic matter and allows us to characterize one of the most important aspects of the biological carbon cycle.

Materials and methods for studying greenhouse gases (CO₂, CH₄ and N₂O) in the soil - ground air system. Let us consider the most well-known methods for determining the release of gases from soils and analyze their strengths and weaknesses. In general, greenhouse gas emissions from soils are measured directly in the field and in laboratory conditions (chamber technology and micrometeorological methods), using space-based and airborne measurements, and are also calculated using empirical and process-oriented models. Taking into account the relevance and reliability of data on soil respiration, the chamber method is the most preferable, since its results allow us to obtain more specific factual information.



Rice. 1. Methods for studying greenhouse gases: a) closed chamber system;

Soil temperature also plays a critical role in the variation of greenhouse gas emissions from soils[8] An increase in soil temperature to certain values leads to an intensification of greenhouse gas emissions and further contributes to their absorption. which is a positive feedback reaction to increased microbial metabolism. The emission of methane and N₂O is additionally stimulated by an increase in the rate of soil respiration with increasing soil temperature, which leads to a decrease in the concentration of O₂ in the soil. Positive. This temperature effect may be due to a lack of water in the soil, since water is needed as a transport medium for nutrients needed by microbes. Nitric oxide and CO₂ emissions increase exponentially with temperature [9]. N₂O emissions increase with temperature up to approximately 37 °C; after this, denitrification and N₂O emission decrease.

Conclusion. 1. Despite significant advances and an increased number of studies on the topic of the analytical review, there are still many unresolved problems that researchers face when calculating CO₂, CH₄ and N₂O emissions from soils. All factors influencing the processes of emission and consumption of CO₂, CH₄ and N₂O by soil cover have not been fully studied.

2. An analytical review of the literature showed a small amount of data, especially regarding greenhouse gas emissions from soils and their measurements in the field using chamber systems. In addition, there is an obvious lack of information about methane emissions from soils occupied by various agricultural crops. The need to study greenhouse gas emissions from fields occupied by other crops seems necessary. Most wetland experiments measured only CH₄ emissions. There are very few measurements of other greenhouse gases.

3. The main methods for determining greenhouse gas emissions from soils are analyzed: the camera method, space sensing, modeling and micrometeorological. All of them have some methodological shortcomings. Today, there is no generally accepted methodological basis for determining gas emissions from soils. At the same time, according to the authors, the chamber method is the most preferable for carrying out the procedure for measuring gas emissions from soils.

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ISH JOYLARIDA ZARARLI VA XAVFLI OMILLARNING STATISTIK VA TOPOGRAFIK TAHLILI

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***Annotatsiya.** Mehnat xavfsizligi va salomatligi bugungi sanoat landshaftida muhim ahamiyatga ega bo'lib, zararli va xavfli omillarni aniqlash va kamaytirish ishchilarning farovonligini ta'minlash uchun muhimdir. Bu ilmiy maqola baholash va turli bu omillarni tavsiflovchi uchun statistik va topografik bir nalyes birlashtiradi keng qamrovli o'rganishni taqdim. Tadqiqot turli sohalarda to'plangan boy ma'lumotlar to'plamiga asoslanadi, bu kasbiy xavf va xavf omillarining keng doirasini qamrab oladi. Ilg'or statistik usullardan foydalanish orqali. Bundan tashqari, tadqiqotda ish joylarida xavfli elementlarning fazoviy tarqalishini tasavvur qilish uchun topografik xaritalash texnikasi qo'llaniladi. Zamonaviy texnologiyalar yordamida yaratilgan yuqori aniqlikdagi xaritalar mahalliy xavf zonalarini aniqlashga imkon beradigan xavf konsentratsiyasining faol nuqtalarini aniqlaydi. Ushbu fazoviy istiqbol atrof-muhit omillarining o'zaro ta'siri haqidagi tushunchamizni kuchaytiradi.*

***Kalit so'zlar:** Mehnat Xavfsizligi, Ish Joyidagi Xavf, Statistik Tahlil, Topografik Tahlil, Zararli Omillar.*

Kirish: zamonaviy sanoat landshaftida ishchilarning xavfsizligi va farovonligini ta'minlash doimiy e'tibor va innovatsiyalarni talab qiladigan doimiy vazifadir. Sanoat rivojlanib, ish joylari yanada xilma-xil va murakkablashib borar ekan, zararli va xavfli omillarni aniqlash, baholash va boshqarish muhim ahamiyatga ega. Ushbu omillarni har tomonlama tushunish samarali profilaktika choralarini ishlab chiqish, mehnat salomatligini yaxshilash va ish joyidagi baxtsiz hodisalar va kasalliklar bilan bog'liq ijtimoiy xarajatlarni minimallashtirish uchun juda muhimdir.

Ish joylaridagi zararli va xavfli omillar fizikaviy va kimyoviy vositalardan ergonomik stresslar va psixososyal bosimgacha bo'lgan keng ko'lamli xavflarni o'z ichiga oladi. Ushbu omillar, agar e'tiborga olinmasa, bir qator salbiy oqibatlarga olib kelishi mumkin, shu jumladan kasbiy jarohatlar, kasalliklar va uzoq muddatli sog'liq muammolari. Bundan tashqari, ular xodimlarning ma'naviyatiga, mahsuldorligiga va ishdan umumiy qoniqishiga zararli ta'sir ko'rsatishi mumkin, bu esa tashkilotlarning umumiy faoliyatiga ta'sir qiladi.

Ish joyidagi xavfsizlikka an'anaviy yondashuvlar, odatda, zamonaviy, ko'p qirrali ish joylari uchun zarur bo'lgan aniqlik va chuqurlikka ega bo'lmasligi mumkin bo'lgan sifatli usullar yordamida xavfni aniqlash va xavflarni baholashga asoslangan. Ushbu bo'shliqni bartaraf etish uchun ushbu ilmiy maqola statistik tahlil kuchini topografik xaritalash texnikasi bilan birlashtirish uchun sayohatga chiqadi. Biz ish joylaridagi zararli va xavfli omillarga yaxlit nuqtai nazarni taqdim etishni maqsad qilib, ularning tarqalishi, zo'ravonligi, tarqalishi va fazoviy xususiyatlarini nozik tushunishni taklif qilamiz.

Ushbu tadqiqotning ahamiyati nafaqat yashirin xavflarni ochish potentsialida, balki maqsadli aralashuvlarni xabardor qilish qobiliyatida hamdir. Statistik qat'iylikni qo'llash orqali biz tendentsiyalarni aniqlashimiz, xavf zonalarini birinchi o'ringa qo'yishimiz va dalillarga asoslangan qarorlar qabul qilishni osonlashtirishimiz mumkin. Shu bilan birga, topografik xaritalash bizga ushbu xavflarni fazoviy kontekstda tasavvur qilish imkonini beradi, mahalliyashtirilgan xavf zonalarini va atrof-muhit omillari va ishchilar xavfsizligi o'rtasidagi o'zaro bog'liqlik haqida tushuncha beradi.

Ushbu ishda biz zararli omillarni baholash va boshqarish uchun keng qamrovli asos yaratish uchun ma'lumotlar fani, fazoviy texnologiya va mehnat xavfsizligi ekspertizasining sinergiyasidan foydalanamiz. Ushbu tadqiqot natijalari nafaqat akademik nutqqa, balki xavfsizlik bo'yicha mutaxassislar, ish beruvchilar va siyosatchilarning amaliy vositalariga ham hissa qo'shishini tasavvur qilamiz. Oxir oqibat, bizning izlanishimiz xavfsiz va sog'lom ish muhitini targ'ib qilish, ishchi kuchining farovonligini himoya qilish va kasbiy salomatlik va xavfsizlik bo'yicha keng ko'lamli missiyani ilgari surishdan iborat.

Ushbu tadqiqotning asosi ish joyiga oid turli xil va keng qamrovli ma'lumotlar to'plamini sotib olishda yotadi. Ma'lumotlar turli sohalardagi tarmoqlarning vakillik namunalaridan to'planib, zararli va xavfli omillarning keng spektrini qo'lga kiritdi. Ma'lumot manbalariga ish joyidagi yozuvlar, voqealar to'g'risidagi hisobotlar, xodimlarning so'rovlari va atrof-muhitni baholash kiritilgan.

Tahlil qilishdan oldin ma'lumotlar sifati va izchilligini ta'minlash uchun keng qamrovli ma'lumotlarni qayta ishlash o'tkazildi. Ushbu bosqich ma'lumotlarni tozalash, tashqi aniqlash va turli xil ma'lumot manbalarini uyg'unlashtirishni o'z ichiga olgan. Yo'qolgan ma'lumotlar tegishli imputatsiya texnikasi yordamida hal qilindi.

Ma'lumotlar to'plamining dastlabki ko'rinishini ta'minlash uchun tavsiflovchi statistika qo'llanildi. Kabi o'lchovlar o'rtacha, o'rtacha, standart og'ish va foizlar asosiy o'zgaruvchilar uchun ularning Markaziy tendentsiyalari va o'zgaruvchanligini tushunish uchun hisoblangan.

A. chastotani tahlil qilish: Ish joylarida turli xil zararli va xavfli omillarning tarqalishini aniqlash uchun chastota tahlilidan foydalanildi. Ushbu tahlil omillarni alohida turlarga ajratdi va keyinchalik chuqur tekshirishni osonlashtirdi.

B. korrelyatsion tahlil: Turli omillar o'rtasidagi munosabatlarni baholash uchun korrelyatsion tahlil o'tkazildi. Pearson korrelyatsiya koeffitsientlari omillar o'rtasidagi potentsial bog'liqlik va o'zaro ta'sirlarni aniqlash uchun hisoblab chiqilgan.

O'rganilayotgan har bir ish joyi uchun geografik ma'lumotlar, shu jumladan qavat rejalari, maketlari va ekologik o'lchovlar to'plandi. Ushbu ma'lumotlar joyida o'lchovlar va mavjud bo'lganda raqamli chizmalar orqali olingan.

Statistik va topografik tahlillarning integratsiyasi:

Statistik topilmalar xavfli elementlarning fazoviy naqshlari va klasterlarini aniqlash uchun topografik xaritalar bilan birlashtirildi. Ushbu yondashuvlarning birlashishi mahalliyashtirilgan xavfli zonalarini aniqlashga va ularning ish joyidagi o'ziga xos omillar bilan bog'lanishiga yordam berdi.

Statistik va topografik topilmalar asosida xavflarni baholash o'tkazildi. Ushbu qadam, ularning tarqalishi, zo'rvonligi va fazoviy taqsimlanishini hisobga olgan holda, ish joyining turli sohalari va omillariga xavf darajasini belgilashni o'z ichiga olgan.

Tahlil natijalari xavflarni kamaytirish va xavfsizlik choralari bo'yicha dalillarga asoslangan tavsiyalarni shakllantirish uchun ishlatilgan. Ushbu tavsiyalar birlashtirilgan statistik va topografik baholash orqali aniqlangan ustuvor yo'nalishlarni hal qilishga qaratilgan.

Metodologiyaning asosiligi tarixiy voqealar ma'lumotlari va ish joyidagi xavfsizlik bo'yicha mutaxassislarning fikr-mulohazalari bilan taqqoslash orqali baholandi. Xavfni baholash modelining mustahkamligini tekshirish uchun sezgirlik tahlillari o'tkazildi.

Ma'lumot yig'ish bilan shug'ullanadigan shaxslar va tashkilotlarning maxfiyligi va maxfiyligi saqlanib qolinishini ta'minlab, tadqiqot davomida axloqiy fikrlarga e'tibor berildi. Xabardor ruxsat qaerda amaldagi olingan.

Tadqiqotning potentsial cheklovlarini, shu jumladan ma'lumotlarning mavjudligini, ish joyidagi maketlarning aniqligini va topilmalarning turli sanoat va geografik mintaqalarga umumlashtirilishini tan olish muhimdir.

Ish joylaridagi zararli va xavfli omillarning statistik va topografik tahlillarini birlashtirgan ushbu keng qamrovli tadqiqot ilmiy tadqiqotlar va amaliy mehnat xavfsizligi uchun muhim ahamiyatga ega bo'lgan qimmatli tushunchalarni berdi. Bizning topilmalarimiz ish joyidagi xavfsizlik muammolarini nozik tushunishni ta'minlaydi va xavfni kamaytirish va xavfsizlikni yaxshilash bo'yicha amaliy tavsiyalar beradi.

Ustuvor Yo‘nalishlarni aniqlash: tarqalish tahlili shuni ko‘rsatdiki, ergonomik stresslar eng keng tarqalgan bo‘lib, ish joylarining 35 foiziga ta‘sir qiladi, psixososyal omillar esa ish joylarining 10 foizida topilgan. Ushbu ustuvor yo‘nalishlarni aniqlash tashkilotlarga resurslarni samarali taqsimlashga va xavfsizlik harakatlarini eng zarur bo‘lgan joyga yo‘naltirishga imkon beradi.

Zo‘ravonlik baholash: zararli omillar zo‘ravonlik reytinglari ergonomik stress hal muhimligini ta‘kidladilar, qaysi eng yuqori o‘rtacha zo‘ravonlik reytingini edi 8.1. Bu ishchilar orasida mushak-skelet tizimining buzilishi va unga bog‘liq jarohatlar xavfini kamaytirish uchun ergonomik aralashuvlar zarurligini ta‘kidlaydi.

Omillar o‘rtasidagi korrelyatsiyalar: korrelyatsion tahlil ish joyidagi omillarning o‘zaro bog‘liqligini ta‘kidladi. Masalan, jismoniy xavflar va kimyoviy vositalar o‘rtasidagi o‘rtacha ijobiy korrelyatsiya shuni ko‘rsatadiki, xavfning bir turini hal qilish boshqasini kamaytirishga ham ijobiy ta‘sir ko‘rsatishi mumkin. Ushbu munosabatlarni tushunish integratsiyalashgan xavfsizlik strategiyalarini xabardor qilishi mumkin.

Xatarlarni baholash: ish joyidagi hudud bo‘yicha xavflarni baholash natijalari xavfsizlik choralari uchun amaliy yo‘l xaritasini taqdim etdi. Ombor kabi yuqori xavfli hududlar, 35% hollarda zararli omillarning tarqalishi va o‘rtacha zo‘ravonlik darajasi 8,2 ga teng bo‘lib, zudlik bilan e‘tibor va maqsadli xavfsizlik choralari talab qiladi.

Fazoviy tushunchalar: zararli omillarning topografik xaritasi ish joyidagi xavfsizlik to‘g‘risida fazoviy tushunchalarni taklif qildi. Xavfsizlik nuqtalari va mahalliy xavfli zonalarni aniqlash tashkilotlarga aniq aralashuvlarni amalga oshirish va ular eng katta ta‘sir ko‘rsatadigan resurslarni ajratish imkoniyatini beradi.

Xulosa qilib aytganda, ushbu tadqiqotning kompleks yondashuvi ish joylarida zararli va xavfli omillarni baholash, boshqarish va yumshatish qobiliyatimizni oshirdi. Statistik qat‘iyligni topografik vizualizatsiya bilan birlashtirib, biz ma‘lumotlarni tahlil qilish va amaliy xavfsizlik echimlari o‘rtasidagi farqni bartaraf etdik. Ushbu topilmalar dalillarga asoslangan qarorlarni qabul qilish uchun asos bo‘lib, tashkilotlarga o‘z ishchi kuchining farovonligini ta‘minlaydigan xavfsizroq va sog‘lom ish muhitini yaratishga imkon beradi.

Ushbu tadqiqotning natijalari alohida ish joylaridan tashqarida bo‘lib, xavfsizlik bo‘yicha mutaxassislar, ish beruvchilar va siyosatchilar uchun mehnatni muhofaza qilish va xavfsizlik standartlarini kengroq miqyosda takomillashtirish rejasini taklif etadi. Biz doimo o‘zgarib turadigan ish landshaftida rivojlanishda davom etar ekanmiz, ushbu tadqiqotdan olingan tushunchalar hamma uchun xavfsizroq, xavfsizroq va sog‘lom ish joylariga intilishga yordam beradi.

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AVTOMOBILLARNI BO‘YASHDA HOSIL BO‘LGAN BO‘YOQ CHIQINDILARINI QAYTA ISHLASHNING BARQAROR KELAJAGI VA ATROF-MUHITGA TA‘SIRI

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Annotatsiya: *Avtomobil bo‘yoq chiqindilari, avtomobil tanasini bo‘yash jarayonida hosil bo‘lgan chiqindi mahsulotdir. Avtomobilni purkagich bilan bo‘yash avtomatlashtirilgan operatsiya bo‘lsa-da, uning samaradorligi hali ham juda past, chunki ishlatilgan bo‘yoqning taxminan 40-50% avtomobil tanasiga yetib bormaydi va bo‘yoq filtrlari orqali suv bilan aralashtirilgandan so‘ng shlagga aylanadi. Bo‘yoq chiqindisi bir nechta organik va noorganik komponentlarni o‘z ichiga olgan juda murakkab materialdir. Italiya avtomobil zavodlari 1 dona bo‘yalgan avtomobildan 2,5 dan 5,0 kg gacha bo‘yoq chiqindi ajralib chiqadi. Agar bu ko‘rsatkich har yili dunyo bo‘ylab ishlab chiqarilgan avtomobillar soniga bog‘liq bo‘lsa, 100 milliondan ortiq bo‘lsa, u 200 000-500 000 t gacha bo‘ladi yillik bo‘yoq chiqindi miqdorda belgilaydi. Shunday qilib, bo‘yoq chiqindi uchun to‘g‘ri yakuniy yechim topish kerak. Chiqindilarni boshqarish va aylanma iqtisod tamoyillari bizdan qimmatli mahsulotlar yoki energiyani qayta tiklashni nazarda tutuvchi yechimlarga imtiyoz berishimizni talab qiladi. Ushbu maqola birinchi navbatda bo‘yoq chiqindining yaxshilangan mexanik suvsizlanishini olish uchun yaqinda ishlab chiqilgan jarayonlar va mashinalarni ko‘rib chiqadi. Maqola so‘nggi o‘ttiz yil ichida turli xil miqyosda bir nechta mualliflar tomonidan taklif qilingan va sinovdan o‘tgan qayta ishlash usullari taqdim etadi va muhokama qiladi. Bo‘yoq chiqindilarni qayta ishlash jarayonlarini quyidagicha guruhlash mumkin:*

- fizik/kimyoviy ishlov berilgan bo‘yoq chiqindini yo‘l chiziqlari ustki qism va ikkilamchi bo‘yoq ishlab chiqarishda bevosita ishlatish;

- issiqlik jarayonlari (piroliz, gazlashtirish) yordamida qimmatli organik va noorganik mahsulotlarni olish.

Kalit so‘zlar: *Avtomobil bo‘yoqlari chiqindilari; aylanma iqtisodiyot; yo‘l chiziqlari tayyorlash;*

KIRISH

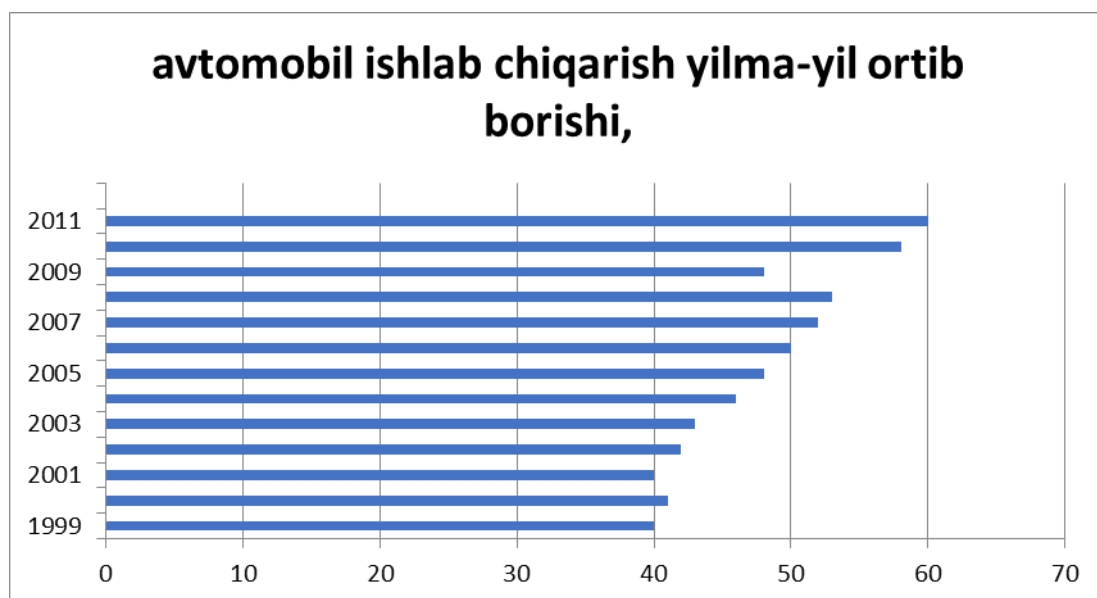
Avtomobil bo'yoqlari cho'kmasi avtomobil qismlarini va avtomobil korpuslarini sanoat purkagich bilan bo'yash natijasida paydo bo'ladigan chiqindi mahsulotdir. Payvandlash va yig'ish o'rtasida sodir bo'ladigan ushbu operatsiya ikkita asosiy bosqichdan iborat. Birinchidan, avtomobil korpusi yog'sizlantirish, fosfat bilan ishlov berish va elektroqoplama orqali korroziyadan himoyalanaadi. Ikkinchidan, kerakli ko'rinish, sifat va rangning avtomobilga ustki qoplamalarni qo'llash orqali erishiladi.[1]. Avtomobil ustki qismini tashki muhitga chidamliligini oshiradi va yuqori qatlamning pastki elektro-qatlamga yopishishini kuchaytiradi, shu bilan delaminatsiyani oldini oladi. Katta avtomobil zavodlarida avtomobil kuzovlarini bo'yash ishlari odatda bo'yoq purkagich kabinalari deb ataladigan bir qator kabinalarda amalga oshiriladi 1-a rasm. Avtomobilni purkagich bilan bo'yash avtomatlashtirilgan operatsiya bo'lsa-da, uning samaradorligi hali ham juda past, chunki ishlatilgan bo'yoqning taxminan 40% dan 50% gacha atrofda havoga tuman shaklida sochiladi, maqsadga avtomobilni ustki qismiga yetib bormaydi.[3]. Bunday ortiqcha purkagich odatda suv pardasi yoki nam tozalash orqali yig'iladi va natijada olingan suyuqlik bo'yoq kabinasi ostidagi pol panjarasi orqali yig'iladi. Suv va bo'yoq aralashmalari aralashmasi assimilyatsiya tizimlari yordamida tegishli rezervuarlarga, ya'ni loy chuqurlariga yetkaziladi va suvni bo'yoqni ajratish uchun qayta ishlanadi.[4]. Bo'yoqning haddan tashqari ko'p purkalishi va suvni qayta tiklashdan keyin qolgan suvning qoldiqlari odatda bo'yoq chiqindisi deb ataladi.



1-a rasm Avtomobil bo'yoqlash jarayoni va ajrab chiqqan bo'yoq chiqindi.

Bir necha yil oldin (2016), Solih o'g'li va Salih o'g'li [4] avtomobil sanoatida ajralib chiqadigan bo'yoq chiqindilar haqida keng qamrovli sharhni chop etdi. Ishlarining birinchi qismida ular avtomobil ishlab chiqaruvchisining ekologik jihatlarini batafsil tavsiflab berdilar. Keyinchalik, massa balanslari yordamida ular

avtomobil zavodidagi xavfli chiqindilarning asosiy manbai bitta birlik operatsiyasi bilan bog‘liq bo‘lishi mumkinligini ko‘rsatdilar. Ular avtomobil bo‘yoq chiqindilarini paydo bo‘lishi va tarkibiga taalluqli jihatlarni batafsil ko‘rib chiqdilar va nihoyat, o‘zlarining sharhlarining oxirgi qismini bo‘yoq chiqindilar o‘rganishga bag‘isladilar. Solih o‘g‘li va Solih o‘g‘li ijodidan bir necha yil o‘tib [4], bu ish ikki muallif tomonidan taqdim etilgan adabiyotlarni ko‘rib chiqishni kengaytirish va to‘ldirish niyatida, 90-yillardan to 2011 yilgacha ishlab chiqilgan jarayonlarga alohida e‘tibor qaratdilar, ular nafaqat bo‘yoq chiqindilarning xavfliligini kamaytirishga, qimmatbaho mahsulot va energiyaga aylantirishdi. Bizning ma‘lumotlarimizga ko‘ra, ushbu mavzuni ko‘rib chiqadigan boshqa sharhlar yo‘q. Bo‘yoq chiqindilarni boshqaruvi so‘nggi 30 yil ichida yevropaning aksariyat mamlakatlarida yengil avtomobillarga bo‘lgan talab ortib borayotganligi sababli dolzarb mavzu deb hisoblanishi kerak.[8], 2-b rasmda ko‘rsatilganidek.



Hozirgi vaqtda dunyo bo‘yicha avtomobil sanoati rivojlanib kelmoqda va bu O‘zbekistonni ham chetlab o‘tmagan. Uz AUTO Motors Kompaniya 1992-yilda O‘zbekiston davlat „O‘zAvtosanoat“ aksiyadorlik jamiyati va Janubiy Koreyadagi Daewoo o‘rtasida tashkil etilgan bo‘lib, dastlab „Uz-DaewooAuto“ nomi bilan tanilgan[6]. Kompaniya 1996-yil 19-iyulda Asakadagi yangi yig‘ish zavodida avtomobillar ishlab chiqarishni boshladi[6].

Uz-DaewooAuto kompaniyasi Uz-Daewoo brendi ostida avtomashinalar ishlab chiqargan[6]. O‘zbek avtomobil sanoatini tashkil etish tashabbusi 1990-yillarning boshiga va O‘zbekiston Prezidenti Islom Karimov prezidentlik davriga borib taqaladi.[7]. O‘zbekiston avtomobil sanoatida ham yildan yilga avtomobil ishlab chiqarish ortib bormoqda xussan 2020 yil 117925 dona yengil avtomobil ishlab

chiqarilgan va 2022 yilda bu korsatkich bir necha barobarga ortgan.[8] Avtomobil sanoati global iqtisodiyotda muhim rol o'ynaydi, lekin u atrof-muhit muammolariga ham hissa qo'shadi, avtomobil bo'yoqlari chiqindilari kamroq muhokama qilinadigan muammolardan biridir. Avtomobil bo'yoqlari chiqindilarining atrof-muhitga ta'siri avtomobil ishlab chiqarish va yo'q qilish jarayonining turli bosqichlarini o'z ichiga olgan murakkab masala.[8]. Avtomobil bo'yoqlari chiqindilarini qayta ishlashning samarali usullari yo'qligi atrof-muhitga ta'sirni kuchaytiradi. Avtomobillardagi ba'zi boshqa materiallardan farqli o'laroq, avtomobil bo'yoqlarini qayta ishlash ishlatiladigan kimyoviy moddalarning xilma-xilligi tufayli qayta ishlash murakkab jarayondir. Natijada, qolgan bo'yoqning ko'p qismi chiqindixonalarga tushadi. Hozirgi kunda bo'yoq chiqindilari qayta ishlanmaydigan bo'yoq turi ekanligini hisobga olsak O'zbekiston avtosanoatida ham bu chiqindi turi qayta ishlanmaydi maxsulot hisoblanadi. Bu borada dunyoning yetakchi olimlari ish olib borishmoqda xususan;

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Xulosa. Avtomobil sanoatida yiliga 200 000–500 000 tonnagacha ishlab chiqariladigan bo'yoq chiqindi uchun yechim topish dolzarb masaladir. Bunday chiqindilar odatda kimyoviy yoki biologik stabilizatsiya jarayonlaridan keyin poligonlarga tashlanadi yoki yoqib yuboriladi. Biroq, aylanma iqtisodiyot tamoyillariga rioya qilish va yangi poligon maydonlarini qurishni cheklash uchun boshqa yechimlar zarur. Bo'yoq chiqindining yuqori organik tarkibi tufayli ularni qayta ishlash bir muncha qiyin xisoblanadi. Biroq, bu chiqindilarni qayta ishlash mumkin va qayta ishlangan chiqindini qurilish materiallari uchun yoki yo'l chiziqlari chizish uchun ishlatish mumkin deb hisoblanib kelinmoqda va bu bir nechta operatsiyalarni o'z ichiga oladi bo'yoq chiqindisining har bir tipologiyasiga xos bo'lgan reagentlar va erituvchilarni o'rganib chiqish talab qilinadi.

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YANGI O‘ZBEKISTON MAHOBATLI RANGTASVIR SAN’ATINING BUGUNGI KUNDAGI TARAQQIYOT YO‘LI

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ANNOTATSIYA:

Ushbu maqola Yangi O‘zbekiston mahobatli rangtasvir san’atining bugungi kundagi taraqqiyot yo‘li haqida.

O‘zbekistonda mahobatli rangtasvir san’atining rivojlanish shakli, taraqqiyoti dunyo mamlakatlari misolida ham keltirib o‘tilgan. Mavzu bo‘yicha rassom A. Aliqulov ijodi va asarlari tahlil qilib o‘rganilgan.

KALIT SO‘ZLAR: *Tasviriy san’at, ijtimoiy hayot, mahobatli rangtasvir, ijodkor, asar, jamiyat, taraqqiyot, xalqlar do‘stligi, milliy liboslar, mamlakat, ma’naviy-ma’rifiy dunyoqarash, g‘alaba.*

ПУТЬ РАЗВИТИЯ МОНУМЕНТАЛЬНОЙ ЖИВОПИСИ НОВОГО УЗБЕКИСТАНА СЕГОДНЯ

АННОТАЦИЯ:

В данной статье описан путь развития монументальной живописи Нового Узбекистана сегодня.

Развитие монументального искусства живописи в Узбекистане и пути развития также приводятся в пример стран мира. По теме Проанализированы и изучены произведения художника А. Аликулова.

КЛЮЧЕВЫЕ СЛОВА: *Изобразительное искусство, общественная жизнь, монументальная живопись, творец, работа, общество, развитие, дружба народов, национальные костюмы, страна, духовное мировоззрение, победа.*

THE PATH OF DEVELOPMENT OF MONUMENTAL PAINTING OF NEW UZBEKISTAN TODAY

ANNOTATION:

This article describes the path of development of monumental painting in New Uzbekistan today.

The development of monumental art of painting in Uzbekistan and the path of development are also cited as an example for countries around the world. On this topic The works of the artist A. Alikulov are analyzed and studied.

KEYWORDS: *Fine arts, public life, monumental painting, creator, work, society, development, friendship of peoples, national costumes, country, spiritual worldview, victory.*

Tasviriy san'at inson faoliyatining bir turi sifatida shakllanish usullariga ko'ra: rangtasvir, grafika, haykaltaroshlikka bo'linadi. Yuzadagi tasvirlar rangtasvir va grafikada namoyon bo'ladi, haykaltaroshlik esa uch o'lchovli makondan foydalanadi[1,8].

Yuzadagi tasvirlar qadimgi davrlarda paydo bo'lgan, ammo dastlab ular qadimgi odamlar yashagan makon va turar-joy inshootlarining ajralmas qismi bo'lgan. Bunga mahobatli rangtasvirga asos solgan paleolit davri qoyatosh rasmlari (Altamir, Lasko, Shovet, Shulgantosh g'orlaridagi suratlar) ajoyib misol bo'la oladi. Tosh, g'isht va beton (Qadimgi Rim) inshootlarining ichki va tashqi ko'rinishining badiiy dizaynini to'ldirish va boyitish, mahobatli rangtasvir me'moriy ansamblning muhim tarkibiy qismiga aylandi[3,5].

Mahobatli rangtasvirni monumental-dekorativ rangtasvir yoki tasviriy dekor deb ham atashadi, bu tasvirning maxsus dekorativ maqsadini ta'kidlaydi. Mahobatli rangtasvir asarlari vazifasiga ko'ra hajmli-fazoviy yoki planar-dekorativ tarzda loyihalashtiriladi.

Mahobatli rangtasvir dunyodagi eng qadimiy san'at turlaridan biri sifatida o'zining rivojlanishi davomida Sharq va Yevropa rassomlarining katta e'tiborini tortib keladi. Bu sohada Sharqda ham, Yevropada ham ulkan zafarlar qozongan. Shunga qaramay mahobatli rangtasvir eng ko'p Osiyo mamlakatlarida rivojlangan: Xitoy, Yaponiya, Hindiston va Janubi-Sharqiy Osiyo mamlakatlari shular sarasidandir[13].

Aytib o'tish joizki, Sharq va boshqa qit'alar mamlakatlarida rangtasvirning rivojlanishida farqlar mavjud. Yevropa mamlakatlari mahobatli rangtasvirda nisbatan barqaror muvaffaqiyatga erishdi. Sharqning aksariyat mamlakatlari turg'unlik davrlarini boshidan kechirdi. Xitoyda mahobatli rangtasvir murakkab rivojlanish yo'lini bosib o'tdi. Agar san'at tarixida umuman tasviriy san'atga oid maxsus asarlar ko'p bo'lsa, u holda mahobatli rangtasvir va uning tamoyillari deyarli mualliflar e'tiboridan chetda qolmoqda.

Devoriy suratlarning rivojlanishi mamlakat jamiyatining iqtisodiyoti va dunyoqarashi bilan chambarchas bog'liq.

Shu o'rinda O'zbekiston tasviriy san'atida mahobatli rangtasvir san'atining bugungi kundagi tarraqqiyotini o'rganar ekanmiz ko'plab rassomlarning yuksak ijod namunalari bilan tanishamiz.

Yangi O'zbekistonning shunday serqirra rassomlaridan biri bo'lgan A.Aliqulov asarlari hozirgi kunda ko'plab arxitekturaviy ob'yektlar devorlarida o'zining turli-tuman mavzulari bilan o'zgacha mazmun hamda ahamiyat kasb etmoqda[14].

Alisher Aliqulov ijodidagi eng sara asarlardan biri bu 2021-yilda Toshkent Xalqaro institutining ochilishiga bag'ishlab ishlangan "Markaziy Osiyo davlatlari xalqlari do'stligi" kartinasi bo'lib, unda murakkab kompozitsion uyg'unlikni ko'rish

mumkin. Asarning asosiy bosh planida o‘zbek milliy urf-odat an‘analariga xos bo‘lgan sumalak saylida ayollarning chordona o‘tirib, doira chalib sumalakni pishirayotgan bo‘lsa, uning orqasida yana bir ajoyib an‘analarimizdan biri bo‘lgan kelin salom, beshik ko‘targan chol va kampir, patnis to‘la non ko‘targan yigit obrazlari gavdalanadi. Ularning boshi uzra uchib borayotgan samoviy qush izidagi milliy mato ramzi o‘zgacha ahamiyat kasb etgan.

Boshqa tomonda turkman xalqlarining milliy libosidagi kelin va kuyov hamda milliy matosi, soz ushlagan baxshi, ayollarning boshida dasturxon o‘ralgan tuguni bo‘lgan “Bordi-keldi” kabi rasm-rusumlari aks ettirilgan.

Shu bilan birga qozoq milliy libosidagi ayollarning kundalik turmush ishlari va qirg‘iz baxshisining soz chalib o‘tirgani tasvirlangan. Go‘zal tabiat qo‘ynida bolalar gavjumligidagi “Varraklar sayli” va har bahorda barcha intiqib kutadigan hamda kuzatadigan otchoparlar poygasi, chizmalar ustida ish olib borayotgan quruvchilar ham asar butunligini tashkil etadi .

Asarning eng yuqori orqa fonida arxitekturaviy inshootlar ishlangan. Asarda Markaziy Osiyo davlatlari xalqlarining milliy liboslari, milliy an‘analari bilan birga do‘stligining mustahkamligi namoyon etilgan.

Kartinani kuzatar ekanmiz prezidentimiz Sh Mirziyoev tashabbusi bilan 2020 yil 29 dekabrda Oliy Majlisga qilgan Murojaatnomasida “Xalqlar do‘stligi kunini” nishonlash orqali jamiyatda barqarorlik, tinchlik va totuvlikni ta‘minlash, fuqarolar ongida katta, ko‘p millatli yagona oilaga mansublik tuyg‘usini mustahkamlash, milliy madaniy markazlar va do‘stlik jamiyatlari faoliyatini har tomonlama qo‘llab-quvvatlash va yanada rivojlantirish, xorijiy mamlakatlar bilan madaniy-ma‘rifiy aloqalarni kengaytirish maqsadidagi taklifini berganligi yodga tushadi[14].

Xalqlar do‘stligi - insonlar, xalqlar, davlatlar – umuman olganda jamiyatning turli qatlamlari hamda tuzilmalari o‘rtasida hamjihatlik, bag‘rikenglik, millatlararo totuvlikni mustahkamlash va do‘stlik aloqalarini yanada rivojlantirishdan iboratligini ijodkor yana bir bor o‘z asarida namoyish qilgan.

Bu asar O‘zbekistonning ahil qo‘shnichilik muhitini shakllantirish borasidagi tashabbusining tasviriy hamda amaliy ifodasidir.

O‘zbekiston Markaziy Osiyoning aholisi eng ko‘p, boy tabiiy zahiralarga ega va geografik jihatdan qulay joylashgan mamlakati bo‘lib, mintaqaning ijtimoiy-iqtisodiy taraqqiyotida hal qiluvchi o‘rin tutadi[9,18]. O‘zbekistonning qo‘shni mamlakatlar bilan munosabati do‘stona, yaqin qo‘shnichilik, o‘zaro manfaatlarni tan olish hamda har qanday masalani hal qilish uchun muloqotga tayyorlik tamoyiliga asoslanadi. Asar mazmun-mohiyatiga ko‘ra yuqoridagi barcha fikrlarni o‘z ichiga qamrab olgan.

Yangi O‘zbekiston mahobatli rangtasvir san‘atining tarraqqiy etishida rassom A.Aliqulov ham o‘zining ulkan xissasini qo‘shib kelmoqda. Uning har bir asarida

ma'lum bir makon hamda zamon voqea hodisalarini tugal yechim asosida tasvirlaydi. Rassom ijodini kuzatgan tomoshabin o'ziga xulosa chiqarish bilan birga yangicha ma'naviy-marifiy dunyoqarashni shakllantiradi.

Rassom ijodidagi yana bir durdona asarlaridan biri bu Toshkentning G'alaba bog'idagi Shon-sharaf muzeyidagi yirik kartinasidir. Bizga ma'lumki o'zbek xalqining o'g'lonlari ham Ikkinchi jahon urushi frontlarida mardlik va qahramonlik ko'rsatdilar. Stalingrad shahri himoyasida ko'rsatilgan jasorati uchun o'zbek askarlariga harbiy orden va medallar topshirilgan. Dnepr jangidagi qahramonliklari uchun Sovet Ittifoqi qahramoni unvoniga sazovor bo'lishgan. Dushman tomonidan vaqtincha bosib olingan hududlarda o'zbeklar partizan otryadlarida jang qilganlar. Rassom ijodidagi ushbu asar g'alabaning 75 yilligiga bag'ishlab ishlangan bo'lib, o'zbek xalqining mard va jasur o'g'lonlari hamda ularni intizorlik bilan kutayotgan oilalar, g'alaba uchun duoga qul ochgan yoshi ulug'larning obrazlarini tasvirlagan.

Shu o'rinda ta'kidlash lozimki, mahobatli rangtasvir asarlari insonning aql-zakovati, tafakkurini, tabiatda sodir bo'lib turadigan katta - kichik uzgarishlarni, falsafiy g'oyalar va fantastik obrazlarni ta'sirchan ifodalaydi. San'at asarlari kishilarni milliylik, vatanparvarlik ruhida tarbiyalashda katta xissa qo'shadi.

San'atning barcha sohaları davrlar osha insonlarni, xususan yoshlarni ma'naviy-axloqiy jihatdan tarbiyalash, ularga ajdodlar an'alarini yetkazish vositasi bo'lib kelgan[9,17].

Xususan, mahobatli rangtasvir asarlarida voqea va ko'rinishlar doirasining to'laligi turli yo'nalishdagi janrlar orqali va tasviriy san'at, kompozitsion qonun qoidalarga tayangan holda ochib beradi. Ayniqsa, insonlar qalbiga yo'l topishda san'at asarlari har tomonlama ta'sirchan, qudratli kuchga ega. Ularning vazifasi millionlab odamlar uchun quvonch va ilhom manbai bo'lib xizmat qilish. Mahobatli san'at rivoji aynan mana shu asosiy yo'ldan ketadi. Uning taraqqiy etishi davrlar, voqealar, jarayonlar bilan birgalikda kechadi.

Mahobatli rangtasvir asari qaysi uslubda bajarilgan bo'lsa ham, avvalo, asar syujeti ko'zdan kechirib olinadi. So'ngra qanday obrazlar tasvirlangan, bu voqea qachon bo'lib o'tganligi qiziqish o'yg'otadi. Shundan so'ng musavvirning uslubi, qanday buyoq qo'llaganligi, tanlangan ranglar uyg'unligi o'rganiladi[5,26].

Mahobatli rangtasvir asarlari mamlakat hayoti, kuch-qudrati, xalqining tinch turmushini va vatanga, millatga bo'lgan muxabbatini targ'ib etish bilan birga inshootlar devorlarini bezab, ezgulik, insoniylik hamda tarbiyaviylik g'oyalari bilan ma'naviy yuksalishning taraqqiyotiga xizmat qiladi. Bunga hozirga kundagi ko'plab devoriy suratlarni misol keltirish mumkin.

A. Aliqulov tomonidan Imom al Buxoriy majmuasida bunyod etilgan muzey zalining baland devori uchun ishlangan kompozitsiyasi ham fikrimizning isbotidir.

Ushbu rangtasvir asari katta o'lchamli, uzunligi 45, balandligi 2,80 metrga ega bo'lib, unda al-Buxoriyning islom dunyosidagi o'rni, xayoti, ilmiy hamda diniy faoliyatini ochib berishga harakat qilgan. Tasvirda al-Buxoriyning yoshlik davrlaridan boshlab ilm olish maqsadida qator islom mamlakatlariga borganligi, ulug' shayx, din ulamolari bilan bo'lgan muloqoti ta'sirchan hamda ifodali tasvirlangan. Voqea va ko'rinishlar doirasining tulaligi turli vositalar orqali ochib berilgan. Asarni kuzatgan tomoshabin Buxoriyning bosib o'tgan ibratli hayot yo'li va ajdodlarimiz ishlarining naqadar ulug'ligini tushunib yetadi.

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BENZINLI TRANSPORT VOSITALARINING ISH SHAROITIDA YOQILG'II SARFI VA ZAHARLI CHIQUINDILARNI O'LCHASH

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ANNOTATSIYA

Maqolada avtomobillarning havoga ajratib chiqayotgan zaxarli gazi turlari va ularning inson salomatligiga salbiy ta'siri, hozirgi davrdagi ichki yonuv dvigatellaridan ajralib chiqayotgan zaxarli gazlarni o'chash asboblari keltirilgan.

***Kalit so'zlar:** Benzin, azot oksidi, uglerod oksidi, zaharli gaz, siqilgan gazda, atmosfera, karbonat angidrid, emissiya.*

ABSTRACT

The article presents the types of toxic gases emitted by cars and their negative effects on human health, as well as devices for extinguishing toxic gases emitted by internal combustion engines in the current era.

***Keywords:** Gasoline, nitrogen oxides, carbon monoxide, poisonous gas, in compressed gas, atmosphere, carbon dioxide, emission.*

KIRISH

Benzinli avtomobillar atmosferaga bir qancha zaharli gazlarni chiqaradi. Benzin yonganda hosil bo'ladigan eng zararli gazlar qatoriga azot oksidi (NOx), uglevodorodlar (masalan, benzol, formaldegid), uglerod oksidi (CO) va zarrachalar kiradi. Azot oksidlari benzin bilan ishlaydigan transport vositalarining asosiy zararli chiqindilari hisoblanadi. Ular tutun hosil bo'lishiga sezilarli hissa qo'shadi, shuningdek, kislotali yomg'ir paydo bo'lishiga hissa qo'shadi. Bu gazlar inson salomatligiga ham zararli bo'lib, nafas olish muammolari, astma va boshqa nafas

yo'llari kasalliklarini keltirib chiqarishi mumkin. Benzol va formaldegid kabi uglevodorodlar ham zaharli bo'lib, saraton va boshqa jiddiy sog'liq muammolariga olib kelishi mumkin. Boshqa tomondan, uglerod oksidi zaharli gaz bo'lib, yuqori konsentratsiyalarda zaharlanish va hatto o'limga olib kelishi mumkin. Benzinli transport vositalaridan chiqadigan chiqindilarda erigan zarralar ham sog'liq uchun xavflidir. Ular o'pkaga kirib, nafas olish muammolarini keltirib chiqarishi, shuningdek, turli kasalliklarning manbai bo'lishi mumkin. Umuman olganda, benzinli transport vositalaridan chiqadigan zaharli chiqindilar atrof-muhit va sog'liq uchun muhim ahamiyatga ega. Ushbu gazlar chiqindilarini kamaytirish uchun samaraliroq katalitik konvertorlardan foydalanish, zarracha filtrlarini o'rnatish va elektr transport vositalari kabi toza transport turlaridan foydalanishni rag'batlantirish kabi turli choralar ko'rilmogda. Siqilgan gazda ishlaydigan transport vositalari, shuningdek, tabiiy gaz vositalari yoki CNG transport vositalari (siqilgan tabiiy gaz) sifatida ham tanilgan. CNG toza va ekologik toza muqobil yoqilg'ilardan biridir.

ADABIYOTLAR TAHLILI VA METADOLOGIYA

Gazni ixcham tsilindrlarda yuqori bosim ostida tashish avtomobilda saqlanadigan yoqilg'i miqdorini oshirish imkonini beradi. Odatda ular ikki turdagi silindrlarga ega: po'lat yoki kompozit. T silindrlarda saqlanadigan gaz hajmi odatda avtomobilning bir necha yuz kilometrgacha yurishi uchun etarli.

Avtomobilning dvigateli siqilgan gazni yoqish uchun maxsus tizim yordamida ishlaydi. Avtomobil dvigatelida yonishi benzin yoki dizelda ishlaydigan dvigatellarga qaraganda ifloslantiruvchi moddalarning emissiyasini sezilarli darajada kamaytiradi. Siqilgan gazda ishlaydigan avtomobillarning asosiy afzalligi ekologik tozalikdir. Ular atmosferaga karbonat angidrid (CO_2), azot oksidi (NO_x) va zarrachalar kabi zararli moddalarning chiqarilishini sezilarli darajada kamaytiradi. Avtomobillari ham tejamkor, chunki gaz benzin yoki dizelga qaraganda yuqori yonadi va odatda arzonroqdir.

Biroq, Avtomobillarida ba'zi cheklovlar mavjud. Birinchidan, benzin yoki dizel yoqilg'isiga qaraganda gazni yonilg'i quyish uchun kamroq infratuzilma mavjud, bu esa transport vositalaridan foydalanishni kamroq qulay qiladi. Ikkinchidan, avtomobil dvigatellari benzinli dvigatellarga qaraganda kamroq ot kuchiga ega, bu esa yuqori tezlik yoki yuqori quvvat talab qilinganda muammo bo'lishi mumkin.

NATIJALAR

Benzin turli xil zararli gazlarni ishlab chiqaradi, jumladan: Uglevodorodlar: benzol (kanserojen, saratonga olib kelishi mumkin), toluol (ko'zni, terini va nafas olish

yo'llarini tirnash xususiyati beruvchi), etilen (ko'z va nafas yo'llarini tirnash xususiyati beruvchi).

Azot oksidi (NO_x): azot oksidi (ko'z va nafas yo'llarini bezovta qiladi, nafas olish muammolarini keltirib chiqarishi va respirator infeksiyalarga nisbatan zaiflikni oshirishi mumkin), azot oksidi (havoning ifloslanishi va ozon teshigini keltirib chiqaradi). Karbonat angidrid (CO_2): Issiqxona effekti va iqlim o'zgarishining asosiy sabablaridan biri. Oltinugurt dioksidi (SO_2): Havoning ifloslanishi, kislotali yomg'ir va nafas olish muammolariga sabab bo'ladi. Bu gazlar atrof-muhit va inson salomatligiga salbiy ta'sir ko'rsatadi, shuning uchun chiqindilarni minimallashtirish va toza energiya manbalaridan foydalanish choralarini ko'rish muhimdir.

Benzinli transport vositalarining ish sharoitida yoqilg'i iste'moli va toksik emissiya parametrlari transport vositasining samaradorligi va ekologik barqarorligini belgilaydigan muhim xususiyatlardir. Yoqilg'i iste'moli - bu avtomobilning ma'lum masofa yoki vaqt ichida iste'mol qiladigan yoqilg'i miqdori. Odatda 100 kilometrga litr (l/100km) yoki milga gallon (mpg) bilan o'lchanadi. Yoqilg'i sarfining yuqori bo'lishi dvigatelning samarasiz ishlashini yoki yoqilg'i etkazib berish va atesleme tizimlari bilan bog'liq muammolarni ko'rsatishi mumkin.

Zaharli emissiyalar - atmosferaga chiqadigan yoqilg'ining yonish mahsulotlari bo'lib, ular tarkibida azot oksidi (NO_x), uglevodorodlar (HC), karbonat angidrid (CO_2) va zarrachalar kabi inson salomatligi va atrof-muhit uchun zararli moddalar bo'lishi mumkin. Toksik emissiyalar odatda har bir kilometrga gramm (g/km) yoki funt-milliy (lb/mi) bilan o'lchanadi. Ushbu parametrlarning qiymatlari qanchalik past bo'lsa, toksik emissiya shunchalik kam bo'ladi va mashina atrof-muhitga zarar keltiradi.

MUHOKAMA

Yoqilg'i sarfi va zaharli emissiya parametrlarini aniqlash WLTP (Worldwide Harmonized Light Vehicles Test Procedure) sikli yoki EPA (Atrof-muhitni muhofaza qilish agentligi) sikli kabi standartlashtirilgan sinov davrlari yordamida ixtisoslashtirilgan laboratoriyalar va sinov markazlarida amalga oshiriladi (1-rasm).

Ushbu testlar sizga ma'lum bir avtomobil modeli uchun yoqilg'i sarfi va emissiya qiymatlarini aniq aniqlash imkonini beradi.



1-rasm. Avtomoshilarning chiqarilgan gazlari diagnostikasi



2-rasm. Avtomoshilarning chiqarilgan gazlari diagnostikasi moslamasi

Benzinli transport vositasini tanlashda uning energiya samaradorligiga e'tibor berish kerak, bu yoqilg'i sarfi va zaharli chiqindilarga ta'sir qiladi. Kam yonilg'i iste'moli va emissiyasi kam bo'lgan yuqori samarali dvigatellar odatda to'g'ridan-to'g'ri ineksiya yonilg'i quyish tizimlari, turbo zaryadlash va dvigatelni to'xtatib qo'yish tizimlari kabi texnologiyalarga ega. Shuni ta'kidlash kerakki, avtomobil ishlab chiqaruvchisi tomonidan belgilangan yoqilg'i sarfi va zaharli chiqindilar parametrlari haqiqiy ish sharoitida haqiqiy qiymatlardan farq qilishi mumkin. Haydash uslubi, yo'l

sharoiti, avtomobil yuki va iqlim sharoiti kabi omillar haqiqiy yoqilg'ı sarfi va chiqindilariga ta'sir qilishi mumkin.

Benzinli transport vositalarining ish sharoitida yoqilg'ı sarfi va zaharli chiqindilarning parametrlarini aniqlash dvigatelning samaradorligini va uning atrof-muhitga ta'sirini o'lchash va baholash jarayonidir. Yoqilg'ı iste'moli parametrlari, masalan, 100 km uchun o'rtacha yoqilg'ı sarfi yoki avtomobilning ma'lum vaqt davomida iste'mol qiladigan yoqilg'ining umumiy miqdori maxsus o'lchash asboblari yoki monitoring tizimlari yordamida aniqlanishi mumkin. Ushbu parametrlar yoqilg'ı samaradorligini va dvigatel samaradorligini baholashga imkon beradi. CO₂ (karbonat anhidrid), CO (uglerod oksidi) va boshqa zararli moddalar kabi zaharli emissiyalar chiqindi gaz analizatorlari yordamida aniqlanadi (2-rasm). Ushbu qurilmalar chiqindi gazlardagi turli gazlar kontsentratsiyasini o'lchaydi va avtomobil tomonidan ishlab chiqarilgan zaharli chiqindilar darajasini baholash imkonini beradi. Ushbu parametrlarni aniqlash avtomobil dvigatellarining ekologik xavfsizlik standartlariga muvofiqligini baholash, shuningdek, turli modellar va avtomobil markalarini ularning samaradorligi va ekologik samaradorligi nuqtai nazaridan solishtirish uchun zarurdir. Ushbu ma'lumotlardan atrof-muhitga zararli ta'sirlarni kamaytirish uchun yangi texnologiyalarni ishlab chiqish va joriy etish va avtomobil sanoatini tartibga solishda ham foydalanish mumkin.

XULOSA

Xulosa qilib aytganda, avtomobil dvigatellarida benzin va dizel yonilg'ıilari ishlatilishi natijasida atrof-muhit va odamlar uchun katta zarar hisoblanib, zaharli gazlar chiqishi, dvigatel ortiqcha qizib ishlashi bilan katta ekspluatatsion va ekologik muammolarni keltirib chiqaradi. Bu muammolarni yechishda avtomobillarga muqobil energiya manbalari sifatida siqilgan va suyultirilgan gaz yonilg'ıilarini ishlatilishi ko'plab samarali natijalarni beradi. Avtomobillarda gaz yonilg'ıisidan foydalanish, dvigatel ishlashida detallarni me'yorida, uzoq vaqt ishlashini ta'minlab, atrof muhit uchun ekologik toza yonilg'ıi sifatida foydalaniladi.

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ИННОВАЦИОННЫЙ ПОДХОД В ХУДОЖЕСТВЕННОМ ОБРАЗОВАНИИ, СОВРЕМЕННЫЕ НАПРАВЛЕНИЯ ДЕКОРАТИВНО-ПРИКЛАДНОГО ИСКУССТВА

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***Аннотация:** в данной статье автор рассматривает некоторые особенности использования инновационных технологий в процессе обучения изобразительному искусству как средство повышения эффективности овладения учащимися знаний и умений в изобразительном искусстве.*

***Ключевые слова:** образовательные технологии, глобальные проблемы, интерактивность, профессиональная деятельность, педагогическая инновация, модульное обучение, мультимедиа, творческие способности, мотивация.*

***Annotation:** in this article, the author examines some features of the use of innovative technologies in the process of teaching fine arts as a means of increasing the effectiveness of mastering students' knowledge and skills in the fine arts.*

***Keywords:** educational technologies, global problems, interactivity, professional activity, pedagogical innovation, modular training, multimedia, creativity, motivation.*

Узбекистан с древности славился своими ремеслами – бесценным наследием мастеров, которое поражает богатством фантазии, неотразимостью и совершенством. Сохранению национальной культуры Узбекистана способствует декоративно-прикладное искусство, которое обладает специфической образностью, эстетической ценностью, имеет важное историческое значение и, конечно же, служит для оформления быта и жилого интерьера человека. Произведения данного вида искусства различаются разнообразием художественных традиций, созданных руками неповторимых мастеров узбекского народа. Это и гончарное производство, керамика с эффектами орнаментального декора, изделия ювелиров Бухары, ручная вышивка золотыми нитями, плетение из лозы ивового прута, резьба по ганчу, куклы, игрушки и сувениры из глины.

Но для того, чтобы достичь высшего мастерства и добиться совершенства в декоративно-прикладном, изобразительном и других видах искусства мало иметь просто талант, необходимо усердно учиться, совершенствуя свои способности, работая с полной отдачей и огромным желанием.

В этой статье я хочу рассмотреть некоторые особенности использования инновационных технологий в процессе обучения изобразительному искусству как средство повышения эффективности овладения учащимися знаний и умений в изобразительном искусстве.

Обычно художник хочет создать новое и, получив базу, дальше отталкиваться от нее. Идеально, когда художник не цепляется за пройденное, изученное, найденное в процессе учебы. Понятно, что художник в рамках своей личности всегда творит нечто новое. Но интересно, когда художник находит что-то своё – новое – неизведанное ранее.

Для будущего художника, в том числе и художника прикладного искусства (промышленная графика, керамика, реставрация, дизайна и т.д.), учебные постановки, связанные с декоративными задачами, имеют большое значение.

Вооружённый этими знаниями, он сможет переработать формы природы с учетом специфических требований декоративного искусства. Главные из них – это предельная ясность, краткость, иначе лаконизм выражения; строгая соподчинённость всех компонентов изображения; выявление “большой формы”, т.е. отбрасывание отвлекающих загромождающих деталей, акцентирование на конструктивной основе формы; переработка объёмно-пространственной формы в плоскую двухмерную и декоративно-условное трехмерное решение.

В декоративной живописи допускается полный полет фантазии художника, единственное ограничение - сохранить общий ритм и целостность композиции. Поэтому эффективная деятельность преподавателя вуза связана с его глубокими профессиональными знаниями, владением методикой преподавания с учетом психологических основ своего труда.

В решении этих задач особое значение придается личности педагога. Многие педагоги знакомы с традиционными методами обучения и считают их удобными и надежными. Основное внимание в них сосредоточено на предмете изучения. Преподаватель становится раздающим информацию, «заполняющим пустые сосуды». Но «ученик - это не сосуд, который нужно заполнить, а факел, который нужно зажечь» (К. Ушинский).

Технологии в современном изобразительном искусстве открывают новые возможности. Необходимость проявления творчества, поиск нестандартных путей решения задач в любой сфере деятельности — требование не только сегодняшнего дня, но и будущего. Компьютерные и интернет-технологии

дополняют диапазон используемых традиционных средств и методов педагогической работы. При обновлении содержания образования и освоении новых форм организации учебно-воспитательного процесса качественно меняется и роль учителя, как организатора, руководителя и соучастника учебного процесса, построенного как диалог учащегося с познаваемой действительностью.

Интерактивность (от англ. interact — взаимодействовать) означает способность взаимодействовать или находиться в режиме диалога. Следовательно, интерактивное обучение — это, прежде всего, диалоговое обучение. Диалог возможен и при традиционных методах обучения, но лишь как взаимодействие «учитель — ученик» или «учитель — группа учащихся (аудитория)». При интерактивном обучении в дополнение к этому диалог строится как взаимодействие «ученик — ученик» (работа в парах), «ученик — группа учащихся» (работа в группах), «ученик — аудитория» или «группа учащихся — аудитория» (презентация работы в группах), «ученик — компьютер», «ученик — художественное произведение» и т. д. Интерактивные технологии — это вид информационного обмена учащихся с окружающей информационной средой. Современные компьютерные программы интерактивны, предполагая взаимодействия с пользователем, предоставляя ему возможность выбирать способы организации информационных потоков, дозировать поступающую информацию, помогая в её обработке.

Инновации в образовании — это нововведения в педагогической деятельности, изменения в содержании и технологии обучения и воспитания. Основной целью инновационного подхода является повышение эффективности воспитания и образования с помощью нетрадиционных педагогических технологий.

Изобразительное искусство является сложным предметом, который содержит в себе знания о рисунке, живописи, композиции, пропорциях, перспективе и т.д. Задача современного образования — формировать способность действовать и быть успешным в условиях динамично развивающегося современного общества. Поэтому, стоит задуматься, как сделать процесс обучения более результативным, добиться перехода от информативного метода обучения к активной творческой деятельности всего педагогического сообщества, т. е. педагогического коллектива и учащихся. Можно предположить, что невозможно решать педагогические проблемы устаревшими методами. Для решения этих задач в современном образовании применяют многочисленные инновационные технологии: метод проектов, обучение в сотрудничестве, дифференцированное обучение, «портфолио

ученика», модульное обучение и т. д., а также применение этих инноваций трудно представить без технологии мультимедиа. Появляется возможность совмещать теоретический и демонстрационный материал (фильмы, видеоролики, музыка, презентации к урокам). Так как уроки ИЗО построены на зрительном ряде, использование возможностей мультимедийного оборудования облегчает подготовку учителя к уроку, где используется часто наглядность. Погрузиться в мир искусства, побывать в роли художника, дизайнера, архитектора, мастера прикладного и монументального искусства, не требуя при этом материалов, которые ученикам порой не доступны.

Интерактивные формы обучения строятся на взаимной связи между учениками и преподавателем. Внедрение информационно-коммуникационных технологий оптимизирует образовательный процесс, видоизменяет традиционные формы подачи информации, обеспечивает лёгкость и удобство. Оцифрованные фото и видеоматериалы создают базу для разработки презентаций для уроков. Компьютерные образовательные программы в игровой форме предлагают виртуальное посещение музеев, картинных галерей, дают возможность познакомиться с творчеством великих мастеров изобразительного искусства. С помощью Интернета появляется возможность «оказаться» в самых интересных местах на планете и найти ответы на различные интересующие вопросы. Компьютер также обладает достаточно широкими возможностями для создания благоприятных условий работы учителя, даёт учителю возможность эмоционально и образно подать материал, а также установить отношения взаимопонимания и дополнительный импульс для развития образования. За счет всего этого учащимся предоставляется возможность обучения на более высоком уровне.

Во время изучения темы или раздела студенты выполняют творческие задания на компьютере в виде слайдовой презентации, что предоставляет им возможность экспериментировать с различными вариантами изображения, синтезировать разнообразные виды виртуальной информации.

Разностороннее развитие личности, ее творческих способностей, навыков самообразования, создания условий для ее самореализации является одной из задач художественного образования. Применение компьютерной технологии в преподавании изобразительного искусства раскрывает практическую значимость изучаемого материала, давая возможность студентам проявить оригинальность, фантазию и творческие способности. Использование информационных технологий помогает учителю повышать мотивацию обучения учеников предметам изобразительного искусства и приводит к целому ряду положительных следствий: обогащению студентов знаниями, облегчению процесса усвоения материала, возбуждению живого интереса к предмету познания и расширению общего кругозора.

Ещё главная особенность интерактивных технологий заключается в том, что они основаны на прямом взаимодействии учащихся с учебным окружением.

Результаты проведенного педагогического исследования позволяют сделать вывод, что применение данного метода положительно влияют на развитие познавательной активности учащихся и эффективности усвоения изучаемого материала.

Наша задача, задача педагогов, в первую очередь, заинтересовать учащихся, убедить в том, что красота, которая нас окружает – дело наших рук, было бы желание, терпение и любовь к прекрасному. А применение инновационных методов обучения способствует повышению активности участия студентов в обучении, позволяет оптимизировать учебный процесс и подготовить квалифицированных специалистов – художников, настоящих мастеров своего дела.

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BUXORO VOHASIDA KAPTARSIMONLARNING BIOLOGIYASI VA EKOLOGIK XUSUSIYATLARI

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Annotatsiya: Maqolada mavzuning dolzarbligi, qushlarning umurtqalilar orasidagi o‘rni, areal hududlarida tarqalishi, Buxoro vohasi agrotsenozlarida tarqalgan kaptarsimonlar va ularning uchrash maqomi, kaptarlarni o‘rgangan olimlar, o‘tkazilgan tadqiqotlarning muddati va ishni bajarishda, statsionar kuzatishlarni amalga oshirishda foydalanilgan usullar, topib o‘rganilgan kaptar uyalari, tuxumlari, polaponlari va ularning soni, kaptarlarni farqli belgilari, ko‘payish oldi hatti-harakatlari, ya‘ni sayrash, juftlashish, uya qurush muddatlari, uya joylarini tanlashi, uyaning joylashtirishi, uyalashda erkak va urg‘ochi jinslar ishtiroki, uya xomashyosi va atrof-muhit bilan munosabati, uya shakli, o‘lchamlari, tuxum qo‘yishi bilan bog‘liq holatlar, tuxumlari soni va ularni isitishi, inkubatsiya muddati va bu davrda tuxumda bo‘ladigan o‘zgarishlar, tuxum bosishda ota-onalarning avlod g‘amxo‘rligi, tuxumdan jiqqan jo‘jalarning holati, tevarak-atrofiga aks ta‘siri va ularning vaqt o‘tishi bilan o‘zgarishi, jo‘jalarning uyasi bilan bog‘liqligi muddati, uyaning tarkibidan oldingi jo‘jalarning morfometrik o‘lchamlari, oziqlanishi va oziqa turi, bioshikastlanishdagi ishtiroki, sanitarlik roli kabi bir qator ko‘payish bilan bog‘liq xulqiy reaksiyalari va ahamiyati hamda kaptarlarga boshqa turlarning ta‘siri o‘rganilgan.

Kalit so‘zlar: Buxoro vohasi, Tarixiy obida, Ko‘k kaptar, Qumri, Musicha, Agrotsenoz, Etologiya.

Abstract: In the article, the relevance of the topic, the place of birds among vertebrates, their distribution in the areal regions, Pigeons scattered in the agrotsenoses of the Bukhara Oasis and their occurrence status, scientists who studied pigeons, the duration of the studies carried out and the methods used when performing stationary observations, found and studied pigeon nests, eggs, polapons and their number, the participation of male and female sexes in nesting, the relationship of the nest with the raw materials and Environment, The Shape of the nest, dimensions, circumstances associated with laying eggs, the number of eggs and their heating, the

incubation period and the changes in the egg during this period, the generational care of parents in egg pressing, the condition of the chicks that Hatch, the, behavioral reactions and importance associated with a number of reproduction, such as the role of sanitation, and the effects of other species on pigeons have been studied.

Keywords: Bukhara Oasis, Historical monument, *Columba livia*, *Streptopelia decaocto*, *Streptopelia senegalensis*, Agro-synopsis, Ethology.

KIRISH. Tur xilma-xilligi bo'yicha qushlar umurtqalilar orasida baliqlardan keyin ikkinchi o'rinni egallaydi. Qushlarni areal hududlarida tarqalishi, biologiyasi va ekologiyasini tadqiq qilish, ularni agrotsenozlarga, qishloq, shaharlarga jalb etish, muammoli turlar sonini boshqarish, muhofaza qilish chora-tadbirlarini aniqlash dolzarbdir. Kaptarsimonlar Janubiy Yevropa, Shimoliy Afrika, Osiyoda, jumladan, O'zbekistonda cho'l va dashtlardan tortib baland qorli cho'qqilargacha, shaharlarda tarqalgan.

Buxoro vohasi agrotsenozlarida kaptarsimonlar turkumi, kaptarlar oilasiga mansub *Columba palumbus*, *Columba livia*, *Streptopelia decaocto*, *Streptopelia turtur*, *Streptopelia senegalensis* kabi vakillari tarqalgan. Jumladan, *Columba livia*, *Streptopelia decaocto*, *Streptopelia senegalensis* o'troq, sinantrop turlardir. Ularni o'troq deyishga sabab, yil davomida vohaning barcha ekologik muhitlarida uchratdik.

ADABIYOTLAR TAHLILI VA METODOLOGIYA. Hozirgacha bu qushlarning biologiyasi Buxoro vohasi misolida maxsus o'rganilmagan. Hatto Buxoro viloyati misolida kaptarsimonlar kam o'rganilgan yoki tadqiqotchilar tomonidan yig'ilgan materiallar bugungi kunda ancha eskirgan va tegishli xulosalar chiqarish uchun yetarli emas (Zarudniy, 1896; Dal, 1936; Abdusalomov, 1964; Ivanov, 1969; Kashkarov, 1974; Nazarov, 1990; Baqoyev, Salimov, 1990; Lanavenko, 1993; Ametov, 1994; Baqoyev, 1994; Xolboyev, 2000; Ametov, 2008). Shuni e'tiborga olib ushbu maqolada 2006-2023 yillarda kaptarsimonlar bioekologiyasi bo'yicha o'tkazilgan kuzatishlar, to'plangan ma'lumotlarga asoslangan holda fikr, mulohazalarimizni keltiramiz.

Kaptarsimonlar bioekologiyasini o'rganishda, statsionar kuzatishlarni amalga oshirishda G. A. Novikov (1949, 1953), A. S. Malchevskiy (1959, 1981), A. B. Mixeyev (1984) metodlariga asoslanildi. Ko'k kaptarning 100 ta uyasi topildi, 46 ta tuxumlari, 34 ta polaponlari, qumrining 348 ta uyasi topildi, 59 ta tuxumlari, 31 ta polaponlari, musichaning 141 ta uyasi topildi, 81 ta tuxumlari, 52 ta polaponlari o'rganildi. Yana bir qancha kuzatishlar ham amalga oshirildi.

NATIJALAR. Ko'k kaptar ko'rinishidan Buxoro vohasida o'troq uchrovchi boshqa kaptarsimonlardan xiyla yirikroqdir. Qumri ko'k kaptarga yaqin, musichadan xiyla yirikroqdir. Musicha ko'rinishidan ko'k kaptar va qumridan sezilarli, g'urrakdan

esa xiyla kichik. Kaptarsimonlarning fe'l-atvori ancha murakkab bo'lib, areal chegaralari o'zgarimoqda, ya'ni, ko'k kaptar va qumrilarning areali kengayimoqda, g'urrak va musichalarning areali qisqarmoqda. Bu holatni ko'k kaptarda uyalaydigan joyning va oziqaning seroblashayotganida, qumrida musicha va g'urraklarni uyalaydigan joylarini egallab olayotganida, g'urrak va musichalarda uylash joylari sifatida yopiq joylarni tanlayotganida, tunash joylarini o'zgartirayotganligida ko'rish mumkin.

Ko'k kaptarni boshqa kaptarsimonlardan ajratishda faqat gavdasining bir oz yirikligi, yorqin rangi emas, balki qanotida qora yo'llar ko'pligi, dumida oq yo'llar deyarli bo'lmasligi ham, qumrini ko'k kaptar, ayniqsa, g'urrak va musichadan ajratishda gavdasining bir oz yirikligi, bo'ynidagi yarim halqa shaklidagi qora tasmasi ham, g'urrakni ko'k kaptar, qumri va musichadan ajratishda nafaqat gavda hajmi, balki bo'yni hamda qanoti tashqi yuzasidagi yorqin naqshlari ham, musichani boshqa turkumdoshlaridan, ayniqsa qumri, g'urraklardan ajratishda gavdasining bir oz kichikligi emas, balki bo'ynida va qanotining tashqi yuzasida ko'zga tez tashlanadigan yarim halqa shaklidagi qora tasma hamda yorqin naqshlarning yo'qligi katta rol o'ynaydi. Yuqoridagi morfo-anatomik belgilariga qarab ancha uzoqdan ham kaptarsimonlarni bir-biridan farqlab, tezda tanib olish mumkin.

Yil davomida kaptarsimon (gov kaptar va g'urrakdan tashqari) larni Buxoro vohasi qishloq, shaharlarida, yo'llar atrofidagi daraxtzorlarda, agrotsenozlarda uchratdik. Ularning seroblik darajasi (soni) shaharda, qishloq agrotsenozlarda ancha farq qiladi.

Ko'k kaptarning sayrashi ikki-uch bo'g'inli bo'lib-"g'u-g'uu, g'u-g'uu-g'uuv", qumrining sayrashi uch bo'g'inli bo'lib-"gu-guu-guuv", g'urrakning sayrashi esa "turr, turr, turr", musichaning sayrashi 4-5 bo'g'inli bo'lib-"kuk-ku-ku-kukuuu" tarzida namoyon bo'ladi. Ko'k kaptar, qumri, musichaning komfort sayrashi yilning deyarli barcha oylarida eshitilsa, g'urrakning sayrashi apreldan oktyabrgacha eshitiladi.

Faqat sayrayotgan kaptarsimonlarning serobligi martdan to avgustgacha ko'proq bo'ladi va sentabrdan to fevralgacha ularning tovushini kamroq eshitish mumkin. G'urrakni kuzgi migratsiya tufayli oktabrdan-aprelgacha vohada sayrashi qayd qilinmadi. Qish qattiq kelgan 2008 yilda esa, ko'k kaptar, qumri va musichalarning sayrash rejimi ancha o'zgardi. Qish oylarida ular sayramay qo'ydi, hatto havoning sovuqligi tufayli yerda qorning uzoq saqlanishi natijasida qushlarning ochlikdan nobud bo'lish holatlari ham kuzatildi. Bu holat kaptarlarga ham ta'sirini ko'rsatdi. Masalan, Buxoro viloyat markaziy madaniyat istirohat bog'ida ochlikdan 2 ta Columba livia, 6 ta Corvus frugilegus, 4 ta Acridotheres tristis, 14 ta Fringilla coelebs, 1 ta Fringilla montifringilla, 1 ta Parus bukharensis, 1 ta Sturnus vulgaris, 1 ta Streptopelia senegalensis nobud bo'lganini ko'rdik.

Ko'k kaptarning dastlabki sayrashini fevral oyining birinchi dekadasidan (20.02.2009; 18.02.2010; 15.02.2011; 26.02.2012; 22.02.2013; 02.03.2014; 27.02.2015; 13.02.2016; 21.02.2017; 04.03.2018; 05.03.2019; 17.02.2020; 04.02.2021) mart oyining birinchi dekadasigacha, qumrining dastlabki sayrashini mart oyining birinchi (01.03.2006; 09.03.2007; 06.03.2009; 02.03.2010; 03.03.2011; 10.03.2012; 05.03.2013; 04.03.2014; 08.03.2015; 06.03.2016; 08.03.2017; 06.03.2018; 05.03.2019; 29.02.2020) dekadasida, g'urrakning dastlabki sayrashini aprel (08.04.2006; 11.04.2009; 09.04.2011; 16.04.2012; 22.04.2015; 27.04.2021) oyida, musichaning dastlabki sayrashini fevral oyining uchinchi va mart oyining birinchi (19.02.2009; 14.03.2010; 04.03.2015; 22.02.2018; 11.02.2019; 20.02.2022) o'nkunligida qayd etdik.

Uya qurishdan oldin kaptarsimonlar ham boshqa turlardek juft hosil qiladi. Bu davrda ular bir-birini quvib uchadi, ba'zan tumshuqlarini bir-biriga tekkizishi, bo'yin va bosh qismini cho'qishi, bir-biriga yaqin turishi, turiga xos diskonfort tovush chiqarishi, qanotlarini bir-biriga urib chapak chalgandek tovush chiqarib ufqqa tik ko'tarilib, Yerga tomon tez sho'ng'ishi, xas tashish, uya qurish, uyada tunab qolish, qanotlarini gavda orqa tomoniga qo'ngan kapalak qanotidek taxlab tez yurishi, qisqa masofaga uchishi, turgan joyida boshini yerga quyi solib "g'uru-g'uru, tqg'g'g'-tqg'g'g'" tarzida sayrab aylanishi, shishib xurpayishi, biri-ikkinchisini ustiga chiqib 3-5 sekund turib qolishi, bir-birini qisqa qadamlar bilan taqib qilib uchib ketishi kabi fe'l-atvorini mahorat bilan namoyon qiladi.

Buxoro vohasi sharoitida kaptarsimonlar uyalarini insonlar tomonidan bunyod qilingan turli binolarning tomiga, binolarning eshigi peshtoqiga, konditsionerlar ustiga, karnizlarga, ayvonlarga, mol bozorlaridagi naveslarga, darvoza zulfiniga, gaz hisoblagich g'ilofiga, tarixiy obidalar ichki qismiga, qisman boshqa qush (Buxoro shahri "Mirdo'stim" ko'chasi chinor daraxti zag'izg'on uyasidagi tuxum bosayotgan ko'k kaptar (05.04.2009), Buxoro sport majmuasi ayvon peshtoqi zag'izg'on uyasidagi tuxum bosayotgan ko'k kaptar (02.04.2010)) larning uyalariga, shumtol, tut, olma, chinor, olmurut, oddiy qarag'ay, jiyda, tobilg'i, qaroli, gilos, tuya archa, o'rik, gujum, olcha, gledichiya, virgin archa kabi daraxtlarga, tolordagi tok shoxlariga, chopilgan yulg'un shoxlari orasiga, kuzatuv kamerasiga, qarovsiz qoldirilgan tok shitlari ichiga, ochiq qoldirilgan derazalarga, bekatlarga, kuchli isimaydigan chiroqlarga, ishlab turganiga qaramasdan shamol haydovchi uskunalarning metaldan ishlangan to'rtli himoyasi ustiga, reklama afishalari orasiga joylashtiradi. Uyasini binolar tomiga, 16-21 ta (30.05.2010 yil Jondor tuman "Qaldirg'och" bolalar bog'chasi hududidagi binolar tomida ikki holatda qayd qilindi) gacha to'p qurishi bilan ko'k kaptar turkumdoshlari orasida ustunlik qiladi. Zag'izg'on uyasidan foydalanishda ko'k kaptarga qumri, ko'k kaptar va qumriga esa, uya holati yaxshi bo'lsa zag'izg'on,

mayna, cho‘l sog‘i raqobatchi hisoblanadi. Uya joylarini tanlashda esa, musicha bilan qumri, mayna, qishloq qaldirg‘ochi raqobatlashadi. Tabiiy-ijtimoiy sharoitdan kelib chiqib bunday turlararo raqobatda kaptarsimonlar ba‘zan yutqazsa, ba‘zan yutadi. Ba‘zida kaptarsimonlar yil oshgan yoki oldin foydalanilgan o‘z uyalaridan ham takror foydalanadi. Uyani qurishda ikkala jins kaptarsimonlar ishtirok etadi. Qurilish muddati ba‘zan bahorning kelish vaqtiga, ob-havoga, jumladan, haroratga bog‘liq holda uchkundan o‘nkungacha, o‘rtacha to‘rt-olti kun vaqt talab etadi.

Kaptarsimonlar uyasini qurishda asosan 50-250 metr radiusda tevarak-atrofdagi o‘simliklarning turli qismlaridan, kamdan-kam hollarda ingichka, rangli sim (9 ta uyada) lardan ham foydalanadi. Uya ko‘rinishi jihatidan ancha yassiligi, g‘ovakligi, uya materiallarining ko‘p bo‘lmasligi va ingichka rangli simlardan foydalanilishi, insonlarga yaqin nuqtalarda joylashtirilishi bilan xarakterlanadi. Uyasi aniq shaklga ega emas, ya‘ni yarim likopchasimon, ovalsimon, cho‘ziq shaklli bo‘ladi. Ba‘zan qumri va musichani pastdan turib uyasidagi tuxumlarni kuzatish mumkin. Uya (n=50,0) larning yerdan balandligi 22,6 (5,1-40,0) metr. Uyalarning yerdan balandligini ortishi zamonaviy ko‘p qavatli uylarning ko‘payishi va ularda kaptarsimonlar uyalashi bilan tushuntiriladi.

Kaptarsimonlar uyasini qurishda tevarak-atrofdagi olma, o‘rik, qaroli, gilos, oddiy qarag‘ay, kaliforniya teragi, tol, tok, yulg‘un, ligustrum, shuvoq, sho‘ra, ajriq, qo‘ypechak, tukli chitir, salomalaykum, jag‘-jag‘, bulg‘or qalampiri, shivit, sholg‘om, yantoq, beda, kurmak, tuyatovon, arpa, bug‘doy, qirq bo‘g‘im, qamish, yovvoyi supurgi, madaniy supurgi, kabi o‘simliklarning turli tana qismlaridan, kamdan-kam hollarda doka, sintetik iplar va radio simlaridan hatto o‘zining kontur pat va parlaridan ham foydalanadi. Uyaning xom-ashyosi va o‘lchamlari ekologo-geografik sharoitga hamda mavsumga, uyalash muddatiga bog‘liq holda o‘zgaruvchan bo‘ladi. Kaptarsimonlar uyasining morfometrik o‘lchamlari quyida 1-jadvalda ifodalanadi

1-jadval

Kaptarsimonlar uyasining morfometrik o‘lchamlari

Turlar	Chuqurligi	Eni	Vazni,
	mm		g
Ko‘k kaptar (n=57/61/17)	48,9 (29,0-70,0)	208,9 (150,0-500,0)	58,6 (23,5-140,1)
Qumri (n=39)	97,4 (66,0-137)	154,3 (92,9-216,0)	47,9 (29,2-76,5)
Musicha (n=33/60/13)	51,9 (26,0-290,0)	214,2 (18,9-261,5)	60,8 (23,5-139,8)

Yuqoridagi raqamlarning ko'rsatishiga ko'ra uya o'lchamlarida ham maxalliy, ham yakka tartibda o'zgaruvchanlik borligi bilinadi.

Uya qurilishi tugagach, unga oq rangli, ichki suyuqligi qizg'ish, po'choq sirti asosan silliq ba'zan g'adir-budir, tuxum po'chog'i (n=9) 0,43 (0,4-0,5) mm. qalinlikdagi katta-kichik, oval shaklli tuxumlar qo'yadi. Tuxum har kun 1 tadan, ba'zan bir kun tashlab qo'yilar ekan. Uyalardagi tuxumlar soni 2 taga teng. Tuxumlarni bosish, isitishda kaptarsimonlar oilasi ishtirok qilsada, oiladagi urg'ochi individning faolligi sezilib turadi. Kaptarsimonlar tuxumlari morfometriyasi quyida 2-jadvalda keltiriladi.

2-jadval

Kaptarsimonlar tuxumlari morfometriyasi

Turlar	Uzunligi	Eni	Uchki eni	Tubini eni	Vazni, g
	mm				
Ko'k kaptar (n=46)	36,8 (23,7-41,3)	28,1 (17,5-30,2)	18,5 (12,5-20,6)	22,5 (14,5-25,6)	15,9 (12,4-19,6)
Qumri (n=59)	31,20 (28,6-34,9)	23,59 (21,4-25,0)	-	-	9,01 (7,1-11,0)
Musicha (n=63)	27,1 (24,5-29,5)	21,4 (19,3-22,2)	15,5 (11,8-17,1)	17,2 (12,6-18,6)	6,2 (4,8-7,7)

Tuxumlarni o'lchash vaqti ko'k kaptar o'ziga o'rganuvchini yaqinlashtirish masofasi kattaligi bilan boshqa kaptarsimonlardan farq qiladi. Qumri va musicha esa, shishib, rul patlarini yelpig'ichdek yozib gavdasini katta ko'rsatishga, qanotlari bilan urub, gavda orqasiga qanotlari kapalak qanotlaridek taxlanib, juda yaqinlashganda sekinlik bilan joyini o'zgartirib, cho'qishga urunib, diskonfort tovush chiqarib qarshilik qiladi. Kaptarsimonlarning erkagi esa, uya (n=32) dan 27,7 (13,4-68,0) metr uzoqlikda urg'ochisini muhofaza qilib, uni atrofdagi vaziyat bilan bog'lab turadi. Tevarak-atrofdagi turli xavflar kamayganda yoki quyosh botgach uyasiga yaqin keladi. Tuxumlarni bosish davrida urg'ochi qumri va musicha (n=48) odamni o'ziga 1,922 (0,0-10,0) metrgacha yaqin kelishga, hatto qo'l tekkizishga, uni suratga tushirish uchun ham imkoniyat beradi. Bu hol ularning avlodiga bo'lgan g'amxo'rlikini kuchliligini, insonlarni mazkur turlarga nisbatan ijobiy munosabatiga moslashganligini ko'rsatadi. Tuxum bosayotgan kaptarsimonlarni tana o'lchamlari quyida 3-jadval berilgan.

3-jadval

Tuxum bosayotgan kaptarsimonlarni tana o'lchamlari

O'lchamlar, mm., g	Kaptarsimonlar		
	Ko'k kaptar	Qumri	Musicha
Tumshug'ining uzunligi	23,2	18,6	18,5
Tumshug'ining asosdan uzunligi	-	-	18,9
Burun teshigidan uzunligi	13,3	18,6	8,7
Tumshug'ining balandligi	6,6	5,9	5,0
Qanotining uzunligi	234,0	180,0	102,0
Ikkita qanotining yoyiq holdagi uzunligi	670,0	530,0	347,0
Tana uzunligi	345,0	325,0	188,0
Ilik suyagi uzunligi	34,5	30,6	20,8
Dumini uzunligi	117,5	144,0	70,0
Vazni	330,0	173,4	85,9

Tuxum bosish jarayoni 13-17 kungacha davom etadi. Shu davrning 12-15 kunlarida tuxum po'choqlarida dars ketish holatlari ko'zga tashlanadi. Bu hodisa tuxumlardan jo'jalar chiqishi uchun harakatlanayotganini bildirishi mumkin. Tuxum bosish davrida tuxum (n=88) larni vazni har kuni 0,2-0,3 gramdan kamayib boradi. Tuxumdan chiqqan jo'ja tez o'sib rivojlanadi, vazni ortib boradi. Jo'jalarning ko'rinishi, qiyofasi, rangi o'zgarib boradi. Dastlab ularning tumshug'i uchi, tirnoqlari och tusda bo'ladi. Tanasi yuzasida sariq va tiniq-sariq embrion puxlari bo'lib, ko'zlari, quloqlarining atrofida, tumshug'i, oyoq panjalari, bo'ynining pasti, qorin qismi bo'ylab patsiz joylari ham bor. Jo'jalarning ko'zlari ojiz, quloq teshiklari yopiq bo'ladi. Ular tuxumidan chiqqandan keyin 3-4 kunligida ko'z, quloq atroflarida qoramtir tusli patchalarning murtagi, qanoti, dumida ham pat o'siqlari namoyon bo'ladi. Keyinroq 72,0-120,0 soatligida eshitish yo'llari, ko'zlari ochiladi.

Jo'jalar tashqi ta'sirlarga javob bera boshlaydi, ya'ni xurpayish, axlat tashlash, titrash, o'zini orqaga tashlab pisish, tumshuqlarini bir-biriga urib qirs-qirs ovoz chiqarish, uchishga va cho'qishga urinish, panjasini qisish, tez yurib qochishga urinish, tez-tez nafas olish, uyadagi xaslarni changallash, bosh, oyoq panjalarini, tumshuqni harakatga keltira oladi. Endi qanotidagi qoquv patlarining, dum patlarining uchi yorilib, eshilib mo'yqalamni eslatuvchi tutamlar hosil bo'la boradi. Tumshuq,

tirnoqlarining rangi qo'ng'ir tus oladi, quyuqlasha boradi. Jo'jalar qanotlarini sekin yozib, boshini tik saqlaydi, tez-tez nafas oladi. 7-8 kunligiga kelib, qanoti, dumidagi pat yelpig'ichi kattalashib qoladi. Tanasining yuzasi bo'ylab, kontur patlar yaxshi rivojlanganligi bois, tana patlar bilan yaxshi qoplanadi. 10-12 kunligida ular hali ham ucha olmaydi, ammo ancha harakatchan bo'ladi. Keyinroq jo'jalar 14-15 kunlik bo'lganida ota-onalariga o'xshab qoladi, uyadan uchib chiqishga harakat qiladi. Biroq yana 3-4 kun ular ota-onalari panohida bo'ladi. Shundan keyin uyani tark etishadi. Lekin yana bir necha kun qush bolalari uyasiga bog'liq bo'ladi, dam oladi, tunaydi va h.k.

MUHOKAMA. Shunday qilib, Buxoro vohasida kaptarsimonlarning tuxumli uyalarini martdan boshlab to dekabrgacha uchratish mumkin. Ob-havo bilan bog'liq holda ular ba'zan kuz faslida ham yoxud erta bahorda ham urchish harakatlarini namoyon etadilar.

Kaptarsimonlar asosan donxo'r qush. Ammo, yilning mavsumlarida ularning ozuqa spektri, joyi o'zgarishi mumkin. Chunonchi, bahor, yozda bug'doy, makkajo'xori, begona o'simliklarning urug'lari, qisman hasharotlarni, kuz va qishda ular tort, somsa, non, semechka, mayiz, yong'oq, mandarin, uzum va uning mayizi, jiyda mevasi, makaron, pista, donasho'rak, har-xil ziravorlar, yeryong'oq, xurmo, olma, banan, pishgan makka so'tasi kabi oziq-ovqat qoldiqlari, perlovka, qo'ypechak, piyoz, grechka, issiriq, madaniy supurgi, gledichiya, ligustrum, virgin archasi va sharq saurining urug'lari bilan oziqlanadi. G'o'za, bug'doy, makkajo'xori, loviya, mosh, no'xat, tariq, sholi, kungaboqar, javdar, uzum, olma, o'rik, behi, yeryong'oq ekilgan dalalarda uchraydi, bozorlar, qabristonlar, molxonalar, qarg'alar tunash joyidagi qusqilarni titkilaydi, aholi turar joylari, axlatxonalar, ko'chatxonalardan don-dun topib yeydi. Qattiq oziqalarni iste'mol jarayonini yaxshilash uchun ba'zan tosh, shisha, temir parchalarini yutadi.

Oziqlanishda *Acridotheres tristis* (8,0 (n=8) (2,0-23,0) ta), *Pica pica* (4,5 (n=8) (1,0-10,0) ta), *Passer montanus* (17,1 (n=7) (1,0-38,0) ta), *Corvus frugilegus* (53,2 (n=6) (1,0-150,0) ta), *Corvus cornix* (5,0 (n=3) (2,0-11,0) ta), *Fringilla coelebs* (4,0 (n=4) (2,0-8,0) ta), *Passer indicus* (3,0 (n=2) (1,0-5,0) ta), *Coturnix coturnix* (2,0 (n=4) (1,0-3,0) ta), xonaki kaptar (2,0 (n=4) (1,0-3,0) ta), *Chloris chloris* (4,0 (n=4) (2,0-8,0) ta), *Corvus monedula* (1,5 (n=2) (1-3) ta), xonaki parrandalar, chorva mollari, kam holatlarda *Larus ridibundus* (10,0 (n=1) (10,0) ta), *Phasianus colchicus* (1 (n=1) (1,0) ta), *Fringilla montifringilla* (1 (n=1) (1,0) ta), *Burhinus oedicnemus* (1 (n=1) (1,0) ta), *Parus bukharensis* (3,0 (n=1) (3,0) ta), *Sturnus vulgaris* (30,0 (n=1) (30,0) ta), *Apus apus* (30,0 (n=1) (30,0) ta), *Himantopus himantopus* (1 (n=1) (1,0) ta), *Galerida cristata* (1 (n=1) (1,0) ta) kabi turlar kaptarsimonlar atrofida borligi qayd qilindi.

XULOSA. Kaptarsimonlar biologiyasini o'rganish davrida aniqlandiki, bu qushlar madaniy o'simliklardan bug'doy, makkajo'xori, arpa, sholi, no'xat, tariqning yerga tushgan donlari, maysalari, begona o'simliklar urug'lari bilan oziqlanib, sport maydonlarida, bozorlardagi oziq-ovqat sotiladigan rastalar atrofida, xiyobon va istirohat bog'laridagi o'tirg'ichlar ustida, xonadonlarda uchrab, ba'zan antisanitariya bilan bog'liq muammolarni keltirib chiqaradi.

Madaniy-tarixiy yodgorliklarimizdan tunash, dam olish, oziqlanish, ko'payish uchun foydalanishi jarayonida ularning yemirilishiga sababchi bo'ladi. Tanasida parazitlarni tashishi, ularni tarqalishiga sababchi bo'ladi. Xonaki parranda va chorvo mollari oziqasiga sherik bo'ladi.

Chiqindilar, oziq-ovqat qoldiqlari bilan oziqlanib, sanitarlik vazifasini bajaradi. Oziq zanjirida ahamiyatga ega. Jo'ja boqish davrida zararkunandalar bilan oziqlanib, qishloq xo'jaligiga foyda keltiradi. Axlati fosfoga boy, tuproqqa aralashib, unumdorlikka ta'sir etadi. Uya qurishda begona o'tlarning tana qisimlaridan foydalanib, ularni agrotsenozlarda tarqalishini chegaralaydi.

Keyingi vaqtlarda odamlar tomonidan turar joylarni o'zgartirish, daraxtlarga novaqt shakl berish, ularni kesish va daydi mushuklar, toshqirg'iy, zag'izg'on tomonidan kaptarsimonlar soniga ta'sir bo'lmoqda.

Kaptarsimonlar o'ziga xos ovoqli, chiroyli qushlar, ular agrotsenozlarda o'z o'rniga ega, tabiatning ajralmas qismi. Shuning uchun ularni muhofaza qilish, qish mavsumida noqulay ob-havoli sharoitlarda ularga ovqatlanish joylarini yaratish, oziqlantirish maqsadga muvofiq. Ana shu xususiyatlari bilan turli agrotsenozlarda, inson ekologiyasida ijobiy rol o'ynaydi.

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ЎЗБЕКИСТОНДА МУЗЕЙ СУВЕНИРЛАРИНИ ЯРАТИШ ВА ИШЛАБ ЧИҚАРИШГА ДОИР

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***Аннотация.** Мақолада Ўзбекистон тарихи Давлат музейининг кўзга кўринган экспонатлари асосида яратилган ва ишлаб чиқарилган музей сувенирлари ҳақида сўз боради. Шунингдек, илгор хорижий тажрибалари ўрганилиб, музей сувенирларининг туризм соҳасидаги ўрни таҳлил қилинади.*

***Калим сўзлар:** музей, сувенир, яратиш, ишлаб чиқариш, туризм, экспонат, ҳайкал, сопол, полиграфия, маҳсулот, “музей дўкон”.*

***Аннотация.** Статья посвящена музейным сувенирам, созданным и изготовленным на основе выдающихся экспонатов Государственного музея истории Узбекистана. Также изучается передовой зарубежный опыт и анализируется роль музейных сувениров в сфере туризма.*

***Ключевые слова:** музей, сувенир, разработка, производство, туризм, экспонат, скульптура, керамика, печать, продукт, “музейный магазин”.*

***Annotation.** The article is devoted to museum souvenirs created and made on the basis of outstanding exhibits of the State Museum of the History of Uzbekistan. It also studies advanced foreign experience and analyzes the role of museum souvenirs in the field of tourism.*

***Key words:** museum, souvenir, create, produce, tourism, exhibit, sculpture, ceramics, print, product, “museum shop”.*

Музей сувенирлари нафақат музейларга иқтисодий фойда келтиради, балки уларни тарғиботчиси ҳам саналади. Қолаверса, сувенирлар мамлакат туризмининг бир йўналиши ҳисобланиб, ҳам уларни ишлаб чиқарувчиларига, ҳам давлат иқтисодига ҳисса қўшиши билан аҳамиятлидир. Бугунги кунда ривожланган ва ривожланаётган давлатларда музей сувенирларини ишлаб чиқариш яхши йўлга йўқилган. Жахоннинг кўзга кўринган музейлари ўзининг миллий брендларига, машхур экспонатларини репликацияларига эга бўлиб, миллионлаб нусхада ишлаб чиқарилади ва сотилади.

Сўнги йилларда Ўзбекистонда ҳам музей сувенирларини яратиш, ишлаб чиқариш ва савдосини йўлга қўйишга эътибор кучайди. Бу борада музейлар ва моддий маданий мерос кўчмас мулк объектларининг пуллик хизмат кўрсатиш фаолияти билан шуғулланиш учун Ўзбекистон Республикасининг “Музейлар тўғрисида”ги қонунига ўзгартириш ва қўшимчалар киритилди. Унга кўра, эндиликда музейлар даромад келтирадиган фаолият билан шуғулланиши мумкин (“Музейлар тўғрисида”ги Қонун).

Маданий мерос агентлиги томонидан Музейлар ва туристик йўналишлардаги маданий мерос объектларида “Museum shop” (музей дўкон) тизимини йўлга қўйиш бўйича ишчи гуруҳ ташкил этилди. Мазкур ишчи гуруҳ томонидан “Museum shop”ларни ташкил қилиш бўйича Туркия, Хитой, Франция, АҚШ каби давлатларнинг тажрибасини ўрганиш ва уларнинг илғор тажрибаларини Ўзбекистонда татбиқ этиш бўйича таклифлар ишлаб чиқиш режалаштирилган (<https://yuz.uz/uz/news>).

Ўзбекистонда ҳунармандчиликнинг турлари кўп бўлиб, қадим-қадим замонлардан ривожланиб, такомиллашиб келмоқда. Уста-ҳунармандлар аввалдан асосан хўжаликда фойдаланиш учун маҳсулотлар ишлаб чиқарган бўлса, аста-секинлик билан буюртмалар асосида ва тажрибалар ортиши натижасида ўзига хос шаклу-шамойилга эга буюмлар ҳам ишлаб чиқаришни йўлга қўйган. Тарихий-маданий ҳудудларда давлатчиликнинг ривожланиши, дипломатия муносабатларининг шаклланиши билан ўзаро совғалар олди-бердиси ҳам йўлга қўйила бошлаган. Ҳукмдорлар бир-бирларига ўзларининг элчилари орқали қимматбаҳо ва камёб буюмлар бериши вақтлар ўтиб анъана ва ёзилмаган қоидага айланган. Нодир буюмлар орасида ҳунармандлар томонидан мукамал санъат асари даражасида ишланган маҳсулотлар ҳам бўлган. Уларга мисол тариқасида олтин ва қимматбаҳо тошлар қадалган (инкрустация) қилич ва ханжарлар, зебу-зийнатлар, зарҳал тўн ва либослар ҳамда сарой интерьерини безаш учун мўлжалланган маҳобатли декоратив буюмларни келтириш мумкин. Бу каби совға қилинган нодир буюмларни кўплаб музейларда учратиш мумкин.

Бугунги кунда йирик музейларда “Museum shop”лар фаолият юритади ва уларда бир неча юзлаб сувенирларни кўриш мумкин. Уларнинг асосий қисми музейдаги машҳур экспонатлар асосида ишлаб чиқилган. Одатда сувенирларнинг бир қисми фойдаланиш учун, бошқалари эса эсдалик мақсадида ишлаб чиқарилади. Фойдаланиш учун ишлаб чиқарилган сувенирларга музей логотипи ёки машҳур экспонатлар расми ёки экспонатлардаги услублаштирилган турли тасвир, сюжет ва безаклар туширилган либос

(футболка), канцтовар ва полиграфия маҳсулотлари, ошхона ва хўжаликда ишлатиладиган буюмларни мисол келтириш мумкин. Эсдалик сувенирларга асосан, ноёб ва машхур архитектура ёдгорликлари ва иншоотлари, картиналар, ҳайкаллар, ўзига хос шаклу-шамойилга эга сопол идиш ва буюмларнинг турли ўлчамлардаги нусхаларини мисол келтириш мумкин.

Музей сувенирлари ичида энг кенг тарқалган ва кўп хариб қилинадиган тури бу машхур архитектура иншоотларидир. Биринчидан, уларни ишлаб чиқариш мураккаб жараёни талаб этмайди, иккинчидан уни турли ўлчамларда ва хом-ашёларда тайёрлаш мумкин. Масалан, Париждаги Эйфел минораси асосида юзлаб сувенирлар ишлаб чиқарилган ва улар орасида арзонлиги учун энг кўп сотиладигани брелоклардир. Уни ишлаб чиқариш конвейер усулида бўлиб, қаттиқ полимер ёки полестир моддалардан қуйма ҳолатда ясалади. Яна бир харидоргир сувенир тури – магнитлар ҳисобланади. Улар ҳам метал, ёғоч, полимер каби турли хом-ашёлардан ясалиб, улар орасида винил магнитлар арзонлиги, эластиклик ва энгиллик хусусиятларига кўра оммабоп ҳисобланади. Сўнгги пайтларда ёғочга лазер ёрдамида ишлов бериш (кесиш, ўйиш, куйдириб жило бериш ва б.) технологиялари такомиллашгани боис, ёғочдан ясалган сувенирлар расталардан муносиб ўрин олмоқда.

Мамлакатимизда ҳам музей экспонатлари асосида сувенирлар ишлаб чиқариш аста-секин ривожланиб бормоқда. Бу борада маҳаллий тажрибалар етарли бўлмасада, истиқболда соҳанинг такомиллашуви ва жаҳон андозалари даражасига чиқишга интилишни кузатиш мумкин. Мисол тариқасида мақола муаллифлари ҳам бу соҳа кўл уриб, музей буюртмасига кўра айрим экспонатларнинг сувенирларини яратиш ва ишлаб чиқаришга муваффақ бўлди. Аниқроғи, Ўзбекистон тарихи Давлат музейи (ЎТДМ) буюртмасига кўра, музейнинг кўзга кўринган машхур экспонатлари асосида махсус сувенирларнинг моделлари яратилди ва кўп нусхада ишлаб чиқарилди. Улар қаторига музей экспозициясидан мустаҳкам ўрин эгаллаган ва омма эътиборига тушган икки бошли илон тасвири тош ҳайкал, эркак юзи тасвирланган диск, мойчирок, сиёҳдон, ёзув туширилган сопол идишлар, майолика ва меъморий безак бўлаклари киради.

Сувенирлари тайёрланган экспонатлар ичида энг қадимгиси шубҳасизикки бошли илон тасвирланган тош ҳайкал ҳисобланади (O'zbekiston madaniy yodgorliklar ..., 2018). Фарғона водийсининг Сўх тумани ҳудудида топилган бу ноёб ҳайкал милoddan аввалги II минг йилликнинг охирига тенг. У қора тош (хризотил)дан ўйиш, пармалаш, жило бериш усуллари билан ясалган. Экспонатнинг асл ўлчами 27x24 см бўлиб, сувенир ҳолатида тахминан 3 марта (8,0x7,0x1,8 см) кичрайтирилди. Унга асос сифатида ёғочдан таглик (10x3,0x2,0

см) ясаиб, унга ўрнатилди. Бу эса унинг мустақкам тик туришини таъминлаши билан бирга уни сувенир сифатида ифодалашга хизмат қилади. Тажриба тариқасида ушбу хайкалнинг худди шундай кичик ўлчамдаги яна бир сувенир варианты ҳам ишлаб чиқилди. У функциявий аҳамиятга эга бўлиб, салфетка солишга мўлжалланган (1-расм).

ЎТДМнинг яна бир машхур экспонати Фаёзтепадан топилган ва кушон даври (I-II асрлар)га оид эркак юзи тасвирланган диск ҳисобланади. Образ ўзига хос қиёфага эга: тўғри бурун, бодомқовоқ, сочлари, мўйлаби ва пастки юзи бўйлаб кенг ёйилган соқоли жингалаксимон тарзда ифодаланган. Фаёзтепа музей ашёсининг ясалган хом-ашёси алебастр бўлиб, аввал ясалган моделдан қолипда куйиш орқали ҳосил қилинган. Сувенир экспонатнинг асл ўлчами (диаметри – 16, 5 см)дан икки баравар кичик (диаметри – 7, 3 см) ўлчамда тайёрланди. Сувенирларга хом-ашё сифатида керамика лойи ишлатилди. Аввал сувенирнинг модели ишлаб чиқилиб, ундан бир неча қолиплар ёрдамида “тикма” усулида олинди. Намуналр қуритилгач, махсус хумдонларда ҳарорат 750 °С иссиқликда пиширилди. Тайёр намуналар махсус буюртма асосида ясалган рамкаларга ўрнатилиб тайёр маҳсулот сифатида тақдим қилинди (2-расм).

Музей экспозициясида ўрта асрларга оид сирланган сопол идиш ва буюмлар ҳам алоҳида аҳамиятга эга. Уларнинг тури ва сони кўп бўлиб, сувенир учун музей раҳбарияти ва мутахассислари билан маслаҳатлашган ҳолда шакли, аҳамияти ва бадийлик хусусиятларидан келиб чиқибайримлари танлаб олинди ва сувенир моделлари ишлаб чиқилди. Масалан, Тошкент ҳудудидан топилган ва X-XII асрларга оид шокоса (диаметри – 28 см, баландлиги – 9 см)да ўсимликсимон безак ва эпиграфика билан безатилган (инв. №37/11). Одатда сувенирлар енгил ва олиб кетиш қулай бўлиши учун иложи борича кичикроқ ҳажмда ва енгил хом-ашёлардан тайёрланади. Сопол идишларда ҳам шу тартибга амал қилган ҳолда сувенир намуналарини деярли икки марта кичрайтириб (диаметри – 15 см, баландлиги – 4 см) ясалди. Лекин, хом-ашё ва ясаиш техника-технологияси сақлаб қолинди. Яъни, аввал керамика лойидан сопол идиш шакли ясаиб, қуригач, унга ангоб суртилиб, хумдонда 750-800С қиздирилди (утил қилинди). Сўнгра, идиш юзасига керакли нақш ва безаклар чизилиб, табиий пигментлардан тайёрланган сир (*глазурь*) суртилди ва яна хумдонда (980-1000 С) пиширилди. Худди шу усулда X-XII асрларга оид оид мойчироқ ҳамда XX аср бошларига оид сиёҳдон сувенирлари тайёрланди. Лекин, бу сувенир намуналарининг ўлчамлари аслига анча яқин қилиб олинди. Боиси, экспонатларнинг ўзи ҳам кичик ҳажмда, яъни сиёҳдон баландлиги – 7,5 см бўлса, мойчироқ баландлиги – 5 см, узунлиги эса – 13 см. Уларни янада кичрайтириш

биринчидан яшашда қийинчиликлар туғдирса, бошқа томондан сувенирларнинг кўримсизлигига олиб келиши мумкин (3-расм).

Самарқанд, Бухоро, Хива ва бошқа тарихий шаҳарларимиздаги кўп сонли меъморий обидаларимиз очик осмон остидаги музейларга айлантилган. Аҳамиятлиси, уларнинг ҳар бир ташқи ва ички безкларининг ўзи ҳам ноёб экспонатлар ҳисобланади. Шундай ашёлардан иккита намуна сувенирлар кўринишида тайёрланди. Уларнинг бири Самарқанддаги меъморий дурдона, яъни олти қиррали қоплама плита бўлиб, ислимий нақшлар билан безатилган. Бу экспонат ўз асл ўлчамидан бир барабар кичикроқ қилиб ясалди ва кўпайтирилди. Хусусан, аввал маҳсус кулолчилик лойидан унинг модели ясаб олинди ва ундан қолип олинди. Қолипдан кулолчилик лойи ёрдамида “тикма” усулида шакл олинди. Бирламчи маҳсулолар қуригач уларга сир қоришмалари ёрдамида нақшлар чизилиб, хумдонда пиширилди.

Сувенирларидан қаторидан ўзига хос кўринишга эга бошқа бир майолика плиткеси ҳам ўрин олди. Музей ашёларига бағишланган каталогига кўра экспонат (19,5x19,5x1,5 см)нинг топилган ёки келиб чиқиш жойи номаълум бўлсада, у XVI асрга таалуқли. Квадрат плитка композициясидан марказда ромб ичида тасвирланган чавандоз ва унинг тўртта бурчагида гуллар бўртма (*рельеф*) қилиб ифодаланган. Чавандоз миллий кийимда ва чаманзор ичра оқ отни чоптириб кетмоқда. Ромб ҳам нақшли қилиб тасвирланган, гуллар ва барглар йирик. Чавандознинг либоси барглар ранги билан бир хил, яъни яшил рангда ифодаланиши композициядаги яхлитлик ва уйғунликни таъминлаган. Бу экспонатнинг сувенири ҳам деярли икки баробар кичикроқ (10x10x0,5 см) ҳажмда бажарилди (4-расм).

Хулоса қилиб айтганда, сувенирлар яратиш ва ишлаб чиқариш музей фаолиятининг аҳамиятли қисми ҳисобланади. Улар фақатгина музейлар учун даромад манбаи эмас, балки уларни тарғибот ва ташвиқот воситаси бўлиб хизмат қилади. Музейларда минглаб сувенирбоп экспонатлар мавжуд бўлиб, улар асосида нафақат кичик ҳажмдаги нусхалар, балки бошқа маҳсулотлар ҳам ишлаб чиқариш мумкин. Масалан, экспонатлар тасвири туширилган полиграфия маҳсулотлари (кружка, футболка, кепка, ёстиқ ва ҳ.к.), канцелярия товарлари (дафтар, блокнот, ручка, файл ва б.), маиший хўжалик буюмлари ва б. Бу каби товарлар фақатгина эсдалик совғаси бўлиб қолмай, балки фойдаланиш учун ҳам асқотиши билан харидоргир бўла олади.

Эндиликда музей сувенирларини яратиш ва ишлаб чиқаришда замонавий технологияларни қўллаш ижобий самара беради. Бу аввало, ўзига хос дизайн, маҳсулот хом-ашёсининг мустаҳкам, енгил ва қулай бўлиши, асосийси товар кўринишида ялпи ишлаб чиқариш ва қадоқлашни ўз ичига олади. Шунингдек, бу

борада хориж тажрибасини ўрганиш мақсадга мувофиқдир. Музей сувенирларини яратиш ва ишлаб чиқаришда қилиниши керак бўлган ишлар талайгина бўлиб, мазкур амалга оширилган ишлар уларнинг кейинги ривожда тамал тоши бўлиб хизмат қилади.

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Иллюстрацияларга изоҳлар:

1-расм. Сўхдан топилган тош ҳайкал асосида яратилган сувенир намунаси

2-расм. Фаёзтепадан топилган диск асосида яратилган сувенир намунаси

3-расм. Сирланган сопол буюмлар асосида ясалган музей сувенирлари

4-расм. Меъморий безаклар асосида тайёрланган сувенир намуналари

EXERGETIC ANALYSIS IN OIL REFINING ANNOTATION

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The questions of thermodynamic exergy analysis of complex chemical-technological systems based on the study of the conversion of exergy in technological apparatuses and installations for the rational use of exergy circulating in the CTS are set forth. An exergy analysis of the existing ELOU-AVT unit at an existing oil refinery was carried out with an increase in its productivity providing the necessary degree of oil heating.

Keywords: *chemical-technological systems, exergy analysis, energy-technological processes, industrial thermodynamics.*

Introduction

The modern development of chemical and petrochemical technology is characterized by an increase in unit capacities and an increase in the efficiency of existing facilities. This is due to qualitatively new structural solutions related to the organization of interaction and processing of energy flows between individual subsystems of industrial production and the need to maximize the use of energy from technological flows within production. Chemical-technological processes of industrial production are in direct connection with energy flows, forming a single whole - a chemical-technological system or an energy-technological installation which is aimed at solving two problems: the production of finished products of the required quality and the reproduction of energy needed to conduct the process. From these tasks, the problem of the maximum use of the energy of technological flows within the system [1] follows.

The most rational way to effectively combine energy and material transformations is to find the optimal structure for the interaction of individual nodes of energy technology production. Structural optimization allows, through the introduction of

additional technological connections, to maximize the use of the internal energy resources of the system, thereby increasing its economic efficiency.

A distinctive feature of energy technology industries is the variety of sources and potentials of generated energy. In this regard, it becomes necessary to use for analysis and synthesis of the optimal organization of energy technological processes the method of exergy analysis, which allows to correctly assess the quality and optimal distribution of available energy resources [2].

The statement of the problem of the analysis of the installation of primary oil refining and its solution.

In this work, we consider a method for synthesizing the optimal structure of an energy-technology installation based on the use of structural-parametric optimization methods. The solution to the problem is based on the method of analyzing the efficiency of energy technological processes using the principle of thermodynamic analysis [1], which, unlike the existing ones, can be used for all classes of existing energy - technological processes, including primary oil refining processes. The technique of exergy analysis of energy-technological processes is based on the processing of exergy in technological devices. This approach allows you to objectively assess the possibilities of using the energy circulating inside the chemical-technological system [2].

Analysis of the installation of primary oil refining. Assessment of the thermodynamic efficiency of primary oil refining processes (ELOU-AT, ELOU-AVT) is based on a study of the effectiveness of each individual unit.

When assessing the thermodynamic efficiency of processes and heat transfer without taking into account heat loss to the environment and not taking into account the hydraulic resistance of the heat exchanger (which is valid due to the constant pressure in the heat exchanger equipment for oil refineries), the heat transfer process efficiency coefficients are determined as follows.

$$\eta_N = \frac{T_r(T_x - T_o)}{T_x(T_r - T_o)}, \quad (1)$$

$$\eta_N = Q_T T_o \frac{(T_r - T_x) / (T_r T_x)}{E_{BX}}, \quad (2)$$

where Q_T is the amount of useful heat transferred; T_x (T_r) - average thermodynamic temperature of a cold (hot) stream.

When assessing the effectiveness of the rectification process, it is advisable to consider separately the processes of mass transfer and thermal processes: the actual rectification, reflux, heating of the circulating stream in the furnace.

The useful effect of the distillation proper for simple distillation columns can be found as the difference between the exergies of the products and the feed input stream.

$$N = E_P + E_W - E_f \quad (3)$$

Internal losses, that is, losses from irreversibility, for the mass transfer apparatus are associated with the adiabatic process in it. Internal losses are determined from the exergy balance of the distillation column.

$$\Pi = E_{w1} + E_{r1} + E_f - E_P - E_W - E_{r2} - E_{w2}. \quad (4)$$

External losses for the mass transfer apparatus will consist of the exergy of the steam and circulating streams r2 and w2 leaving it, resulting in the loss of exergy, minus the exergy of the stream r1, which returns to the column as reflux. External losses also include losses through the walls of the column, since they are small or can be neglected.

The spent exergy for rectification is exergy communicated to the circulating stream in the furnace, fed into the cube of the column, i.e. $E_{ex} = E_{w1}$. Hence, the coefficients of intensity and exergetic losses are:

$$\eta_N = \frac{E_P + E_W - E_f}{E_{w1}}, \quad (5)$$

$$\eta_N = \frac{E_{w1} - (E_P + E_W - E_f)}{E_{w1} + E_{r1} + E_f}. \quad (6)$$

In refineries, heating furnaces are used to heat the feed streams.

The costs in the process are equal to the exergy of fuel E_t and the exergy of enriched air E_b , necessary for complete combustion of the fuel. The intensity function is determined by the sum of the exergy of the flows exiting the furnace minus the sum of the exergy of the flows entering the furnace:

$$N = E_{c2} + E_{c4} + E_{\Pi2} - E_{c1} - E_{c3} - E_{\Pi1} \quad (7)$$

The intensity factor for the process of heating oil petroleum products in the furnace will look like:

$$\eta_N = \frac{E_{c2} + E_{c4} + E_{\Pi2} - E_{c1} - E_{c3} - E_{\Pi1}}{E_T + E_b} \quad (8)$$

The process of heating streams in furnaces is accompanied by both internal and external losses. Internal losses, that is, losses from the irreversibility of the process, are associated with two phenomena: irreversible combustion of fuel and irreversible heat transfer. They can be estimated from the exergy balance of the furnace

$$\Pi^1 = E_T + E_b + E_{c2} + E_{c3} + E_{n1} - E_{c2} - E_{c4} - E_{n2} - E_{g2} \quad (9)$$

External exergetic losses are determined by the exergy of flue gases E_- (dg)
The exergy loss coefficient is estimated by the equation:

$$\eta_{\Pi} = \frac{E_T + E_b - (E_{c2} + E_{n2} + E_{c4} - E_{c1} - E_{c3} - E_{n1})}{E_T + E_b + E_{c1} + E_{c3} + E_{n1}} \quad (10)$$

Based on the exergetic analysis methodology under consideration, an exergy balance was calculated and the effectiveness of the existing ELOU-AVT-6 unit was calculated to identify reserves for increasing production efficiency and determining the optimal level of productivity. The calculation results are presented in tables I, 2.

It should be noted that, as shown by the calculation results (Table 2), the second component of exergy makes a significant contribution, and for the light fraction, since it is necessary to bring less energy to it than to heavy fraction, the first component rises. It follows that the light fractions have greater specific working capacity. This indicates the need to take into account the second component of exergy [5].

Table I

Heat exchangers		Distillation the columns			Tube furnaces		
		K - I	K-2, K-6 K-7, K-9	K-8	П-1	П-2	П-3
η_N	0,536-0,882	0,09 I	0, I63	0,I28	0, I68	0, I65	0, I6I
η_n	0,02 - 0,46	0,425	0,380	0,667	0,723	0,736	0,758

Furnaces with recovery boilers: $\eta_N = 0, I70$, $\eta_n = 0,604$.

The coefficient of thermodynamic efficiency of the system $\eta_c = 0,069$.

K as seen from the table, exergy efficiency analyzed.

Table 2

Process flow	$E_1, kcal /$ kg	$E_2, kcal /$ kg	$E, kcal /$ kg
Raw oil	0,077	60,27	60,347
Couple fr. HK-180 из K- I	90,74	108,12	198,86
Topped oil from K- I	46,02	45,62	91,64
Couple fr . 85-180 из K-2	86,43	101,06	187,49
fr . 180-220 из K-6	11,37	80,77	92,14
fr . 220-280 из K-7	21,28	61,88	83,16
fr 280-350 из K-9	40,13	42,52	82,65
Fuel oil K-2	67,33	29,67	97,00
Stable gasoline from K-8	20,49	87,10	107,59

devices have rather high values, since exergy estimates for chemical and energy-technological processes are characterized by small values. Only tube furnaces have large exergy loss ratios. This is due to the process of irreversible combustion of fuel and the irreversibility of heat transfer during heat transfer by the feed stream through the walls of the coils. As an additional analysis showed, the use of the heat of the exhaust flue gases for heating the waste heat boilers does not significantly increase the intensity coefficient. The coefficient of exergy losses is reduced by 15-20%

Analysis of heat transfer processes showed that they have the highest intensity coefficients and the lowest exergy loss coefficients. At the same time, heat exchangers in which heat transfer occurs at a high temperature level have higher efficiency indicators. As can be seen from the results, heat exchangers operate with different thermodynamic efficiency, which is explained by the irrational organization of the heat exchange system. Thus, an exergy analysis of the heat exchange system revealed the possibility of increasing its efficiency by changing the structural organization of flows.

A comparative evaluation of the efficiency of distillation colonies shows that the K-2 complex column with side stripping - sections K-6, K-7, K-9 is most efficient. This is explained by the non-adiabaticity of the separation process in a complex column due to heat removal by the 1st and 2nd circulation irrigation. The intensity coefficient of the K-8 gasoline stabilization column is quite high due to the fact that the lighter fractions taken from this column have a higher specific exergy. At the same time, stabilization columns have large exergy losses, which is explained by a large reflux ratio.

When analyzing the possibilities of increasing the plant productivity, we proceeded from the invariance of the fractional composition of the selected products, which allows us to analyze the operation of the columns with an increase in the load, regardless of the heat exchange system, and then organizing the thermal subsystem accordingly, to achieve the required thermodynamic operating modes.

In the mathematical description of the rectification processes of oil and oil products, a technique was used that is currently used both in the calculation of existing production facilities and in design calculations. The calculation procedure is based on a sectional representation of the rectification process with the determination of the effective temperature in each section, which characterizes the distribution of fractions between the upper and lower products based on absorption and stripping factors.

In order to verify the adequacy of the adopted mathematical model of the rectification process and correctly set the free information variables of the systems of equations of material and energy balances, an industrial experiment was carried out, which consisted in determining the flow rates of products, pressure in the columns, temperature on the upper plates of the columns. An analysis was also made of the composition of the separation products in the columns.

In fig. 1 presents the results of the analysis of the columns when the load changes. It can be seen from the graphs that, when the load changes, the column intensity factors remain approximately constant up to a capacity of 8 (million tons)/year, after which they decrease. At the same time, the exergy loss coefficients are reduced. This is because the costs and benefits increase approximately proportionally, while the input exergy grows faster than the absolute magnitude of the exergy losses due to both exergy and phlegm exergy. With an increase in the load of more than 8 (million tons)/year, the beneficial effect decreases, since with an increase in the reflux ratio the amount of the upper product with the highest specific exergy decreases, which leads to an increase in the exergy coefficient of distillation columns [6].

A decrease in the exergy loss coefficients indicates an increase in the load, but since a decrease in the loss coefficient reduces the unit cost of fuel. On the graph, the area of plant productivity is highlighted that is most preferable from a thermodynamic point of view.

Conclusion

As follows from the results of the exergy analysis, there is the possibility of increasing the efficiency of the heat exchange system due to the rational organization of its structure, which will reduce fuel costs for heating oil or increase plant productivity. Based on the methodology of structural optimization of thermal subsystems, a search was made for the optimal structure of a heat exchange system that

provides a given temperature of oil at the entrance to the topping column at a capacity of 8 (million tons)/year.

The task of finding the optimal heat transfer system was solved for a given total heat transfer surface, taking into account the reserve production capacities.

The optimal structure of the thermal subsystem is shown in Fig. 2 and can be selected as a heat exchange system for ELOU-AVT-6.

In contrast to the initial scheme of the thermal subsystem, the calculated optimal scheme has a three-stream structure for crude oil, which is associated with an increase in productivity. However, even greater crushing of the oil flow is obviously impractical, since this leads to a decrease in the linear velocity of the process flows and, as a consequence, to a deterioration in the heat transfer process.

An exergy analysis of the reconstructed unit for primary oil refining showed that the efficiency of both individual units and units, and the entire unit as a whole, increased. Thermodynamic efficiency The perfection of the reconstructed installation is 0.072. Increasing the thermodynamic efficiency of the installation by reducing exergy losses brings to a decrease in specific fuel consumption by 5.5%.

Thus, the structural optimization of energy-technological processes using the method of resolving terms of linear programming makes it possible to determine the structures of heat exchange systems that are optimal from the thermodynamic point of view.

An exergy analysis of energy-technological processes allows us to evaluate the effectiveness of individual processes, and allows us to evaluate the effectiveness of both individual processes and the entire installation. The calculation of the second component of exergy is based on the choice of the ideal gas model as the environment, which allows indirect calculation of it, without having the exact composition of the process stream.

Assessment of the thermodynamic efficiency of typical processes of oil refineries based on the use of intensity factors and exergy losses.

In order to identify production reserves and adjust mathematical models, an industrial balance experiment was conducted on the existing ELOU-AVT-6 installation. Exergy analysis of the current installation ELOU-AVT-6 indicates the possibility of increasing its productivity. An optimal version of the heat exchange system for the installation is proposed with an increase in its productivity, which provides the necessary degree of oil heating.

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LINGUISTIC DESCRIPTION OF COLOR NAMES AND SEMANTIC FIELD OF COLOR

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ANNOTATION

This article examines the linguistic definition of colors and their shades may be semantic field, also known as a lexical field or semantic domain, refers to a group of words or expressions that are related in meaning.

Key words: *color, categorizing color, coloronym, semantic field, lexical field, primary colors, tertiary colors, shades.*

Color names can vary across languages and cultures, and they provide an interesting insight into how people perceive and categorize colors. Linguistic descriptions of color names can be complex, and different languages have different systems for organizing and naming colors.

Many languages have basic color terms, such as "red," "yellow," "green," "blue," "black," and "white." These basic color terms vary in terms of how they are used and how they relate to other colors in the language. Some languages have more basic color terms than others, and some have different categorizations for colors.

For example, some languages have more specific color terms for shades that English might lump together under a broader category. The Russian language has two different words for light blue ("голубой" for a specific light blue, "синий" for a darker, more grayish blue), while English just has one word for both shades. This phenomenon is known as "grue" in linguistic research and demonstrates how different languages carve up the color spectrum in different ways. [1:43]

Additionally, some languages also use metaphorical or descriptive terms for colors. For instance, some languages might use terms related to natural elements or specific objects to describe colors. This can reflect cultural associations or unique ways of perceiving color.

In English, the color black is often described as "the darkest color, the result of the absence or complete absorption of visible light." It is often associated with concepts such as darkness, mystery, elegance, formality, and strength. In linguistic terms, it is a basic color term. Similarly, the color white is described as "the lightest color, the result of the reflection or transmission of all visible light." It is often associated with concepts such as purity, innocence, cleanliness, and simplicity. [1:62]

In many languages, black and white are considered as polar opposites or binary contrasts. However, some languages may have different ways of categorizing and describing these colors. For example, some languages may have specific terms to describe different shades of black and white, reflecting cultural, environmental, or historical factors. Furthermore, the symbolic and metaphorical meanings associated with black and white can also differ across cultures. For instance, in some cultures, white may be associated with mourning or death, while in others, it may represent celebration and purity.

Yellow, often described as "the color of sunshine," is associated with concepts such as warmth, happiness, positivity, and energy. It can also be linked with caution or warning in certain contexts. In linguistic terms, yellow is a basic color term in many languages, and it often holds symbolic, cultural, and emotional significance. Green, often described as "the color of nature and life," is associated with concepts such as fertility, growth, renewal, harmony, and freshness. In some contexts, it can also be associated with jealousy or inexperience. Linguistically, green is a basic color term, but different languages may have specific terms to describe different shades of green, reflecting the diversity of plant life and natural environments across the world.

Like with black and white, yellow and green are often considered as polar opposites or binary contrasts, with their own unique symbolic and metaphorical meanings across different cultures. In some languages, there may be specific terms to describe different shades or variations of yellow and green, reflecting the cultural, environmental, or historical factors specific to those languages [3:16].

Overall, the linguistic description of yellow and green reflects the diverse ways in which different languages and cultures perceive and categorize these colors, often incorporating unique symbolic, emotional, and environmental associations.

Red, often described as "the color of blood and fire," is associated with concepts such as passion, love, energy, danger, and excitement. It can also represent anger or warning in certain contexts. Linguistically, red is a basic color term in many languages, and it often holds symbolic, cultural, and emotional significance.

Blue, often described as "the color of the sky and the sea," is associated with concepts such as calmness, stability, depth, trust, and intelligence. It can also be linked with sadness or melancholy in certain contexts. In linguistic terms, blue is a basic color

term in many languages, and different languages may have specific terms to describe different shades of blue, reflecting the variety of natural and environmental factors.

Like with other color pairs, red and blue are often seen as polar opposites or binary contrasts, each with its own unique symbolic and metaphorical meanings across different cultures. Some languages may have specific terms for different shades or variations of red and blue, reflecting specific cultural, environmental, or historical factors.

Overall, the linguistic description of red and blue reflects the multifaceted ways in which different languages and cultures perceive and categorize these colors, often incorporating unique symbolic, emotional, and environmental associations specific to each linguistic community.

The early periods of human color experience were limited to the choice of black and white, followed by the period of red-yellow hues. For example, clothes in the Iliad are purple, and things in the Odyssey are red. Also, the Roman world was dominated by red, not yellow. The ancient Greeks did not distinguish between certain colors [3:82]. At the beginning of the 20th century, intense discussions were held regarding this problem. The poverty of some ancient and "primitive" languages can be seen in the fact that they have blue and green, blue and yellow colors, and sometimes the complete absence of such color fields. This information may lead to the false conclusion that ancient people had poor color vision or that they were color blind. Of course, this assumption is not correct. For example, W. Gladstone studied the names of colors in the Homeric language and came to the conclusion about the "color blindness" of the ancient Greeks. Compared to coloronyms in modern languages, it is known that colors are expressed in small quantities and used very little in Homer's works [3:129].

Language is a secondary practical structure in relation to feelings and life, it does not reflect all life realities, and it does not show everything adequately, that is, clearly and completely. There is always a "gap" between words and things. Therefore, the conclusions given in linguistic studies about the quality of color vision may not be absolute truth.

The color universals developed by Berlin and Kay have stimulated new research on color perception and linguistic categorization based on materials from various systematic languages [2:98]. Many sources reliably show the primacy of the black and white binary, the opposite: initially human life was regulated by two factors - day and night. Many scientific works are devoted to the study of shades of red. This describes the second stage of coloronym development. Some scientists consider the white - black - red triad not only universal" ... already in the second (stage), in all languages, without exception, the red color, distinguished by its appearance, has a special position.

The importance of the next three color categories ("green", "yellow" and "blue") can primarily be the dominant factor in the presence of these colors. Specific changes in the human psyche, their interpretation in many cases depends on the impressions of color associations, connotations, signs and denotations.

Color takes a significant place in human mind. Therefore, it is not surprising for a man to research this phenomenon widely. Different fields of sciences research color. In physics the notion of "color" is explained as definite waves and frequencies of electrical and magnetic wiggling. Chemists are interested in structure of color connection. Specialists in the field of biology and physiology research the influence of color on human eyes, their transfer to the mind and processing, psychologists investigate the basis of cognition and perception of color. There are a lot of materials to study color but it is difficult to cover everything. This opinion can be referred to color studies in linguistics. Scientific discussions concerning this issue are continuing till the present time within traditional study of colors. In obtaining results of traditional color research according to this theme scientific discussions are continuing. [1:37]

Colors play an important role in human perception of the world. From the linguistic point of view it is an interesting aspect that in people's mind the meaning of main colors and their shades may be semantic field, also known as a lexical field or semantic domain, refers to a group of words or expressions that are related in meaning. These words or expressions typically share a common theme or topic and are used to express different aspects or nuances of that theme or topic. [4:57]

For example, the semantic field of "colors" includes words such as red, blue, green, yellow, etc. These words are all related in meaning, as they describe different hues and shades that we perceive visually.

Semantic fields are often used in language analysis and literary criticism to understand how different words and expressions are related to each other and how they contribute to the overall meaning of a text. By identifying the semantic fields present in a text, we can gain insights into the author's intended message, as well as the cultural and social context in which the text was produced. [3:132]

Some examples of semantic fields include colors, emotions, weather, food, and animals. Words or expressions within these fields share a common theme and are related in meaning.

Understanding semantic fields is important because it can help us to communicate more effectively by choosing the most appropriate words to convey our intended meaning. It can also help us to understand the meaning and context of words we encounter in everyday life, as well as in literature and other forms of communication.

A semantic field and a synonym group are similar in that they both involve words that are related in meaning. However, a synonym group consists of words that have

similar or identical meanings, whereas a semantic field consists of words that are related to a particular theme or topic but may have different shades of meaning or connotations.

What is the difference between lexical and semantic field? The lexical field of color refers to the actual words used to describe different colors, while the semantic field of color refers to the different categories or qualities that can be used to describe colors. The lexical field is more focused on the specific words and terms used to describe colors, while the semantic field is more focused on the broader concepts and characteristics associated with different colors. In other words, the lexical field is more about vocabulary, while the semantic field is more about meaning and context[2:73].

Lexical field of color in English:

Red, blue, green, yellow, orange, purple, pink, brown, grey, black, white

Semantic field of color in English:

Bright-, Dark, Pastel, Neon, Earthy, Metallic, Primary, Secondary, Tertiary, Cool, Warm, Bold, Muted, Vibrant, Subdued

The lexical field of white color includes words such as ivory, pearl, snow, alabaster, chalk, and milk. These words are used to describe different shades and variations of white. Other words that may be included in the lexical field of white color are off-white, cream, and beige. These words are often used to describe colors that are similar to white but have a slightly different hue or tone. Overall, the lexical field of white color is quite extensive and includes many different words that can be used to describe this popular color.

The lexical field of color can be categorized into several groups, including primary colors (red, blue, and yellow), secondary colors (orange, green, and purple), tertiary colors (yellow-orange, red-orange, red-purple, blue-purple, blue-green, and yellow-green), warm colors (red, orange, and yellow), cool colors (blue, green, and purple), pastel colors (light shades of colors), and neon colors (bright and vivid colors). Additionally, colors can also be categorized based on their hue, saturation, and brightness [2:86].

In linguistics, the approach to the field model in the context of conceptual analysis is currently considered as the most productive. Prof. L.M. Vasiliyev gives two proofs to this thesis:

1. The relationships between the lexical semantic field and the units included in it is considered as a basic knowledge for each person. It also proves that the difference in composition and structure of language units is one of the factors influencing on the differentiation of «the linguistic picture of the world».

2. Presence of mistakes in speech proves the objectivity of the field structure: when a person mixes an element of one micro field with the units of another one, he makes a slip of the tongue. [7:96]

The cooperation of the semantic field and the conceptual system is possible, because both the semantic field and the conceptual system are the results of special assimilation of information in any society. So, conceptual field stands on the base of semantic field. Concept «color» can be shown as a classic example of a semantic field. It consists of several color lines (*red-pink-crimson; blue-bluish* etc.) [6:34]. The word «color» acts as a common semantic component here. At the same time if we take a concept of a specific color as a common semantic component then the semantic field will be built around it. For example, the concept «White color» – *paint, light, snow, tidiness, wedding, etc.*

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DENTAL CARE AND DIAGNOSIS OF PATIENTS WITH MENTAL HEALTH PROBLEMS

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SUMMARY

In the treatment of psycho-emotional disorders in patients, various groups of psychotropic drugs (including antidepressants) are used, therefore, when providing dental care, it is necessary to take into account the drug interactions of these drugs with local anesthetics and drugs used by the dentist, and therefore it is necessary to develop a method for choosing safe local anesthesia for patients with impaired psychoemotional status.

Keywords: *mental health, sphere, chronic somatic disease, subclinically expressed anxiety/depression, maladjustment.*

Relevance. Dental care for patients with mental health problems who have an established diagnosis of mental illness is carried out in specialized institutions, where they are provided with specialized care and medication intake is monitored. In a state of exacerbation of mental pathology and in diseases that exclude the possibility of establishing contact with a doctor, dental care is provided under conditions of general anesthesia [1,3,5].

If a patient with psycho-emotional disorders is not registered in a psychiatric institution or he has a conclusion from a psychiatrist about the possibility of receiving medical care in institutions that are not specialized for receiving patients with mental pathology, then he can seek treatment in a regular dental clinic, where The dentist may encounter problems in communicating with such a patient and in treating him. These

problems may be related to communication difficulties, unpredictable behavior and mood disorders of patients.

It is known that patients with mental disorders often violate treatment plans, show inconsistency, and often change doctors. Therefore, it is difficult to achieve good results from dental treatment of such patients [2,4].

Dental patients with mental disorders can be grouped into the following groups:

- 1) with mood disorders (anxiety, depression, anger);
- 2) with bodily illusions or hallucinations localized in the mouth and other areas of the body and head;
- 3) with thinking disorders (overvalued ideas, delusional ideas of attitude towards doctors and medical personnel and, as a result, delusional behavior);
- 4) with personality disorders, including court-oriented querulants;
- 5) with intellectual disabilities that interfere with treatment and sanitation of the oral cavity;
- 6) with problems of adaptation to dental treatment, to pain, to life restrictions caused by the stages and characteristics of dental treatment and prosthetics.

The relationship between the mental and somatic spheres is indicated, as different aspects of a single, living, concrete person. The psychosomatic approach is considered as one of two large aspects (mental and somatic) of the treatment of illness. The psychological status of patients has a significant impact on both the clinical course of diseases and the behavioral characteristics of patients. The pain reaction in anxious-phobic patients is accompanied by an increase in the values of hostility, anxiety, depression and increased tactile sensitivity. Chronic somatic disease changes the level of mental capabilities of a person to carry out activities [7,9,13].

The professional competence of a dentist does not include diagnosing disorders of the patient's psycho-emotional sphere, but when such patients seek dental care, it should be provided to them. The psychiatric symptoms that patients complain about are subjective, and one of the main tasks of the dentist is to recognize them.

There are productive and negative symptoms of psycho-emotional disorders. Productive symptoms, which include hallucinations, delusions, and catatonic disorders, bring something new into the patient's psyche during the course of the disease. Negative symptoms are characterized by the fact that the patients' personality traits change, and some qualities and properties that previously belonged to them are lost.

Psycho-emotional disorders at a dental appointment can be identified during a survey - when collecting complaints and anamnesis of the patient, as well as using specialized scales and questionnaires [6,8,10].

Spielberger-Hanin Situational and Trait Anxiety Scales designed to identify situational and personal anxiety in the patient. Situational anxiety is understood as the state of a research subject at a given point in time and is characterized by subjectively experienced tension, anxiety, and nervousness in a given specific situation. Personal anxiety is a stable individual psychological characteristic consisting of an increased tendency to experience anxiety in various life situations, including those whose objective characteristics do not predispose to this. The questionnaire consists of 2 parts and includes 20 statements related to situational anxiety and 20 statements to determine personal anxiety. During the study, situational anxiety is first diagnosed, and then personal anxiety. Testing is carried out using specialized forms. Indicators of personal and situational anxiety are calculated using the formulas corresponding to each scale. The diagnostic results using the "Situational and Personal Anxiety Scale" technique are interpreted according to 3 levels: low, medium and high levels of anxiety. The interpretation of the results is the same for both scales [11,15].

PrimeMD Depression Symptom Questionnaire allows you to identify and determine the patient's symptoms of depressive disorders. The patient's condition over the past 2 weeks is assessed. The questionnaire consists of 9 questions. The first two questions are evaluative, and if the patient answers them positively, then he is asked to answer the following questions. To determine depressive disorders at a dental appointment, an American working group led by Craig D. Woods suggests using only the first 2 assessment questions from the PrimeMD test. If the patient responds positively to them, then he is assumed to have depression and the tactics of interaction with him change.

The hospital Anxiety and Depression Scale (HADS), intended for screening for anxiety and depression in patients. Filling out the scale does not require a long time and does not cause difficulties for the patient, which makes it possible to recommend it for use in general medical practice for the primary identification of anxiety and depression in patients. The scale is composed of 14 statements covering 2 subscales: anxiety and depression. Each statement corresponds to 4 answer options, reflecting gradations of symptom severity and coded according to the increasing severity of the symptom from 0 points (absence) to 4 (maximum severity). When interpreting the data, the Value Areas are identified: normal, subclinically expressed anxiety/depression, clinically expressed anxiety/depression [12,14].

Zang Self-Rating Anxiety Scale designed to measure the severity of various phobias, panic attacks and other anxiety disorders. The severity of anxiety disorder is assessed using this scale based on the patient's self-assessment. Used in diagnostic and clinical studies of anxiety, pre-diagnosis and screening of anxiety disorders, epidemiological studies and clinical drug trials. The scale contains 20 statements, for

each of which the subject gives an answer about the frequency of occurrence of this or that symptom, ranked in four gradations: “rarely”, “sometimes”, “often” and “very often”. Five items of the scale assess affective symptoms, and the remaining 15 assess somatic symptoms of an anxiety disorder. The scale is filled out by the subject independently after brief instructions. The subject is asked to mark the appropriate cells on the scale form that most accurately reflect his condition over the past week. Based on the results of answers to all 20 points, the total score is determined.

Zang Self-Rating Depression Scale allows you to assess the level of depression in patients and determine the degree of depressive disorder. The Zang scale can be used to self-examine or screen for depression by a subject or physician. The Zang Scale test has high sensitivity and specificity and avoids additional economic and time costs and ethical problems associated with medical examination. The test takes into account 20 factors that determine four levels of depression. The test contains ten positively worded and ten negatively worded questions. Each question is scored on a scale from 1 to 4 (based on responses: “never”, “sometimes”, “often”, “all the time”), giving a total score ranging from 20 to 80 points. Test results are divided into four ranges: normal, mild depression, moderate depression, severe depression. The complete testing procedure with processing takes 20-30 minutes.

Beck Depression Inventory includes 21 categories of symptoms and complaints. Each category consists of 4-5 statements corresponding to specific manifestations of depression. These statements are ranked in order of increasing importance of the symptom in the overall severity of depression. In the original version of the methodology, the questionnaire forms were filled out with the participation of a qualified expert (psychiatrist, clinical psychologist or sociologist), who read aloud each item from the category, and then asked the patient to choose the statement that most corresponds to his current condition. The patient was given a copy of the questionnaire, according to which he could follow the items read by the expert. Based on the patient's response, the researcher marked the appropriate item on the form. In addition to the test results, the researcher took into account medical history, indicators of intellectual development and other parameters of interest. Currently, it is believed that the testing procedure can be simplified, so the questionnaire is given to the patient and filled out independently.

Hamilton Depression Scale designed to quantitatively assess the condition of patients with depressive disorders before, during and after treatment, that is, to monitor clinical dynamics. In addition to its widespread use in clinical practice, this scale is also used in clinical research, where it is the standard for determining the effectiveness of medications in the treatment of depressive disorders. Completed by a clinician experienced in mental health assessment. The Hamilton Depression Scale consists of

21 questions and is completed when interviewing the patient, which takes about 20-25 minutes. It is necessary to reflect the patient's condition over the past few days or the previous week. Through repeated and consistent use of the scale, the clinician can document the results of medication or psychotherapeutic treatment.

Symptom Check List-90-Revised(SCL-90-R)designed to assess patterns of psychological symptoms in patients with mental pathology and healthy individuals. Includes 90 statements grouped into a number of scales. Each of the 90 questions is rated on a five-point scale (from 0 to 4), where 0 corresponds to "not at all" and 4 to "very much." Contains scales of somatization, obsessive-compulsive disorder (obsessiveness), interpersonal sensitivity, depression, anxiety, hostility, phobia, paranoia, psychoticism, general severity index, present distress severity index, number of disturbing symptoms. The SCL-90-R questionnaire is intended to determine current status and is not suitable for diagnosing personality traits. The essence of the technique involves studying exactly the degree of discomfort caused by certain symptoms, regardless of how pronounced they are in reality. The main purpose of the questionnaire is to identify the psychological symptomatic status of a wide range of people, therefore the results of the questionnaire have a fairly approximate clinical significance.

Clinical dental scale(SHKS) allows you to individually identify the predominant one from the five main types of psycho-emotional reactions of the patient to the upcoming dental intervention: asthenic, depressive, anxious, hypochondriacal, hysterical, as well as the degree of severity of each of them. During the interview with the patient, the dentist evaluates the patient's appearance, his behavior in the chair and the nature of the answers to questions, and notes on a standard form the degree of severity of each of the identified types of reactions. Then straight lines connect the points characterizing the degree of severity of various types of reactions. A profile graph of the patient's psycho-emotional state is obtained, which allows one to determine the nature of the patient's reaction to the upcoming dental treatment and the degree of its severity. ShCS is aimed at assessing short-term reactions in a specific stressful situation, which in dental patients is the upcoming intervention, and at assessing the need to prescribe premedication to the patient.

Diagnosis of "PSAF maladjustment syndrome"allows you to analyze the structure and severity of the internal picture of the disease. All manifestations of the internal picture of the disease are distributed into four clusters: psychological, sensory, anatomical and functional. The psychological cluster includes anxiety about the result of treatment, the outcome of the disease; experiences associated with negative aesthetic self-esteem of one's face and its age-related changes in general or individual anatomical structures of the maxillofacial region, the desire to change the architectonics of the face. The sensory

cluster includes various sensitivity disorders, such as: pain at rest, burning, paresthesia, hypoesthesia, anesthesia, taste disturbances, disturbance of smell, noise, clicking in the joint and other disturbances. The anatomical cluster includes various defects and deformations of the dental system and various parts of the maxillofacial region. The functional cluster includes limited mouth opening, difficulty swallowing, disorders of biting and chewing food, speech disorders, and facial expression disorders. When a certain level of severity of several symptoms of the disease is reached, the patient may experience a violation of adaptability to living conditions, that is, a state of maladjustment. The severity of individual symptoms that cause maladjustment is assessed by the patients themselves. For this purpose, a single analogue-point scale is used for the patient's self-assessment of the severity of individual manifestations of the disease.

Purpose of the study -Improving the quality of dental care for patients with psycho-emotional disorders in outpatient settings. To determine, based on an analysis of the results of a sociological survey of dentists, the prevalence of patients with psycho-emotional disorders in outpatient dental appointments.

Material and methods. Methods for express diagnostics of psycho-emotional abnormalities, psycho-emotional and dental studies.

Conclusion.The patient is asked to indicate how much he is bothered by individual manifestations of the disease, using such concepts as extremely, strongly, moderately, slightly, not bothered, each of which has its own score. The patient marks the result of such self-assessment with a "cross" in the corresponding column of the questionnaire. The patient is asked to enter into the questionnaire the main complaints, feelings of anxiety, fear and indicate their severity using the analogue-point scale given in the questionnaire. The questionnaire includes one fixed question - the presence or absence of concern (anxiety) about the result of treatment, the outcome of the disease. The doctor must distribute the complaints listed by the patient into the four clusters listed above, indicating their severity in points. Taking into account the predominance of the severity in scores of one or another cluster involved in the formation of the PSAF maladjustment syndrome, treatment is planned, the sequence and intensity of treatment measures are outlined.

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THE SIGNIFICANCE OF GAMIFICATION IN PRIMARY SCHOOL IN TEACHING ENGLISH

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ABSTRACT:

This scientific article delves into the critical role of gamification in primary school in teaching English, highlighting its impact on enhancing language acquisition, motivation, and overall learning experience. By examining various studies and educational practices, this paper elucidates the effectiveness of integrating games as a pedagogical tool to foster language skills in young learners. This article explores the diverse array of games used to teach English in primary schools, shedding light on how they contribute to linguistic development, motivation, and overall educational enrichment.

Keywords: *Gamification, Teaching English in Primary School, English Language Learning, Games in Education, Vocabulary Building, Phonics, Interactive Learning, Digital Games, Language Apps, Spelling Bee, Collaborative Learning.*

Introduction

Primary school English education lays the foundation for language proficiency, making it imperative to explore innovative methods that engage and captivate young minds. Gamification, the integration of game elements into non-game contexts, emerges as a promising strategy to make learning more enjoyable and effective. Games inherently possess elements that appeal to children's natural inclination for play. The incorporation of interactive and immersive games in English lessons fosters a positive learning environment, capturing students' attention and motivating them to actively participate in language activities. Games provide a dynamic platform for language acquisition by creating scenarios that encourage real-time communication. Vocabulary, grammar, and pronunciation are effortlessly absorbed as students engage

in dialogue, solve language-based challenges, and navigate in-game narratives, making the learning process both contextual and enjoyable.

Many language games necessitate collaboration and communication among pupils. This social aspect of gaming enhances interpersonal skills, promotes teamwork, and cultivates a sense of community within the classroom, contributing to a holistic development of language proficiency.

Through interactive gameplay, pupils are exposed to problem-solving, critical thinking, and decision-making. These cognitive skills are seamlessly woven into the fabric of language learning games, enhancing students' ability to analyze, evaluate, and apply language concepts in diverse contexts. Furthermore, one of the strengths of gamification lies in its adaptability to various learning styles and paces. Educational games can be customized to address individual students' needs, providing targeted support for those requiring additional assistance while challenging those who excel, ensuring a personalized and inclusive learning experience.

Moreover, successful incorporation of games into the curriculum requires strategic planning and collaboration among educators. This section explores practical examples, case studies, and best practices for integrating gamification into primary school in teaching English

While the benefits of gamification in primary education are evident, this section addresses potential challenges such as resource constraints, technological limitations, and the need for continuous teacher training to optimize the implementation of game-based learning. Games have emerged as invaluable tools in primary school English education, transforming traditional language learning into a dynamic and engaging experience.

1. Vocabulary Building Games: Word-based games like Scrabble, word puzzles, and vocabulary bingo are effective in expanding students' lexical repertoire. These games make learning new words entertaining, promoting active participation and enhancing retention through repeated exposure in a fun context. In the realm of primary school education, fostering language skills is paramount for a child's overall development. Among the foundational aspects of language acquisition, vocabulary building plays a crucial role. To make the process enjoyable and effective, educators are increasingly turning to vocabulary building games as a pedagogical tool. These games not only engage young learners but also provide a dynamic and interactive approach to language acquisition.

The Importance of Vocabulary Building in Primary School:

Building a strong vocabulary in the early years lays the groundwork for effective communication, reading comprehension, and academic success. A rich vocabulary enhances a child's ability to express themselves clearly, understand academic content,

and engage in meaningful conversations. Recognizing the significance of vocabulary, educators are integrating games into their teaching strategies to create an environment that nurtures language development.

Benefits of Vocabulary Building Games:

1. **Engagement and Motivation:** Games inject an element of fun into the learning process, capturing the attention and interest of primary school students. The inherent playfulness of games motivates children to actively participate, fostering a positive attitude towards learning.

2. **Contextual Learning:** Vocabulary games often involve real-life scenarios, allowing students to learn and apply words in context. This contextual understanding enhances retention and comprehension as students associate words with specific situations or actions.

3. **Interactive Learning:** Games encourage interaction among students, promoting collaboration and communication. Through discussions and shared experiences, children reinforce their vocabulary in a social setting, reinforcing their language skills through peer interaction.

4. **Multi-Sensory Approach:** Vocabulary games often incorporate a variety of sensory experiences, catering to different learning styles. Whether through visual aids, auditory cues, or hands-on activities, games appeal to diverse preferences, ensuring a more comprehensive learning experience.

Popular Vocabulary Building Games for Primary School:

1. **Word Bingo:** A classic game with an educational twist, Word Bingo reinforces vocabulary through listening and recognition skills. Students match spoken words to their corresponding images on bingo cards, promoting active listening and visual association.

2. **Scrabble Junior:** An adapted version of the classic Scrabble game, Scrabble Junior introduces young learners to word formation and spelling. This game enhances both vocabulary and strategic thinking as children compete to create words on the board.

3. **Vocabulary Puzzles:** Jigsaw puzzles featuring images and corresponding words challenge students to match the pieces correctly. This tactile approach to learning strengthens vocabulary while improving fine motor skills.

Integrating vocabulary building games into primary school English education transforms language learning into an engaging and immersive experience. These games not only contribute to the development of a robust vocabulary but also instill a love for language and learning. As educators continue to explore innovative teaching methods,

the incorporation of interactive vocabulary building games stands out as a promising avenue for shaping well-rounded and articulate young learners.

2. Phonics and Pronunciation Games: Games such as "Phonics Bingo" and "Rhyme Time" help students grasp phonetic patterns and improve pronunciation. These activities create a playful environment where children can experiment with sounds, fostering a solid foundation in phonics and phonemic awareness.

In the early stages of language acquisition, mastering phonics and pronunciation is a foundational step for young learners. Recognizing the significance of clear communication, primary school educators are turning to phonics and pronunciation games to make the process engaging and effective. These games not only facilitate the development of essential language skills but also create a lively and interactive classroom environment.

The Importance of Phonics and Pronunciation in Primary School:

Phonics, the relationship between sounds and written symbols, and pronunciation, the correct articulation of words, are fundamental components of language development. Proficient phonics skills enable students to decode words, while accurate pronunciation ensures effective communication. In the primary school years, establishing a strong phonetic foundation lays the groundwork for confident and articulate language use.

Benefits of Phonics and Pronunciation Games:

1. **Phonemic Awareness:** Games that focus on phonics enhance phonemic awareness—the ability to recognize and manipulate individual sounds in words. These activities train young learners to link sounds to letters, fostering a connection between spoken and written language.

2. **Active Engagement:** Phonics and pronunciation games actively involve students in the learning process. Through interactive activities, such as word puzzles, sound matching, and rhyming games, children participate enthusiastically, promoting better retention of phonetic concepts.

3. **Correct Articulation:** Pronunciation games provide a platform for practicing correct articulation. Activities like tongue twisters, pronunciation challenges, and storytelling exercises encourage students to enunciate words clearly, building their confidence in oral communication.

4. **Vocabulary Expansion:** Many phonics games incorporate vocabulary building elements. As students engage with phonetic activities, they simultaneously expand their word bank, reinforcing both phonics skills and vocabulary acquisition.

Popular Phonics and Pronunciation Games for Primary School:

1. **Phonics Bingo:** A variation of the classic Bingo game, Phonics Bingo uses sound-symbol relationships instead of numbers. Students match spoken words to their

corresponding phonetic representations on their Bingo cards, reinforcing phonemic awareness.

2. **Rhyme Time Relay:** This active game involves teams racing to find rhyming pairs. Students not only identify rhyming words but also practice saying them aloud, enhancing both phonics skills and pronunciation.

3. **Word Chain Challenge:** In this collaborative game, students build a word chain by connecting words that share similar sounds. This game promotes creativity, phonemic awareness, and teamwork.

Incorporating phonics and pronunciation games into primary school English education transforms the learning experience into an interactive and enjoyable journey. These games not only lay the foundation for effective reading and communication but also nurture a love for language exploration. As educators continue to embrace innovative teaching methods, the integration of phonics and pronunciation games emerges as a key strategy in fostering confident and articulate young communicators.

3. Storytelling and Role-Playing Games: Storytelling games allow students to unleash their creativity and language skills. Whether through board games with narrative elements or classroom role-playing activities, students develop language proficiency by constructing sentences, expressing ideas, and engaging in imaginative discourse.

Storytelling and role-play are powerful tools that captivate the minds of young learners, making language acquisition a vibrant and immersive experience. In the realm of primary school English education, educators are recognizing the potential of incorporating storytelling and role-play games to foster creativity, language development, and a deeper understanding of the English language.

The Power of Storytelling in Primary School:

Storytelling serves as a gateway to language proficiency by engaging children in narratives that spark their imagination. Whether through traditional tales, modern stories, or even student-generated narratives, storytelling offers a rich tapestry of language experiences. Through the magic of storytelling, students are exposed to vocabulary, sentence structures, and cultural nuances, all while enjoying the sheer pleasure of a good story.

Benefits of Storytelling in English Education:

1. **Language Acquisition:** Stories provide a context for language use, exposing students to new words, phrases, and idioms. The repetition of language in a narrative setting enhances vocabulary retention and comprehension.

2. **Cultural Understanding:** Storytelling introduces students to diverse cultures, fostering an appreciation for linguistic and cultural diversity. Through characters and settings, students gain insights into different ways of life, expanding their worldview.

3. **Critical Thinking:** Analyzing stories and discussing characters' motivations encourage critical thinking skills. Students learn to infer, predict, and draw conclusions, enhancing their overall cognitive development.

4. **Emotional Intelligence:** Stories evoke emotions, enabling students to connect with characters on a personal level. This emotional engagement not only enhances language skills but also nurtures empathy and emotional intelligence.

Role-Play Games: Bringing Stories to Life

Role-play games take storytelling a step further by allowing students to actively participate in the narrative. These games encourage students to step into the shoes of characters, promoting language use in a dynamic and interactive way.

Benefits of Role-Play Games in English Education:

1. **Language Application:** Role-play games provide a practical platform for students to apply language skills in real-life scenarios. Whether ordering in a restaurant, playing a character in a historical setting, or engaging in a dialogue, students actively use language for communication.

2. **Confidence Building:** Participating in role-play activities boosts students' confidence in using English. The immersive nature of role-play helps overcome language inhibitions, fostering a positive attitude towards language learning.

3. **Collaboration and Communication:** Role-play games often involve collaboration, requiring students

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3. **Collaboration and Communication:** Role-play games often involve collaboration, requiring students to work together to achieve a common goal. This not only enhances communication skills but also promotes teamwork and cooperation.

4. **Creativity:** Role-play encourages students to think creatively as they embody different characters and scenarios. This imaginative exploration contributes to the development of creative thinking skills.

Popular Storytelling and Role-Play Games for Primary School:

1. **Story Cubes:** Students roll dice with images, creating a story based on the images that appear. This game enhances creativity and narrative building.

2. **Character Interviews:** Students take on the roles of characters from a story and participate in interviews, answering questions as if they were the character. This activity reinforces comprehension and encourages students to think critically about character motivations.

3. **Scenario Theater:** Students act out scenarios based on given prompts, practicing language in real-life situations. This game enhances language fluency and reinforces vocabulary use.

Storytelling and role-play games inject vitality and creativity into primary school English education, transforming language learning into an exciting journey of imagination. By embracing these interactive strategies, educators not only nurture language proficiency but also cultivate essential life skills such as creativity, critical thinking, and effective communication. As primary school classrooms become spaces for storytelling adventures and role-play escapades, students embark on a language-learning odyssey that transcends the boundaries of textbooks, opening doors to a lifelong love of language and literature.

4. Language Board Games: The incorporation of language board games in primary school English education represents a transformative and highly effective pedagogical approach, fostering a dynamic learning environment that engages students in interactive, hands-on experiences. These board games serve as invaluable tools for promoting language acquisition by facilitating the development of crucial language skills such as vocabulary expansion, grammatical understanding, and communicative

competence. Through the integration of carefully designed language board games into the curriculum, primary school educators can create an immersive and enjoyable learning atmosphere that not only enhances linguistic proficiency but also nurtures a positive attitude towards language learning, laying the foundation for lifelong language competence and appreciation.

Board games specifically designed for language learning, such as "Englishopoly" or "Word Wall Challenge," combine entertainment with educational objectives. These games incorporate language tasks and challenges that reinforce grammar rules, sentence construction, and comprehension skills in an interactive format.

5. Interactive Digital Games: In our tech-centric age, interactive digital games and educational apps have become valuable resources in English classrooms. Platforms like Kahoot! and Duolingo offer gamified language quizzes and exercises, catering to diverse learning styles and providing instant feedback to enhance the learning experience.

6. Spelling Bee Competitions: Spelling bee competitions emerge as a powerful catalyst in primary school English education, contributing significantly to language proficiency and academic success. These competitive events provide a structured platform for students to hone their spelling skills, reinforcing spelling rules, phonetics, and vocabulary. Through active participation in spelling bee competitions, primary school students not only improve their spelling accuracy but also enhance their overall language competence, promoting a deeper understanding of language structures and patterns. Moreover, the competitive nature of spelling bees instills a sense of motivation and achievement, fostering a positive attitude towards language learning and academic excellence among young learners.

Organizing spelling bee competitions within primary schools not only promotes healthy competition but also sharpens spelling and vocabulary skills. These events create a platform for students to showcase their language prowess, fostering a positive attitude toward language learning.

9. Collaborative Puzzle Games: Games that require collaboration, such as group crossword puzzles or collaborative storytelling activities, promote teamwork and communication. These collaborative efforts not only enhance language skills but also instill a sense of camaraderie and shared accomplishment.

The integration of collaborative puzzle games in primary school English education constitutes a pedagogical paradigm that transcends traditional teaching methods, providing a dynamic and interactive platform for language acquisition. These games, designed to be solved collectively, create an environment that not only enhances linguistic proficiency but also cultivates essential teamwork, communication,

and problem-solving skills. By leveraging the inherently engaging nature of puzzle games, educators can foster a collaborative spirit among primary school students, allowing them to actively participate in the language learning process. This thesis contends that collaborative puzzle games serve as effective tools in teaching English, not only promoting vocabulary retention and language comprehension but also nurturing a cooperative learning ethos that lays the groundwork for academic success and lifelong linguistic competence.

Conclusion

The amalgamation of storytelling, role-play games, and collaborative puzzle games in primary school English education emerges as a dynamic and transformative approach to language learning. By embracing these interactive strategies, educators not only stimulate language proficiency but also foster essential life skills such as creativity, critical thinking, effective communication, and teamwork.

The power of vocabulary building games lies in their ability to make learning enjoyable and contextual. Through engaging activities like Word Bingo, Scrabble Junior, and Vocabulary Puzzles, students not only expand their word bank but also develop a positive attitude towards language learning. The multi-sensory approach and interactive nature of these games cater to diverse learning styles, ensuring a comprehensive learning experience.

Phonics and pronunciation games, such as Phonics Bingo and Rhyme Time Relay, contribute to foundational language skills. These activities not only enhance phonemic awareness but also provide a platform for correct articulation and vocabulary expansion. The active engagement in these games promotes a positive language learning atmosphere.

Storytelling and role-play games, exemplified by Story Cubes and Character Interviews, infuse imagination and creativity into language education. Beyond vocabulary and grammar, these activities nurture critical thinking, cultural understanding, and emotional intelligence. Students actively participating in scenarios and narratives embark on a language-learning odyssey that transcends the boundaries of textbooks.

Furthermore, the inclusion of language board games, interactive digital games, spelling bee competitions, and collaborative puzzle games adds depth and variety to the language learning experience. These gamified approaches not only cater to diverse learning styles but also address the challenges of resource constraints and technological limitations. They create an inclusive and personalized learning environment, enhancing language skills while promoting teamwork and communication.

In essence, gamification in primary school English education is not merely a pedagogical tool; it is a gateway to a lifelong love of language and literature. As primary school classrooms become vibrant spaces for storytelling adventures, role-play escapades, and collaborative puzzle-solving, students embark on a holistic language-learning journey. Through these interactive strategies, educators lay the foundation for academic success, linguistic competence, and a genuine passion for the English language.

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IMPROVING LISTENING SKILLS WITH THE HELP OF PODCASTS AND NOTE-TAKING STRATEGY

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ABSTRACT

As the English language has become an international language of today's world, the number of individuals who are eager to learn English is rising day by day. In everyday life, most needed skills of the English language are listening and speaking as they are crucial parts of the communication among people. Listening provides the conversation move smoothly – if the listener understands the speech well, it avoids misunderstanding. So, this research has the objective to improve learners' listening comprehension through the use of podcasts with the help of note-taking strategy in EFL classrooms. 30 students from state schools in Uzbekistan were chosen as sample for this research with distribution of 15 in experiment class and 15 in control class. In this research an experimental method was applied. According to the results of questionnaire, learners said that listening to podcasts with the note-taking strategy became really useful tool to improve their listening comprehension as podcasts provide authentic tasks, meaningful and interesting activities to stay motivated.

Keywords: listening comprehension, EFL, authentic materials, podcasts, English, note taking.

СОВЕРШЕНСТВОВАНИЕ НАВЫКОВ СЛУШАНИЯ С ПОМОЩЬЮ ПОДКАСТОВ

АННОТАЦИЯ

Поскольку английский язык стал международным языком современного мира, число людей, желающих изучать английский язык, растет с каждым днем. В повседневной жизни наиболее необходимыми навыками английского

языка являются аудирование и разговорная речь, поскольку они являются важными частями общения между людьми. Аудирование обеспечивает плавность хода беседы – если слушатель хорошо понимает речь, это позволяет избежать недопонимания. Таким образом, цель этого исследования – улучшить понимание учащихся на слух за счет использования подкастов с помощью стратегии ведения заметок в классах EFL. В качестве выборки для данного исследования были выбраны 30 учащихся государственных школ Узбекистана: 15 в экспериментальном классе и 15 в контрольном классе. В данном исследовании был применен экспериментальный метод. Согласно результатам анкетирования, учащиеся сказали, что прослушивание подкастов с использованием стратегии ведения заметок стало действительно полезным инструментом для улучшения понимания речи на слух, поскольку подкасты предоставляют аутентичные задания, значимые и интересные занятия, позволяющие сохранять мотивацию.

Ключевые слова: понимание на слух, EFL, аутентичные материалы, подкасты, английский язык, note taking.

PODKASTLAR YORDAMIDA TINGLAB TUSHUNISH KO‘NIKMASINI YAXSHILASH

ANNOTATSIYA

Ingliz tili bugungi dunyoning xalqaro tiliga aylangani sababli, ingliz tilini o‘rganishga ishtiyoqmandlar soni kundan-kunga ortib bormoqda. Kundalik hayotda ingliz tilining eng zarur ko‘nikmalari tinglash va gapirishdir, chunki ular odamlar o‘rtasidagi muloqotning muhim qismlaridir. Tinglash suhbatning silliq kechishini ta‘minlaydi - agar tinglovchi nutqni yaxshi tushunsa, tushunmovchiliklarning oldi olinadi. Shunday qilib, ushbu tadqiqot ingliz tili xorijiy til sifatida o‘qitiladigan sinflarda note taking strategiyasi yordamida podkastlardan foydalanish orqali o‘quvchilarning tinglab tushunishlarini yaxshilashdan iborat. Tadqiqot uchun namuna sifatida O‘zbekistondagi davlat maktablaridan 30 nafar o‘quvchi tanlab olindi, ularning 15 nafari tajriba sinfida, 15 nafari nazorat sinfida. Ushbu tadqiqotda eksperimental usul qo‘llanildi. So‘rovnoma natijalariga ko‘ra, o‘quvchilar note-taking strategiyasi bilan podkastlarni tinglash ularning tinglashni tushunishlarini yaxshilash uchun haqiqatan ham foydali vositaga aylanganini aytishdi, chunki podkastlar autentik materiallar bo‘lib, qiziqarli va mazmunli kontentga egaligi uchun ham o‘quvchilarda tinglash uchun motivatsiya doimiy saqlanishiga sabab bo‘ladi.

Kalit so‘zlar: tinglab tushunish, EFL, haqiqiy materiallar, podkastlar, ingliz tili, note taking.

INTRODUCTION

Improving listening is a long-term process which must be done with dedication, hard-work as well as proper instructions and methods. Although a number of methods have been developed and applied in our country to develop the ability to academically develop the listening comprehension skills of English language learners, the only test of academic listening comprehension skills is IELTS (International English Language Testing System), test-taking candidates in Uzbekistan show 5.92, that is, 6 points out of 9 on average. If we look at National assessment of foreign language proficiency- Multilevel exam, according to the annual report of Multilevel exam, in listening section test takers show average 49,75 %, not even 50%, which means listening section needs to be improved. Such statistics show that the research conducted on the academic development of listening comprehension skills in our country and the methods that can be used in practice are still insufficient.

Our research is aimed at finding a scientific solution to issues such as the development of methods to develop the listening comprehension skills of B1 level language learners as well as improving their performance in IELTS and MULTILEVEL exams and their practical application. For this, using podcasts from BBC 6 minute English and applying note-taking strategy was chosen.

As far as we know, podcasts are very significant tool to help the language learners to improve their listening skills as well as boosting vocabulary. If the students or learners have a less understanding of vocabulary it will also affect missing information. Hajar, Ibnu, et al. (2020)¹. In addition, The acquisition of vocabulary is arguably the most critical component of successful language learning (McCarten, Jeanne, 2007). Learners can develop their listening comprehension and reach the expected outcome in a short period of time as podcasts provide authentic information and the topics of podcasts range from daily topics to global issues which can help to broaden the learners' horizon at the same time. The development of new technologies has created the opportunities for education to use them in language learning process. The term "Podcast" was derived from two technologies, "iPod", and "Broadcast". Additionally, based on (Rime et al, 2022)² the definition of a podcast is a piece of episodic, downloadable, or streamable, primarily spoken audio content, distributed via the internet, playable anywhere, at any time, produced by anyone who so wishes. Podcasts are authentic materials which mean that learners have no difficulty in listening daily conversations of native speakers and also they can show sufficient results in language

¹ Hajar, I., Rahman, A., Tenriawali, A. Y., & Mangesa, R. (2020). The Influence Of Podcasts In Learning English Vocabulary Of Twelve Grade Students Of Sma Negeri 2 Buru. EXPOSURE: JURNAL PENDIDIKAN BAHASA INGGRIS, 9(2), 235-249

² Rime, J., Pike, C., & Collins, T. (2022). What is a podcast? Considering innovations in podcasting through the six-tensions framework. *Convergence*, 28(5), 1260-1282

exams. In the area of language teaching, particularly listening, Podcasts for example, provide a unique feature of content choice and repository of real-life speaking materials which allow students to study at their own time and pace (Kavaliauskiene, 2008)¹. Regarding to the frequency of its usage, Constantine (2007)² explained the use of Podcasts in the EFL classroom, even at the beginning levels, all foreign language learners can benefit from Podcast by only listening it six minutes a day. Furthermore, a research was conducted by Edirisingha, Rizzi, Nie and Rothwell (2007)³ reported that podcast is successful in supporting students' preparation for assessed work, providing significant advice on portfolio and presentations. In line with this, Rizzi Rothwell, Nie and Edirisingha (2007) and Beheler (2007)⁴ also have proven that Podcasts enhance students' ability in listening.

Based on the above rationale, the use of podcasts in a language classroom is enable students to comprehend content, to enhance their proficiency and to improve their listening comprehension. Unfortunately, in Uzbek teaching context, scarce research existed prior to this study regarding best practices of podcasts and its effectiveness in the context of teaching state school students.

Stanley (2006)⁵ claimed that podcasting can strengthen or reinforce students by giving them chance to create and publish for a real audience and easing and spreading news broadcasts, developing pamphlets, listening to teachers' notes, recording lectures distributed directly to students' MP3 players, recording meeting, lecture, conference notes, supporting student projects and interviews, and offering oral history archiving and on request spreading. Townend (2005)⁶ mentioned that one of podcasts' importance podcasts allow all students to learn. They permit students to access educational materials at any place, while travelling from home to university or work, or doing any activity they want. They can play the recordings at any time which is appropriate to them rather than be restricted to set class times. Inspired by the usefulness and benefits of the Podcast as teaching resources discussed above and have been verified empirically by several experts, this study has been carried out as an effort to investigate whether Podcast can impact state school students'

¹Kavaliauskiene, G. (2008). Podcasting: A tool for improving listening skills. *The Journal of Teaching English with Technology (TEwT)*, 8(4).

² Constantine, P. (2007). Podcasts: another source for listening input. *The Internet TESL Journal*, 13 (1)

³ Edirisingha, P., Rizzi, C., Nie, M., &Rothwell, L. (2007). Podcasting to provide teaching and learning support for an undergraduate module on English language and communication. *Turkish Online Journal of Distance Education*, 8 (3), 87–107

⁴ Edirisingha, P., Rizzi, C., Nie, M., &Rothwell, L. (2007). Podcasting to provide teaching and learning support for an undergraduate module on English language and communication. *Turkish Online Journal of Distance Education*, 8(3), 87–107

⁵ Stanley, G. (2006). Podcasting: Audio on the Internet comes of age. *TESL-EJ*, 9(4). Retrieved from <http://www-writing.berkeley.edu:16080/TESL-EJ>

⁶ Townend, N.(2005). Podcasting in higher education. *Viewfinder, Media Online Focus, British Universities Film & Video Council*, 61.

listening comprehension in EFL setting in Uzbekistan as well as exploring students' perception on the use of podcasts in listening classroom.

METHODS

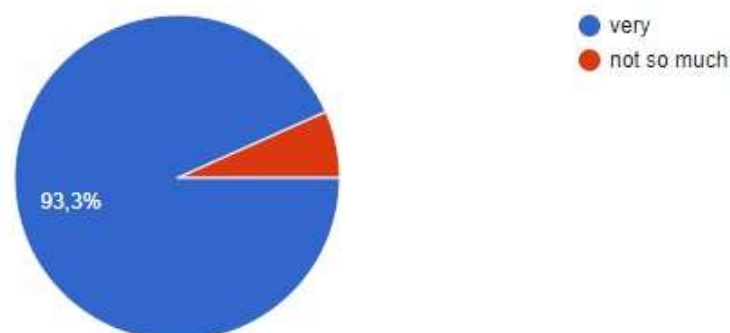
This research uses descriptive and quantitative method in presenting the positive impact of using podcasts to improve listening skill. While listening to podcasts for the first time, note-taking strategy helps them to get the main idea of the audio as well as specific details. Then, for the second time, listening happens with the help of audio scripts. Students can compare their note-taking and audio script which enables them to correct themselves. Finally, it is advised to make the speed of the audio 2 times faster as they can adapt to various audios in fast speed. This consists of 3 steps to follow. The podcasts were provided to 15 students in state schools. The students were given an online questionnaire to know their needs and wishes towards listening as well as podcasts.

RESULTS AND DISCUSSION

This experiment was conducted among 15 learners in the experiment group. Before applying the above recommended method, pre-test was taken and their results were recorded. After applying the suggested method, post-test was taken. Then, pre-test and post-test results were compared with each other.

how are podcasts effective for you?

15 ответов

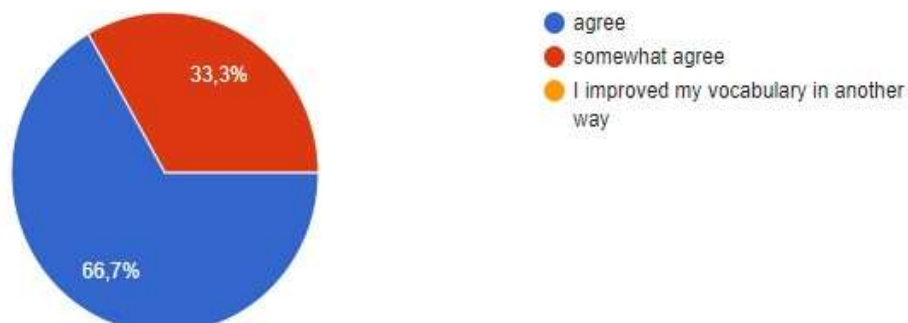


According to results, their performance in listening was much higher than before. Furthermore, according to the results of questionnaire, 93,3% students found the podcasts effective in improving their listening.

my vocabulary enhanced after listening to podcasts



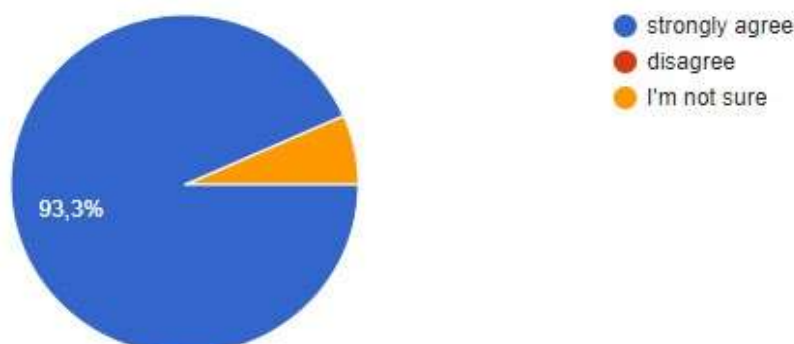
15 ответов



As it is stated above, podcasts also play a vital role in increasing language learners' vocabulary skill. Questionnaire results showed that majority students with 66,7% approved that podcasts helped them to enhance their vocabulary.

podcasts helped to broaden my horizon as they focus on various global issues as well as daily topics

15 ответов



93,3% of the students admitted that podcasts helped to improve not only language skills but also to widen their outlook since podcasts provide global information along with the daily conversations.

CONCLUSION

This study explored the effectiveness of podcasts and note-taking strategy to improve listening and the attitude of language learners to this method. As a conclusion, the use of podcasts was found effective in improving listening skills of English learners. So, it is recommended for teachers as well as any language learners to use podcasts by applying note-taking strategy since it helps not only improve listening

skills but also enhance vocabulary, critical –analytical thinking skills at the same time. Hence, further research and application of this method in language teaching and learning should be done to improve language learners' listening results in language exams.

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THE BASIS OF MONETARY POLICY IMPROVEMENT OF THE CENTRAL BANK OF THE REPUBLIC OF UZBEKISTAN

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Abstract: *Monetary policy plays an important role in the economy of any state. Like many other countries, the Central Bank is defined as the implementer of this policy in the legislation of Uzbekistan. Today, not only the state, but also the entire world economy is growing rapidly. This will require the Central Bank of the Republic of Uzbekistan to adjust its approach to monetary policy in a timely manner.*

Keywords: *Inflatable targeting, dollarization, baseline and alternative scenarios, price stability, inflation expectations of households and enterprises, broad money.*

INTRODUCTION

The possibility of independent monetary policy (MP) in Uzbekistan arose in 1994 after the introduction of national currency into circulation. We have divided the work done from 1994 to the present day into two periods. The first period covers 1994-2017. During this period, monetary targeting was chosen as a mechanism of MP and aimed at ensuring the stability of the national currency by preventing a sharp increase in the mass of money. This, in turn, would allow the Central Bank (The CBU) to improve MP by focusing on price stability in the domestic market. Although during this period, the exchange rate of the national currency was gradually devalued by linking it to the dollar, this mixed mechanism later proved its ineffectiveness as a result of external shocks. We should emphasize that the main reason for this is that problems in the domestic currency market and factors such as monitoring the mass of money in development conditions and the weak link between interest rates and demand for money, high dollarization rates have reduced the ability to determine demand for money, which has reduced the CBU's reliance on MP, resulting in several difficulties for the CBU itself. The second period covers measures that have been implemented

from 2017 to this day. In the first 2-3 years, fundamental foundations were created for the transition to inflatable targeting (IT) regime in the country. The transition to this regime in Uzbekistan began to be carried out at a rapid pace in 2020. Proof of this can be seen in the fact that in January 2020, the CBU adopted an official IT strategy set as the goal of switching to IT and reducing inflation by 10 percent by the end of 2021 and 5 percent by the end of 2023.

MATERIALS AND METHODS

The article used systematic analysis, statistical, economic and scientific abstraction, comparative and content analysis, and a number of other methods. Also, the fact that in the first period the currency exchange rate targeting regime was applied to the operation, this method showed several results. We can describe these as follows: Firstly, because of the simplicity of this regime and the fact that it is all clear in this, ordinary people, legal entities, are also easily understood by participants and subsidiaries in the marketplace. Secondly, it prevents the rate of inflation from growing rapidly during times of economic crisis. This will result in an effective decrease through this regime.

Currently, the CBU has provided its baseline and alternative scenario to the public on its website. And implementing this scenario covers 2023-2025. The regulator noted that the process of IT in MP will continue, noting that the focus will be on achieving price stability in the economy.

The most important aspect of this was that the management of the CBU approved a review of "Monetary policy guidelines for 2024 and the period of 2025-2026."

According to the CBU, constant growth in the interest rates of central banks attract resources from foreign markets. Increasing the cost of creating and servicing debt and, as a result, the economy in most developing countries simultaneously increases the activity of the financial system, which leads to increased risks to its stability.

The macroeconomic development scenarios developed to identify key aspects of MP for the next period are based on the above-mentioned factors and assumptions and forecasts on their impact on the domestic economy.

Taking into account the current state of the CBU in terms of external conditions and uncertainty and their impact on the domestic economy, the CBU has developed its baseline and alternative scenarios, taking into account two main medium-term macroeconomic developments.

In the baseline scenario, we attach special attention to the following conditions. At the same time, at a high rate of economic activity in the country, the growing dynamics of investment and consumer demand are aimed at maintaining the current level of rigidity of monetary conditions. The formation of regulated prices, on the other hand, is aimed at a slight softening of monetary conditions and transfer to a "neutral

phase" in case of strong confidence that inflation will achieve its targeted forecast. And this process - gradually adapts to market mechanisms. And as a result, fiscal consolidation begins. Also, due to the reduction of state intervention in the economy and the continuation of established structural reforms, the competition will improve, and the volume of private investment will also grow at a high rate.

Against the backdrop of external risks and increased global recession, the alternative scenario is based on the likelihood of a decrease in the country's external demand levels, a decrease in currency flows through various channels, production under the influence of climate change, and a reduction in gross offer.

In this situation, if a decrease in gross demand is a factor that maintains global inflationary processes and reduces the prices of raw materials, the reduction in gross offer has a negative impact on the level of prices in the domestic market.

According to updated forecasts within this scenario, the period of achieving a permanent 5 percent target of inflation is set to be in the second half of 2025, taking into account the fact that the pressure on proposal factors of changes in the external situation between 2022 and 2023 remains longer and the impact of certain regulated price adjustments on overall inflation.

Also, the extension of the target reach period is due to the delay in adequately meeting domestic consumer demand of the gross offer in the economy on the one hand, while on the other hand, it can pose serious risks to economic activity and financial stability in the event of sharp measures aimed at restraining gross demand.

As part of the baseline scenario for macroeconomic development, the inflation rate is projected to be around 8-9 percent in 2024. Monetary conditions will also be maintained at a relatively strict phase in 2024 to ensure that inflation is at this level.

Many economists have held different negotiations on the role and importance of MP in ensuring public finance and stability. Representatives of different nationalities have carried out scientific research on this issue, publishing articles and monographs. Still today, however, this topic is causing widespread discussion by a number of other economists and practitioners and has been at the center of the discussion. The importance of MP in ensuring the stability of the state is also reflected in the scientific work of foreign economists. For example, Mr.Nils Maehle also expressed his views on MP through his scientific paper on "Monetary Policy Implementation: Operational Issues for Countries with Evolving Monetary Policy Frameworks." At the same time, we can see that with his work, Mr.Nils Maehle also paid attention to the importance of MP in maintaining the stability of public finances. In addition, several websites have published articles and scientific research on the importance of MP under different names by various authors.

the development of an open market operations strategy, as defined in the guidelines of MP.

Market mechanisms play an important role in improving MP. Regarding the transfer of credit to market mechanisms, the President of Uzbekistan, Shavkat Mirziyoyev said: "I understand well that everyone wants to get cheap loans. However, if we artificially reduce loan interest rates, the balance in the money market will be broken. Therefore, we should not forget about macroeconomic stability so that we can lend cheaply to the economy. Without stability, we will not be able to achieve our goals for economic growth. In this regard, we will continue to work consistently aimed at reducing inflation and transferring the lending process through the bank to full market mechanisms."

The relevance of MP is increasing day by day. On November 15, the leadership of the CBU took part in the 11th Kazakh Congress of Financiers dedicated to the 30th anniversary of the national currency of Kazakhstan organized by the National Bank of Kazakhstan. Mamarizo Nurmuratov, chairman of the CBU, spoke at the event: "In the era of high uncertainty and volatility, the MP itself should not become a source of uncertainty. Every step of ours should be thoroughly checked, the signals should be clear and understandable. In our opinion, the main problems of price stability today are, on the one hand, the backwardness of some components of the domestic supply, and on the other hand, it is supported by the measures of the budget policy and, although it creates tension in the foreign exchange market, it is satisfied through imports. is an increase in domestic demand. In addition, the most important thing is the presence of limited transmission in MP. As I said, when the real interest rates are so high, working on increasing the efficiency of transmission plays a more important role than increasing the base rate".

RESULTS

The studied data showed that the institutional independence of the CBU was strengthened at a high level during the past period. According to the IMF's calculations, before the transition to the IT regime in the MP of the Republic of Uzbekistan (2016), the independence of the CBU recorded an indicator of 0.28 on a scale of 0-1, and this, in turn, prevented him from fully performing his function. After switching to the IT mode, by 2021 this indicator has increased to 0.92. The economic indicators representing the independence of the CBU were 0.72 and 0.64 scales for developed and developing countries, respectively. This analysis shows that Uzbekistan is making progress in fulfilling the initial conditions for the introduction of the IT regime, but there are still some shortcomings. The results show that the CBU has reduced most of the technical infrastructure problems and some of the institutional problems, but additional efforts are needed to strengthen institutional independence.

At the same time, there are still significant shortcomings related to the financial system and economic structures:

1. Technical infrastructure of the Central Bank;
2. financial system health;
3. Institutional independence;
4. Economic structure;

In addition, according to the analysis of the broad money, the money supply in the National currency continues to decrease. The reduction of money supply in the national currency continued in November. This is an atypical situation for Uzbekistan in recent years. During November, the money supply in the national currency decreased by almost 1.0 trillion sums and amounted to 153.6 trillion sums. The largest reduction in the composition of the money supply was due to cash in circulation (-2.7 trillion sums). As of December 1, the balance of cash in circulation is 45.5 trillion sums. The symbolic growth of the money supply in a broad sense to 201.3 trillion sums (+422 billion sums) was due to the nominal growth of foreign currency deposits. At the end of November, the balance of banks' funds in representative accounts increased to 15.8 trillion sums (2.1 trillion sums), but this is almost 5 trillion sums compared to the same period last year. The balance of mandatory reserves remains almost unchanged at around 2.8 trillion sums.

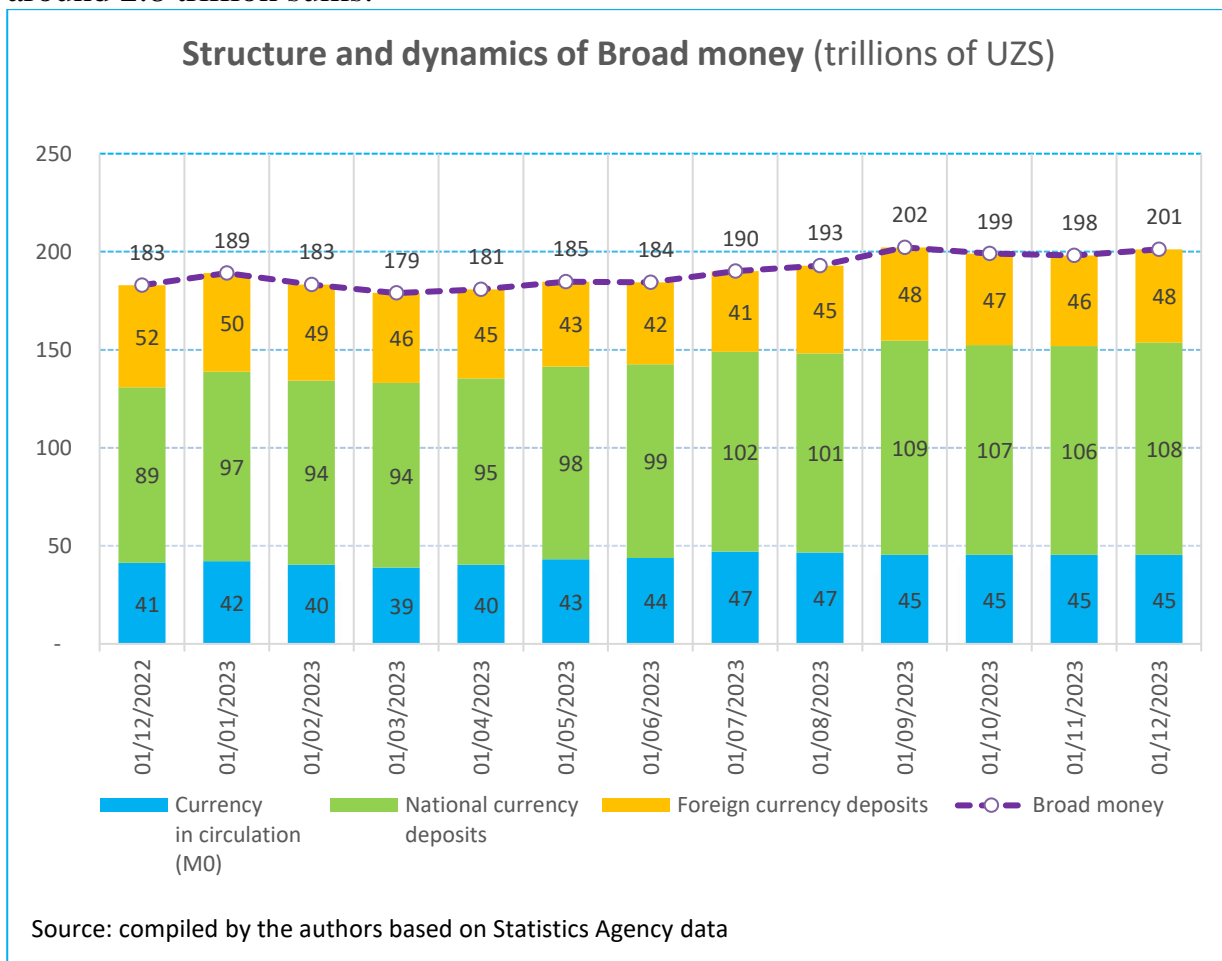


Figure 2. Structure and dynamics of Broad money (trillions of UZS)

Deposits in national currency reached 108.1 trillion sums as of December 1, which is a 21% increase compared to the same period last year. Encouraging deposits in national currency leads to a decrease in the level of dollarization. Also, the 1-year dynamics of cash in circulation increased by 9%, while foreign currency deposits decreased by 8%.

The channel of inflation expectations is one of the main factors that should be taken into account in the implementation of the MP within the IT regime. The channel of inflation expectations is of primary importance when the participants of economic processes take into account not only the real market conditions, but also the possibility of their future changes when making decisions. In particular, inflationary expectations are important for enterprises and entrepreneurs to set prices and assess future wage changes. At this point, the main feature of this channel is manifested in the formation of prices for products and services by enterprises and organizations. In this case, enterprises and organizations expecting an increase in the inflation rate in the future will raise prices, which will lead to an increase in the current inflation rate. The fact that inflationary expectations in the economy are at a high level compared to the target indicators of the central bank causes doubts in the society about the full control of inflation by the central bank. This situation may make it necessary to sharply increase the interest rate. During the period of structural changes and liberalization of the economy in the conditions of Uzbekistan, inflationary expectations may increase and remain for a certain period of time in the future. The transition to the IT regime requires increasing public confidence in the policy of the CBU expected to be implemented in the future and thereby achieving the formation of positive inflationary expectations.

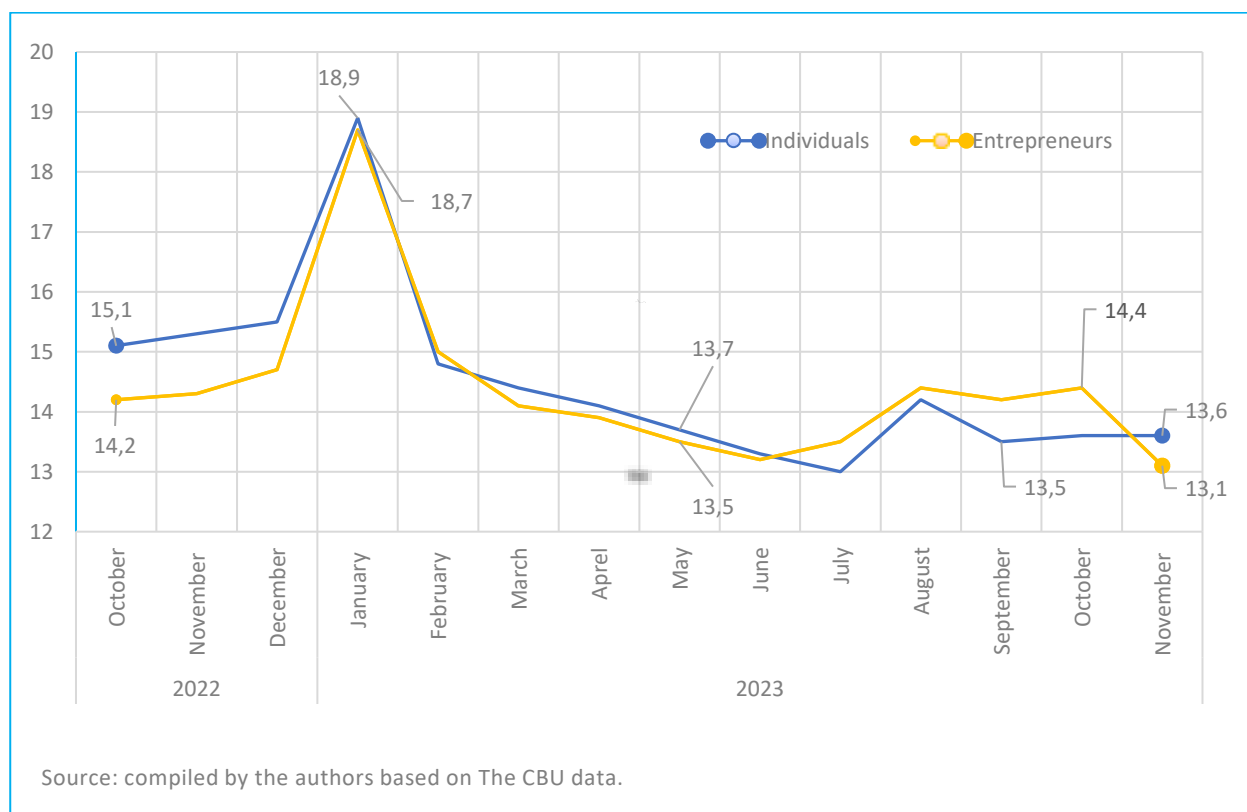


Figure 3. Inflation expectations of households and enterprises

In particular, the CBU conducts a monthly survey on inflation expectations of the population and business entities, and the final results are announced in the mass media. During the current year, inflation expectations reached the highest level in January: residents and businessmen estimated that the currency would depreciate by 18.8% on average. During the next month, both indicators had a downward trend and averaged 13.2%. By the end of the year, the population's expectations were 13.6%, and the expectations of business entities sharply decreased to 13.1% compared to October. For now, there is a 4-4.5% difference between expectations and the current inflation rate of 9%. Taking into account the inflationary expectations of the population and inflationary pressures in the economy, the MP will be kept at a "relatively tight" level throughout 2024, and it will be transferred to the "neutral phase" at the end of 2025, when there are grounds for achieving the inflation target.

CONCLUSION

In order to develop MP, not only MP should itself be improved, but it should be used other policies of CBU effectively in combination. "I must emphasize that we are seeing weak changes in the actions of our MP. This is primarily an unsatisfied demand and irrational behavior of agents. This appears to be a limited income, but at the same time, even with high interest rates, there is a lot of interest in loans. Here, of course, we need to take macroprudential measures to limit such actions aimed at increasing additional demand. We need to work with macroprudential measures that limit unsound financing and reduce risks to financial stability. The economy has been recovering from high budget deficits for the past three years, which has weighed on MP. And in such conditions, we will continue to adhere to the position of the need for fiscal consolidation, and in order to introduce a coordinated tax-budget policy in the context of growing economic activity, we need to gradually increase the voice of the monetary policy", - said Mamarizo Nurmuratov at the end of his speech in the 11th Kazakh Congress of Financiers.

A monetary policy based on well-developed macroeconomic forecasts reduces uncertainties in the domestic financial markets, facilitates the explanation of the nature of the decisions being made, and makes it possible to determine its directions in advance. Existing risks and obstacles make it difficult to implement the IT regime. On the other hand, the CBU focuses on strengthening the forecasting and analytical base, improving monetary and credit policy instruments and strengthening channels of influence, developing communication policy and increasing public confidence.

Taking into account the fact that communication is a software product in the mode of inflation calculation of the monetary and credit rate of the CBU, it is necessary to make sure to increase transparency and efficiency in monetary and credit communication next year. Central banks benefit from large-scale data and rely on

strong and influential empirical evidence in conducting macroeconomic management. Modeling and forecasting tools should be used to correct the fundamental factors of changes in the economy, and they should be continuously improved.

In addition, there are factors that limit the effectiveness of MP:

1. low level of effectiveness of interest rates in the money market in the formation of asset prices;
2. high dollarization of deposits, loans and liabilities in the banking system;
3. Preferential lending practices and unbridled inflationary expectations;

It is necessary to decrease these limiting factors in order to improve the basis of monetary policy of the Central Bank of the Republic of Uzbekistan.

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INGLIZ VA O‘ZBEK TILIDA ERTAKLAR MAVZUSINI QIYOSIY TAHLIL QILISH

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UO‘K:82-343.4

ANNOTATSIYA

Dunyoda ilm-fan texnologiyaning jadal rivojlanib borishi natijasida har bir davlat va jamiyatning raqobatbardoshligi ko‘p jihatdan yoshlarning intellektual rivoji hamda ularning iste‘dodi va qobiliyatini to‘liq amalga oshirishga bog‘liq bo‘lmoqda. Shu sababli, ayniqsa, kichik yoshdagi bolalarga va ularning to‘g‘ri tarbiyalanish jarayoniga alohida e‘tibor qaratish zarurati tug‘ilmoqda. Darhaqiqat, bu borada ya‘ni, bola tarbiyasida ertaklarning o‘rni beqiyosdir va ularga bo‘lgan talab ham oshib bormoqda. Chunki ko‘plab onalar ertaklarning farzand tarbiyasida qanchalik muhim ahamiyatga ega ekanligini his etishmoqda. Ushbu maqolada ertaklar mavzusi qiyosiy tahlil qilindi va ularning bolaning aqliy rivojlanishi uchun ta‘siri baholandi.

Kalit so‘zlar: xalq og‘zaki ijodi, g‘oya, bola tarbiyasi, qahramonlar, yaxshilik.

СРАВНИТЕЛЬНЫЙ АНАЛИЗ СКАЗОК НА АНГЛИЙСКОМ И УЗБЕКСКОМ ЯЗЫКАХ

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АННОТАЦИЯ

В результате стремительного развития науки и техники в мире конкурентоспособность каждого государства и общества во многом зависит от интеллектуального развития молодежи и полной реализации ее талантов и способностей. Именно поэтому необходимо уделять особое внимание детям раннего возраста и их правильному воспитанию. Ведь в этом отношении роль сказок в воспитании детей бесподобна, а спрос на них также возрастает. Потому что многие мамы чувствуют важность сказок в воспитании детей. В данной статье была сравнительно проанализирована тема сказок и оценено их влияние на психическое развитие ребенка.

Ключевые слова: фольклор, идея, воспитание детей, герои, доброта.

COMPARATIVE ANALYSIS OF THEMES OF ENGLISH AND UZBEK FAIRY TALES

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ABSTRACT

As a result of the rapid development of science and technology in the world, the competitiveness of every country and society depends to a large extent on the intellectual development of youth and full realization of their talents and abilities. Therefore, it is important to pay special attention to young children and their proper upbringing. In fact, in this regard, the role of fairy tales in child education is incomparable, and the demand for them is also increasing. Because of this, many mothers feel the importance of fairy tales in raising children. In this article, the theme of fairy tales was comparatively analyzed and their impact on the child's intellectual development was evaluated.

Key words: *folklore, idea, nurture, heroes, goodness.*

KIRISH

Mavzuning dolzarbligi. Ma'lumki, har bir xalqning ma'naviyati, madaniyati va donishmandligi xalq og'zaki ijodi orqali namoyon bo'ladi. Ayniqsa, xalq og'zaki ijodining ajralmas qismi sanalgan ertaklar orqali o'tmishda xalqlarning turmush tarzi, urf-odatlar va an'analari haqidagi atroflicha ma'lumotlarni bilib olishimiz mumkin. Shu bilan birgalikda, ertaklar farzand tarbiyasi jarayonida hamda uning dunyoqarashini kengaytirishda va uning yetuk inson bo'lib yetishishida muhim rol o'ynaydi. Chunki ertaklar orqali bolani yaxshilik sari chorlash va uni Vatanga muhabbat, ota-onaga hurmat ruhida tarbiyalash mumkin. Albatta, bu masala ko'p jihatdan ertaklarning to'g'ri tanlanishi va mavzu jihatdan bolaning yoshi hamda qiziqishlariga mos ravishda tanlanishiga bog'liq bo'ladi. Chunki bola eshitayotgan ertaklaridagi bosh qahramonlarini o'zi uchun ideal shaxs darajasiga ko'taradi va bu holatda ertak bosh qahramonining xarakteri, turli harakatlarini o'zlashtirishga intiladi.

Hozirgi shiddat bilan rivojlanib borayotgan texnika asrida ko'plab onalar ertak aytib berishni, bolalar esa ertak o'qishni unutib qo'yishmoqda. Xolbuki, jamiyatda ko'zga tashlanayotgan o'g'rilik, xiyonat, sotqinlik, birovni haqqiga xiyonat qilish kabi yomon illatlarning soni tobora oshishi yoshlikda ertak eshitmaslik va kitob o'qimaslikdan kelib chiqmoqda desak mubolag'a bo'lmaydi. Chunki har bir ertak mazmunida chuqur ma'no yashirin va ular bolani yoshligidan yaxshilik sari yetaklaydi.

Shu bois, ertak eshitib ulg'aygan bolaning dunyoqarashi rivojlanib, ilm olishga bo'lgan ishtiyoqi ortib boradi, natijada u hayotda to'g'ri yo'lini topadi.

Adabiyotlar tahlili. Ertaklar mavzusida ko'plab tadqiqotlar olib borilgan va bu mavzu XX asrning 20-yillarida tadqiqotning obyekti sifatida o'rganilgan va bu davrda xalq og'zaki ijodiga doir ko'plab ilmiy ishlar yaratilgan. Bu borada H.Zarifov¹, O.Madayev², K.Imomovlarning³ tadqiqotlari folklor asarlarini o'rganishda asosiy nazariy manbaa bo'lib xizmat qiladi.

Bugungi globallashuv asrimizda mamlakatlar o'rtasida mustahkam ijtimoiy-iqtisodiy aloqalar o'rnatilmoqda, natijada xalqlar o'rtasida fikr almashinish va bir-birlarining madaniyatini o'rganish jarayoni sodir bo'lmoqda. Jumladan, xalq ertaklari ham bir tildan boshqasiga tarjima qilinib, ularning tarbiyaviy ahamiyati va mavzulari tahlil qilinmoqda. Julietta Alós⁴ o'z maqolasida ertaklarni tarjima qilish jarayonini, Sh.U.Nurulloeva⁵ esa ingliz va o'zbek tillaridagi ertaklarning o'zaro o'xshash va farqli jihatlarini yoritib bergan.

Inge van de Ven⁶ esa ertaklarni o'qish jarayonida qanday qilib diqqat-e'tiborni jamlash masalalarini yoritib beradi. Albatta, bu masala ertaklarning mazmun-mohiyatini to'g'ri anglash va to'g'ri xulosa chiqarish uchun muhim ahamiyat kasb etadi.

K. Abdulloyeva⁷ esa ingliz va o'zbek ertaklarini lingvomadaniy va stilistik jihatdan tahlil qilib bergan. Bu jihatlarini o'rganish orqali ertaklarning lingvokulturologik, kognitiv hamda qiyosiy tahlil qilish kabi xususiyatlariga e'tibor qaratgan. D.F. Xurramova va N.F.Ochilova⁸ ertaklardagi yetakchi qahramonlarning o'ziga xos xususiyatlari va ularning ingliz va o'zbek tillarida o'zaro chog'ishtirma tahlili haqida fikr yuritgan.

¹ H. Zarifov. Folklor va arxeologiya materiallarini o'rganishga doir. 1958.

² Madayev, O. O'zbek xalq og'zaki ijodi. Toshkent "Mumtozso'z" 2010

³ Imomov, K. O'zbek xalq nasri poetikasi. – Toshkent <https://n.ziyouz.com/portal-haqida/xarita/yangi-kitoblar/komiljon-imomov-o-zbek-xalq-nasri-poetikasi>

⁴ Alós, J. (2023). Paralinguage in the translation of children's graphic novels into Arabic: Jeff Kinney's diary of a wimpy kid. Children's Literature in Education. <https://doi.org/10.1007/s10583-023-09558-4>

⁵ Nurulloeva Sh.N. (2022). The difference and similarities between English and Uzbek folklore. "Science and innovation" international scientific journal. <https://zenodo.org/records/7443677>

⁶ Van de Ven, I. (2023). 'Gonna get you, baby!' a qualitative-empirical study of attentional modulation in reading a short story. Language and Literature: International Journal of Stylistics, 32(4), 458-478. <https://doi.org/10.1177/09639470231202261>

⁷ Abdulloyeva, K. (2021). Ingliz hamda o'zbek ertaklarining lingvomadaniy hamda stilistik tahlili. Scientific Progress. <https://cyberleninka.ru/article/n/ingliz-hamda-o-zbek-ertaklarining-lingvomadaniy-hamda-stilistik-tahlili>

⁸ Xurramova Dildora Fozil qizi, & Ochilova Noila Farmonovna. (2023). O'zbek va ingliz tili folklorida yetakchi qahramonlarning qiyosiy o'rganilishi. Pedagog Journal, 34(1), 145–151. <https://www.pedagoglar.uz/index.php/ped/article/view/4551>

ASOSIY QISM

Dunyodagi barcha xalqlarda azaldan mavjud bo‘lgan va asrlar osha tildan-tilga o‘tib kelayotgan ertaklar mavjud va ular o‘sha xalqning orzu-istaklari, turmush kechinmalari, o‘y-xayollarining ko‘zgusi hisoblanadi. Ertaklar orqali ajdodlarimiz bizga kelajak haqida va o‘zlari orzu qilgan narsalar haqida xabar yuborishgan desak xato bo‘lmaydi. Masalan, ertaklarda keltirilgan “uchar gilam” yoxud “oynayi jahonnoma”lar orqali bugungi hayotimizni ularsiz tasavvur etish qiyin bo‘lgan “samalyot” hamda “televizor”lar timsolini ko‘rishimiz mumkin. Bundan tashqari, “Susambil” ertagi orqali o‘tmishda insonlarning dehqonchilik va chorvachilik bilan kun kechirganliklari va bu jarayonda hayvonlardan foydalanishganligini ko‘rish mumkin. “Ur to‘qmoq” ertagidagi ur to‘qmoq orqali xalqqa jabr-zulm qilayotgan boylar va yuqori tabaqadagi kishilarning ta‘zirini berish nazarda tutilgan.

Turli tillardagi ertaklar mavzu jihatdan o‘zaro farqlanishi mumkin, ammo ulardagi g‘oya, mazmun-mohiyat bir xil yoki bir-biriga o‘xshash tarzda tasvirlangan. Bunga misol qilib o‘zbek xalq ertagi “Zumrad va Qimmat”dagi asosiy qahramon – Zumrad va ingliz xalq ertagi “Sindrella”, “Zolushka”lardagi yetakchi qahramonlar – Sindrella va Zolushkalarni olishimiz mumkin. Ushbu qahramonlarning ismlari turlicha, biroq ular orqali o‘quvchiga yetkazib bermoqchi bo‘lingan fikr bir xil. Uchala ertakda ham yaxshilik ulug‘langan va o‘gay onalar timsolidagi yovuzlik, zug‘m qoralangan. Ma‘lum bo‘ldiki, xalq ertaklarida maishiy hayotda va juda qadim zamonlarda yaratilganligi jihatidan o‘xshashliklar mavjud. Ammo ular bir-biridan qahramonlarning ismlari, tabiat tasviri, hunarlari, voqealar bayoni bilan farq qiladi va bularni tasvirlashda milliy til va milliy ruh chizgilari yaqqol aks etib turadi.

Xalq og‘zaki ijodini o‘rganuvchi olimlarning ta‘kidlashicha, ko‘plab ertaklarning asosini sehr va mo‘jiza tashkil etadi. Shuning uchun ham ertaklar, asosan, “Bir bor ekan, bir yo‘q ekan...” deb boshlanadi, bu shuni anglatadiki, ertak tinglovchilar va mushtariylarning ishonish va ishonmaslik o‘z ixtiyorida. Ammo ertaklar doimo voqealar bayoni va syujetning mohirona ipga tizilganligi bilan barchaning e‘tiborini tortadi, shuning uchun ham bola tarbiyasida ertaklardan foydalanish yaxshi samara beradi deb aytish mumkin.

O‘zbek ertaklarida asosan ishonuvchanlik, soddalik, sofdillik, rostgo‘ylik va milliy urf-odatlarining o‘zgacha tasvirlanishi namoyon bo‘lgan bir paytda, ingliz ertaklari o‘zining yumoristik ruh va hajvlarga boyligi bilan ajralib turadi. Ingliz ertaklaridn asosan devlar, parilar, sehrgarlar, maxluqlar tasvirlanishi ham bejizga emas. Masalan, “Jack and the Beanstalk” ertagida ham Jek ismli yigitning odamxo‘r maxluqlar bilan kurashganligi va o‘zi hamda qarindoshlarini ulardan qutqarganligi haqida hikoya qilingan. Bundan tashqari, aka-uka Grimmlar va X.K.Andersen ertaklarida ham ko‘plab qahramonlarni, asosan qashshoqlik bilan kun kechirgan va boy hamda yuqori

tabaqadagi insonlarni ko‘rish va kambag‘al kimsalarning sofdilligi va ularning ertak yakunida razil va xalqni qiynovchi boy kimsalar ustidan yengil kulganligiga guvoh bolish mumkin. Bu ertaklar kapitalizm va burjua inqilobidan keyin paydo bo‘lgan va o‘sha davr kimsalarining hayoti haqida hikoya qiladi va ulardagi voqealar syujeti achchiq kulgu ostiga olingan.

Bugungi davrda yosh avlodning axborot-kommunikatsiya texnologiyalariga berilib ketishidan saqlab, ularni mutolaaga torish va sog‘lom fikrli qilib tarbiyalash juda murakkab. Bu borada bolalarga go‘daklik paytidayoq ertaklar hikoya qilib berish muhim ahamiyatga ega va shu o‘rinda V.G.Gusevning ertaklar to‘g‘risidagi fikrini keltirish muhim: “Jamiyatda, umuman, inson tabiatidagi illatlar real hayotda aksini topmagach, fantastik tarzda ertaklarda o‘z yechimiga ega bo‘ladi”[1]. Ertak so‘zlab berishdan oldin bolaning psixologiyasiga, yoshiga, tabiatiga mos ertaklarni tanlash lozim bo‘ladi. Masalan, “Ziyrak uch yigit” ertagini 2 yoki 3 yoshdagi bolalarga aytib berilsa, bolaning ertakni to‘liq anglashi, voqealar syujetiga tushunishi qiyin bo‘ladi. Inglizlarning “Peppa Pig” ertagini ham bolalarga o‘qib berish xato bo‘ladi, chunki undagi bosh qahramon “Peppa” ismli cho‘chqa obrazi tahlil qilinsa, u orqali juda qaysar va otasining gapiga quloq solmaydigan qiz timsolini ko‘rish mumkin. To‘g‘ri u qiziqarli va quvnoq voqelarni boshidan kechiradi va bu bola uchun qiziqarli tuyulishi mumkin, ammo uning xarakterini bola tezlik bilan o‘zlashtirib olishi ham mumkin.

Shuni aytib o‘tish joizki, bola go‘dakligida “yozilmagan oq qozg‘oz” kabi bo‘ladi va ularda atrof-muhitni o‘rganish uchun ishtiyoq baland bo‘ladi. Ushbu jarayonda ertaklar ular tushunishga harakat qilayotgan dunyo va atrof-muhit haqidagi fikrlarining rivojlanishi va ongosti savollariga javob olishiga yordam beradi. Ayniqsa, go‘dakning endi tili chiqayotganda, ularga ertaklar o‘qib berilsa ularning nutqi yaxshi rivojlanadi. Chunki, ertaklarda biz kundalik foydalanadigan so‘zlarimizdan ko‘ra ko‘proq va adabiy tildagi so‘zlar berilgan va bu bola uchun o‘zgacha ahamiyatga ega.

XULOSA

Xulosa qilib aytganda, ertaklar xalq og‘zaki ijodi mahsuli bo‘lib, jahon adabiyotining rivojiga o‘ziga xos hissa qo‘shgan. Ertaklar har bir xalqning mentaliteti, qarashlari, madaniyati, ijtimoiy-iqtisodiy hayoti haqida ma‘lumot beradi. Ingliz va o‘zbek ertaklarining qahramonlari va ulardan anglashilgan ma‘no bir xil, ammo chuqurroq tahlil qilinsa hayot tarzi va xalqning qarashlari jihatidan farqlarni ko‘rish mumkin.

Shuningdek, ertaklar nafaqat bola tarbiyasida, balki butun jamiyat uchun juda muhim bo‘lgan adabiyotning ajralmas bir qismi sanaladi. Ularning tarbiyaviy ahamiyati juda katta va ular kognitiv hamda hissiy-estetik jihatlarga ega, va biz bilganimizdek bularsiz haqiqatni bilish mumkin emas[1]. Ertaklar tufayli bolaning so‘z-mantiq tafakkuri hamda emotsional sohasi rivojlanib boradi. Ma‘lum bo‘diki, ertaklarning xalqalar va jamiyatlar, ularning rivoji uchun ahamiyati beqiyosdir.

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СУВ ОМБОРЛАРИНИНГ АЙРИМ ГИДРОЛОГИК РЕЖИМИ ҲАҚИДА (ТЎДАКЎЛ СУВ ОМБОРИ МИСОЛИДА)

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***Аннотация.** Бизга маълумки кейинги йилларда дунё миқёсида сув ресурслари чекланиши. жумладан Ўзбекистон Республикасида ҳам ўзига хос муаммоларга сабаб бўлмоқда. Шунини инобатга олиб сувдан самарали фойдаланишда сув иншооти саналган сув омборлари гидрологик ва кимёвий режимини ўрганиши долзарбдир. Илмий тадқиқот ишларимиз натижаси ўлароқ биз асосий сув омборларидан бири саналган Тўдакўл сув омборини эксплуатация жараёнларини тўғри таъкил қилишимиз ва атроф муҳитнинг экологик мувозанатини ижобий томонга ўзгартиришимиз лозим. Ҳар бир қурилган сув хўжалиги объектнинг ижобий томонлари бўлгани сингари салбий оқибатлари ҳам мавжуд. Бунга яққол мисол тариқасида Тўдакўл сув омборини ҳам келтиришимиз мумкин. Мазкур сув омбори қурилгандан кейин унинг атрофидаги таъсир зонасида ландшафтларнинг геофизик, геокимёвий хусусиятлари, яшаш ҳолати, морфологик таркибида кескин ўзгаришлар рўй берди. Айниқса иккиламчи шўрланиши, намиқлиши, ботқоқланиши кўпайиши, шамол эрозияси “тузли ёмғирлар” табиатнинг баъзи керакли жараёнларини камбағаллашишга олиб келиши мақолада ёритилган. Ишни баъжариши жараёнида, стационар кузатишларни амалга оширишида гидрометрик, гидрофизик ва гидрохимик усуллардан фойдаланиб самарали натижалар олинган. Бунинг натижасида Тўдакўл сув омборининг айрим гидрологик параметрлари аниқланиб, гидрологик режими таҳлил этилган.*

***Калим сўзлар:** глобал, филтрация, мелиорация, ресурс, минерал, ландшафт, геофизик, геокимёвий, морфологик, иккиламчи шўрланиши.*

***Abstract:** It is known to us that water resources on a global scale will be limited in the following years. in particular, the Republic of Uzbekistan is also causing its own problems. Considering that in the effective use of water, it is relevant to study the hydrological and chemical regime of reservoirs, which are considered a water facility. As a result of our scientific research work, we must correctly organize the processes*

of exploitation of the Toadakul reservoir, which is considered one of the main reservoirs, and change the ecological balance of the environment in a positive way. There are also negative consequences, as are the positive aspects of each built-up aquaculture object. As a clear example of this, we can also cite the Toadakul reservoir. After the construction of this reservoir, drastic changes in the geophysical, geochemical characteristics of landscapes, habitat, morphological composition took place in the zone of influence around it. In particular secondary salinization, wetting, increased waterlogging, wind erosion - "salt rains" - poorer some of the necessary processes of nature-are covered in the article. In the process of performing the work, effective results were obtained using hydrometric, hydrophysical and hydrochemical methods when performing stationary couplings. As a result of this, some hydrological parameters of the Toadakul reservoir were determined and the hydrological regime was analyzed.

Keywords: *global, filtration, melioration, resource, mineral, landscape, geophysical, geochemical, morphological, secondary salinity.*

КИРИШ. Ҳеч кимга сир эмаски, ҳозирги пайтда дунё бўйича қолаверса, Марказий Осиёда жумладан Ўзбекистонда ҳам сув ресурсларининг чекланиб бориши ҳамда уларнинг беҳудага исроф бўлишини олдини олиш мақсадида қурилган ва барпо этилаётган сув омборларини ўрни беқиёсдир. Шу сабабли сув омборларининг гидрокимёвий режимини ўрганиш ва филтрация жараёнларини кузатиб бориш уларни илмий-амалий жиҳатдан ўрганиш долзарб ҳисобланади.

АДАБИЁТЛАР ТАҲЛИЛИ ВА МЕТОДОЛОГИЯ. Сув ресурсларининг гидрологик режими бўйича илк маълумотлар А.В.Чаплигин (1925), А.В.Бостанджагло, В.Л.Шульц, А.П.Стругинский, Е.М.Тимофеев (1936) ва бошқалар томонидан бажарилган тадқиқотларда келтирилган. Сув ресурслари ҳосил бўлишининг асосий қонуниятлари ва назарий асослари, уларни миқдор ва сифат кўрсаткичлари бўйича баҳолаш ҳамда бу сувлардан фойдаланиш масалалари МДҲ давлатлари олимларининг тадқиқотларида баён этилган (А.Н.Костяков, В.А.Духовний, Ф.А.Рубинова, С.И. Харченко, М.А.Якубов, А.И.Сергеев, Р.К.Икрамов ва бошқалар). Биз ўрганаётган масаланинг гидрологик-гидрокимёвий муаммолари эса Р.А.Алимов, А.А.Рафиқов, Э.И.Чембарисов, Р.М.Раззақов, Л.З.Шерфединов, А.З.Зоҳидов, О.А.Алёкин, W.P.Black, R.M.Nagan, А.М.Никоноров, Ю.Ю.Лурье, Н.С. Строганов, Ю.В. Новикова, Э.И.Чембарисов, Ф.Я.Рубинова, Ю.Н.Иванов, И.С.Рабочева, В.М.Легостаев, Э.И.Игамбердиев, Р.Ш.Шаякубов, С.Б.Бўриев, Ж.К.Кутлиев, Ё.Қ.Хайитов, Н.Nakamura ва бошқаларнинг тадқиқотларида кўриб чиқилган.

НАТИЖАЛАР. Берилган вазифалар нуктаи-назаридан илмий тадқиқот ишларимизни Тўдакўл сув омборида олиб бордик. Тўдакўл сув омбори Навоий вилояти Қизилтепа тумани ҳудудида жойлашган бўлиб, туман

марказидан 26 км, Бухоро шаҳридан 35 км узоқликда жойлашган. Йиғилган сув Бухоро вилоятининг Ғиждувон, Шофиркон, Вобкент, Пешку, Ромитан, Когон, Бухоро, Жондор ва Навоий вилоятининг Қизилтепа, Кармана туманларига ёзги суғориш мавсумида экин далаларини суғориш учун сарфланади.

1-жадвал

Тўдакўл сув омборининг техник параметлари

1	Сув омбори ҳажми	$W=1200$ млн.м ³
2	фойдали ҳажми	$W=650$ млн.м ³ .
3	ўлик ҳажми	550 млн.м ³ .
4	қирғоқ бўйлаб узунлиги	55 км
5	ўртача чуқурлиги	7 м.
6	Дамба узунлиги	4,2 км.
7	Дамба баландлиги	12 м.
8	Дамбанинг устки белгиси (отметка)	228 м.

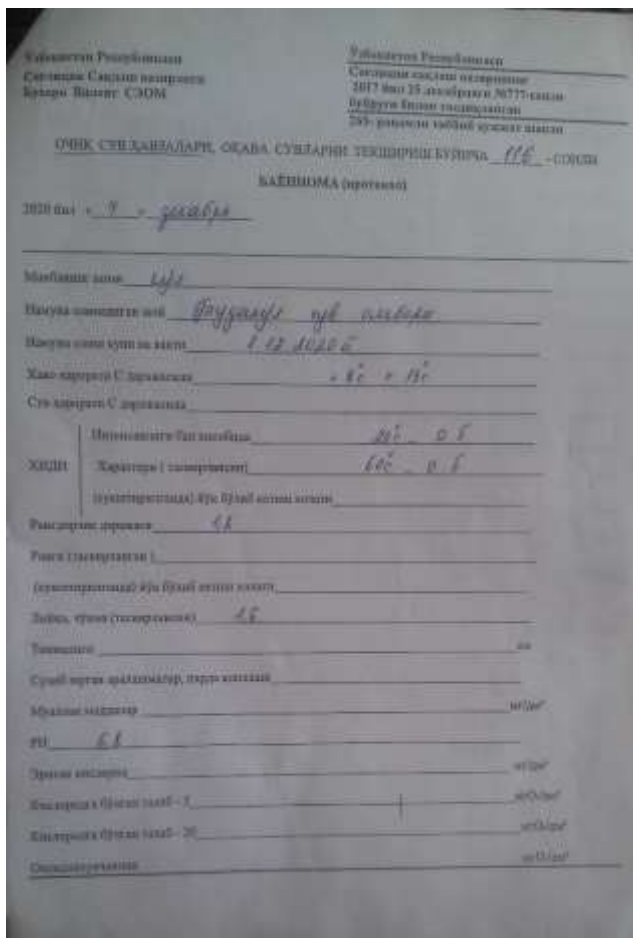
Аму-Бухоро машина каналидан фойдаланиш бошқармаси маълумотлари 2021 йил.

Жадвалдан кўришиб турибдики, 2021 йил давомида Тўдакўл сув омборининг ҳажми $W=1200$ млн.м³, фойдали ҳажми $W=650$ млн.м³, ўлик ҳажми 550 млн.м³, қирғоқ бўйлаб узунлиги 55 км, ўртача чуқурлиги 7 м, дамба узунлиги 4,2 км, дамба баландлиги 12 м, дамбанинг устки белгиси (отметка) 228 м. ни ташкил этди.[1]

Бизга маълумки, Тўдакўл сув омборига сув 150 км дан зиёдрок ҳудудни босиб келади. Сув олиб келувчи каналларимиз грунт ўзанли бўлгани учун Тўдакўл сув омборининг таркиби ҳам минералларга бой ва ранг-баранг бўлади.

Ҳар бир қурилган сув хўжалиги объектининг ижобий томонлари бўлгани сингари салбий оқибатлари ҳам мавжуд. Бунга яққол мисол тариқасида Тўдакўл сув омборини ҳам келтиришимиз мумкин. Мазкур сув омбори қурилгандан кейин унинг атрофидаги таъсир зонасида ландшафтларнинг геофизик, геокимёвий хусусиятлари, яшаш ҳолати, морфологик таркибида кескин ўзгаришлар рўй берди. Айниқса иккиламчи шўрланиш, намиқиш, ботқоқланиш кўпайиши, шамол эрозияси “тузли ёмғирлар” табиатнинг баъзи керакли жараёнларини камбағаллашувуга олиб келмоқда.

Ечиш усули. Кўп йиллик илмий изланишларимиз жараёнида сув омборининг гидрологик ва гидрохимик режимини ўргандик ва улардан қуйидаги кўрсаткичларни олдик.



Лаборатория таҳлиллари асосида қуйидагилар аниқланди.

МУҲОКАМА. Ўзбекистон Республикасини 2017-2021 йилларда янада ривожлантириш бўйича Ҳаракатлар стратегиясида “Суғориладиган ерларнинг мелиоратив ҳолатини янада яхшилаш, қишлоқ хўжалиги ишлаб чиқариш соҳасига сув ва ресурсларни тежайдиган замонавий технологияларни жорий этиш”, глобал иқлим ўзгаришлари ва Орол денгизи ҳалокатининг қишлоқ хўжалиги ривожланиши ҳамда аҳолининг ҳаёт фаолиятига салбий таъсирини юмшатиш” каби вазифалар белгилаб берилган. Мазкур вазифалардан келиб чиқиб, сув иншоотининг гидрологик ва гидрохимик режими ўрганилди.

Сув омборининг 1 литр сувдаги лойқалиги $1,6 \text{ мг/дм}^3$, сувининг ишқорийлиги $6,8 \text{ мг/дм}^3$, куруқ қолдиқ $943,0 \text{ мг/дм}^3$, умумий қаттиқлиги $8,5 \text{ мг/дм}^3$, азот нитрит $0,01 \text{ мг/дм}^3$, азот нитрат $16,6 \text{ мг/дм}^3$, хлоридлар $365,0 \text{ мг/дм}^3$, сульфатлар $491,0 \text{ мг/дм}^3$, сувнинг таркибидаги фтор $0,06 \text{ мг/дм}^3$, азот аммоний ва умумий темир микдорлари кузатилмади.



1-2 расмлар. Тудакўл сув омбори

Тўдакўл сув омборидан филтрация жараёнида ҳосил бўлган кўлмак сувни 4.12.2020 йил +8 ва +13 ҳароратдаги таркиби тўғрисидаги таҳлил натижалари.

Тўдакўл сув омборининг устки қисми кенглиги 18-25 м (лойиҳасиз маҳаллий грунтдан қурилган) юқори б'еф харсанг тош билан мустаҳкамланган, пастки б'ефда дренаж қуриш ишлари давом эттирилмоқда. 33 дона пьезометрлар ўрнатилган. Дамбадан сувни филтрацияси натижасида сув омборининг айрим жойларида кўлмаклар ҳосил бўлган.

Биз лаборатория шароитида мана шу кўлмақдан олинган сув таҳлили орқали қуйидаги натижаларни гувоҳи бўлдик.

Натижалар таҳлили ва мисоллар;Тадқиқот ўтказилган кўлмақдаги

1 литр сувнинг лойқалиги 4,2 мг/дм³, сувининг ишқорийлиги 6,8 мг/дм³, куруқ қолдиқ 4126,0 мг/дм³, умумий қаттиқлиги 45,5 мг/дм³, азот аммоний 0,23 мг/дм³, азот нитрит 0,018 мг/дм³, азот нитрат 22,6 мг/дм³, хлоридлар 980,0 мг/дм³, сульфатлар 2113,0 мг/дм³, сувнинг таркибидаги фтор ва умумий темир миқдори кузатилмади. Қуйидаги 2-3 расмдан кўришиб турибдики Тўдакўл сув омборининг гурунгли дамбаларидан филтрация жараёнида бир қатор катта ва кичик кўллар ҳосил бўлган. Шу сабабли ерларнинг мелиоратив ҳолатига салбий таъсир кўрсатиб ҳамда, сув омбори дамбаларида эрозия жараёнини юзага келтирган, бу эса экологик муҳитнинг барқарорлигига зиён етказиб келмоқда. Сув омбори дамбаларининг тезроқ бузилишига олиб келади.



Ҷамҳурияи Русия Федерацияи Тоҷикистон
 Саноати Саноати Мақолаҳои Ҷамоати Шайх Муҳаммад Содиқ
 Билолов Ҷамҳурии Тоҷикистон
 Ширкати таҷрибаи 76777-саноати
 Ҷамҳурии Тоҷикистон
 143-роқабати ҷамҳурии тоҷикистон

ҚИРС СУВ ХАБИДАРИ ОҚАНА СУВБАРИ ТЕШИРИШИ ҶИРНА (143488)

КАДРНОМА (протокол)

2024 йил 4 - январ

Маълумоти нима: Ҷураб Ҷамоати Шайх Муҳаммад Содиқ
 Номҳои саноати: Ҷураб Ҷамоати Шайх Муҳаммад Содиқ
 Номҳои саноати: Ҷураб Ҷамоати Шайх Муҳаммад Содиқ

Ҷамҳурии Тоҷикистон: 143-роқабати
 Суи қабати С: 143-роқабати

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Идора: _____

Қирс қабати: 143-роқабати

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3-4 расмлар. Тўдакўл сув омборидан филтрация жараёнида ҳосил бўлган кўлмак сувдан намуна олиш жараёни

ХУЛОСА. Хулоса ўрнида шуни айтиш жоизки, сув омборларидан жумладан Тўдакўл сув омбори сув ресурсларидан самарали фойдаланиш исрофгарчиликка йўл қўймаслик суғорма ерларнинг салбий экомелиоратив ҳолатини олдини мақсадида қуйидаги таклиф ва мулоҳазаларни билдирамиз:

- Сув омборларини лойиҳалаштиришни илмий асосда ташкил этиш.
- Сув омборларидан амалий жиҳатдан узоқ муддатда фойдаланиш чора - тадбирларини ишлаб чиқиш.
- Сув омборларининг муҳофаза зонасини доимий назорат қилиш.
- Экологик нуқтаи – назардан сув омборларининг атроф- муҳитга салбий таъсирини кескин камайтириш.
- Рўй бериши мумкин бўлган тезкор лойқаланиш жараёнини қискартириш бўйича зарур чоралар кўриш.
- Сув омборларидаги сув сатҳи динамикасини мунтазам кузатиб бориш.
- Сув омборларидан халқ хўжалигининг турли тармоқларида жумладан қишлоқ хўжалигида фойдаланишни қатъий лимит асосида ташкил қилиш.
- Сув омборларининг гидрологик режимини самарали бошқаришда мутахассис кадрлар масаласини ижобий ҳал этиш.
- Сув омборлари мониторингини олиб боришни мунтазам равишда йўлга қўйиш.
- Сув ҳавзаларининг гидробиологик ва гидроэкологик хусусиятларини илмий асосида ўрганиш.
- Тўдакўл сув омборидан бўлаётган фильтрация жараёнини олдини олиш мақсадида олдига полимер ёки бетон қопламалар қилиш, дамбаларни қайтадан очиб зичлаш, олд қисмига понур ўрнатиш лозим.
- Дамбаларга қўйилган пьезометрларни белгиланган тартибда ишлашини кузатиб бориш.

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УЎК: 368.212.214

ЎЗБЕКИСТОН СУҒУРТА БОЗОРИДА СУҒУРТА МАДАНИЯТИНИ ШАКЛЛАНТИРИШ ИСТИҚБОЛЛАРИ

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АННОТАЦИЯ

Суғурта ҳаётимизда иқтисодий категория сифатида ижтимоий ва молиявий ҳимоя қилиш учун кучли инструмент ҳисобланади. Жамиятда суғурта маданиятини шакллантириш ва уни ривожлантириш катта аҳамиятга эгадир.

Калим сўзлар: *суғурта, автосуғурта, маданият, мажбурият, транспорт, ходиса, тўлов, зарар.*

ABSTRACT

Insurance as an economic category in our life is a powerful instrument for social and financial protection. Formation of insurance culture in the society and its development is of great importance.

Keywords: *insurance, auto insurance, culture, liability, transport, accident, payment, damage.*

КИРИШ

Ҳар бир жамиятда унинг ривожига бевосита салбий таъсир этадиган техноген, табиий, ёнғин ва бошқа табиий офатлар натижасида юзага келадиган салбий оқибатлар ва уни бартараф этишга қаратиладиган харажатларни бошқариш зурур. Бунда жамият иштирокчиларининг суғурта маданияти ривожланганлик даражаси ушбу юзага келиши мумкин бўлган харажатларни қоплаш, минималлаштириш, тегишли захиралар ва уни бошқариш билан чамбарчас боғлиқдир.

Ўзбекистон Республикаси ҳудуди табиий офатлардан эҳтимоллиги юқори бўлганлари учун кучли шамол, zilзила, сел ва бошқа табиий офатлар бўлиши мумкин. Бундан ташқари олов билан боғлиқ бўлган офатлар – ёнғин, электр тармоқлари носозлиги ёки ҳаддан ташқари юкломани ошиши натижасида ёнғин келиб чиқиши ҳамда қуёшда қизиш оқибатида ёнғин келиб чиқиши, ёқиб

юбориш ёки олов билан ўйнаш ва бошқа эҳтиётсизлик хатти-ҳаракатлари натижасида ёнғин келиб чиқиши, газ ускуналарини нотўғри ишлатишда юзага келиши мумкин бўлган ёнғин келиб чиқиши ва портлаш ҳолатлари кузатилади. Ушбу офатлар иқтисодийга ва аҳолига етказган зарарларни давлат бюджетидан компенсация қилишга тўғри келди, лекин ҳар доим ҳам бу молиявий манбаадан самарали ва етарли даражада аҳоли ва корхоналарнинг мол-мулки тўлиқ даражада тиклашнинг имкони бўлмади.

Фуқаролар бундай ҳолатларда давлат ёрдамига умид қилади ва таянади, бу манбаа етарли бўлмаган ҳолда қариндошлар, яқинлар ёрдамига қаралади. Тан олиш керак кўпчилигимиз кимдир биз ҳақимизда қайғуришига ўрганганмиз. Ваҳолангки қалтисликлар (рисклар) бошқарилишга мойил ва шундай бўлиши зарур. Бунинг учун илм ва молиявий-ижтимоий инструментлар етарли.

АДАБИЁТЛАР ТАҲЛИЛИ ВА МЕТОДОЛОГИЯ

Республикамиз ва чет эл тажрибасида жамиятда суғурта маданиятини шакллантиришга қаратилган бир қатор илмий-назарий ҳамда амалий тадқиқотлар олиб борилмоқда ҳамда ушбу олиб борилган изланиш натижалари амалиётга кенг жалб қилиниб келинмоқда.

Мазкур масалаларга доир илмий ишларнинг қисман мавжудлигига қарамай, жамиятда суғурта маданиятини шакллантириш тушунчаси, жамиятда суғурта маданиятини шакллантириш шартлари ва тартиби каби масалаларнинг ўзига хос жиҳатларини илмий ўрганиш, таҳлил қилиш ва муайян фикр-мулоҳазалар бериш эътибордан биров четда қолмоқда.

Ривожланган давлатларда жамият суғурта ҳимоясига (мол-мулк, бизнес, жавобгарлик, транспорт ва ҳоказо) эга бўлмаган шахс билан ижтимоий-иқтисодий ва бошқа алоқа, муомала қилишдан ўзини олиб қочади. Улар ноҳуш ҳодиса оқибатида харажатлар ўзини эҳтиётини лозим даражада тадбир этмаган шахсдан бошқа шахслар бўйнига ўтказилишини хоҳламайдилар ва тўғри деб билмайдилар. Бу ҳолат шахснинг молиявий ва хусусан суғурта маданиятини шаклланганлигини ва унинг даражасини акс эттиради.

Жамиятда суғурта маданиятини шакллантириш масаласи умумий суғурта масалалари қаторида бир қатор олимларимиз томонидан у ёки бу даражада ўрганилганлигини кўриш мумкин. Жумладан, Ашрафханов Б.Б., Мирсадыков М.А., Абдурахманов И.Х., Сабиров Х.Р.,¹ ва бошқалар томонидан ушбу масаланинг айрим қирралари у ёки бу томонидан очиб берилган.

¹ Мирсадыков М.А., Мирсадыков М.М. Страховые имущества: практическое пособие. – Т., 2014. –С. 251.; Мирсадыков М.А., Ашрафханов Б.Б. Современное состояние и тенденции развития страхового рынка Узбекистана. Страховое дело. – Т., 2001. №11. – С. 201.; Мирсадыков М.А., Страховые риски:

Чет эл олимларидан Федорова Т.А., Сплетухов Ю.А., Дюжиков Е.Ф., Гвозденко А.А., Турбина К.Е., ва бошқалар¹ томонидан эса ушбу масала қисман тадқиқ этилган. Бундан кўриниб турибдики, мавзунинг ўрганилиши, унинг назарий ва амалий аҳамиятга эга эканлигидан далолат беради.

НАТИЖАЛАР

Ҳаёт тарзимиз қалтисликларга ва кутилмаган ҳодисаларга бойлиги туфайли жамиятда суғурта инструменти келиб чиққан.

Бизда суғурта маълум бир катта ташкилотлар, банклар, чет эл ваколатхоналари ва бошқа гуруҳларга тегишли бир механизм ва уларнинг бизнеси ва даромад манбаи деган тушунча мавжуд.

Шуни билиш керакки – суғурта бу жамиятни ижтимоий ҳимоя қилиш кучли инструментиدير. Агар тарихга назар соладиган бўлсак, суғурта 5000 йилдан ортиқ тарихга эгадир. Инсоният суғуртадан бошқа кучлироқ бўлган ижтимоий ва молиявий ҳимоя инструменти келмаган ва уни шу кунгача фойдаланиб ва сақлаб келган.

Занжирсимон (эвалюцион) кетма-кетликда суғуртага таъриф берадиган бўлсак, аввал шахс ҳаёти ва бизнеснинг кутилмаган ҳодисаларга бойлигини ва у хоҳлаган пайт ва замонда рўй беришини тушуниб етади (тан олади), шундай нохуш ҳолатлардан у ҳоли эмаслигини билади. Сўнг шахс молиявий ва суғурта маданияти даражасидан келиб чиқиб, уни муҳимлигини тушуниши натижасида унга мурожаат қилади. Шундан кейин шахс (жамият) суғурта бадалини тўлаш йўли билан захиралар шакллантирилиб, маълум бир ҳодиса рўй берганда шу захиралар эвазига ўз харажатларини қоплайди.

МУҲОКАМА

Суғурта маданияти нима? Бу тушунчани фикрлар гуруҳига бўлиб ва уларни бутун бир фикрга жамлаб тушунишга ҳаракат қиламиз:

Суғурта маданияти:

Бир тарафдан – суғурта механизмларининг асосий мақсад ва вазифалари, моҳияти, молиявий механизмлари ва тартибларини тушуниш;

Иккинчи тарафдан – уни ҳаёт фаолиятимизга татбиқ этилиши муҳимлигини, кераклигини тушуниб етиш, амалда татбиқ этиш, яъни суғуртадан фойдаланиш.

Словарь-справочник. Ассоциация профессиональных участников страхового рынка Узбекистана. – Т., 2010. – С. 108.; Абдурахманов И.Х. Ўзбекистонда жавобгарликни суғурталаш механизмини такомиллаштириш. Иқтисод фанлари номзоди илмий даражасини олиш учун ёзилган диссертацияга автореферат. – Т., 2010. – 20 б.; Собиров Х. Суғурта: 100 савол ва жавоб. – Т.: Мехнат, 1998. – 160 б. 1 Федорова Т.А. Основы страховой деятельности. Учебник. – М.: "РСК", 2001. – С. 124.; Сплетухов Ю.А., Дюжиков Е.Ф. Страхование: Учебное пособие. – М.: ИНФРА-М, 2002. – С. 216.; Гвозденко А.А. Основы страхования: Учебник. 2-е изд., перераб. и доп. – М.: Финансы и статистика, 2003. – С. 311.; Турбина К.Е. Теория и практика страхования. – М.: изд. Анкил, 2003. – С. 178.

Пул - товар айрибошлаш воситаси сифатида пайдо бўлиши билан бирга суғурта ҳам юзага келган. Бахтсиз ҳодиса ёки нохуш ҳолатлар юзага келиши оқибатларини олдини олишга, пул маблағлари шакллантириш механизмлари пайдо бўлган.

Суғурта – жамиятнинг (шахсларнинг) улар тўлаган суғурта бадаллари эвазига шакллантирилган захиралар ҳисобидан суғурта тўлови (товони) тўлаш йўли билан уларнинг мулкӣ манфаатларини ҳимоя қилиш имконини берувчи воситадир.

Масалани ечими ҳақида ўйлаб кўрсак. Қандай қилиб, биз суғурта маданиятини шакллантирибгина қолмай, уни ривожлантиришга эришишимиз, суғуртанинг афзалликларини аҳолига ва ёш авлодга тушунтиришимиз керак.

Кучли суғурта тизимга эга бўлган давлат нохуш ҳодисалар ва кутилмаган харажатлар юқини суғурта тизими билан тақсимлайди. Суғуртани ривожланиши натижасида бюджет маблағларига бўлган юқламани камайтиришга эришилади.

ҲУЛОСА

Инсонларга ёрдам қўлини чўзиш, оғирини енгил қилиш, моддий ва маънавий кўмак бериш халқимизнинг азалий қадриятларидан саналади. Қадим замонлардан буён одамлар яқинлари ва юртдошларига ёрдам бериш мақсадида турли чора-тадбирларни ўйлаб топишган. Республикамиздаги суғурта компаниялари ҳам бу анъанадан келиб чиқиб турли офат ва ҳодисаларда жабр кўрган фуқароларга моддий кўмак кўрсатишни ўз олдига мақсад қилиб қўйишган.

Хулоса қилиб айтадиган бўлсак, биз жамият иқтисодий ва ижтимоий тараққиётини ривожланган суғурта тизими ва шакллантирилган суғурта маданиятисиз тасаввур қилиш мушкул. Шунинг учун биз ушбу мақсадга эришиш учун унинг муҳимлигини тушуниб, тизимли равишда, ҳаракатларни амалга ошириш зарур.

Бу эса аҳолимизнинг суғурта маданияти юқсалалишига, суғурта компанияларининг хизматлари сифати яхшиланишига ижобий таъсир кўрсатади.

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УЎК: 368.212.214

АВТОТРАНСПОРТ СУҒУРТАСИДА ЕТКАЗИЛГАН ЗАРАРЛАРНИ ҚОПЛАШ МАСАЛАСИ

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АННОТАЦИЯ

Транспорт воситалари эгаларининг фуқаролик жавобгарлигини мажбурий суғурта қилиш орқали етказилган зарарларни қоплаш, жабрланувчиларга мулкӣ кўмак бериш муҳим омил саналади.

Калим сўзлар: *суғурта, автосуғурта, мажбурият, транспорт, ходиса, тўлов, зарар.*

ABSTRACT

An important factor is the compensation of the damages caused by the compulsory civil liability insurance of the owners of vehicles, and the provision of property assistance to the victims.

Keywords: *insurance, auto insurance, liability, transport, accident, payment, damage.*

КИРИШ

Ўзбекистонда олиб борилаётган иқтисодий-ижтимоий ва ҳуқуқий ислохотларнинг устувор йўналиши сифатида инсонларнинг моддий ҳуқуқ ва манфаатларини ҳимоя қилишга қаратилган ижтимоий-ҳуқуқий тизимни яратиш, қонунчилик базасини шакллантириш ва уларни амалга оширишнинг изчил механизмини яратиш эътироф этилади. Бунда, айниқса, турли хил сабабларга кўра, фуқароларнинг ҳаёти ва соғлиғига, фуқаролар ва юридик шахсларнинг автотранспорт воситалари ва мол-мулкига етказилган зарарлар ўрнини қоплашнинг янги ҳуқуқий институтларини вужудга келтириш ва уларни ижтимоий муносабатлар тизимида кенг жорий этиш муҳим аҳамият касб этади.

Суғурта ва суғурта муносабатлари бозор инфратузилмасидаги хизмат кўсатувчи энг муҳим таркибий унсурларидан бири бўлиб, бозор шароитида таваккалчиликка асосланган тадбиркорликни ишончли юритилишида ва уни

ривожланишида муҳим аҳамиятга эга. Суғурта муносабатларида шартномада белгиланган мажбуриятларни бажарилишини таъминланиши муҳим аҳамият касб этади. Бунда суғурта шартномаси тарафларининг мажбуриятларини белгилашда тегишли тамойилларга асосланиш ва келгусида шу мажбуриятларни бажарилмаганлиги учун қўлланиладиган жавобгарликни такомиллаштириш республикамизда суғурта фаолияти субъектларининг ҳуқуқларини ҳимоя қилишга хизмат қилади. Жумладан автотранспорт воситаларини суғурта қилиш мамлакат учун ҳам стратегик аҳамият касб этади. Мамлакатдаги корхона ва ташкилотлар автотранспортларини суғурта қилиш орқали кутилиши мумкин бўлган зарарлардан суғуртавий ҳимоя кўрсатилади.

АДАБИЁТЛАР ТАҲЛИЛИ ВА МЕТОДОЛОГИЯ

Республикамиз ва Мустақил Давлатлар Ҳамдўстлиги мамлакатларида автотранспорт суғуртасида даъво ишларини кўриб чиқишга қаратилган бир қатор илмий-назарий ҳамда амалий тадқиқотлар олиб борилмоқда ҳамда ушбу олиб борилган изланиш натижалари амалиётга кенг жалб қилиниб келинмоқда.

Мазкур масалаларга доир илмий ишларнинг қисман мавжудлигига қарамай, автотранспорт суғуртасида даъво ишларини кўриб чиқиш тушунчаси, автотранспорт суғуртасида даъво ишларини амалга ошириш тартиби, автотранспорт суғуртаси бўйича мажбуриятлар, автотранспорт суғуртасида даъво ишларини кўриб чиқишни амалга ошириш шартлари ва тартиби каби масалаларнинг ўзига хос жиҳатларини илмий ўрганиш, таҳлил қилиш ва муайян фикр-мулоҳазалар бериш эътибордан биров четда қолмоқда.

Автотранспорт суғуртасида даъво ишларини кўриб чиқиш масаласи умумий суғурта масалалари қаторида бир қатор олимларимиз томонидан у ёки бу даражада ўрганилганлигини кўриш мумкин. Жумладан, Ашрафханов Б.Б., Мирсадыков М.А., Абдурахманов И.Х., Сабиров Х.Р., Джакупов М.Р., Шеннаев Х.М.¹ ва бошқалар томонидан ушбу масаланинг айрим қирралари у ёки бу томонидан очиқ берилган.

¹ Мирсадыков М.А., Мирсадыков М.М. Страховые имущества: практическое пособие. – Т., 2014. – С. 251.; Мирсадыков М.А., Ашрафханов Б.Б. Современное состояние и тенденции развития страхового рынка Узбекистана. Страховое дело. – Т., 2001. №11. – С. 201.; Мирсадыков М.А., Страховые риски: Словарь-справочник. Ассоциация профессиональных участников страхового рынка Узбекистана. – Т., 2010. – С. 108.; Абдурахманов И.Х. Ўзбекистонда жавобгарликни суғурталаш механизмини такомиллаштириш. Иқтисод фанлари номзоди илмий даражасини олиш учун ёзилган диссертацияга автореферат. – Т., 2010. – 20 б.; Собиров Х. Суғурта: 100 савол ва жавоб. – Т.: Мехнат, 1998. – 160 б.; Джакупов М. Страховой рынок Узбекистана: механизм регулирования. Рынок, деньги и кредит, – Т., 2003. – №5. – С. 38-40.; Шеннаев Х.М., Баймуратов Т.М. Суғурта иши. – Т.: “Turon-Iqbol”, 2006. – 276 б.

Мустақил Давлатлар Ҳамдўстлиги мамлакатлари олимларидан Федорова Т.А., Сплетухов Ю.А., Дюжиков Е.Ф., Гвозденко А.А., Турбина К.Е., Скамай Л.Г., Мазурина Т.Ю., Грищенко Н.Б. ва бошқалар¹ томонидан эса ушбу масала қисман тадқиқ этилган. Бундан кўриниб турибдики, тадқиқот мавзусининг ўрганилиши, унинг назарий ва амалий аҳамиятга эга эканлигидан далолат беради.

НАТИЖАЛАР

Агар биз 2023 йил 1-ярим йиллик натижаларига қарайдиган бўлсак Ўзбекистон Республикасида суғурта мукофотлари умумий ҳисобда 41 та суғурта компаниялари томонидан йиғилган бўлиб, улардан 8 та суғурта компанияси ҳаётни суғурталаш соҳасида, 33 та суғурта компанияси эса умумий суғурталаш соҳасида фаолият юритади.

2023 йил 1-ярим йиллик натижалари бўйича суғурта хизмати турларидан умумий суғурта бўйича суғурта мукофотлари сезиларли даражада кўпайди ва суғурта компаниялари томонидан 3,8 трлн. сўм суғурта мукофоти йиғилди. Хусусан, уларнинг умумий ҳажми 36,3% га ўсган.

Суғурта мукофотларидан ҳам кўпроқ ўсиш суғурта мажбуриятлари ҳажмида кузатилади. 2023 йил 1-ярим йиллик натижаларига кўра, суғурта компаниялари томонидан қабул қилинган суғурта мажбуриятлари 34%га кўпайиб, 1 784,8 трлн. сўмга етган.

Худудлар кесимида йиғилган суғурта мукофотлари бўйича Тошкент шаҳри, Фарғона вилояти ва Хоразм вилояти етакчилик қилиб келмоқда. Ушбу худудлар мос равишда суғурта бозорининг Тошкент шаҳри 70,6% улушни эгаллаган ва 2 665,8 млрд. сўм суғурта мукофоти таъминланган, Фарғона вилояти 3,5% улушни эгаллаган ва 134,0 млрд. сўм суғурта мукофоти таъминланган ва Хоразм вилояти 2,8% улушни эгаллаган ва 105,2 млрд. сўм суғурта мукофоти таъминланган. Энг кам улушлар Жиззах ва Сирдарё вилоятларида бўлиб, мос равишда Жиззах вилояти 1,3% улушни эгаллаган ва 48,3 млрд. сўм суғурта мукофоти, Сирдарё вилояти 1,1% улушни эгаллаган ва 39,8 млрд. сўм суғурта мукофоти таъминланган.

Суғурта мукофотлари ва суғурта мажбуриятлари ҳажмларидан фарқли равишда, суғурта компаниялари томонидан 2023 йил 1-ярим йилликда тўлаб берилган суғурта қопламалари 23,4% га камайиб 883,0 млрд. сўмни ташкил

¹ Федорова Т.А. Основы страховой деятельности. Учебник. – М.: "РСК", 2001. – С. 124.; Сплетухов Ю.А., Дюжиков Е.Ф. Страхование: Учебное пособие. – М.: ИНФРА-М, 2002. – С. 216.; Гвозденко А.А. Основы страхования: Учебник. 2-е изд., перераб. и доп. – М.: Финансы и статистика, 2003. – С. 311.; Турбина К.Е. Теория и практика страхования. – М.: изд. Анкил, 2003. – С. 178.; Скамай Л.Г., Мазурина Т.Ю. страховое дело: Учеб. пособие. – М.: ИНФРА-М, 2004. – С. 248.; Грищенко Н.Б. Основы страховой деятельности: Учеб. пособие. – М.: Финансы и статистика, 2004. – С. 316.

қилди. Қопламалар таркибидаги умумий суғурта ҳажмининг ортганлиги, бир вақтнинг ўзида ҳаётни суғурта қилиш соҳаси бўйича қопламалар камайганлиги кузатилди.

МУҲОКАМА

Суғурта иқтисодий категория сифатида манфаатдор ташкилотлар ва фуқаролар бадаллари ҳисобидан ташкил топган, махсус ташкилот бошқарувида бўлган пул фондиди вужудга келтириш ва тақсимлаш шакли бўлиб, унинг асосий тайинланиш мақсади суғурта қилдирувчиларнинг мулкӣ ёки бошқача талофатлари ва зиёнлари ўрнини қоплашдан иборат. Бошқача айтганда, суғурта бир шахсда вужудга келган зиённи кўп шахслар зиммасига юклаш бўлиб, бу шахслар учун зарарни қоплаш катта мулкӣ йўқотиш, талофати бўлиб кўрилмайди. Жабрланган шахснинг зиёнлари эса тез ва етарли даражада тўлиқ қопланади. Шу билан бирга, транспорт воситалари эгаларининг фуқаролик жавобгарлигини суғурталашнинг мажбурий амалга оширилиши ҳам фуқаролик ҳуқуқларини ҳимоя қилиш ва вужудга келиши мумкин бўлган транспорт ҳодисалари хавфи оқибатларини камайтиришга ёрдам беради.

Ўзбекистон Республикасида хизмат кўрсатиш секторини, хусусан, суғурта хизматларини кўрсатишни ривожлантиришга алоҳида эътибор қаратилиши бугунги кунда суғуртанинг ихтиёрий ва мажбурий турларини ривожлантиришни талаб этади. Суғурта компаниялари томонидан асосий махсулот сифатида сотилаётган транспорт воситалари эгаларининг фуқаролик жавобгарлигини мажбурий суғурта қилиш тури транспорт воситалари билан етказилган зарарларни қоплашда, жабрланувчиларга мулкӣ кўмак бериш орқали уларнинг ҳуқуқлари ва манфаатлари ҳимоясининг таъминланганлигини кафолатлашда муҳим омил саналади. Қабул қилинган бир қатор қонун ҳужжатлари транспорт воситалари эгаларининг фуқаролик жавобгарлигини суғурталаш муносабатларини тартибга солишда ва уни амалга оширишнинг ҳуқуқӣ механизмини белгилашда асосий вазифани бажармоқда.

Амалиётда суғуртанинг мазкур тури энг кўп тузилиши ва суғурта компаниялари фаолияти учун энг аҳамиятли эканлиги билан ажралиб туради. Қолаверса, қонун ҳужжатлари асосида бу шартноманинг мажбурий тартибда тузилиши доимий равишда транспорт воситалари эгалари сонининг ошиб бориши мазкур суғурта шартномаси ва у билан боғлиқ муносабатларни тартибга солувчи қонунчилик аҳамиятининг ортиб боришини таъминлайди.

ҲУЛОСА

Инсонларга ёрдам кўлини чўзиш, оғирини енгил қилиш, моддий ва маънавий кўмак бериш халқимизнинг азалий қадриятларидан саналади. Қадим замонлардан буён одамлар яқинлари ва юртдошларига ёрдам бериш мақсадида

турли чора-тадбирларни ўйлаб топишган. Республикамиздаги суғурта компаниялари ҳам бу анъанадан келиб чиқиб турли офат ва ҳодисаларда жабр кўрган фуқароларга моддий кўмак кўрсатишни ўз олдига мақсад қилиб қўйишган. Натижада автотранспорт суғуртаси бўйича салмоқли ишлар амалга оширилмоқда ва суғурта қопламалари ўз вафтида тўлаб берилмоқда. Республикамиз бўйича суғурта хизматлари кўрсатиш қамрови йилдан-йилга сезиларли даражада ошиб бораётганини кўришимиз мумкин. Бу эса аҳолимизнинг суғурта маданияти юксалаётгани, суғурта компанияларининг хизматлари сифати яхшиланиб бораётганидан далолат беради.

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SORPTION OF COBALT (II) AND NICKEL (II) IONS FROM INDUSTRIAL WASTEWATER ONTO MODIFIED BENTONITE CLAYS

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***Abstract.** In this study, the chemical-mineralogical composition, physico-chemical properties of bentonite clay of Shafirkon mine were studied. Methods of modification of bentonite clay of Shafirkon mine were developed. The sorption isotherm of the sorption of cobalt (II) and nickel (II) ions contained in industrial wastewater to modified bentonite clays was determined based on physical and chemical laws. The thermodynamics of the regeneration process of adsorbents of modified Shofirkon mine bentonite clay was scientifically substantiated. Based on the obtained experimental data, the modified Shofirkon mine bentonite clay was used to solve environmental problems, i.e., the scientific basis for the rational use of limited water resources was created by cleaning the waste water of enterprises.*

Introduction. Today, the rapid development of industry in the world causes an increase in the demand for sorbents with high sorption properties for wastewater treatment, water treatment and demineralization in enterprises. In particular, the use of sorbents based on cheap and convenient raw materials for the purification of wastewater from heavy metal ions in industrial enterprises is largely supported by modern advances in science and technology. Earth's water resources play a very important role at the current stage of development of society and production as the main natural energy carrier, raw material, cleaning agent, etc. It is important to introduce modern water supply systems that save water to production and technological processes, to create new high-efficiency tools and to improve existing technologies of industrial wastewater treatment, to introduce significant new approaches to solving current technical problems.

Today, in the world, there is a need to study the processes of cleaning industrial wastewater generated during the technological processes of raw materials processing and product production, to develop optimal technological developments based on the results of comprehensive research on the search for new available sorbents and natural resources. Special attention is paid to scientific research on effective treatment of wastewater from pollutants and related components and elimination of existing problems in the field.

Experiment and its analysis. Based on the criteria for determining the sorption reactions of cobalt (II) and their direct influence on the degree of sorption to bentonite, for example, the composition and concentration of the saline environment, the influence of pH of the environment, etc., a comprehensive study. . not done before. When interacting with NH_3 and Co^{2+} in amounts up to 1.08 mol/l, complex compounds are formed in the form of hydrocomplexes:



Based on the results of Cotton's research, active Co^{2+} ions in the form of $Co(H_2O)_6^{2+}$ can have an octahedral shape and $Co(H_2O)_4^{2+}$ can have a partial tetrahedral shape. They maintain a state of mutual balance. Presumably, this situation is observed when Co^{2+} ammonia is formed. Taking this situation into account, we studied the effect of pH in the presence of NH_3 and NO_3^- anions for the co-precipitation of Co^{2+} with concentrations up to 4.5×10^{-4} mol / l.

During co-precipitation, Co^{2+} is a solution of potassium nitrate, ammonium, sodium carbonate, ammonium chloride, and nitric acid (NHO_2) in the background of the salt, and different methods were used to mix the reagents:

- 1) co-precipitation: as a carrier — 1.25 g bentonite Co^{2+} extracted from an acidic medium;
- 2) sorption: cobalt salt was added to bentonite;
- 3) precipitation: under similar conditions, the loss of Co^{2+} is the precipitation of its solid phase.

The amount of sorption was determined by the radioactivity indicator using cobalt isotopes ^{57}Co and ^{58}Co , in which the contact time of the sediment with the solution was 30 minutes; other parameters of the experiment and their methodology literature.

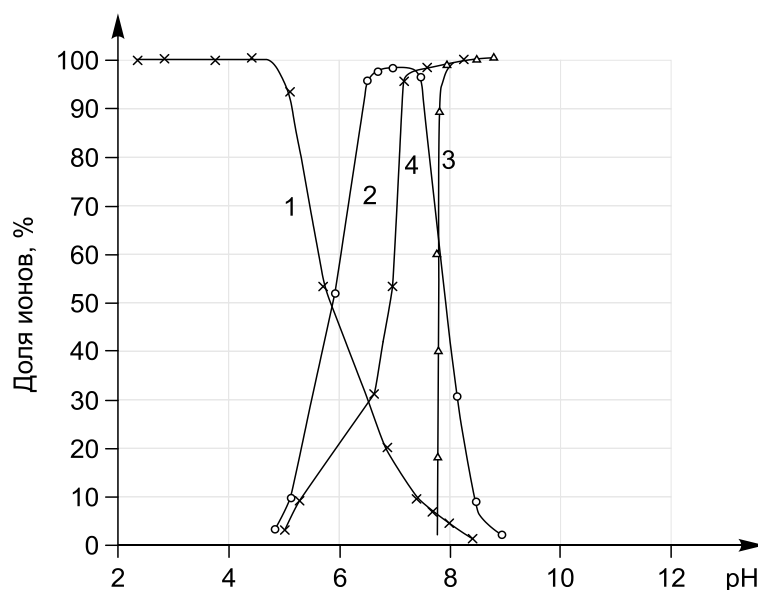


Figure 1. Graph of state and sorption of Co^{2+} in 1M potassium nitrate
1 and 2 — fractions of Co^{2+} and $Co_4(OH)_4^{4+}$ ions, respectively;
3 and 4 — deposition of $Co(II)$ hydroxide, respectively

As can be seen from Figure 1. Sorption of Co^{2+} in bentonite clays in 1 M KNO_3 begins at $\text{pH} = 5$, which corresponds to the beginning of Co^{2+} hydrolysis ($\text{pH} 8.3 \div 9$). The concentration of Co^{2+} in the specified sorption parameters is allowed, then it is separated from the carrier, as well as the precipitation of the carrier at $\text{pH} = 5$ or the injection of the solution obtained by dissolving the microcomponent in a minimum amount of acid. high concentration NH_3 solution. During sorption, two maxima of precipitation in the presence of $\text{Co}^{2+} \text{NH}_4\text{NO}_3$ are observed: $\text{pH} = 7.0 \div 7.5$ and $\text{pH} = 10.0$. As the concentration of ammonium nitrate increases from 1 to 3 mol, deposition decreases in the range $\text{pH} = 7 \div 10$, and therefore sorption. Co^{2+} decreases to $b > 3$ mol ammonium nitrate at $\text{pH} = 8.0$.

At the same time, it can be seen from Figure 2 that with increasing salt concentration, age-dependent sorption is observed at $\text{pH} = 7.0$, that is, in the region of cobalt (II) hydrolysis, which is confirmed by the data presented.

In order to establish the process and the mechanism of separation of Ni from other elements, the concentration of Ni^{2+} during its separation in wastewater with precipitation by metal hydroxides was studied.

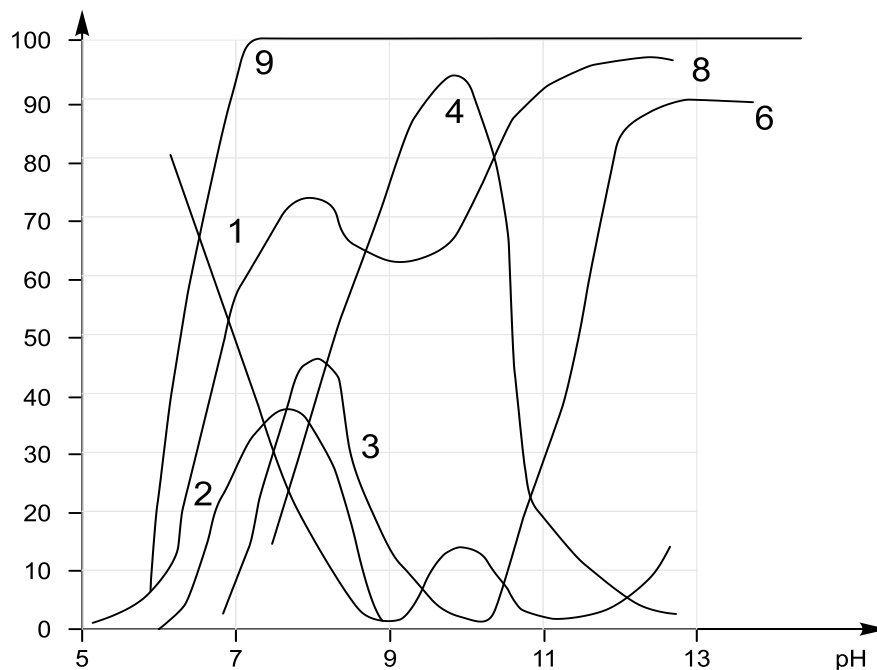


Figure 2. Graph of state and sorption of Co^{2+} in 1M ammonium nitrate.

1-7 – ion fractions $\text{Co}(\text{NH}_3)_2^{2+}$, $\text{Co}(\text{NH}_3)_3^{2+}$, $\text{Co}(\text{NH}_3)_4^{2+}$, $\text{Co}(\text{NH}_3)_6^{2+}$, $\text{Co}(\text{NH}_3)_2(\text{OH})_2$ and $\text{Co}(\text{OH})_3$; 8 - sorption $2,5 \cdot 10^{-4}$ g-ion/l Co^{2+} in 1 M NH_4NO_3 , 9 - the same, in 1 M KNO_3

Ni^{2+} ions are considered to cause hydrolysis reactions with the formation of the following hydroxy cations:

a) NiOH^+ ($\lg K_1=5,0$; K_1 – hydrolysis constant);

b) $\text{Ni}_2(\text{OH})^{3+}$ ($\lg \beta_{1,2}=9,0$);

c) $\text{Ni}_4(\text{OH})_4^{4+}$ ($\lg \beta_{4,4}=27,82$)

The first hydroxy compound precipitates at $\text{Ni}_2(\text{OH})_2$ pH=8.0, where, according to the authors, it is: 13.81; 14.5; 15.21; 18.06 and 17.19.

In the presence of ammonia with a concentration higher than 1.08 mol/l, nickel (II) forms amino acids (\lg formation constants are shown in parentheses).

$\text{Ni}(\text{NH}_3)^{2+}(2,80)$; $\text{Ni}(\text{NH}_3)_2^{2+}(5,04)$; $\text{Ni}(\text{NH}_3)_3^{2+}(6,77)$; $\text{Ni}(\text{NH}_3)_4^{2+}(7,96)$; $\text{Ni}(\text{NH}_3)_5^{2+}(8,71)$ and $\text{Ni}(\text{NH}_3)_6^{2+}(8,74)$.

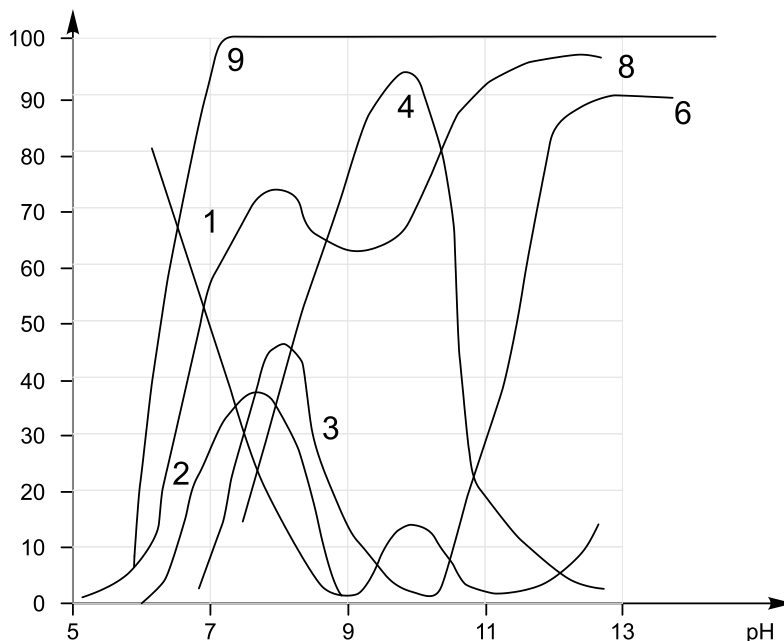
In the continuation of the experiments, the sorption of nickel (II) was studied in the presence of ammonia, Cl^- , CO_3^{2-} , ClO_4^- and NO_3^- depending on the change of pH of the medium. ions in solution, at different concentrations of sorbed component and ambient electrolyte, in bentonite clays. In this case, solutions of KNO_3 , NaClO_4 , NH_4NO_3 and KNO_3 , K_2CO_3 were used as saline medium. Under these experimental conditions, the order of substitution of reagents was modified as follows:

- 1) co-precipitation: 1.25 g of sample bentonite as a carrier was separated from the acidic medium together with the sorbed component;
- 2) sorption: the sorbed component was added to bentonite sediment;
- 3) sedimentation: under similar conditions, loss of nickel due to sedimentation of its solid phase, absorption by vessel walls, etc.

Based on the amount of nickel in the centrifuge, the sedimentation index was determined using the photometric method using dimethylglyoxime, the contact time of the sediment with the solution was 20 minutes, other parameters remained unchanged.

The amount of precipitation was determined photometrically using dimethylglyoxime from the amount of nickel in the centrifuge; contact time of the precipitate with the solution is 20 minutes. Other conditions were as described above.

Sorption of $4,5 \cdot 10^{-5}$ g-ion/l nickel in 1 m KNO_3 starts at pH =5 and is completed in the range of pH =7.5-10. In such conditions, it is possible to concentrate nickel, which is then separated from the carrier by precipitation, the latter at pH = 5, or by injecting a concentrated ammonia solution into bentonite clay sediment, followed by desorption on the nickel surface. sediment.



**Figure 3. Curves of nickel(II) precipitation in bentonite clay
1 mol NaClO₄ and 1 mol, 2.5 mol, 4 mol NH₄NO₃
Co-precipitation, sorption and precipitation in 1mol NaClO₄;
4-6 — the same, 1 mol NH₄NO₃, 7-9 — the same, 2.5 mol NH₄NO₃,
10-12 — the same, in 1 mol of NH₄NO₃.**

Sorption of nickel in 1 mol KNO₃, 1 mol NaClO₄ and 1 mol KNO₃ +0.5 mol K₂CO₃ is almost the same. At 1 mol of NH₄NO₃, the maximum co-precipitation is observed at pH > 7.9 (Fig. 3). When the concentration of NH₄NO₃ increases to 5 M, co-precipitation and sorption decrease in the regions. pH = 8.9-10, as well as its magnitude and the position of the first maximum on the rN axis. As the alkalinity of the solution increases, the sorption of nickel drops to zero in the range of pH = 8.9-10 in a 2.5 NH₄NO₃ solution (Fig. 3).

Conclusion. The research results can also be explained by the sequential occurrence of the following reactions: in a weakly acidic environment with pH =5, the reaction of hydrolysis of Ni²⁺ ions mainly begins with the formation of Ni₄(OH)₄⁴⁺ ions, which changes the ratio of hydrolyzed forms with increasing rN of the environment corresponds to the data calculated on At the same time, the fractional fractions of NiOH⁺ and Ni₂OH³⁺ are insignificant compared to the fraction of tetramer Ni(OH)₄⁴⁺ (Fig. 3.6).

Thus, the nickel sorption process in bentonite starts with the appearance of Ni(OH)₄²⁺ in the solution and does not occur if only aquilones are present in the solution.

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TRANSPORT CORRIDORS AND GEOPOLITICAL INTERESTS: A COMPREHENSIVE ANALYSIS OF UZBEKISTAN'S ROLE IN CENTRAL ASIA

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Abstract: *This article scrutinizes the interplay between transport corridors and national interests, with a primary focus on Uzbekistan within the Central Asian context. Utilizing a case study methodology, the paper examines the multifaceted dynamics of transport corridors in Uzbekistan and their implications for the country's socio-economic and geopolitical landscape. Drawing from an extensive range of scholarly works, reports, and official documents, this research provides an in-depth analysis of the strategic importance of transport infrastructure in shaping regional and national interests.*

Keywords. *Transport corridors, Geopolitical interests, Central Asia, Uzbekistan.*

1. Introduction: Central Asia has emerged as a pivotal region in global geopolitics due to its strategic location at the crossroads of Europe, Asia, and the Middle East. Transport corridors, vital conduits for trade and connectivity, play a crucial role in shaping national interests, fostering economic development, and enhancing regional cooperation. This article focuses on Uzbekistan, a key player in Central Asia, and examines the interplay between transport corridors and national interests. To comprehend the current state of transport corridors in Central Asia, it is essential to consider the historical context. The ancient Silk Road, connecting civilizations across Eurasia, laid the foundation for the region's centrality in trade and cultural exchange. Today, modern transport corridors aim to revive and enhance this historical legacy, providing landlocked nations like Uzbekistan access to global markets.

2. Geopolitical Significance:

2. Geopolitical Significance: Navigating the Silk Roads of Power in Central Asia
The geopolitical significance of transport corridors in Central Asia has been extensively examined by leading scholars, offering profound insights into their role in shaping regional dynamics. Starr (2014), in his seminal work "Lost Enlightenment: Central Asia's Golden Age from the Arab Conquest to Tamerlane," delves into the historical context, highlighting how the Silk Roads were pivotal in connecting civilizations and influencing power structures. His analysis extends to the

contemporary era, where transport corridors continue to play a crucial role in shaping alliances and promoting regional stability.

Moreover, Blank (2008) contributes significantly to the understanding of the geopolitical dimensions of transport corridors in Central Asia. In "The Geopolitics of Central Asia and the Chinese Factor," Blank explores how these corridors serve as geopolitical instruments, influencing power balances and strategic alliances. The author emphasizes the complex interplay between economic interests and political considerations, providing a nuanced perspective on the multifaceted nature of transport corridors in the region.

Building upon the insights of Starr and Blank, this article assesses the contemporary geopolitical landscape in Central Asia. It examines how transport corridors contribute to the realignment of alliances and power dynamics within the region. By referencing the works of these scholars, the article aims to contribute to the ongoing discourse on the instrumental role of transport corridors in reshaping geopolitical narratives.

Expanding on this perspective, Kazakh scholar Shaimardanov (2017) emphasizes that the geopolitical significance of transport corridors is not confined to economic considerations alone. In his work, he posits that Central Asian transport corridors play a pivotal role in shaping the region's security architecture. The strategic location of these corridors enables Central Asian states, including Uzbekistan, to enhance their geopolitical standing by becoming key players in global supply chains and transit routes.

Moreover, the research of Schoeberlein-Engel (2006) provides historical context, asserting that the importance of Central Asia's geopolitical position has deep roots in the historical Silk Road. The revival of these corridors, according to Schoeberlein-Engel, signifies not only economic ambitions but also a reclamation of historical agency, positioning Central Asian states as key actors in shaping the geopolitics of the region.

Comparatively, Starr (2014) delves into the contemporary geopolitical landscape, emphasizing the strategic positioning of Central Asia in the context of great power rivalries. He suggests that the region's transport corridors are arenas where global powers vie for influence, and Central Asian states, including Uzbekistan, strategically align themselves to safeguard their national interests amidst these geopolitical dynamics.

The dynamics of regional stability are a focal point in the research, drawing on the contributions of De Haas (2012) and Laruelle (2016). De Haas, in "Migration and Development: A Theoretical Perspective," provides a framework for understanding how connectivity through transport corridors can foster stability by addressing

economic disparities and enhancing cooperation. Laruelle, in "Eurasianism and the European Far Right: Reshaping the Europe-Russia Relationship," sheds light on the geopolitical implications of regional stability, emphasizing the role of Central Asia in broader Eurasian dynamics.

In Uzbekistan's pursuit of national interests, geopolitical considerations play a pivotal role. The research incorporates the perspectives of Mirzayev (2018) in "Uzbekistan in the Geopolitics of Central Asia: Cooperation and Competition Dynamics." Mirzayev's analysis offers a nuanced understanding of how Uzbekistan strategically positions itself within the regional geopolitical landscape and utilizes transport corridors as instruments to achieve its national interests.

Furthermore, the nuanced perspective offered by Mohapatra (2021) provides a comprehensive understanding of the intricate geopolitical landscape surrounding Central Asian transport corridors. Mohapatra delves into the multifaceted relationships between Central Asian states and external actors, particularly major powers like Russia, China, and the United States. His analysis underscores the idea that the geopolitical significance of Central Asian transport corridors extends beyond the regional sphere, becoming a focal point for global strategic maneuvering.

Building upon Mohapatra's insights, Kazakh scholar Tokmadi (2019) contributes to the discourse by highlighting the role of Russia as a historical and contemporary player in shaping the geopolitics of Central Asia. In his work, Tokmadi argues that Russian interests in Central Asian transport corridors are deeply rooted in historical ties and contemporary geopolitical imperatives. Russia's strategic investments in transportation infrastructure projects, such as the Eurasian Economic Union (EEU) initiatives, reflect its efforts to maintain influence and secure economic advantages in the region.

Moreover, Uzbek academic Khakimov (2018) provides a localized perspective on the impact of external actors on Central Asian transport corridors, emphasizing the role of China. According to Khakimov, China's Belt and Road Initiative (BRI) has significantly altered the geopolitical dynamics of the region. China's economic influence through investments in transport infrastructure projects not only enhances regional connectivity but also introduces complexities in Central Asian states' efforts to balance economic benefits with concerns about potential overreliance on a single external actor.

Additionally, Tajik scholar Sharipov (2020) contributes to the discussion by examining the implications of U.S. interests in the region. Sharipov argues that the United States, although physically distant, plays a crucial role in shaping the geopolitical chessboard in Central Asia. The U.S. interest in secure and open transport corridors aligns with its broader geopolitical strategies, impacting the decision-making

processes of Central Asian states and influencing their pursuit of national interests in the realm of transport infrastructure.

In summary, Mohapatra's analysis serves as a springboard to consider the perspectives of regional scholars such as Tokmadi, Khakimov, and Sharipov. Together, their works highlight the complex interplay between Central Asian states and external actors, shedding light on how major powers' strategic interests in the region are intricately woven into the geopolitics of Central Asian transport corridors. This multifaceted dynamic underscores the challenges faced by Central Asian states as they navigate the geopolitical chessboard to safeguard their sovereignty while capitalizing on the economic opportunities presented by these vital corridors.

3. Economic Impacts: Delving deeper into the economic impacts of transport corridors on Uzbekistan, local scholars provide valuable insights that complement the perspectives of international studies. In addition to the World Bank and Akramov & Khamidov, Uzbek economist Dilshod Rahimov's work, "Uzbekistan's Connectivity Initiatives: Economic Implications and Opportunities" (2021), offers a nuanced analysis of the economic implications of enhanced transport infrastructure.

Rahimov's research delves into the specific economic development outcomes resulting from connectivity initiatives, shedding light on how improved transport corridors contribute to Uzbekistan's economic diversification and growth. By examining the intricate linkages between transport infrastructure, trade, and economic development, Rahimov's work provides a localized understanding of the transformative effects of corridors on Uzbekistan's economy.

Furthermore, Uzbek scholar Feruza Tashpulatova's work, "Regional Economic Cooperation and Uzbekistan: Opportunities and Challenges" (2018), explores the broader regional context of economic cooperation and its implications for Uzbekistan. Tashpulatova's analysis encompasses the economic impacts of transport corridors on regional trade dynamics, emphasizing how Uzbekistan's participation in connectivity initiatives aligns with its national interests in fostering economic collaboration with neighboring countries.

4. Uzbekistan's Strategic Transport Corridors:

Examining specific transport corridors that align with Uzbekistan's national interests, two notable examples stand out: the Uzbekistan-Turkmenistan-Iran-Oman corridor and the Uzbekistan-Afghanistan-Pakistan-India corridor.

Uzbekistan-Turkmenistan-Iran-Oman Corridor, a vital component of the Lapis Lazuli Route, connects Uzbekistan to the Persian Gulf via Turkmenistan and Iran. Scholarly works such as Rakhimov (2016) and Rahimov (2021) emphasize the strategic importance of this corridor for Uzbekistan's economic diversification. It provides an alternative route for Uzbekistan's exports, reducing dependence on

traditional pathways and opening avenues for increased trade with countries in the Middle East.

Uzbekistan-Afghanistan-Pakistan-India Corridor corridor, exemplified by the "Mazar-i-Sharif-Kabul-Peshawar Railway," extends Uzbekistan's reach to South Asia. Rahimov (2021) and Tashpulatova (2018) shed light on the economic implications of this corridor, emphasizing its potential to stimulate regional economic integration. By providing Uzbekistan access to the Arabian Sea, this corridor enhances economic collaboration not only with Afghanistan and Pakistan but also with the broader South Asian market.

Comparing these corridors, it becomes apparent that each serves distinct economic and strategic purposes for Uzbekistan. The Uzbekistan-Turkmenistan-Iran-Oman corridor provides a direct link to the energy-rich Persian Gulf, enhancing Uzbekistan's energy security and diversifying its trade routes. On the other hand, the Uzbekistan-Afghanistan-Pakistan-India corridor positions Uzbekistan as a key player in the regional economic landscape, fostering collaboration with South Asian nations.

In conclusion, local scholars like Rahimov and Tashpulatova enrich our understanding of the economic impacts of transport corridors on Uzbekistan. The examples of the Uzbekistan-Turkmenistan-Iran-Oman and Uzbekistan-Afghanistan-Pakistan-India corridors illustrate how Uzbekistan strategically navigates connectivity initiatives to achieve economic development, showcasing a nuanced and context-specific approach to regional integration.

5. Regional Cooperation and Threats to Regional Stability:

Examining regional cooperation within the context of transport corridors, various intergovernmental organizations and regional studies contribute valuable perspectives. In addition to Eurasianet (2022), the Central Asia Regional Economic Cooperation (CAREC) Program, as highlighted by Akramov & Khamidov (2020), is instrumental in fostering collaboration. CAREC's endeavors focus on enhancing connectivity and promoting economic development through comprehensive transport infrastructure initiatives.

Expanding on regional cooperation, Uzbekistan's commitment to fostering collaborative efforts is evident in its participation in the Shanghai Cooperation Organization (SCO). The SCO, as analyzed by Cheng (2019), plays a significant role in shaping regional security and economic policies. Uzbekistan's engagement in the SCO aligns with its strategic interests in promoting stability and economic development within the region.

Despite the potential benefits of regional cooperation, threats to stability and collaboration persist, particularly from major powers such as Russia and China. The influence of Russia in the region, explored by Blank (2008), introduces challenges to

independent decision-making by Central Asian states. Russia's historical ties and economic influence pose potential hurdles to the autonomy of regional initiatives, including transport corridors.

Similarly, China's Belt and Road Initiative (BRI), as discussed by Khakimov (2018), brings both opportunities and challenges to the region. While the BRI provides significant investments in infrastructure, it also raises concerns about potential debt dependencies and the strategic interests of external actors.

The security situation in Afghanistan, as highlighted by International Crisis Group (ICG, 2018), poses another layer of complexity to regional cooperation. The evolving geopolitical landscape and security challenges may impact the effectiveness of transport corridors, requiring careful consideration and strategic planning to ensure their success.

Uzbekistan, recognizing the importance of regional collaboration, has undertaken initiatives to ensure the success of transport corridors. President Shavkat Mirziyoyev's regional diplomacy efforts, as analyzed by Uzbek political analyst Tursunov (2021), reflect a commitment to fostering stability and cooperation. Uzbekistan's active involvement in regional forums and its diplomatic initiatives emphasize the nation's dedication to creating an environment conducive to successful transport corridors.

Additionally, Uzbekistan's engagement with Afghanistan, exemplified by the Afghanistan-Uzbekistan-Pakistan-India corridor, underscores its efforts to contribute to regional stability. This corridor, as highlighted by Hussain (2021), facilitates economic integration and connectivity, showcasing Uzbekistan's commitment to regional collaboration.

In conclusion, regional cooperation in transport corridors is a multifaceted endeavor that involves navigating geopolitical challenges. Uzbekistan's proactive engagement in intergovernmental organizations, diplomatic initiatives, and cross-border projects demonstrates its commitment to mitigating threats and fostering an environment conducive to the success of regional transport corridors.

6. Conclusion and Recommendations:

In conclusion, the intricate tapestry of Central Asia's historical legacy, particularly its pivotal role in the Silk Road, lays the foundation for contemporary discussions on transport corridors. Drawing upon the works of scholars such as Hulsewé, Christian, Rakhimov, and Rahimov, this research sheds light on Uzbekistan's historical agency and its present-day pursuit of national interests through strategic participation in regional transport corridors.

However, as the region seeks to harness the potential benefits of these corridors, it is essential to address the multifaceted challenges and threats posed by external influences, especially from major powers like Russia and China. The potential risks to

regional autonomy, economic dependencies, and security concerns require careful consideration and strategic planning to safeguard the interests of Central Asian nations.

In the face of these challenges, Uzbekistan, under the leadership of President Shavkat Mirziyoyev, has demonstrated proactive diplomacy and a commitment to fostering regional cooperation. To strengthen the success of transport corridors and enhance regional stability, several recommendations can be considered:

1. Encourage the strengthening of regional institutions like CAREC and the SCO to serve as platforms for dialogue, coordination, and conflict resolution. These institutions can play a crucial role in mitigating external pressures and fostering collaborative efforts.

2. Uzbekistan should continue diversifying its economic partnerships beyond major powers, ensuring a balanced approach that minimizes dependency risks. Engaging with a diverse set of nations will contribute to a more resilient and inclusive regional economic ecosystem.

3. Given the complexities of the security situation, enhancing cooperation among Central Asian nations, particularly with Afghanistan, is paramount. Collaborative efforts to address common security challenges will contribute to the overall success and sustainability of transport corridors.

4. Investing in sustainable development initiatives, as recommended by the World Bank and local scholars like Tashpulatova, can further contribute to the economic vibrancy of the region. Infrastructure projects should prioritize environmental sustainability and social inclusivity.

5. Continue diplomatic initiatives to foster regional stability and cooperation. Uzbekistan's diplomatic endeavors, as analyzed by Tursunov, showcase the potential for dialogue and collaboration as tools for resolving regional challenges.

As Central Asia navigates the complexities of regional cooperation through transport corridors, adopting a holistic approach that integrates historical awareness, academic insights, and practical solutions will be instrumental in shaping a resilient and prosperous future for the region.

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REGULYAR SIRTLARNING PARAMETRIZATSIYASI

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ANNOTATSIYA

Ushbu maqolada uzluksiz gorizontal differentsiallanuvchi haqiqiy qiymatli Karno gruppasi akslantirishlari sath sirtlari parametrlanishining regulyarligi o'rganilgan.

“Sath sirtlarini parametrlash” usullari, Karno-Karateodori fazolarida H-regulyar gipersirtlar tushunchasi va ular uchun oshkormas funktsiya haqidagi teoremaning analogi tadbiiq etildi.

***Kalit so'zlar:** Sath sirtlari, Karno gruppasi, Geyzenberg gruppasi, Karno-Karateodori fazolari, regulyar gipertsirtlar.*

ПАРАМЕТРИЗАЦИЯ РЕГУЛЯРНЫХ ПОВЕРХНОСТЕЙ

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АННОТАЦИЯ

В данной статье исследуется закономерность параметризации поверхностей непрерывных горизонтально дифференцируемых вещественных отражений группы Карно.

Применялись методы «параметризации поверхностей», понятие H-регулярных гиперповерхностей в пространствах Карно-Каратеодори и аналог теоремы о нераскрытой функции для них.

***Ключевые слова:** Поверхности, группа Карно, группа Гейзенберга, пространства Карно-Каратеодори, регулярные гиперповерхности.*

PARAMETRIZATION OF REGULAR SURFACES

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ABSTRACT

This article examines the pattern of parameterization of surfaces of continuous horizontally differentiable real reflections of the Carnot group.

Methods of "parameterization of surfaces", the concept of H-regular hypersurfaces in Carnot-Caratheodory spaces and an analogue of the theorem on an undisclosed function for them were used.

Keywords: *Surfaces, Carnot group, Heisenberg group, Carnot-Caratheodory spaces, regular hypersurfaces.*

KIRISH

Maqola mavzusining asoslanishi va uning dolzarbligi.

Sath sirtlarini parametrlash zamonaviy geometriyada eng muhim tushunchalaridan biri hisoblanadi va keng o'rganilmoqda.

So'nggi paytlarda sath sirtlarini parametrlash, Karno-Karateodori fazosida regular gipersirtlarni parametrlash keng o'rganilmoqda. Maqola ishi differensiallanuvchi funksiyalar sath sirtlari, gorizontaldifferensiallanuvchi funksiyalar sath sirtlari, Karno-Karateodori fazosida regular gipersirtlarni parametrlash, Karno gruppasida sath sirtlarini parametrlash mavzularini o'rganishga bag'ishlangan.

Maqola mavzusi bo'yicha adabiyotlar sharhi (tahlili). Tadqiqotda sath sirtlarini parametrlash usullari hamda parametrlash usuli bilan berilgan gipersirt regular bo'lishi uchun akslantirish tekis differensiallanuvchi bo'lishi va har bir to'plam ko'paytirish va uzaytirish amallariga nisbatan yopiq, ya'ni bir jinsli qism gruppaga bo'lishi o'rganilgan. Buning uchun [3] hamda [4] adabiyotlardan akslantirishlar va almashtirishlarga doir ta'riflar, teoremlar va ularning isbotlaridan foydalanilgan. [1] adabiyotdan esa maqola mavzusiga oid Karno-Karateodori fazosida regular gipersirtlarni parametrlash, Karno gruppasida sath sirtlarini parametrlash mavzulari haqida umumiy ma'lumotlar, teoremlar, ularning isbotlari, hamda ularga oid misollar keltirilgan.

Regulyar sirtlarning parametrizatsiyasi

Ushbu ishda uzluksiz gorizontall differentsiallanuvchi haqiqiy qiymatli Karno gruppasi akslantirishlari sath sirtlari parametrlanishining regulyarligi o'rganilgan.

Ta'rif [1]. Chekli o'lchamli bog'lanishli bir bog'lamli Li gruppasi G Karno gruppasi deyiladi, agar chap invariantli vektor maydonlar algebrasi g tabaqalashtirilgan, ya'ni quyidagi yoyilma o'rinli bo'lsa:

$$g = g_1 \oplus \dots \oplus g_m, [g_i, g_i] = g_{i+1}, 1 \leq i \leq m-1, [g_1, g_m] = \{0\}.$$

Har bir g_k da bazis vektor maydonlar $\{X_{n_{k-1}+1}, \dots, X_{n_k}\}$ ni $n_k = \dim g_1 + \dots + \dim g_k, n_0 = 0$ tengliklar bajariladigan qilib tanlaymiz. U holda G gruppaga eksponensial akslantirish

$$(x_1, x_2, \dots, x_N) \mapsto \exp\left(\sum_{j=1}^N x_j X_j\right)(0) \quad (1)$$

vositasida R^n fazoni mos qo'yish mumkin, bu yerda $X_j(0) = \frac{\partial}{\partial x_j}, j = 1, \dots, N$ [2].

Ta'rif [2]. Ushbu $X_j \in g_k$ bo'ladigan k soni fomal daraja deyiladi va $\deg X_j$ kabi belgilanadi.

Quyidagi

$$x = \exp\left(\sum_{i=1}^N x_i X_i\right)(0), y = \exp\left(\sum_{i=1}^N y_i X_i\right)(0)$$

elementlar uchun gruppada amali Kempbell-Xausdorf formulasi yordamida aniqlanadi. Bu formula (1) munosabat uchun koordinatalarda ushbu

$$\begin{pmatrix} x_1 \\ \dots \\ x_{n_1} \\ x_{n_1+1} \\ \dots \\ x_N \end{pmatrix} \cdot \begin{pmatrix} y_1 \\ \dots \\ y_{n_1} \\ y_{n_1+1} \\ \dots \\ y_N \end{pmatrix} = \begin{pmatrix} x_1 + y_1 \\ \dots \\ x_{n_1} + y_{n_1} \\ x_{n_1+1} + y_{n_1+1} + \sigma_{n_1+1}(x, y) \\ \dots \\ x_N + y_N + \sigma_N(x, y) \end{pmatrix}, \quad (2)$$

ko'rinishni oladi, bu yerda $\sigma_k(x, y)$ – ko'phad bo'lib, faqat $\deg X_i < \deg X_k$ bo'ladigan x_i va y_i o'zgaruvchilarga bog'liq bo'ladi.

Tabaqalashtirish shartlarida (1) munosabatning koordinatalardagi ifodasidan quyidagi

$$\delta_i x = (tx_1, \dots, tx_{n_1}, t^2 x_{n_2}, \dots, t^m x_{n_{m-1}+1}, \dots, t^m x_{n_m}) \quad (3)$$

qoida bo'yicha bir parametrli uzaytirishlar gruppasi deb ataluvchi $\{\delta_t : t > 0\}$ gruppasi hosil qilish mumkin.

Ta'rif [3]. Yuqoridagi (1) akslantirish yordamida G gruppada quyidagicha masofa kiritamiz:

$$d_\rho(x, y) = \|y^{-1} \cdot x\|_\rho,$$

bu yerda $x \in R^n$ nuqtaning $\|x\|_\rho$ normasi

$$\|x\|_\rho := \max \left\{ C_k |(x_{n_{k-1}+1}, \dots, x_{n_k})|^{1/k} : k = 1, \dots, m \right\}$$

kabi aniqlanadi. Agar $n_0 = 0, c_1 = 1$ deb olsak $c_k > 0, k = 2, \dots, m$ o'zgarmlar gruppasi strukturasi bog'liq bo'lib d_ρ metrika bo'ladigan qilib tanlanadi.

Tasdiq [1]. Metrika d_ρ uchun quyidagilar o'rinli bo'ladi:

$$(1) d_\rho(x, y) \geq 0 \text{ va } d_\rho(x, y) = 0 \Leftrightarrow x = y;$$

$$(2) d_\rho(x, y) = d_\rho(y, x);$$

$$(3) d_\rho(z \cdot x, z \cdot y) = d_\rho(x, y);$$

$$(4) d_\rho(\delta_t x, \delta_t y) = t d_\rho(x, y);$$

$$(5) d_\rho(x, y) \leq d_\rho(x, z) + d_\rho(z, y);$$

(6) $d_\rho(x, y)$ akslantirish barcha $x, y, z \in G$ va $\forall t > 0$ uchun har bir argumenti bo'yicha uzluksiz bo'ladi.

3.2.4-ta'rif. Aytaylik d metrika tasdiq (2.6) shartlarini qanoatlantirsin. d metrikaga nisbatan markazi $x \in G$ nuqtada va radiusi $r > 0$ bo'lgan ochiq sharni $B_d(x, r)$ kabi belgilaymiz. d metrikaga nisbatan G to'plamda o'lchami k bo'lgan Xausdorf o'lchovi deb ushbu $H_d^k(E) = \lim_{\varepsilon \rightarrow 0^+} H_{d, \varepsilon}^k(E)$ miqdorga aytiladi. Bu yerda

$$H_{d, \varepsilon}^k = \inf \left\{ \sum_i r_i^k : E \subset \bigcup_i B_d(x_i, r_i), r_i < \varepsilon \right\}.$$

$$G \text{ gruppasi Xausdorf o'lchami } \nu = \sum_{j=1}^N \deg X_j = \sum_{i=1}^m i n_i.$$

Endi $C_H^1(\Omega)$ bilan $\Omega \subset G$ da uzluksiz haqiqiy funktsiyalar sinfini belgilaymiz, bunda Ω da ushbu

$$\nabla_H f := (X_1 f, \dots, X_{n_1} f)$$

differensial operator aniqlangan.

Ta'rif [4]. Berilgan $S \subset G$ to'plam H -regulyar gipersirt deyiladi, agar har bir $x \in S$ nuqta uchun $B(x, r)$ shar va $f \in C_H^1(B(x, r))$ funksiya topilib, $\nabla_H f \neq 0$ va $S \cap B(x, r) = \{y \in B(x, r) : f(y) = 0\}$ bo'lsa.

H -regulyar gipersirtlar uchun oshkormas funksiya haqidagi teoremaning analogi o'rinli bo'ladi. Yevklid fazosida C^1 -regulyar sirt lokal ravishda C^1 -silliq funksiyaning grafigi bo'lgani kabi, H -regulyar gipersirt ham Karno gruppasida lokal va ichki ma'noda biror funksiyaning grafigidan iborat bo'ladi.

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Karno gruppasida gipertekisliklar sifatida ushbu

$$\Pi_\alpha = \left\{ x \in G : \sum_{i=1}^{n_1} \alpha_i x_i = 0 \right\}, |\alpha| = 1$$

ko'rinishdagi to'plamlar, ya'ni G dagi maksimal gipertekisliklar (ko o'lchami 1) qaraladi.

Teorema. Har bir Π_α to'plam ko'paytirish va uzaytirish amallariga nisbatan yopiq, ya'ni bir jinsli qism grupp bo'ladi.

XULOSA

Ushbu maqolada biz o'rganayotgan regulyar sirtlarning parametrizatsiyasi Karno gruppalarida regulyar gipersirtlar va ularning parametrizatsiyasiga tadbiq etish mumkin. Buning natijasida bu parametrizatsiya gorizontallanuvchi $f : G \rightarrow R^1$ akslantirish sath sirtini parametrilashi uchun zarur va yetarli shartlar olish mumkin, bu yerda $G = (R^n, *)$ - Karno gruppasi. Parametrizatsiya $\varphi : U \subset R^{n-1} \rightarrow R^1$

ning aniqlanish sohasida maxsus d_φ masofa va ∇^φ differensial operatorlarni kiritib, ular yordamida ∇^φ -differensiallanuvchi funksiyalarni aniqlash mumkin.

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ROLE OF TRIGGER FACTORS AND SOMATIC PATHOLOGY IN CHRONIC RECURRENT LIP CRACK

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ABSTRACT

The frequency of detection of the symptom of decreased height of the lower part of the face in patients with mild chronic fissures of the lips was 1.042%; with moderate severity – 3.12%; and in severe cases in 14.58% of patients versus 5.00% in the control group; increase in the frequency of detection of the lip with a “central” constriction, respectively, 2.084%; 24.168% and 11.46% in the absence of control; similar dynamics of increase; frequency of detection of a “full” lower lip is 0.0%; 2.08% and 14.58% versus 7.5% in the control; trauma from chipped teeth, fillings and orthopedic structures – in 1.042%; 2.084% and 12.50% versus 7.5% in the control; and the frequency of the bad habit of “biting” lips is correspondingly 0.0%; 3.12% and 8.33% versus 2.5% in the control.

Keywords: *chronic recurrent fissure of the lips, trigger factors, somatic pathology, CP indicator, inflammatory-destructive periodontal lesions.*

АННОТАЦИЯ

Частота обнаружения симптома снижения высоты нижнего отдела лица у пациентов с легким течением хронической трещины губ составила 1,042%; при течении средней тяжести – 3,12%; а при тяжелом течении у 14,58% больных против 5,00% в группе контроля; увеличение частоты обнаружения губы с «центральной» перетяжкой соответственно 2,084%; 24,168% и 11,46% при отсутствии у контроля; аналогичная динамика увеличения частота обнаружения «полной» нижней губы 0,0%; 2,08% и 14,58% против 7,5% в контроле; травма сколами зубов, пломб и ортопедическими конструкциями – у 1,042%; 2,084% и 12,50% против 7,5% в контроле; а частота вредной привычки «прикусывания» губ соответственно 0,0%; 3,12% и 8,33% против 2,5% в контроле.

Ключевые слова: *хроническая рецидивирующая трещина губ, триггерные факторы, соматическая патология, показатель КПУ, воспалительно-деструктивные поражения пародонта.*

INTRODUCTION.

Diseases of the red border of the lips (RBL) are one of the most common pathologies in the practice of clinical dentistry, the prevalence of which is steadily increasing; screening studies reveal lesions of the lips as the most common diseases of the oral mucosa (OM). The presence of a defect on the lips and pain, eating and performing oral hygiene, also provoke anxiety states, which in turn initiate an aggravation of both a local process on the red border of the lips [1,3,5].

The lower lip, due to its anatomical position, is more susceptible to solar radiation, which largely determines its susceptibility to pathological changes [1,3,4,5].

Symptoms of a chronic cracked lip, the main symptom is the presence of a painful crack on the lip, making it difficult to talk and smile. When examining the lips, a painful linear defect is revealed with a violation of integrity at the bottom of the crack, about a centimeter long, located transversely on the lips. Cracks sometimes continue from the lip border to the mucous membrane, but do not extend to the skin. A brown crust may appear. If the crack is present for a long time, the edges become denser and acquire a grayish-white color [1,2,5].

It is known that chronic recurrent fissure of the lips (CRFL) is a multifactorial pathology, in the development of which local anatomical and mechanical trigger factors make a significant contribution, which confirms the relevance of the study.

The purpose of the study is to determine the role of trigger factors and somatic pathology in chronic recurrent lip fissures.

MATERIALS AND METHODS OF RESEARCH.

To achieve this goal, we used the following research methods. Before the start of treatment for the disease, complaints were collected and the anamnesis was analyzed, the face and RBL were examined for the presence of anatomical features characteristic of a chronic fissure (reduced height of the lower third of the face, full lips, constriction on the lower lip).

We paid attention to the presence of factors in the oral cavity that can initiate the appearance of chronic lip cracks, such as the presence of prostheses made of dissimilar metals, traumatic edges of crowns and fillings, etc. We took into account other pathologies of the RBL and oral cavity that could aggravate the course of the RBL fissure (exfoliative cheilitis, lichen planus, atopic dermatitis, etc.).

The level of oral hygiene was assessed using the simplified hygiene index - OHI-S - index (Green J.C., Vermillion J.R., 1964); severity of gingival inflammation - according to the PMA index as modified by Parma (1960); level of destructive periodontal lesions - according to the index (PI) according to Russel (1956); bleeding gums - according to the Mullemann bleeding index (as modified by Cowell) and tooth mobility according to the Miller scale as modified by Flesar.

The severity of the carious lesion was assessed by the KFE index as the sum of its constituent elements: carious teeth - element “K”, filled teeth - element “F” and extracted teeth - element “E”.

RESULTS AND DISCUSSIONS.

92 patients with CRFL were examined. 60.78% of those with cracked lips were men and 39.13% were women. It should be noted that 28 (30.44%) patients with lip fissures were patients in the index age group of 35–44 years; the incidence of lip fissures in younger and older age groups was significantly lower: in the age group 18–24 years – 12 (13.04%); 24 – 34 years – 17 (18.48%); 45 – 54 years – 15 (16.30%); 55 – 64 years old – 12 (13.04%) and over 65 years old – 8 (8.69%) patients.

A detailed analysis revealed the predominance of anatomical, constitutional and trigger risk factors in patients with CRFL. At the same time, a characteristic decrease in the height of the lower part of the face was found in 18 (18.75%) patients with CRFL versus 5.00% in the control group ($\chi^2=4.658$; $P\leq 0.05$); and the characteristic anatomical feature is the lower lip with a central constriction, respectively, in 17 (17.71%) versus absence in the control group ($\chi^2=8.095$; $P\leq 0.05$); and “full” lower lip, respectively, in 16 (16.67%) versus 3 (7.5%) in the control ($\chi^2=1.974$; $P\geq 0.161$); chronic trauma with teeth, fillings or orthopedic structures – in 15 (15.62%) versus 3 (7.5%) in the control ($\chi^2=1.623$; $P\geq 0.203$); and the habit of biting lips – in 11 (11.46%) versus 1 (2.5%) ($\chi^2=4.987$; $P\leq 0.026$).

From a clinical point of view, it is important to note a statistically significant increase in the frequency of trigger risk factors with increasing severity of the pathology. Thus, the frequency of detection of the symptom of decreased height of the lower part of the face in patients with a mild course was 1.042%; with moderate severity – 3.12%; and in severe cases, this sign was registered in 14.58% of patients with CRFL versus 5.00% in the control group ($\chi^2=9.144$; $P\leq 0.05$); increase in the frequency of detection of the lip with a “central” constriction, respectively, 2.084%; 24.168% and 11.46% in the absence of control ($\chi^2=8.003$; $P\leq 0.046$); similar dynamics of increase; frequency of detection of a “full” lower lip is 0.0%; 2.08% and 14.58% versus 7.5% in the control ($\chi^2=14.142$; $P\leq 0.0035$); trauma from chipped teeth, fillings and orthopedic structures – in 1.042%; 2.084% and 12.50% versus 7.5% in the control ($\chi^2=10.052$; $P\leq 0.019$); and the frequency of the bad habit of “biting” lips is correspondingly 0.0%; 3.12% and 8.33% versus 2.5% in the control ($\chi^2=14.190$; $P\leq 0.003$).

In the examined patients, the prevalence of periodontal diseases in patients with CRTG, equal to 86.96%, was statistically significantly higher than that of the control group of 52.50% ($\chi^2=18.420$; $P\leq 0.001$). At the same time, severe forms of periodontal damage predominated in patients with CRTG. Thus, the prevalence of gingivitis in

patients in the control group – 15.00% – was significantly higher than that in patients with CRTG – 1.087% ($\chi^2=10.746$; $P\leq 0.002$); the corresponding ratios of mild periodontitis in patients with CRTG were 5.25%; in the control – 20.00% ($\chi^2=6.661$; $P\leq 0.05$).

On the contrary, the incidence of moderate periodontitis was higher in patients with CRTG - 20.35% versus 10.00% in the control group ($\chi^2=5.808$; $P\leq 0.016$); similar ratios of severe periodontitis were CRFL – 51.09% versus 7.50% in the control ($\chi^2=22.509$; $P\leq 0.001$).

A statistically significant decrease in the level of oral hygiene and an increase in the severity of inflammatory-destructive periodontal lesions in patients with CRFL were established. Thus, the indicator of gingival inflammation (PMA index, %) in patients with CRFL was higher than the corresponding values in the control group by 64.98% ($P\leq 0.01$); periodontal destruction (PI index) - by 36.05% ($P\leq 0.01$); hygiene (OHI-S index) – by 36.98% ($P\leq 0.01$); bleeding (according to the Müllerman index) - by 54.79% ($P\leq 0.01$) and tooth mobility - by 76.33% ($P\leq 0.01$).

Similar results were obtained when analyzing the intensity of caries and its constituent elements. So, the value of the KFE index. Thus, the intensity of caries (KFE index) in patients with CRFL exceeded the corresponding indicator in the control group by 57.93% ($P\leq 0.01$); intensity of caries (element “K”) – by 57.93% ($P\leq 0.01$); the number of filled teeth (element “F”) - by 53.32% ($P\leq 0.01$) and the number of teeth removed (element “E”) - by 76.33% ($P\leq 0.01$).

CONCLUSIONS.

The association of CRFL with dental pathology of various origins, as well as a significant increase in the frequency and severity of periodontal diseases and dental caries with the severity of CRFL, suggests a connection between CRFL diseases and one or another systemic pathology. Systemic pathology can influence the course of dental diseases through immunological, infectious and toxic effects [1,4]. In this case, systemic pathology often initiates many nonspecific processes in the body, which have a significant impact on the course of pathological processes in the oral cavity and on the RBL [1,5].

In this connection, the next stage of research was the analysis of the influence of system processes on the development of CRFL. In this connection, the next stage of research was the analysis of the influence of system processes on the development of CRFL.

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READING COMPREHENSION AND THE SPECIAL STRATEGIES TO ENHANCE IT

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Abstract: *According to some researchers around the world, reading skills play a significant part in the development of our world outlook. That is why, we should develop these skills very well in order to gain sufficient knowledge that we need for variety of reasons in our education process. So comprehension is something which is a vital part of reading. While we are reading, we should do our best to understand and get the gist of what we are reading for better overall awareness. Through learning and using reading strategies and modifying the way we read, it is possible to develop our reading comprehension skills and making what we read more straightforward as well as more interesting. This article will explore what reading comprehension is and provides with the most useful strategies that can be used to improve our reading skills.*

Keywords: *Reading comprehension, vocabulary build-up, the context clues, noting down a summary.*

Аннотация: *По мнению некоторых исследователей, значительную роль в развитии нашего мировоззрения играют навыки чтения. Это главная причина того, что мы должны усердно способствовать развитию этих навыков, чтобы получить знания, необходимые в образовательных целях. Таким образом, понимание текста - это то, что является жизненно важной частью чтения. При чтении, необходимо делать все возможное, чтобы понять суть того, что мы читаем, для лучшей общей осведомленности. Изучая и используя стратегии чтения и изменяя то, как мы читаем, можно развить наши навыки понимания прочитанного и сделать то, что мы читаем, более простым и интересным. В этой статье будет рассмотрено, что такое понимание прочитанного, и представлены наиболее полезные стратегии, которые можно использовать для улучшения наших навыков чтения.*

Ключевые слова: *понимание прочитанного, наращивание словарного запаса, контекстные подсказки, запись резюме.*

Annotatsiya: *Dunyodagi bazi tadqiqotchilarning fikriga ko'ra, o'qish ko'nikmalari dunyo qarashimizning rivojlanishida katta muhim ahamiyat kasb etadi. Shuning uchun ham, biz ta'lim jarayonida turli sabablarga ko'ra biz uchun zarur bo'lgan yetarli bilimga ega bo'lish uchun ushbu ko'nikmalarni juda yaxshi rivojlantirishimiz zarur. Demak, tushunish o'qishning muhim bir qismi hisoblanadi. Biz o'qiyotgan paytimizda, umumiy xabardorlikni oshirish uchun o'qiyotgan narsamizni tushunish va mohiyatini bilib olish uchun imkon qadar harakat qilishimiz kerak. O'qish va o'qish strategiyalarini qo'llash va o'qish uslubimizni o'zgartirish orqali o'qib tushunish ko'nikmalarimizni rivojlantirish va o'qigan narsamizni yanada sodda va qiziqarli qilishimiz mumkin.*

Ushbu maqola o'qib tushunish ko'nikmasi nima ekanligini o'rganadi va o'qish ko'nikmalarimizni yaxshilash uchun qo'llanilishi mumkin bo'lgan eng foydali strategiyalar bilan taminlaydi.

Kalit so'zlar: *O'qib tushunish, so'z boyligini shakllantirish, kontekstga doir ma'lumotlar, qisqacha xulosa yozish.*

INTRODUCTION

Currently, everything is changing at an alarmingly fast that we strive to keep up with these changes. In addition to this, the notion of globalization has become commonplace and it is influencing on the whole globe. It is natural that during this kind of situation when there is a huge demand for more productive study of all walks of life, this demand which has also an impact on our country and the way the English is taught is not neglected. Consequently, variety of up-to-date technologies and programs have come into use and they are being put into practice so as to teach English to students more effectively and in a more enjoyable way. Simultaneously, as the Internet and the ICTs are being developed, learning as well as teaching foreign languages and enhancing the reading comprehension in a foreign language makes teachers take on numerous responsibilities. Setting up a communication and a co-operation with the world is one of the most important ways which are useful for economic as well as social development of a certain country. English is a tool that influences on the globalization process. For this reason, English has been given a special attention in recent years to promote it. Uzbekistan is also no exception in this process, including the decision of the Cabinet of Minister of the Republic Uzbekistan dated 19.01.2022 № 34 "On Additional Measures to improve The Study of Foreign Languages" defining the demand for the study of the English language will present.

Four skills are taken into consideration in the process of teaching English and we usually divide these skills into two groups: receptive and productive skills. Listening and reading skills are receptive skills; speaking and writing skills constitute the

productive skills. We usually tend to believe that speaking and listening skills are a matter of the utmost importance while teaching children English but we should not undervalue the reading comprehension as it serves as a foundation in the process of gaining knowledge. As Mary Schmich once said, "Reading is a discount ticket to everywhere." So, only through mastering our reading comprehension, we can develop the other skills above mentioned.

Reading comprehension and its advantages

Being able to understand or realize what you are reading is considered to be reading comprehension. This is an active and important part of reading and you can feel it before, while or after you read anything. Through the ability to comprehend what you are reading, it will be possible for you to get the idea and understand what the writer is going to say.

Reading comprehension often includes two important parts: one is vocabulary competence and the other one is comprehension of the text or context. Vocabulary competence is being able to realize the language that is being used. But the latter one is mainly about making use of the language in order to be aware of the meaning the text is providing.

The ability to comprehend what you read is vital for a number of reasons and can offer a lot of advantages. (Sartika, F. D., Afifah, N., & Anggraini, Y., 2020). Reading productively can not only broaden your world outlook, but also develop your professional experience and thus, making your pleasure of reading better and better. Being able to comprehend a text is sure to enlarge your knowledge in many walks of life and give you a chance to gain new skills. Reading comprehension can also offer following benefits and it can help:

- to develop your productive skills by creating the chance to speak in cohesive and coherent way and write clearly;
- to be able to understand what you read and analyse it;
- to inspire you to enjoy what you read thus making your time more efficient;
- to understand the information in newspapers or journals and be aware of what is going on throughout the world and so on.

The strategies to boost reading comprehension skills

Numerous ways and strategies are available to develop your reading comprehension skills. (McNamara, D. S. (Ed.), 2007). More right and consistent practice makes you a master at what you are reading. The following strategies will come in handy to improve your reading comprehension:

Vocabulary build-up

Having a wide range of vocabulary in another language makes the language acquisition process easier and give the learners a chance enjoy themselves. (Duff,

2019). If you know the words in a text what they mean, it will be easy for you to comprehend the meaning of the text what you are reading. So to boost your range of vocabulary, you should:

- make list of the unknown or unfamiliar words and look them up in a dictionary. It will definitely help;
- read as soon as possible in order to guess what the words in a text mean to develop your ability to comprehend;
- use visuals like flashcards to learn new words which are difficult for you to memorise;
- learn new words every single day not only in books, but also in films, cartoons or journals which are your favourite. By implementing this, you can have a wide vocabulary;
- use the words that you learnt in your speech or writing to memorize them better and so on.

Making use of context clues

It would be a great idea to use the context clues in what you are reading so as to understand it better. (Oclarit, R. P., & Casinillo, L. F. , 2021).It will not be a big problem even if you have no idea about the vocabulary which are being used. Context clues are usually encountered in the sentences surrounding the words you do not know exactly. You had better pay attention to the key words or phrases in sentences and get the main idea of that sentence or the paragraph according to that information in order to make use of the context clues.

Looking for the gist

In the first place, let us look at what the gist is. The gist is the main idea or general meaning of a piece of writing, a book, speech or a conversation. While we are looking at a written text to get its main idea or find out what the writer is trying to convey, it is the case that we are reading for a gist. And it is sometimes known as skimming.

Knowing the gist or main idea of what you are reading can really help you to realize the significance an article or a book. (Sinuraya, R. A., Situmorang, P., Sihombing, R. P., Gultom, R. J., & Rambe, K. R. , 2021). Comprehending the reason why you are reading the article or the book can give you a chance to understand what the author is trying to convey or provide. While reading, it is advisable to pause every paragraph and check whether you can get the gist of what you have just read. Then, you had better strive to convey the main idea with words of your own to understand it much better.

Noting down a summary

Another useful way to develop your understanding what you read is to write a summary about what you read. Summing up asks you to determine what is significant

in the text or material that you are engaged in and convey it with your own words. (Duke, N. K., & Pearson, P. D., 2009). Writing a summary enables you to identify whether you comprehend the material that you are reading totally and memorize it for a long period of time.

Thus, noting down a summary not only makes your reading comprehension better, but also improves your writing skills.

Splitting the reading up into smaller parts

While reading a lengthy novel or an article, it is advisable to split it up into smaller parts like paragraphs or chapters, which is much more effective and useful than just read the whole book at once. (Zsigmond, 2015). After you reach the end of a section, paragraph or a chapter, do not rush to read the next page or chapter. Instead, take a few minutes to let everything soak into your mind and think about what you have just read and understood before getting back to reading. Separating what you read can help you avoid getting bored and allows you to better comprehend the information provided in the reading material that you are reading.

Limiting distractions while reading

Reading comprehension is usually about attention and if you have so many distractions, it will be hard for you to understand completely what you read. To overcome this problem, try to find a place which is bright and peaceful enough. Turn off or mute your any electronic devices such as mobile phones or laptops and so on, make sure that just you and what you are going to read.

In addition to this, try to eliminate any situation like being too tired, hungry or sleepy before starting to read because such kind of situations may cause you get distracted from what you read. Or if you are trying to read in a public place or somewhere noisy, you had better put on a pair of noise-cancelling headphones and a place away from others to avoid the noise that distracts you.

Developing a daily reading habit

Reading is an effective way for both professional and personal development. It can help you enlarge your knowledge, broaden your world outlook and make your communication skills better. But it is the case if you have a good reading habit. So what is a reading habit? How do we define it? Should we make it a daily habit for us? Yes, we definitely should as it plays a significant part in the process of improving our reading comprehension in a way that cannot be compared with any strategy above mentioned. (Leppänen, U., Aunola, K., & Nurmi, J. E. , 2005). Daily reading means that you read something interesting or favorite for yourself for some time in order to learn something. However, making a daily reading a habit can be hard, but it is worth developing it. So in order to develop a daily reading habit, you should:

- set some time to read and stick to that schedule to turn it into a daily reading habit;
- find and choose books or something you find fascinating to read;
- set a reading aim for yourself, for example, reading a book or a story for a certain period of time a day, or a number of pages of a book, which comes in handy, too;
- not forget that daily reading is your daily routine and carry on reinforcing it,

Reading per day improves not only your level of knowledge, but also your concentration, lexical resource and overall perspective.

Conclusion

Taking everything into consideration, reading comprehension skills play a significant role during the process of language acquisition, in particular, foreign languages like English. By using the strategies provided above, you can develop your ability to read and comprehend what you read. In addition to improving your reading comprehension skills, these strategies help you develop your productive skills like such as being able communicate well orally and write in a clear, coherent and cohesive way if you implement the strategies well by sticking to a certain schedule. Reading comprehension is something that serves a base for overall improvement.

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UMUMTA'LIM MAKTAB DIREKTOR O'RINBOSARLARI FAOLIYATI SAMARADORLIGINI OSHIRISH MASALALARI

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Annotatsiya: Ushbu maqolada maktab direktori o'rinbosari vazifalari va faoliyati to'g'risida batafsil ma'lumot berilgan. Shuningdek, maktab direktor o'rinbosarlari faoliyati samaradorligini oshirish bo'yivha taklif va mulohazalar bildirilgan. Muallif tomonidan ushbu mavzu keng miqiyosda o'rganildi maqola so'ngida xulosalar berib o'tildi.

Kalit so'zlar: direktor o'rinbosari, ta'lim sifati, kadr, boshqarish, rag'batlantirish, jamoatchilik, hamkorlik

KIRISH

Jahonda inson omili va kapitali, qobiliyati va salohiyatidan innovatsiyalarni, raqamli boshqaruv tizimi va axborot kommunikatsiya vositalarini joriy qilish asosida samarali foydalanish keng tatbiq etilayotgan bugungi kunda, pedagog kadrlar tayyorlashdagi muammolar inson kapitali sifatining o'sishini susayishiga sabab bo'lmoqda. Pedagogika oliygohi bitiruvchisi, nafaqat fuqarolarni bilimli qilib tayyorlash va mamlakat inson kapitalini shakllantirish, shu bilan birga mavjud o'qituvchilik qadriyatlarini asrab-avaylash, rivojlantirish va keyingi avlodga uzatishda ham muhim bo'g'in hisoblanadi. Shu bilan birga oxirgi yillarda dunyoning qator mamlakatlarida (iqtisodiy taraqqiy etgan mamlakatlarda ham) ta'lim tizimining barcha bosqichlarida yuqori malakali pedagog kadrlar tanqisligi kuzatilmoqda.

ADABIYOTLAR TAHLILI

Respublikamizda ham kadrlar bo'shlig'ini to'ldirish, shu jumladan, umumta'lim maktablarida pedagog kadrlarga bo'lgan ehtiyojlarni qondirish obyektiv zarurat. Ushbu masalalarni hal qilish mexanizmlarini ilg'or xorijiy tajribalar asosida ishlab chiqish zarurati tadqiqotning dolzarbligini belgilaydi va ushbu ishning tadqiqot mavzusi sifatida tanlanishiga asos bo'ldi.

Maktab ma'muriyati bilan bog'liq bo'lgan juda ko'p funksiyalar direktordan o'rinbosarlarga qadar puxta o'ylangan vakolatlarni berishni talab qiladi. Bunga muvofiq optimal boshqaruv tarkibi zamonaviy sharoitlar quyidagilar bo'lishi mumkin:

Nazoratchi ta'lim tashkiloti- maktab direktori.

Rahbarning birinchi o'rinbosari - resurslarni boshqarish bo'yicha o'rinbosari.

Amalga oshirish bo'yicha o'rinbosari ta'lim dasturlari, yoki ta'lim dasturlarini konvergent amalga oshirish bo'yicha.

Ta'lim sifatini boshqarish bo'yicha o'rinbosari.

O'quvchilarni tarbiyalash va ijtimoiylashtirish bo'yicha boshliq o'rinbosari.

NATIJA VA TAHLIL

Maktab direktorining birinchi o'rinbosarining faoliyati. Maktab direktorining ta'lim sifatini boshqarish bo'yicha o'rinbosari kasbiy faoliyatining asosiy mexanizmi o'qituvchilarning o'zaro talablarini tashkil etishdir. Masalan, o'rta maktab o'qituvchilari boshlang'ich sinf o'qituvchilarining ish faoliyatini baholashlari mumkin, ikkinchisi esa boshlang'ich sinf o'qituvchilari faoliyatini baholashi mumkin. Ushbu lavozimni egallagan shaxs barcha darajadagi ta'lim sifatini baholash ustidan nazoratni ta'minlashi kerak. Bunga ma'lum bir muhokamani yaratish va o'zgartirish imkoniyati ham kiradi.

Maktab direktorlari va o'rinbosarlari faoliyati samaradorligini oshirish uchun quyidagi masalalarga e'tibor berish kerak:

1. Pedagogik texnologiyalarni rivojlantirish: O'quv jarayonini samarali va innovatsion usullar bilan tashkil etish, yangi texnologiyalardan foydalanish va o'quvchilarni motivatsiyalash uchun ma'naviyatli darsliklar va dasturlar tuzilishi.
2. O'quvchilarning shaxsiy rivojlanishini ta'minlash: O'quvchilarga individual qiziqishlariga mos ravishda yordam bera oladigan dasturlar tuzish, qiziqishlarini rivojlantirish uchun axborot-ta'lim texnologiyalaridan foydalanish.
3. O'quv jarayonini monitoring qilish: O'quv jarayonini nazorat qilish va baholash tizimini rivojlantirish, o'quvchilarning muvaffaqiyatini kuzatish va ularning muammolariga hal topish uchun tadbirlar olib borish.
4. O'qituvchilarni rivojlantirish: O'qituvchilarga yangi metodika va texnologiyalarni o'rganish, ularga ta'lim sertifikatlari olishlari uchun imkoniyatlar yaratish.
5. Tadbirlarni tashkil etish: Ma'naviy-ma'rifiy tadbirlar, sport tadbirlari, o'yinlar, turar joylar va boshqa faoliyatlar tashkil etish orqali o'quvchilarni motivatsiyalash.

Bu masalalar ustida ishlash orqali, maktab direktorlari va o'rinbosarlari o'quv jarayonini samarador va rivojlantirishlari mumkin. Bundan tashqari:

1. O'qituvchilar va xodimlar bilan ishbilarmonlikni oshirish: Maktab direktorlari va o'rinbosarlari, o'qituvchilar va xodimlar bilan ishbilarmonlikni oshirish uchun tadbirlar olib borishlari kerak. Bu masalani hal qilish uchun, o'qituvchilar va xodimlar bilan ishlashda ko'proq samaradorlikni ta'minlash uchun tashkilotning maqsadlari, vazifalari va kutiladigan natijalar haqida ular bilan muloqotlar olib borish lozim;

2. Ta'lim jarayonini muvofiqlashtirish: Maktab direktorlari va o'rinbosarlari, ta'lim jarayonini muvofiqlashtirish uchun yangi texnologiyalardan, yangi metodikadan va ta'lim dasturlaridan foydalanishadi. Bu, o'quv jarayonini samaraliroq qilish va o'quvchilar bilan o'quv jarayonini qiziqtirish uchun muhimdir;
3. Tadbirkorlik va innovatsiyani rag'batlantirish: Maktab direktorlari va o'rinbosarlari, tadbirkorlik va innovatsiyani rag'batlantirish uchun xodimlarni ilg'or qilish, ularning yangiliklarga oson moslashuvini ta'minlash, yangi ideya va loyihalarni qo'llab-quvvatlashadi;
4. O'quv yukini kamaytirish: Maktab direktorlari va o'rinbosarlari, o'quv yukini kamaytirish uchun qo'shimcha darsliklar, elektron resurslar va boshqa ta'lim vositalaridan foydalanishadi. Ular, o'quvchilarning o'qish va o'rganish jarayonida ko'proq qiziqishlarini chaqiradigan darsliklar va mashg'ulotlar tayyorlashadi;
5. Ota-onalar bilan hamkorlikni rivojlantirish: Maktab direktorlari va o'rinbosarlari, ota-onalar bilan hamkorlikni rivojlantirish uchun ko'makchi resurslarini oshirishadi. Ular, ota-onalar bilan o'quv jarayonini muhokama qiladigan va ularning o'quvchilarning ta'lim-yo'nalishini tushunishiga yordam beradigan seminarlar tashkil etadilar.

XULOSA VA TAKLIFLAR

Bu masalalarni hal qilish orqali, maktab direktorlari va o'rinbosarlari faoliyati samaradorligini oshirishga yordam beradilar va o'quvchilarning ta'limda yaxshi natijalar olishiga imkoniyat yaratadilar. Umumiy ta'lim maktab direktorlari yoki o'rinbosarlarining faoliyati samaradorligini oshirish masalalari bilan shug'ullanish juda muhimdir. Faoliyati samaradorligini oshirish uchun ular quyidagi yo'llarni ko'rib chiqishlari muhimdir:

1. O'quvchilar bilan faol ishlash: O'rinbosarlar o'quvchilar bilan ko'p va samarali tarzda ishlashlari zarur. O'quvchilar bilan tez orada tushunarli aloqani ta'minlash, ularning muammolari bilan shug'ullanish, va ularning texnikaviy bilimlarini oshirish uchun yaxshi qo'llanmalar ishlatish katta ahamiyatga ega;
2. O'qituvchilarni tayyorlash: O'rinbosarlar o'qituvchilarni ozod etilish, ularning malakasini oshirish va yangi texnologiyalarni qo'llash yo'li bilan ta'minlashlari lozim. Professional rivojlanish va boshqaruv ishlari uchun bo'limlar o'rtasida tezroq va ommabop axborot almashishni ta'minlash;
3. O'quv jarayonini boshqarish: Topilgan malumotlar, boshqaruv va nazorat muammolarini hal qilish uchun texnologiyalardan foydalanish, bu esa o'quv jarayonini rivosiz boshqarishda juda muhimdir. O'rinbosarlar foydali platformalardan foydalanib, o'quvchilarning natijalari bilan taniqli holatda tanishishlari muhim;
4. Ota-ona va jamoatchilik bilan hamkorlik: O'rinbosarlar ota-onalar va jamoatchilik bilan faol hamkorlik qilish sharti insonparvarlikni oshirish masalalarini hal qilishda

juda muhimdir. O'quvchilarning maqsadlarini aniqlash, ularning o'quv jarayonida qatnashishlarini ta'minlash, va jamoat bilan o'quv jarayonining birgalikda boshqarilishini ta'minlash zarurdir;

5. Bosqichma-bosqich boshqaruv: O'rinbosarlar o'quv jarayonini bosqichma-bosqich boshqarish yo'llarini yaratish va uning samaradorligini nazorat qilishlari zarur. O'quvchilarning o'sishi, o'qituvchilar bilan mas'uliyatlarini o'zlariga olib kelish, va o'quv jarayonidagi muammolarni samarali yechishlari uchun bosqichma-bosqich strategiyalarini belgilash muhimdir.

Bu masalalar o'rinbosarlar va umumiy ta'lim maktab direktorlari uchun juda muhimdir, chunki ularning faoliyati o'quv jarayonining samaradorligi va boshqaruvini aniqlaydi.

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КЛИНИКО-ФУНКЦИОНАЛЬНОЕ СОСТОЯНИЕ СТРУКТУР ПОЛОСТИ НОСА И ПРИДАТОЧНЫХ ПАЗУХ НОСА У ДЕТЕЙ С ВРОЖДЕННОЙ РАСЩЕЛИНОЙ ВЕРХНЕЙ ГУБЫ И НЕБА

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АННОТАЦИЯ: в настоящее время в Узбекистане растет число детей с врожденными пороками развития челюстно-лицевой области. У детей с врожденной расщелиной губы и неба отмечается более высокая частота оториноларингологических заболеваний по сравнению со здоровыми детьми. В связи с этим в данной работе проведено клинико-функциональное исследование структур полости носа и придаточных пазух носа среди детей с врожденной расщелиной верхней губы и неба, а также у детей без врожденных аномалий челюстно-лицевой области. Результаты исследований показали, что в 77% случаев отмечается искривление перегородки носа сопровождавшееся гиперплазией нижних носовых раковин у детей с врожденной расщелиной губы и неба, когда как у детей без врожденных аномалий челюстно-лицевой области – 29%. При отсутствии ярко выраженных отличий между околоносовыми пазухами пациентов с ВРГН и здоровых детей и соответствии степени пневматизации придаточных пазух носа возрасту ребенка в обеих группах, у пациентов с ВРГН отмечалась повышенная пневматизация переднего конца средней носовой раковины.

КЛЮЧЕВЫЕ СЛОВА: врожденная расщелина верхней губы и неба, дети, нос, придаточные пазухи носа

CLINICAL AND FUNCTIONAL STATE OF THE STRUCTURES OF THE NASAL CAVITY AND ARRANGEMENTAL SINUSES IN CHILDREN WITH CONGENITAL CLEFT LIP AND PALATE

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ANNOTATION: Currently in Uzbekistan the number of children with congenital malformations of the maxillofacial region is growing. Children with congenital cleft lip and palate have a higher incidence of otorhinolaryngological diseases compared

to healthy children. In this regard, this work conducted a clinical and functional study of the structures of the nasal cavity and paranasal sinuses among children with congenital cleft lip and palate, as well as in children without congenital anomalies of the maxillofacial region. The research results showed that in 77% of cases there is a curvature of the nasal septum accompanied by hyperplasia of the inferior turbinates in children with congenital cleft lip and palate, while in children without congenital anomalies of the maxillofacial region - 29%. In the absence of pronounced differences between the paranasal sinuses of patients with CRGN and healthy children and the degree of pneumatization of the paranasal sinuses corresponded to the age of the child in both groups, in patients with CRGN there was increased pneumatization of the anterior end of the middle turbinate.

KEY WORDS: *congenital cleft lip and palate, children, nose, paranasal sinuses*

В Узбекистане растет число детей с врожденными пороками развития челюстно-лицевой области. Наиболее распространенными являются расщелина губы и неба. Тяжесть анатомических и функциональных нарушений зависит от степени расщелины верхней губы и неба, а также возраста ребенка.

Наиболее тяжелые анатомические нарушения наблюдаются при полных (или сквозных) расщелинах, при которой щель с твердого неба распространяется на альвеолярный отросток и верхнюю губу. Полные расщелины неба и альвеолярного отростка проходят в переднем отделе неба по границе резцовой кости с небной пластинкой и распространяется на альвеолярный отросток через второй резец или между первым и вторым резцом. Потому различают односторонние и двусторонние расщелины. При односторонней расщелине сошник на одной стороне соединяется с небным отростком, на другой стороне имеется щель, через которую сообщаются носовая и ротовая полости. В зависимости от этого бывают либо право, либо левосторонние расщелины.

У детей с врожденной расщелиной верхней губы и неба (ВРГН) наблюдают более частые случаи диагностики острого синусита, ринита, тонзиллита, деформация наружного носа, искривление носовой перегородки, гипертрофия носовых раковин и и других ЛОР-заболеваний по сравнению со здоровыми детьми [1- 3].

Недостаточно данных о распространенности воспалительной патологии околоносовых пазух у данного контингента детей, причинах и предрасполагающих факторах, не разработаны алгоритмы обследования, позволяющие предотвратить начало заболевания или выявить его на ранних этапах, что позволило бы сократить сроки лечения и повысить его эффективность.

Цель исследования — оценка состояния структур полости носа и придаточных пазух носа у детей с ВРГН.

Материал и методы: Обследованы 84 ребенка с ВРГН в возрасте от 9 до 18 лет (основная группа; 46 мальчиков и 38 девочек) и 84 ребенка в возрасте от 9 до 18 лет (контрольная группа; 42 мальчиков и 42 девочек) без врожденных аномалий челюстно-лицевой области.

В группу детей с ВРГН вошли: 19 детей с двухсторонней врожденной сквозной расщелиной верхней губы и неба, 37 детей с врожденной сквозной расщелиной верхней губы и неба слева, 24 детей с врожденной сквозной расщелиной верхней губы и неба справа.

Все пациенты были успешно оперированы по поводу врожденного порока на первом году жизни.

Обследование детей включало в себя сбор анамнеза и жалоб пациента, рутинный ЛОР-осмотр (переднюю риноскопию, мезофарингоскопию, отоскопию), эндоскопию полости носа и носоглотки и компьютерную томографию околоносовых пазух. При сборе анамнеза и жалоб наибольшее внимание уделялось отсутствию или наличию в анамнезе эпизодов синусита различной локализации, частых и затяжных ринитов, периодического или постоянного затруднения носового дыхания, дискомфорта или болезненности в области проекции околоносовых пазух, головных болей.

Результаты исследования: у детей с односторонней расщелиной верхней губы и неба сошник на одной стороне соединялся с небным отростком, на другой стороне имела щель, через которую сообщались носовая и ротовая полости. При двусторонней расщелине обе носовые полости сообщались с полостью рта, а нижний край сошника оставался свободным посередине расщелины и располагался на уровне несросшихся небных пластинок, реже выше их. При этой форме расщелины резцовая кость определялась как самостоятельное анатомическое образование и задние отделы которого переходили в сошник. У этих детей резцовая кость обычно резко выступал вперед, иногда был повернут вокруг оси, боковые отделы альвеолярной дуги верхней челюсти суживались. На резцовой кости был определен недоразвитие ткани кожно-хрящевого отдела перегородки носа и фильтра.

Проведенное обследование выявило, что у 57 детей с ВРГН (34 — со сквозной расщелиной верхней губы и неба слева, 23 — со сквозной расщелиной верхней губы и неба справа) отмечалось искривление перегородки носа в области четырехугольного хряща. Из них у 28 детей со сквозной расщелиной верхней губы и неба слева отмечалось искривление перегородки носа вправо, а у 22 — со сквозной расщелиной верхней губы и неба справа

отмечалось искривление перегородки носа влево. У 14 детей с двусторонней врожденной сквозной расщелиной верхней губы и неба отмечалась выраженная деформация перегородки носа, при этом деформированный участок перегородки носа прилежал к гиперплазированной нижней носовой раковине, в связи с чем было выполнено оперативное лечение — подслизистая резекция перегородки носа, двусторонняя вазотомия нижних носовых раковин (отметим, что компенсаторная гиперплазия нижних носовых раковин была выявлена у всех 84 пациентов).

У 5 пациентов с двусторонней врожденной сквозной расщелиной верхней губы и неба был выявлен гребень перегородки носа справа на всем протяжении хрящевого и костного отделов, распространяющийся вдоль дна полости носа с умеренной гиперплазией нижней носовой раковины.

У 3 пациентов со сквозной расщелиной верхней губы и неба слева и у 1 - со сквозной расщелиной верхней губы и неба справа имелось незначительное S-образное искривление перегородки носа в хрящевом отделе преимущественно влево, сопровождающееся незначительной гиперплазией нижних носовых раковин.

Всем пациентам была выполнена компьютерная томография околоносовых пазух. У 17 пациентов с двусторонней врожденной сквозной расщелиной верхней губы и неба, 11 со сквозной расщелиной верхней губы и неба слева и 8 со сквозной расщелиной верхней губы и неба справа отмечалась повышенная пневматизация переднего конца средней носовой раковины (*concha bullosa*). У 76 пациентов (18 — с двусторонней врожденной сквозной расщелиной верхней губы и неба, 34 — со сквозной расщелиной верхней губы и неба слева, 24 — со сквозной расщелиной верхней губы и неба справа) отмечалась удовлетворительная пневматизация придаточных пазух носа.

При обследовании детей контрольной группы искривление перегородки носа с признаками вазомоторного ринита отмечалось лишь у 15 пациентов. У 24 пациентов отмечался стекловидный отек и цианотичность слизистой оболочки полости носа, выраженная гиперплазия нижних носовых раковин, дети отмечали периодическую ринорею, слезоточивость глаз. Данные жалобы носили сезонный характер, что позволило выставить диагноз аллергического ринита.

У 45 пациентов при проведении передней риноскопии и эндоскопии полости носа и носоглотки патология не выявлена.

По данным компьютерной томографии околоносовых пазух, у всех 84 детей из контрольной группы отмечалась удовлетворительная пневматизация околоносовых пазух.

Выводы: у пациентов с ВРГН более чем в 95,2% случаев отмечается искривление перегородки носа, сопровождавшееся гиперплазией нижних носовых раковин. При отсутствии ярко выраженных отличий между околоносовыми пазухами пациентов с ВРГН и здоровых детей и соответствии степени пневматизации ОНП возрасту ребенка в обеих группах у пациентов с ВРГН отмечалась повышенная пневматизация переднего конца средней носовой раковины.

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YANGI O‘ZBEKISTONDA DEMOKRATIK ISLOHOTLAR TARAQQIYOTINING NAZARIY-SIYOSIY BOSQICHLARI

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Annotatsiya. Maqolada 2017-yildan boshlab O‘zbekiston Respublikasida yuz bergan katta o‘zgarishlar, siyosiy jarayonlarning jadallashuvi, davlat boshqaruv jarayonida “milliy tiklanishdan-milliy yuksalish sari” kontsepsiyasi natijasi tahlil qilingan. Bundan tashqari xalq hokimiyatchiligi tamoyili Yangi O‘zbekiston siyosatining ustuvor vazifasi etib belgilangani konseptual asoslari yoritilgan.

Tayanch tushunchalar. Yangi O‘zbekiston, strategiya, jamiyat taraqqiyoti, siyosiy yangilanish, qonun ustuvorligi, xalq hokimiyatchiligi, saylov dominantligi, model.

Аннотация. В статье анализируются основные изменения, произошедшие в Республике Узбекистан после 2016 года, результат реализации концепции «от национального возрождения к национальному подъему» в процессе государственного управления. Кроме того, выделены концептуальные основы определения принципа народной власти в качестве приоритетной задачи политики Нового Узбекистана.

Ключевые слова. Новый Узбекистан, стратегия, общественное развитие, политическое обновление, правовое государство, народная власть, электоральное доминирование, модель.

Annotation. The article analyzes the main changes that have taken place in the Republic of Uzbekistan after 2016, the result of the implementation of the concept of "from national revival to national recovery" in the process of public administration. In addition, the conceptual foundations for determining the principle of people's power as a priority task of the policy of New Uzbekistan are highlighted.

Keywords. New Uzbekistan, strategy, social development, political renewal, rule of law, people's power, electoral dominance, model.

Kirish. Ma'lumki, davlat siyosati har qanday jamiyat hayoti, undagi o‘zgarishlar, yangilanishlar siyosiy, ijtimoiy, iqtisodiy va boshqa sohalardagi jarayonlarni bevosita boshqarish, tartibga solish va strategik yo‘naltirishida, rivojlantirishda eng asosiy vosita va institutsional hodisa bo‘lib xizmat qiladi.

Shu bois ham davlat siyosatida yangilanishning ro'y berishi ayni paytda mamlakat va uning jamiyati hayotining barcha jabhalarida siyosiy yangilanishlarning amalga oshirishga sabab bo'ladi.

Demak, har qanday davlatning o'ziga xos xususiyatlari, uning tomonidan olib boriladigan siyosati shakllanishi va amalga oshirilishi xususiyatlari bilan chambarchas bog'liqdir.

Bunda davlat bir paytning o'zida davlat siyosatini hayotga joriy qilinishining, ham manbai, ham asosiy sub'ekt sifatida namoyon bo'ladi.

Maqsad va uni asoslash. Rossiyalik mutaxassis olim E.Strelets yozganidek, "Har qanday sharoitda ham davlat siyosati nihoyatda katta hajmdagi aniq maqsad va vazifalarga hamda natijalarga yo'naltirilgan boshqaruv sohasidagi loyihalarni amalga oshirishni nazarda tutuvchi muhim hodisadir. Bunda davlatning faolligi va hukumatning barcha vositalarni safar qila olish layoqati hal qiluvchi ahamiyatga ega bo'ladi" [1, S 53].

Shuning uchun ham davlat siyosati o'z mohiyatiga ko'ra, davlat boshqaruvidan keng tushunchadir. Davlat siyosati o'z mazmun-mohiyatiga ko'ra, rossiyalik olim V.Yakunin xulosasiga ko'ra, "jamiyat taraqqiyotining eng yetakchi asoslarini, yo'nalishlarini belgilaydi, taraqqiyot loyihasining manbalari, resurslarini ham aniqlab beradi"[2, S 56].

Shu bilan birga tahlillar ko'rsatganidek, rivojlanish va yangilanishga yo'naltirilgan siyosiy g'oyalar o'z o'rnida davlat siyosatining yaqin, o'rta va uzoq istiqbolga mo'ljallangan strategik resurslar, dasturlarni o'z kontseptual bazasiga qamrab olgan holda ro'yobga chiqishiga zamin tayyorlab beradi.

Jahon taraqqiyotining eng zamonaviy tajribalari ko'rsatib turganidek, hozirgi davrda davlat siyosatining samaradorligi yetakchi ravishda uning demokratik mexanizmlarini doimiy ravishda yangilab, to'ldirib, zamonaviylashtirib turilishiga bog'liqdir.

Ushbu holat, o'z navbatida, demokratik davlat siyosatining quyidagi jihatlarini namoyon bo'lishini dolzarb qilib qo'yadi:

Birinchidan, demokratiya institutlarini izchil qo'llab-quvvatlash, takomillashtirishga yo'naltirilgan strategiyani amalga oshirish;

Ikkinchidan, ijtimoiy munosabatlarni demokratlashtirishga qaratilgan islohotlar ko'lami va sifatini oshirib borish;

Uchinchidan, rivojlanish maqsadlari va dasturlarini amalga oshirishda demokratiya, inson manfaatlari, ehtiyojlari, erkinliklarini ta'minlanishiga xizmat qiluvchi siyosiy infratuzilmani shakllantirib, kengaytirib borish;

To'rtinchidan, davlat siyosatini ishlab chiqishda samarali demokratiya institutlarini shakllantirish va ularning jamiyat bilan hamkorligini ta'minlash mexanizmlarini takomillashtirib borish;

Beshinchidan, davlat boshqaruvi organlari faoliyatini demokratik rivojlanish manfaatlaridan kelib chiqib takomillashtirib borish hamda ushbu yo‘nalishda natijadorlikni ta‘minlash*.

Prezidentimiz Shavkat Mirziyoyevning “Amaliy natijadorlik, inson manfaati va yana bir bor inson maqsadi etib belgilandi” [3, B 8], degan g‘oyalari yangi davlat siyosatining bosh mezoniga aylandi. Bu bilan yurtimizda davlat siyosati demokratiyani qaror toptirishdek muhim strategik maqsadlar tomon to‘liq safarbar qilina boshladi.

Ushbu jarayonda avvalgi darajada to‘planib qilgan bir qator kamchiliklar va o‘tkir muammolarni bartaraf qilish, jumladan inson manfaatlarini real ta‘minlash, davlat boshqaruvida ochiqlik holatiga e‘tiborning susayishi, fuqarolar fikri va muammolariga nisbatan e‘tiborsizlik kundalik normaga aylana boshlanganligi, huquq-tartibot organlari tomonidan adolatsizlik, odamlarning xo‘rlash kabi noinsoniy munosabatlarni tez-tez ro‘y berib turganligi, davlat boshqaruvida davlat organlari bilan byurokratik va sun‘iy to‘siqlarning mavjudligi kabi holatlarga barham berila boshladi.

Eng muhimi, mamlakatimiz yangi davlat siyosatida qonun ustuvorligi, demokratiyaning muhim asosi bo‘lgan izchil konstitutsiyaviylikni amalda va jamiyat hayotining har bir jabhasida ro‘yobga chiqarish vazifalari ustuvor qilib belgilandi.

Prezident Shavkat Mirziyoyev bu xususida jumladan quyidagi fikrlarni bildirib o‘tgan edi: “Xalq hokimiyatchiligi haqidagi konstitutsiyaviy tamoyilning asl mohiyatini barchamiz chuqur anglab yetishimiz zarur.

Buning uchun turli darajadagi ijro hokimiyati organlarining xalq vakillari – parlament va mahalliy kengashlar oldida hisobot berish amaliyotini keng joriy qilish kerak. Parlament, vakillik va jamoatchilik nazorati mexanizmlarini yanada rivojlantirishimiz zarur” [4, B 29].

Davlatimiz rahbarining mazkur g‘oyalari amalda mamlakatimizdagi zamonaviy davlat siyosatining yetakchi qoidalarini tashkil etdi.

Mustaqillikning dastlabki yillaridan boshlab, davlat siyosatining asosiy yo‘nalishi til kabi milliy ma‘naviyatni rivojlantirish masalasi edi. Shu sababli ham O‘zbekistonning demokratik jarayonlarga siyosiy rivoj berishi “demokratiyani joriy etishga majburlash emas” [5, S 574576], aksincha tadrijiy ravishda milliy qadriyatlarni tiklash, xalqlar, millatlar orasida huquqiy va siyosiy madaniyatini shakllantirishga qaratilgan edi.

Bunda qonun ustuvorligi printsiplarini samarali va kafolatli tarzda ro‘yobga chiqarish, unda shaffoflik, ochiqlikni amalda ta‘minlash, kuchli va demokratik mohiyatiga ega bo‘lgan Konstitutsiyamizda mamlakatimiz fuqarolari uchun kafolatlab qo‘yilgan demokratiya normalarini real hayotga tatbiq qilinishiga erishish, demokratik

*Muallif talqini

siyosat va demokratik qonunlar ijodkorligi hamda ularning jamiyat hayotining ustuvor asosiga aylantirish muhim vazifa va qoida sifatida belgilab olindi.

Tahlillardan ma'lumki, har qanday davlat siyosatining fundamental asosi birinchi navbatda qabul qilingan qonunlarning davlat siyosatining zamini, huquqiy manbai sifatidagi funktsiyalarning yuqori darajada bajarilayotganligi bilan chambarchas bog'liq.

Chunki, davlat siyosatining samaradorligini uning falsafiy, kontseptual, strategik asoslarining demokratik huquqiy maydonda o'zaro hamkorlikda amal qilishiga qarab namoyon bo'ladi.

Ushbu fikrlar doirasida so'zimizni davom ettirib aytish lozimki, mamlakatimizda davlat siyosatining huquqiy asoslarini va amal qilish mexanizmlarini rivojlantirilishida O'zbekiston Respublikasi Prezidentining 2017 yilning 8-fevralida qabul qilingan "Qonun hujjatlarini tarqatish tizimini tubdan takomillashtirish chora-tadbirlari to'g'risida"gi Qarori o'ta dolzarb ahamiyat kasb etdi. Mamlakatimiz Prezidentining Harakatlar strategiyasini qabul qilish to'g'risidagi PF-4947-sonli Farmoni belgilab berilgan strategik maqsadlarni amalga oshirish bo'yicha eng birinchi siyosiy hujjat bo'lgan mazkur qarorda davlat siyosati va qonunlarni izchil bog'liqlikda amal qilishining eng zamonaviy demokratik mexanizmlari tasvirlab berildi.

Xususan qarorda "davlat hokimiyati va boshqaruvini yanada demokratlashtirishning huquqiy asoslarini rivojlantirish va takomillashtirish, fuqarolik jamiyatini shakllantirish, sud-huquq tizimini rivojlantirish, ijtimoiy-iqtisodiy islohotlarni chuqurlashtirish, shuningdek, mamlakatda qonun ijodkorligi, huquqni qo'llash, huquqni muhofaza qilish faoliyati sohasida fundamental va amaliy tadqiqotlarning amalga oshirilishini muvofiqlashtirish" [6] vazifalari qat'iy ravishda belgilab qo'yildi.

Demak, shu bois fikr bildirib o'tish o'rinli bo'ladiki, davlat siyosati o'z doirasiga demokratik qonunlarni qamrab oladi, shu bilan birgalikda mazkur qonunlarni davlat siyosatida amal qiladigan siyosiy g'oyalar va qarorlarni amalga oshirish jarayonlariga nisbatan to'g'ri qo'llanishi o'ta muhim ahamiyat kasb etib boradi va amalda davlat siyosatini turli xil xatoliklar va adolatsizliklardan himoya qiladi.

Bizning nazarimizda davlat siyosatini amalga oshirishdagi demokratik qonun ustuvorligi bevosita mazkur holatda o'zining mukammal aksini topadi.

Mamlakatimiz aholisiga, sir emaski, mustaqil taraqqiyotimiz tarixida shunday paytlar ham bo'ldiki, unda davlat siyosatidagi ko'pincha qarorlar hayotda o'zining aksini to'liq topa olmadi. Natijada esa rasmiy siyosiy xulosalar, nuqtai nazarlar bilan real hayotdagi holat o'rtasidagi farqlar paydo bo'lgan edi.

Mazkur muammolarni bartaraf qilish uchun yangi O'zbekistonni shakllantirish davrining davlat siyosati printsiplariga Prezidentimiz Shavkat Mirziyoyev tomonidan

quyidagi qoidalarni kiritish g‘oyasi ilgari surildi: “2017 yil va undan keyingi davrga belgilangan vazifalarni amalga oshirish uchta eng muhim talabga hal etuvchi darajada bog‘liqdir.

Birinchi – **davlat** rahbari – Prezidentdan boshlab barcha bo‘g‘indagi rahbarlarning yakuniy natijalar uchun shaxsiy javobgarligi.

Ikkinchi – **hamma** soha va aniq tarkib va qattiq intizomni ta‘minlashimiz darkor. Yana bir bor ta‘kidlayman, ishni birgalikda bajaramiz, natija uchun esa har birimiz shaxsan javob beramiz.

Uchinchi – **talab** – saflarimiz va kadrlarimizning sofligini ta‘minlash, ishdagi har qanday salbiy holatlarni oldini olish va bunday illatlarning ildizini quritish” [7, B 290-291].

Mamlakatimiz Prezidenti tomonidan belgilab berilgan mazkur printsiplar yurtimizda zamonaviy davlat siyosatini ishlab chiqilishi va davlatchilikni amalga oshirishda muhim mezon sifatida belgilandi. Shu orqali davlat siyosatining demokratik mohiyati yanada kuchaytirildi. Sababi demokratiya va uning qadriyatlarini jamiyatda rivojlanishi uchun davlat siyosatining g‘oyalarini ijro etilishida yuksak mas‘uliyatning bo‘lishi doimo kuchli talab etiladi.

Yangi demokratik O‘zbekistonni barpo qilishga yo‘lantirilgan davlat siyosatida demokratiya institutlarini kuchli rivojlantirish vazifalariga yangilarini shakllantirish vazifalariga ustuvor ravishda yondashilmoqda.

Bir necha yil oldin fraktsiyalar muhokamasidan o‘tmasdan, ularning xulosasini olmasdan birorta ham qonun, davlat byudjeti loyihasi qabul qilinmasligini qonuniy asosda aniq belgilab qo‘ygan edik.

Tan olish kerak, o‘tgan davr mobaynida parlamentda ana shu qoidani hayotga tatbiq etish bo‘yicha ko‘p ishlar qilindi.

Biroq fraktsiyalarda qonun loyihalari va boshqa muhim masalalar muhokamasini, ulardan konstruktiv baxs va munozaralarni yanada kuchaytirishni butun hayotning o‘zi taqazo etmoqda.

Qabul qilinayotgan har bir qonun loyihasi, saylovchilar, partiya elektorati, turli tabaqa va guruhlarning manfaatlari nuqtai nazaridan atroflicha muhokama qilinishi, fraktsiyalar ushbu masalalarda printsiptial pozitsiyasini namoyon etishi shart”[7, B 571].

Ushbu g‘oyalardan aniq ravishda sezilmoqdaki, mamlakatimizda demokratiyaning dunyoning eng ilg‘or jamiyatlari tomonidan e‘tirof qilingan “plyuralistik” modelining samarali asoslarini ham joriy qilishga muhim e‘tibor berilmoqda. Va bu bilan yurtimizda demokratiya institutlarini takomillashtirish bilan bir paytning o‘zida davlat siyosatida demokratiyaning eng zalvorli va tamomila zamonaviy qoidalarini jamiyatga joriy qilish jarayonlari harakatga keltirilmoqda.

Jumladan, vakillik demokratiyasining asosiy instituti bo'lgan mamlakatimiz Oliy Majlisi har ikkala palatasining amal qilish qoidalariga doir huquqiy asoslarni yanada takomillashtirib, xususan 2002 yilning 12-dekabrida qabul qilingan "O'zbekiston Respublikasi Oliy Majlisining Qonunchilik palatasi to'g'risida"gi O'zbekiston Respublikasining konstitutsiyaviy qonuniga 2016-yilda O'RQ-44-sonli qonun bilan bir marotaba O'RQ-459-sonli qonun tahririda, 2018-yilda O'RQ-459-sonli qonun asosida bir marotaba, 2019-yilda tegishli qonunlar asosida 2020-yilda bir marotaba o'zgartish va qo'shimchalar kiritildi [8].

Huddi shuningdek, 2002 yilning 12-dekabrida qabul qilingan "O'zbekiston Respublikasi Oliy Majlisining Senati to'g'risida"gi konstitutsiyaviy qonuniga 2017-2021-yillar davomida muhim o'zgartish va qo'shimchalar kiritildi. Jumladan, mazkur huquqiy hujjatning 4, 8, 9, 10, 12, 14, 16, 18, 20, 31, 32-moddalariga kiritilgan muhim o'zgartish va qo'shimchalar [8] Oliy Majlis yuqori palatasining hududiy vakillikni amalga oshirish borasidagi demokratik imkoniyatlarini kengaytirdi.

Siyosiy partiyalar insoniyat tarixida uzoq davrlardan buyon fuqarolarning demokratik siyosiy erkinliklarini qo'lga kiritish, vakillik hokimiyatini shakllantirishda bevosita ishtirok qilish, inson manfaatlari va haq-huquqlarini tashkiliy-siyosiy tuzilma sifatida himoya qilish vositasi, omili bo'lib xizmat qilib kelmoqda.

Siyosiy partiyalar haqidagi eng chuqur ilmiy-nazariy g'oyalarining mualliflaridan biri bo'lgan, frantsiyalik mashhur olim Moris Dyuverje o'zining nomdor asarida "Partiya bu – shunchaki, oddiygina umumiylik emas, balki umumiyliklarning yig'indisidir" [9, S 58] degan muhim fikrlarni bildirib o'tgan edi.

Yurtimizda zamonaviy davlat siyosatini yaratish va amalga oshirish jarayonlarini boshlanishi bilan demokratiyaning amal qilishi va rivojlanishi uchun yetakchi ravishda xizmat qilishi lozim bo'lgan siyosiy partiyalar faoliyati, tashkiliy tuzilmalari va umuman institut sifatidagi xususiyatlarini tamomila yangilash bo'yicha strategik choralar amalga oshirila boshladi. Bunday yondashuv uchun albatta ob'ektiv sabablar bor edi.

Birinchi, mamlakatimiz partiyaviy tizimining faoliyatida yurtimiz taraqqiyotining ayrim bosqichi davrida demokratik siyosiy partiyalar maqomiga to'la javob bera olmaydigan holatlar namoyon bo'la boshladi. Bunda siyosiy partiya bilan uning tarafdorlari o'rtasidagi muloqot va hamkorlikda uzilishlar kuzatila boshladi.

Ikkinchi, mamlakatimiz siyosiy partiyalari o'z dasturlari va ularni amalga oshirish jarayonlarida yurtimiz taraqqiyotining zamonaviy ehtiyojlari, dolzarb strategik maqsadlariga nisbatan hamohanglik, tashabbuskorlik holatlari, afsuski, kuchayib bormadi.

Buning natijasida odamlarning siyosiy partiyalarga bo'lgan ishonchi ham, siyosatning ob'ekti sifatidagi munosabatlar ham ancha susayib ketgan edi.

Uchinchidan, siyosiy partiyalarning siyosiy hokimiyat faoliyatida ishtiroki borasidagi erkin va qonuniy hamda yuqori siyosiy madaniyat darajasidagi raqobatini tashkil qilinishi borasida ham kamchilik, nuqson va xatoliklar mavjud edi.

Mamlakatimiz Prezidenti Oliy Majlis palatalari, siyosiy partiyalar hamda O'zbekiston ekologik harakati vakillari bilan uchrashuvdagi ma'ruzasida jamiyatimizda amalda bo'lgan siyosiy partiyalar faoliyatiga baxo berib, muhim konstruktiv va yangi g'oyalar ilgari surilgan edi. Xususan, yurtboshimiz aytganidek: "Bugungi kunda siyosiy partiyalar o'z elektoratiga bergan va'dalarini, saylov oldi dasturlarini to'la va samarali bajarmoqdalar, deb ayta olmaymiz. Ular xanuzgacha mamlakatimiz ijtimoiy siyosiy hayotida, fuqarolar ongida o'zining mustahkam o'rnini egallay olmadi.

Siyosiy partiyalar va Oliy Majlis Qonunchilik palatasi faoliyatida partiya fraktsiyalari tomonidan ustuvor maqsad va vazifalarni amalga oshirilishiga qaratilgan aniq taklif va tashabbuslar deyarli sezilmayapti" [7, B 542].

Mamlakatimizda yangi davlat siyosatining strategik chora-tadbirlari tizimida siyosiy partiyalar va ularning demokratik jarayonlarning ishtirokchisi sifatidagi mavqei va o'rnini har tomonlama rivojlantirish, ularning demokratiya instituti sifatidagi imkoniyatlarini kuchli darajada kengaytirilishiga yetakchi darajada e'tibor qaratila boshlandi. Bunda, O'zbekiston Respublikasining "Siyosiy partiyalar to'g'risida"gi Qonuniga 2018, 2019, 2020 va 2021-yillar davomida kiritilgan o'zgartirish va qo'shimchalar [8] siyosiy partiyalar faoliyat tartibi, siyosiy-huquqiy normativ asoslarining zamonaviylashuvida muhim ahamiyatga ega bo'ldi.

Ma'lumki, saylov instituti davlat siyosatini amalga oshirilishida o'ta muhim ahamiyatga egadir. Chunki demokratik saylov tizimini amal qilishi orqali siyosiy hokimiyatning qonuniyligi, jamiyat tomonidan beriladigan demokratik ishonch, e'tirof asoslanadi. Buning natijasida, mamlakat miqyosida davlat siyosatini amal qilishiga bevosita daxldor bo'lgan barcha institutlarning, birinchi navbatda davlat institutining legitimligi saylov huquqi va uni amalga oshirilishi tufayli ta'minlanadi.

Yu.Niskevich yozganidek, "ko'pchilik zamonaviy davlatlarda hokimiyatning ratsional-normativ legitimlashuvida saylov dominantlik qiluvchi institut sifatida xizmat qilmoqda" [10, S 63].

Tahlillardan yaqqol namayon bo'lmoqdaki, ratsional-normativ legitimlik asosi va yetakchi ravishda demokratiya printsiplarini saylov jarayonida izchil qo'llanishi yoki saylovlarning demokratik bazasi yuqoriligi sharoitida ta'minlanadi.

Mashhur olim F.Fukuyamaning eng nomdor politologik asarida aytib o'tilganidek, "zamonaviy dunyoda hokimiyatning yagona legitiimi manbai bu demokratiyadir" [11, S 141].

Mamlakatimizda davlat siyosatida demokratiyaning tayanch asosini o'zida mujassam etuvchi saylov institutining huquqiy-normativ, siyosiy-kontseptual asoslarini chuqur yangilash, uning demokratiyani olg'a yo'naltiruvchi mexanizmlarini yanada zamonaviylashtirish, imkoniyatlar ko'lamini keskin oshirish va rivojlantirishga jiddiy va yangi yondashuvlar zaminida ahamiyat qaratildi.

Bunda davlatimiz rahbari Shavkat Mirziyoyevning bevosita siyosiy g'oyalari va demokratik islohotlarni rivojlantirish uchun uning barcha tarkibiy asoslarini takomillashtirishga qaratilgan amaliy qarorlari asosida qabul qilingan va mamlakatimizda demokratik saylovni tashkil qilish va o'tkazish zaminlarini tamomila yangilashga xizmat qiluvchi Saylov kodeksining 2019-yilning 25-iyunidan kuchga kirishi muhim siyosiy voqelik bo'ldi.

Yakuniy qism. Xulosa o'rnida ta'kidlash mumkinki, dunyo mamlakatlarining demokratik taraqqiyot bo'yicha tajribasi shundan dalolat beradiki, jamiyatning eng asosiy instituti bo'lmish davlat o'z siyosatida natijadorlikka, avvalo, davr talablariga monand hamda jamiyat ehtiyojlaridan kelib chiquvchi samarali demokratik institutlarni yangi mexanizmlar bilan muntazam ravishda yangilab va takomillashtirib borish orqali erishishi mumkin.

Shu nuqtai nazardan kelib chiqib, ayniqsa so'nggi besh yil mobaynida mamlakatimizda davlat siyosatining demokratik asoslari har jabhada izchil yangilanib bormoqda. Bu borasida jamiyat hayotini yanada erkinlanlashtirish va davlat siyosatining shakllanishi va amalga oshirilishida jamoatchilik tashkilotlarining ishtirokini kengaytirish, demokratik institutlarining faoliyatini tashkil qilish tamoyillarini takomillashtirish uchun zarur bo'lgan muhim qadamlar tashlandi.

O'zbekiston Respublikasini yanada rivojlantirish bo'yicha Harakatlar strategiyasining qabul qilinishi bilan yurtimizda boshlangan zamonaviy davlatchilik siyosatini amalga oshirish jarayonlari bilan demokratiyaning amal qilishi va rivojlanishi uchun xizmat qilishi lozim bo'lgan jamoat tashkilotlari va siyosiy partiyalarning institutsional salohiyatini yuksaltirish bo'yicha strategik chora-tadbirlar amalga oshirila boshlandi.

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ПОРТРЕТЫ ПОЭТЕССЫ МАХЛАР-АЙИМ НОДИРАБЕГИМ (1792-1842 ГГ.), СОЗДАННЫЕ УЗБЕКСКИМИ ХУДОЖНИКАМИ XX ТОГО ВЕКА

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АННОТАЦИЯ:

В статье исследуются живописные портреты поэтессы Махлар-айим Нодирабегим, созданные узбекскими художниками XX-го века.

КЛЮЧЕВЫЕ СЛОВА: *Художники, портреты, цвет, творчество, история, поэзия, стихи, народ, Ферганская долина.*

XX-ASR O‘ZBEK RASSOMLARI TOMONIDAN YARATILGAN SHOIRA MOHLAR-OYIM NODIRABEGIM (1792-1842) PORTRETLARI

ANNOTATSIYA:

Maqolada XX asr o‘zbek rassomlari tomonidan yaratilgan shoir Mohlar-oyim Nodirabegimning tasviriy portretlari o‘rganilgan.

KALIT SO‘ZLAR: *Rassomlar, portretlar, rang, ijod, tarix, she’riyat, she’rlar, xalq, Farg‘ona vodiysi.*

PORTRAITS OF THE POETESS MAKHLAR-AYIM NODIRABEGIM (1792-1842), CREATED BY UZBEK ARTISTS OF THE TWENTIETH CENTURY

ANNOTATION:

The article examines the picturesque portraits of the poetess Makhlar-ayim Nodirabegim, created by Uzbek artists of the twentieth century.

KEYWORDS: *Artists, portraits, color, creativity, history, poetry, poetry, people, Fergana Valley.*

Эти страницы посвящены исследованию трёх портретов Махлар-айим Нодирабегим – знаменитой узбекской поэтессы, выполненных в технике масляной живописи. Она родилась 1792 году в семье Андижанского хана Рахманкул-бека. В юности получила хорошее образование, свободно владела как родным, так и персидским языком. Совсем юной её выдали замуж за

Кокандского правителя Умар-хана, который сам был хорошим поэтом и писал под псевдонимом Амири. Когда ей было 30 лет, умер её муж и на престол сел 14 летний сын Нодирабегим. Эта замечательная женщина и её сыновья Мухаммадали и Султан Махмуд были казнены в 1842 году бухарским ханом Насрулло, так как она отказалась выйти замуж, после смерти супруга за него и передать ему трон Кокандского ханства.

Кокандское ханство располагалось в Ферганской «Золотой долине» в Узбекистане. Во времена феодализма, в период расцвета ортодоксальной религии ислам, в Ферганской долине, с XVII века по XX век, жили и творили более 18ти поэтесс, известных в Средней Азии. Нодирабегим писала во многих жанрах поэзии, мастерски используя лучшие традиции творчество Лутфи, Навои, Хафиза, Физули и других. Она и её преподавательница Увайсий были наиболее любимыми и почитаемыми поэтессами в народе.

В целом, Ферганская долина, в древности называемая Парганой, была щедра на таланты. Далеко за её пределами, в Египте в IX веке жил и творил великий математик Ал-Фергани (известный на западе под именем Алфраганус). Правитель и поэт, воитель Мирзо Захириддин Мухаммад Бабур (1483-1530 гг.), он родился в городе Асхе. Видный представитель узбекской литературы, поэт и мыслитель – Боборахим Машраб (1657-1711 гг.), родился в городе Намангане. Именем литературоведа и поэта конца XIX-го века и начала XX-го века Мукуми, который родился в городе Коканде, назван музыкально-драматический театр в городе Ташкенте. Свои знаменитые стихи писал в изгнание в Кашгаре, поэт-демократ и просветитель Фуркат.

Возвращаясь к портретам Нодирабегим, созданными художниками Чингизом Ахмаровым, Азизой Маматовой и Арифом Муиновым, надо отметить, что все три портрета написаны художниками, глубоко почитавшими личность поэтессы и любившие её поэтическое наследие.

Портрет кисти Чингиза Ахмарова полнокровно отразил образ Нодирабегим. Художник написал портрет размером 100x100, на загрунтованном льняном холсте, темперными красками в 1976 году. Портрет является собственностью автора. Изысканный, общий, тёмно-сиреневый колорит с вкраплёнными светло-изумрудными и светло-жёлтыми всполохами цветов на халате Нодирабегим и на майолике на стене, в форме звёзд на фоне портрета, как бы предвещают трагический конец этой великой женщины. Чувствуется, что много грустных раздумий вложил мастер в этот портрет.

Головное украшение и серьги (уйгур балдак), халат из бекасама, узоры которого характерны только Ферганской долине, всё это создано руками народных мастеров и на них лежит отпечаток древних традиций местных

профессиональных школ прикладного искусства. Движения рук поэтессы на портрете выразительны, кисть левой руки лежит на кисти правой, они говорят о сосредоточенности мысли и в тоже время о волнение, которым охвачена эта прекрасная женщина.

Поиски образа Нодирабегим у художника Чингиза Ахмарова – мастера изобразительного искусства, были долгими (с 1970 года по 1976 год). Ещё 1970 году, он создал замечательный, погрудный портрет поэтессы, который хранится в Государственном музее искусств Узбекистана, где проявились основные черты её характера, перенесённые на портрет, созданный в 1976 году. Отрадно отметить, что многие прекрасные картины мастера хранятся именно в этом музее. Так Чингиз Ахмаров, этот большой мастер отдал дань уважения памяти знаменитой поэтессы Махлар-Айим Нодирабегим.

Творческий портрет поэтессы Нодирабегим, Маматова Азиза задумала в зрелом возрасте, будучи уже сложившимся художником. Портрет она писала почти пять лет, с небольшими перерывами, с 2000 года по 2005 год. Сама она считает портрет не завершённой. В поэтической среде города Коканда, в котором родилась в 1947 году художница, часто говорили о знаменитой поэтессе Нодирабегим.

Известные певцы исполняли песни на её стихи, народ Ферганской долины питает особую любовь к творчеству этой поэтессы и к личности самой Нодирабегим, за её духовную красоту, за преданность народу и патриотизм. Портрет написан на загрунтованном льняном холсте масляными красками. Он является собственностью автора. Портрет, кажется сотканным из холодных, серебристых тонов. Преобладают сине-зелёные цвета с примесью фиолетовых цветов.

Молодой месяц плывёт по сумеречному небу, лёгкий ветерок играет прядями волос женщины, колышет ветки сирени с тёмно-зелёной листвой. Поэтесса изображена в длинном, тёмно-голубом платье затканным серебряными узорами, платье плотно облегает её стан и стройные ноги. Она сидит в парке и рядом с ней, на ветке молодого деревца, пристроился тёмно-синий павлин – любимая птица на востоке. Голова павлина повернута к ней, он как бы вслушивается в её стихи. Взгляд Нодирабегим обращён к зрителю, она как будто предчувствует свою трагическую кончину, от чего у неё в глазах глубокая печаль, но в них нет страха. Эта талантливая и гордая женщина не могла принять унижительное предложение от врага и предпочла смерть. Вот уже двести лет по всей Ферганской долине читают и поют на ее стихи песни. Узбекский народ бережно хранит в своей памяти поэзию Нодирабегим.

В 2000-ном году художник Ариф Муинов, создал портрет Нодирабегим.

Портрет написан на загрунтованном льняном холсте масляными красками. На портрете, около яблони с золотистыми листьями, изображена молодая женщина в царском золотом, головном уборе, одетой в тёмно-вишнёвый халат, который украшен арабесками, вышитыми золотыми нитями по вороту и рукавам. Портрет хорош по цвету, как и все женские портреты, написанные этим художником. Он создан в тёплой, золотистой гамме и производит впечатление гармонии и света. В изящном жесте правой руки, поэтесса держит перо, а в левой руке у нее небольшая тетрадь с её стихами.

По-видимому, художнику хотелось запечатлеть в своей картине момент её вдохновения. Портрет Нодирабегим свидетельствует о художнике Ариффе Муинове, как о прекрасном знатоке женской психологии. Живопись художника в этом портрете обрела определённую цельность. «Романтические и этические начала, реалистические и метафорические приёмы часто объединяются в творчестве Арифа Муинова в единое целое». Мастер изобразительного искусства Ариф Муинов в своём портрете Нодирабегим в полную силу передал величие своей героини.

Портреты поэтессы Нодирабегим, созданные тремя художниками: Чингиз Ахмаровым, Азизой Маматовой и Арифом Муиновым, нельзя сравнивать по принципам – хуже или лучше, так как художники прошли различные этапы творчества, у них различный жизненный путь и они представители различных изобразительных школ. Чингиз Ахмаров, перед войной закончил Суриковский институт в Москве, Азиза Маматова с 1966 по 1973 год училась в художественном институте им. Репина в Ленинграде, а Ариф Муинов – представитель Ташкентской изобразительной школы.

У них различное мировоззрение, почерк, различные манеры письма. Их произведения свободны от какой-либо дидактики и привлекают, в созданных ими произведениях, достоверные, исторические исследования конкретной человеческой ситуации. Вместе с тем, авторам этих портретов, удалось такое исследование сочетать с широтой чувствования, восприятие атмосферы в целом, благодаря чему их портреты не являются наблюдениями частного характера.

В присутствия такого чувства времени, убеждает родственность пластических интонаций, проступающие сквозь все отличия индивидуальных, национальных манер этих художников. Она уловима в сложности живописной интерпретации образов, которая погружает зрителя в атмосферу серьёзной душевной работы, заставляя его переживать и красоту, и напряжённую диалектику реальности.

Этих художников объединяет глубокое уважение к поэтессе Нодирабегим и любовь к её творческому наследию. Что касается сопоставления этих

произведений, можно сказать, разве мы сравниваем Мадонну Литту, созданную Леонардо да Винчи с Мадонной Бенуа, написанную его младшим современником Рафаэлем Санти? Зритель просто получает эстетическое и этическое удовольствие, глядя на этих творения. Жизнь человеческого духа, его отношение с окружающим миром, во многих произведениях узбекских мастеров изобразительного искусства второй половины XX и начала XXI века, переносится в план общечеловеческий и вневременной.

Переживание и восприятие вполне реальных событий, оформляются в образах символического звучание – нечто сходное встречается в поэзии Алишера Навои, в росписи Сикстинской капеллы у Микеланджело Буонарроти, в симфониях Людвиг ван Бетховена, словом, во многих крупнейших явлениях мировой, художественной жизни различных времён.

Велико значение и влияние вышеприведённых произведений изобразительного искусства на духовное воспитание и развитие молодого поколения Узбекистана. Произведение мастеров изобразительного искусства противостоят безжизненному натурализму «Зыбкости, случайности и приблизительности». Многие мастера изобразительного искусства Узбекистана сложились, как художники музыкально-поэтического строя. Они мечтают о мире светлой гармонии и высоком ясном совершенстве. Создание портретов поэтессы Нодирабегим, художниками Узбекистана, подчинены именно этой благородной цели. И в конце хотелось бы привести слова поэтессы Нодирабегим. Она со своего времени оставила нам завет о светлом будущем: - *«Я мечтаю о том, как взойдёт солнце нашего счастья и наступит конец мраку темницы».*

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KORPUS ASOSIDA BOLALAR ASSOTSIATIV LUG‘ATINI TUZISH VA UNING ILMIIY, AMALIIY AHAMIYATI

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***Annotatsiya.** Ushbu maqola bolalar assotsiativ lug‘atini tuzish va uning ilmiy, amaliy ahamiyatini qamrab oladi. Maqolada korpus asosida bolalar assotsiativ lug‘atini tuzish hamda bolalarda yuzaga keladigan assotsiatsiyalarga alohida to‘xtalib psixolingvistik tahlil qilingan.*

***Kalit so‘zlar:** korpus, assotsiatsiya, stimul so‘z, javob reaksiyasi, eksperiment.*

СОСТАВ ДЕТСКОЙ АССОЦИАТИВНОЙ СЛОВАРИКИ НА ОСНОВЕ КОРПУСА И ЕГО НАУЧНО-ПРАКТИЧЕСКОЕ ЗНАЧЕНИЕ

***Аннотация.** В данной статье рассматривается создание детской ассоциативной лексики и ее научно-практическое значение. В статье рассматривается создание детской ассоциативной лексики на основе корпусного и психолингвистического анализа с особым упором на ассоциации, возникающие у детей.*

***Ключевые слова:** корпус, ассоциация, слово-стимул, ответная реакция, эксперимент.*

COMPOSITION OF CHILDREN’S ASSOCIATIVE VOCABULARY BASED ON CORPUS AND ITS SCIENTIFIC AND PRACTICAL SIGNIFICANCE

***Annotation.** This article covers the creation of children’s associative vocabulary and its scientific and practical significance. The article deals with the creation of children’s associative vocabulary based on the corpus and psycholinguistic analysis with special emphasis on the associations that occur in children.*

***Key words:** corpus, association, stimulus word, response reaction, experiment.*

Kirish. Assotsiativ lug‘at psixolingvistikada yangi shakldagi lug‘at hisoblanadi. Bunday lug‘atlar insonning lisoni, xotirasi, tasavvuri, so‘z boyligini ko‘rsatib beradi. Bu tipdagi lug‘atlar muayyan tilning lug‘at tarkibini tekshirish, til egalarining leksik zahirasi, xotirasi haqida ma‘lumotga ega bo‘lish, olam haqidagi tasavvurlari, bilimining tilda aks etish masalasini o‘rganish, tilni me‘yorlashtirish kabi maqsadlarni ko‘zda tutadi. Assotsiativ lug‘atlar til egalarining ijtimoiy-tarixiy xotirasi ichiga kirishga imkon beruvchi lug‘atlar hisoblanadi.

Ishning maqsadi va vazifalari. Mazkur ishning asosiy **maqsadi** bolalar assotsiativ lug‘atini korpus asosida tashkil qilish va uni psixolingvistik tahlil qilish.

Tadqiqot maqsadiga bog‘liq holda, mazkur ishda quyidagi **vazifalarni** ko‘rib chiqish belgilangan:

- Bolalar nutqiga doir assotsiativ lug‘atlar haqidagi ma‘lumotlarni to‘plash;
- Korpus asosida bolalar assotsiativ lug‘atini yaratish maqsadida tajriba o‘tkazish;
- O‘tkazilgan tajriba asosida bolalarga xos xususiyatlarni psixolingvistik tahlil qilish.

Yuqorida qayd etilgan vazifalarni o‘rganish maqsadida tajriba uchun 30 nafar sinaluvchi(46ta qiz bola, 40ta o‘g‘il bola), 80ta stimuly so‘z tanlab olindi. Tajriba asosida bolalar assotsiativ lug‘ati korpusda shakllantirildi.

Asosiy natijalar va ularning muhokamasi. Jahon tilshunosligida ilk “Study of association in Insanity” nomli assotsiativ lug‘at 1910-yilda ingliz olimlari X.G.Kent va A.J.Rozanov tomonidan tuzilgan. Bu lug‘at 18 yoshdan 87 yoshgacha bo‘lgan turli kasb egalarini qamrab olgan. Rus tilshunosligida 1977-yilda A.A.Leontyev tomonidan assotsiativ lug‘at yaratilgan. Tajriba 500 stimuly so‘zni o‘z ichiga oladi. O‘zbek tilida ilk assotsiativ lug‘at professor D.Lutfullayeva rahbarligida yaratilgan. Unda 100ta stimuly so‘z va unga javob bo‘lgan 42645ta so‘z bo‘lgan. Lug‘atning ahamiyatli jihati shundaki, unda yuqori chastotali so‘zlar emas, balki milliy-madaniy birliklar tanlab olingan. Assotsiativ tajribaning bog‘li usulidan qo‘llangan. Hozirgi kunda ushbu lug‘at antropotsentrik yo‘nalishlar bo‘yicha yaratilgan asosiy lug‘atlardan biridir. “Bolalar assotsiativ lug‘ati” o‘zbek tilida yaratilgan bolalar nutqi tadqiqi asosida yaratilgan. Ushbu lug‘at olimi Munavvara Qurbonova boshchiligida tuzilgan. Lug‘at erkin assotsiativ tajriba metodi asosida tuzildi. Stimuly sifatida 100 ta so‘z tanlab olindi.

Axborot-texnologiyalari rivojlanayotgan hozirgi zamonda assotsiativ tajribani korpus variatda yaratish va uni online tarzda tashkil qilish qulaylik yaratadi. Unda tajribani o‘tkazib, to‘plangan materiallarni qayta ishlash maxsus ishlab chiqilgan dasturiy ta‘minot orqali amalga oshiriladi. Korpus asosidagi assotsiativ eksperimenti og‘zaki va yozma tajribalarni yig‘ib vaqtni sezilarli darajada tejashga xizmat qiladi va bunda so‘rovnomalar tartibli ravishda saqlanadi. Bu esa olib borilayotgan tadqiqotning

samarali bo'lishini ta'minlaydi. Assotsiativ lug'atni tashkil qilish uchun dastlab ma'lum miqdordagi nutq egalarida yozma va og'zaki assotsiativ tajriba o'tkaziladi. Tajriba davomida yig'ilgan materiallar elektron holda stimulyer so'zning assotsiativ maydoni tuziladi. Javob reaksiyalari statistik tahlil qilinadi va ularning miqdori, qo'llanish chastotasi, turli javob reaksiyalari aniqlanadi.

“Bolalar assotsiativ lug'ati”ni yaratish uchun erkin assotsiativ tajriba metodining og'zaki va yozma turi tanlab olindi. Tajriba uchun so'rovnomalar maktab darsligi asosida tuzildi. Tajribada ishtirokchilar ismi-familiyasi, yoshi, jinsi, ta'lim olayotgan muaassasi kabi ma'lumotlar qayd etildi.

Lug'at statistikasi: 30 nafar sinaluvchi, 80ta stimulyer so'z, 2939ta javob reaksiyasi, 46ta qiz bola, 40ta og'il bola, yosh chegarasi 10-12 yosh.

Javob reaksiyalari qatorida sintaktik jihatdan so'z birikmasi va gap shaklidagi reaksiyalar miqdori salmoqli o'rinni egallagan bo'lib, so'z birikmalari asosan ot+sifat, sifat+ot, ot+fe'l qolipida. Gap shaklidagi reaksiyalar esa asosan, sodda yig'iq gaplardan iborat. Ba'zan sodda yoyiq hamda qo'shma gaplarni ham ko'rishimiz mumkin.

Ba'zi assotsiativ qatorida ularning uyadosh, sinonim yoki antonimlarini yozish kuzatilgan buni quyidagi jadvalda ko'ramiz.

Stimulyer so'z	Uyadoshlari	Sinonimlari	Antonimlari
Dangasa	7ta	-	1ta
Dumaloq	4ta	3ta	-
Gavhar	3ta	3ta	-
Daxshat	5ta	4ta	3ta
Olam	4ta	-	-
Duo	6ta	-	-
Imorat	3ta	-	-

Xulosa. Sinaluvchilar nutqi ustida o'tkazilgan assotsiativ tajriba natijalariga asosan, stimulyer so'zlarning mazmuni, ularning bolalar nutqida keng qo'llanilganiga ko'ra javob reaksiyalari bir-biridan farqli bo'ldi. Shuningdek, tajriba davomida bolalar nutqida individual xarakterga ega bo'lgan, so'z birikmasi va gap shaklidagi reaksiyalar ham kuzatildi. Ba'zi kuzatuvchilar so'zni bayon tarzida ham ifodalagan. Bolalarning lisoniy ongida hozir bo'lgan assotsiativ birliklarning xarakterli jihati shundaki, ular nutqida kattalardan farqli ravishda xayoliga kelgan ilk fikrni aytish kuzatiladi. Bu bolalardagi verbal assotsiatsiyaning o'ziga xos jihati sanaladi. Bolalarda asosan assotsiatsiya ko'ruv xotirasi bilan bog'liq. Shu sababli ham stimulyer so'zga aloqador bo'lmagan javoblar ham ko'p bo'lishi tabiiy.

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ERKIN VOHIDOVNING FALSAFIY SHE'RLARI TALQINI

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***Annotatsiya.** Ushbu maqolada O'zbekiston qahramoni, O'zbekiston xalq shoiri Erkin Vohidovning falsafiy g'azallari tahlil etiladi, badiiy obraz, badiiy unsurlarga tayangan holda ma'no nozikliklari tushuntiriladi. Ijodkor ijodiy laboratoriyasiga bir qadar kirgan holda she'rlaridagi mohiyat, asl mazmun ochiqatlanadi.*

***Kalit so'zlar.** Ijod, uslub, adabiyot, g'azal, badiiy obraz, badiiyat, so'z, falsafiylik, falsafa, tuyg'u.*

***Abstract.** In this article, the hero of Uzbekistan, the national poet of Uzbekistan Erkin Vahidov's philosophical ghazals are analyzed, subtleties of meaning are explained based on artistic image and artistic elements. Having entered the creative laboratory of the artist, the essence and original content of his poems is revealed.*

***Keywords.** Creativity, style, literature, ghazal, artistic image, artistry, word, philosophy, philosophy, feeling.*

Ijod- ilohiy jarayon. Ijodkor mana shu jarayonning shunchaki ishtirokchisi emas, balki uning tug'ilishiga doyalik qiladi, bu-muhim va zalvarlidir, yuki og'ir, bu "yuk"ni gardanda ko'tarib yurish mas'uliyati o'ta mashaqqatli bo'lish bilan bir qatorda sharafli ham! O'tgan asr she'riyatida o'zining poetik tafakkuri, takrorlanmas uslubi, ijod individualligi bilan she'r dunyosining "yuk"ini "ux" demay ortmoqlagan, yangiliklar, topilmalar bilan boyitgan lutf, o'zgacha nafas egalari talaygina edi. Har biri, albatta, bir olam. Ularning dunyosida milliy adabiyotimizning sarchashmalaridan qongan tarzda yangi buloqlar ko'z ochganini ko'rish haqiqiy so'z taftini his qiladigan, adabiy muhit daryosiga g'avvos kabi sho'ng'ib, hech bo'lmaganda "qirg'oqqa" bitta durga erishmasdan chiqmaydigan epchil, badiiyat shaydolarigagina nasib qiladi, desak adashmagan bo'lamiz. Yarq etgan chinakam iste'dodni ilg'ash qiyin emas, nazarimda. Yuksak iqtidor egasi olamining mohiyati nur taratadi(yarq etgani shundan), o'qirmanni ohangrabodek o'ziga tortadi, ushbu nur muzlagan qalblarni eritadi, tafakkurini yuksaltiradi, ma'naviy to'yintiradi. XX asr she'riyatida falsafiy, mutoyibaga, o'zining jiddiy ohanggiga ega bo'lgan shoir Erkin Vohidov ijodi ham benazir o'rin tutgan.

Umarali Normatov ta'kidlaganidek, uning she'rlarida, xususan, g'azallarida "biz faqat Vohidovning o'ziga xos shaklini yuzaga keltirgan hissiy ohangini, qalb sadosini, yurak tebranishlarini, o'ylash-fikrlash yo'sinini ko'ramiz". Bu o'zgachalik shoirning barcha, jumladan, "Tabassum", "Kuy avjida uzilmasin tor", "Hozirgi yoshlar", "Shoir-u she'r-u shuur", "Yaxshidir achchiq haqiqat", "O'zbekim" va boshqa shu kabi to'plamlarida uchratish mumkin. Yuqorida ta'kidlanganidek shoir g'azallari qatida yashiringan, ayrim o'rinlarda yaqqol ko'zga ko'rinadigan falsafiy fikr, faylasufona o'ylamlar kitobxonni qiynamaydi. Chunki ularda "bironta tushunarsiz so'z yo'q. Erkin Vohidov yosh paytlaridayoq taqlid davridan sakrab o'tib ketgan. Navoiyga ham, Mashrabga ham taqlid qilmadi. Ularga asir bo'lib ham qolmadi. O'sha mumtoz shoirlarning she'r san'ati sirlarini o'rgandi. O'rganganda ham qayta-qayta o'rgandi. Nihoyat o'z yo'lini topdi. She'r ham kuy, ham fikr, ham suvrat, ham tuyg'u. U yig'i, u faryod, u quvonch, u nur..."¹

Darhaqiqat, Erkin Vohidov g'azallari qatida umuminsoniy tuyg'ular tarannum etiladi, falsafiylik kasb etadi. Haqiqiy so'z zargari yanglig' ish ko'radi:

Aslida kim qarardi
 Yotganda xor surma,
 Bo'ldi aziz ko'ziga
 Surtganda yor surma.
 Ko'zda qaro na iz bul,
 Tun dog'idan asarmu,
 Mayxona kezdin-u yo
 Mastonavor surma.

Yor ko'ziga yetishmak
 Savdo ekan-ku dushvor.
 Yonib ko'mir bo'libdi
 Bechora zor surma.
 O'rtanma, kuyma ortiq
 Jismim qaro ekan deb,
 Ishq yo'lida qarolik
 Taqdirda bor, surma...²

Erkin Vohidov ijodida muhabbat mavzusi yetakchi o'rinlarda turadi. Yuqorida keltirilgan "surma" radifli g'azal ham shular jumlasidandir.

¹Said Ahmad. "Gulxan" jurnali, 2021 yil, 12-son

²E.Vohidov. Yoshlik devoni. G'afur G'ulom nashriyoti.-T.:1969

Mazmun- mohiyatini ilg'aganingizdek, ayollarning pardozi vositasi- surma g'azalda badiiy obraz darajasiga ko'tarilgan. Uning "xor, mastonavor, zor" epitetlari o'z o'rnida hech mubolag'asiz ishlatilgan. Ammo, o'ylab ko'ring-chi, shoir bir butun g'azalda surmani vasf qilmoqchimi, yoki...? Albatta, bu ayollarning pardozi kerakli vosita hisoblanganidek, yorning ta'rif-u tavsifini keltirish, oshiq holatini ifodalash uchun muhim robita bo'lgan! Aslida, she'rda ham ijodkor surmani emas mashuqasini kuylamoqchi. Axir buni sezish qiyin emas- agar yor uni mo'tabar qoshiga surmagani-da surma xor bo'lardi, bir kas-da qayrilib qaramasdi, ammo yor uzvida u aziz bo'ldi. Yor ko'zida ko'ringan u qarolik nedan edi, yoki tundagi dog'dan andoza oldimi yo mastonavor (telbadek) mayxona kevgani uchun o'ziga qarolikni yuqtirdimi? Yor ko'yiga yetishmoqlik shunchalik mushkulmiki, yonib ko'mir bo'lib, qaroligining shundandir, deya tahmin qiladi. Ijodiy qahramonning qalbi sevgidan pora-pora esa-da surmaga yupanch beradi: jismim qora ekan deya o'rtanib, kuyaverma, ishq yo'lida solik(yo'lovchi) bo'lib, yo'lga tushdingmi, tan olginki, qarolik ko'rishing hech shubhasizdir. Bu qadar go'zal tashbeh faqat Erkin Vohidgagina xosdir. Bu tasavvur ortida nafaqat faylasufona fikr, balki yangi fikrlarga ona bo'ladigan falsafa yotadi. Yana bir g'azalning ma'no nozikliklariga e'tibor qaratamiz:

Ahli she'r balki kitobim nazmi ishq deb ochadir,
Yo'q, kitobim sevgining devoniga debochadir.

Ko'zlaring orzusida tuzdim navo, zebo sanam,
Nastarin ko'z ochib aytsin, she'ri ham zebochadir.

Balki u zebocha ermas, Balki u bir g'unchadir,
Xusning oftobida ammo Kun sayin zeb ochadir.

Vox, ajab, nomingni aytsam Lol bo'lur til ham ko'ngil,
She'r ipi nogoh qalamning ignasidan qochadir...³

G'azal yana yor ta'rifiga bag'ishlangan. Ammo bu gal oshiq va mashuq o'rtasidagi dilxiralik, hajr, tushkunlik qalamga olinmagan, aksincha, yor portreti go'zal o'xshatishlar ila shoir qalami bilan, huddi rassomning mo'yqalami yordamida chizilgandek nafis ishlangan. Aytilayotganidek, she'r ahli shoir to'plamini balki ishq nazmi(tizma)si deb o'qishga tutinar, ammo bunday emas, bu sevgining devoniga bir zebocha xolos. Darhaqiqat, shoirning "Yoshlik Devoni"da muhabbat to'g'risida ko'p va xo'b kuylanadi.

³E.Vohidov. Yoshlik devoni. G'afur G'ulom nashriyoti.-T.:1969

Darhaqiqat, shoirning “Yoshlik Devoni”da muhabbat to‘g‘risida ko‘p va xo‘b kuylanadi. Endi shoir devonning yozilish sababini ochiqalaydi, “Ko‘zlaring orzusida tuzdim navo, zebo sanam, Nastarin ko‘z ochib aytsin, she‘ri ham zebochadir.”

Ijodkor yorining husnini ta‘riflashda davom etar ekan, nastarin ham ul mahbuba husnining porloq quyoshida kundan kunga chiroy ochayotganini, ko‘ngilga u haqida so‘ylab bersa, ham oshiq yuragi, ham tili lol bo‘lishini, ba‘zan esa “She‘r ipi nogoh qalamning ignasidan qochadir” deya takrorlanmas misralarni keltirib o‘tadi.

«Umrini oshiq hamisha o‘tkazur orzu bilan».

Oyning o‘n beshi qorong‘u, O‘n beshi yog‘du bilan.

Sevgida ko‘ksingga tomgan Ko‘z yoshingdan foyda yo‘q,
Ishq axir shunday olovki, o‘chmagay u suv bilan.

Zahmati ishq dard erursa Zahmati she‘rdur davo,
Chunki, og‘uning shifosi, Deydilar, og‘u bilan.

Barcha zahmat menga bo‘lsin, Mayli, doim men yashay,
Bu ajib totli azobu Bu shirin qayg‘u bilan.⁴

Erkin Vohidov g‘azallarida shunday misralar uchraydiki, ayrimlari xalq og‘zidan o‘g‘ziga o‘tib kelmoqda, maqollardan o‘rinli foydalangan ijodkorning mahorati uning ko‘plab g‘azallarida namoyon bo‘ladi: ”Oyning o‘n beshi qorong‘u, O‘n beshi yog‘du bilan” yoki “og‘uning shifosi, deydilar, og‘u bilan” kabi. Hech kimning yoziqlarida uchramaydigan orginal o‘xshatishlar, badiiy obrazlar, ramzlar shoir she‘riyatining naqadar ulug‘vor ekanligidan darak beradi. U deydi: “Sevding, jabr bo‘ldi, qalbing yondi, ko‘zing yoshlandi, ko‘zyoshing qalbingga tushdi, ammo bundan zarracha foyda yo‘q. Axir muhabbat shunday olovdirki, u suv bilan o‘chmaydi.”

Erkin Vohidov ijodiyotida muhabbat baland pardalarda kuylanadi, eng hayratlanarlisi, u kuylardagi “notalar” sizga tanish, begona emas, harqalay. Chunki, qalbingiz qachondir bir muddat bo‘lsa-da mana shu nota oqimiga tushib ko‘rgan-sevgan, sevilgan. Siz bilgan haqiqatlarni, g‘am-u tashvish, baxt-u shodlikni shoir siz eshitmagan ifodalar bilan ifodalaydi, shuning uchun bu badiiyat namunalarida “yashayotgan” hislar, tuyg‘ular sizga tanish-u, ammo badiiy unsurlar notanish. Ijodkor ijodiga yuzlansangiz, sinchiklab o‘rganib tahliliga tutinsangiz uning ham notanishligi qolmaydi siz uchun.

⁴E.Vohidov. Yoshlik devoni. G‘afur G‘ulom nashriyoti.-T.:1969

Barcha iste'dodning yozadigan qalami, hatto qalbidagi kechinmalar bir xillik kasb etishi mumkin, ammo yoziqlaridagi "nafaslar" har xil bo'lganidek Erkin Vohidovning uslubi ham takrorlanmasdir.

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PARODONT YALLIG‘LANISH KASALLIKLARIDA OG‘IZ BO‘SHLIG‘I MIKROBIOSENOZI

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ANNOTATSIYA

Yallig‘lanishli periodontal kasalliklarda og‘iz bo‘shlig‘ining mikrobiotsenozi o‘zgarishi mumkin. Periodontal kasallik tish atrofidagi to‘qimalarning yallig‘lanishi va nobud bo‘lishi bilan tavsiflanadi va uning rivojlanishida og‘iz mikrobiotalarining roli yaxshi tan olingan. Og‘iz bo‘shlig‘ida odatda turli xil mikroorganizmlar, jumladan bakteriyalar, zamburug‘lar, viruslar va boshqa mikroorganizmlar mavjud. Sog‘liqni saqlashda xo‘jayin va rezident mikrobiota o‘rtasida dinamik muvozanat mavjud, ammo periodontal kasalliklarda bu muvozanat buziladi.

Periodontal cho‘ntak, periodontal kasallikning o‘ziga xos belgisi bo‘lib, o‘ziga xos mikroorganizmlarning rivojlanishi uchun noyob muhitni ta‘minlaydi. Periodontal cho‘ntaklarda bakteriyalar, ayniqsa anaerob va gramm-manfiy turlar ustunlik qiladi. Bu organizmlarga Porphyromonas gingivalis, Tannerella forsythia va Treponema denticola kiradi, ular ko‘pincha "qizil kompleks" bakteriyalar deb ataladi va periodontal kasalliklar bilan kuchli bog‘liqdir. Bundan tashqari, Aggregatibacter actinomycetemcomitans va turli xil Prevotella va Fusobacterium turlari kabi boshqa bakteriyalar ham kasallik jarayonida ishtirok etadi.

Kalit so‘zlar: periodont, immunitet, mikroorganizmlar, etiologiya, patogenez.

ORAL CAVITY MICROBIOCENOSIS IN PERIODONTAL INFLAMMATORY DISEASES

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ABSTRACT

In inflammatory periodontal disease, the microbiocenosis of the oral cavity can be altered. Periodontal disease is characterized by inflammation and tissue destruction around the teeth, and the role of oral microbiota in its development and progression is

well recognized. The oral cavity normally harbors a diverse microbiota, including bacteria, fungi, viruses, and other microorganisms. In health, a dynamic balance exists between the host and the resident microbiota, but in periodontal disease, this balance is disrupted.

The periodontal pocket, a hallmark of periodontal disease, provides a unique environment for specific microorganisms to thrive. Bacteria, particularly anaerobic and gram-negative species, predominate in periodontal pockets. These organisms include *Porphyromonas gingivalis*, *Tannerella forsythia*, and *Treponema denticola*, which are often referred to as the "red complex" bacteria and are strongly associated with periodontal disease. Additionally, other bacteria such as *Aggregatibacter actinomycetemcomitans* and various species of *Prevotella* and *Fusobacterium* are also implicated in the disease process.

Key words: periodontal, immunity, microorganisms, etiology, pathogenesis.

KIRISH.

Yallig‘lanishli periodontal kasalliklarning yuqori tarqalishi yetarli darajada tashxis qo‘yilmaganligi bilan bog‘liq. Yallig‘lanishli periodontal kasalliklarni keltirib chiqaruvchi mikroblar davolashga ayniqsa chidamli bo‘lib, bu muammoning zamonaviy stomatologiyadagi ahamiyati va dolzarbligini belgilaydi [6].

AXBOROTLAR TAHLILI VA METODOLOGIYA.

Periodontal cho‘ntaklarda ko‘plab mikroorganizmlar yashaydi. Ulardan ba‘zilari periodontopatogen bo‘lib, gingivit va periodontitga olib kelishi mumkin. O‘rganilayotgan biotsenozdagi turli periodontopatogen mikroblarning nisbatini miqdoriy baholash diagnostikaning muhim vositasi hisoblanadi. Biroq, periodontal cho‘ntak mikrobiotsenozining eng patogen vakillarining normal sharoitda va periodontitda namoyon bo‘lish profili hali ham kam o‘rganilgan [1,2,3,4,6].

Mikrobiologik tadqiqot davomida biz 61 bemorda periodontal sulkus mikroflorasining tarkibini o‘rgandik. Namuna olish periodontal sulkusdan steril disklar yordamida 2 daqiqalik kontaktli ta’sirdan so‘ng amalga oshirildi, so‘ngra ular 1 ml shakar buloniga solingan probirkalarga joylashtirildi, undan 0,1 ml ozuqaviy muhitga sepildi. Termostatda ($t=37^{\circ}\text{C}$) inkubatsiya qilingandan keyin 24 soat ichida plastinkada o‘sgan koloniyalar soni 1 sm² maydonga qayta hisoblab chiqildi.

Mikrobiotsenozni o‘rganishda standart ozuqaviy muhitdan foydalanilgan: - qonli agar - umumiy mikrobial ifloslanishni hisoblash uchun; – sariq-tuzli agar – stafilokokklar uchun; – shakar bulyoni – streptokokklar uchun; – o‘simlik-sut muhiti – laktobakteriyalar uchun; - Saburo muhiti - *Candida* uchun. An’anaviy ozuqaviy muhitdagi ekinlar termostatda 2 kun, Saburo muhitida taxminan 3 kun davomida inkubatsiya qilindi. Anaerob mikroflorani o‘rganish uchun o‘rganilgan namunalar

bilan shishalar Gas-Pak tizimining mikroanaerostatiga joylashtirildi. Tayyorlangandan so'ng, bir qator ketma-ket suyultirishlar, ulardan 0,1 ml sinov materiali tegishli oziqlantiruvchi muhitga sepildi va 37 ° C haroratda termostatda o'stirildi.

Mikroorganizmlarning fenotipik identifikatsiyasi glyukoza fermentatsiyasi, sitoxrom oksidaza, harakatlanishi, lizin va ornitin dekarboksilaza, karbamid gidrolizi, arginin dehidralaza, laktoza fermentatsiyasi, mannitol, saxaroza, sorbitol, inositol, ramnoz, ksiloza, maltoza, arabinoza, Simmons sitrat va natriy malonatida o'sishi, gaz, indol, vodorod sulfidi, fenilalanin deaminaza hosil bo'lishi bilan glyukoza parchalanishini o'rganish asosida belgining raqamli kodlanishi yordamida amalga oshirildi.

Og'iz bo'shlig'ining majburiy anaerob mikroorganizmlarini aniqlash uchun klassik bakteriologik usullar bilan parallel ravishda real vaqt rejimida polimeraza zanjiri reaktsiyasi (PCR) usuli qo'llanildi. Biomaterial namunalari 0,5-10 mm o'lchamdagi steril qog'oz chiziqlar yordamida olindi va natijada olingan material bioproba uchun transport vositasi bo'lgan naychalarga joylashtirildi. Reagentlar to'plamidan foydalangan holda 5 ta periodontopatogen mikroorganizmlar aniqlandi (*Actinobacillus actinomycetemcomitans*, *Porphyromonas gingivalis*, *Prevotella intermedia*, *Tannerella forsythensis* (*Bacteroides forsythus*), *Treponema denticola*) va *Candida albicans*).

NATIJALAR.

Bemorlardan olingan tish blyashka namunalarini mikrobiologik o'rganish ma'lumotlarini tahlil qilish, og'iz bo'shlig'i mikroflorasining miqdoriy va sifat tarkibiga qarab, 90% hollarda oddiy kokkal floraga mansub vakillarning mavjudligini aniqlashga imkon berdi. Bu shtammlarning 78,3% ni tashkil etdi. Bemorlarda periodontal to'qimalarning klinik holatidan qat'i nazar, tish blyashka namunalarini o'stirishda 57,4% hollarda diplokokklar, 13,1% hollarda kokklar koloniyalari va 37,2% hollarda kokklarning aktinomitsetalar bilan assotsiatsiyasi aniqlangan.

Avtohton floraga mansub mikroorganizmlar vakillari orasida norezident mikroflora vakillari kam miqdorda – tillarang stafilokokklar va piogen streptokokklar, enterokokklar aniqlangan.

MUHOKAMA.

Shunday qilib, mikrobiologik tadqiqotlar natijasida tish-gingival suyuqlik miqdori o'rganilgan 61 ta periodontal cho'ntaklarda aerob mikrofloraning quyidagi assotsiatsiyasi aniqlandi: 17 – tillarang stafilokok, 21 - stafilokokk epidermidis, 9 - *Candida albis.*, 4 - *Staphylococcus anhaemolyticus*, 10 da - *Streptococcus spp.*

Shunday qilib, periodontal to'qimalar kasalliklari bo'lgan bemorlarda tekshirilganda sog'lomlar bilan solishtirilganda 5 turdagi aerob mikroflora assotsiatsiyasi mavjudligi aniqlandi, bu shilliq qavatning saprofit va shartli patogen

flora bilan sezilarli kolonizatsiyasini ko'rsatadi. PZR yordamida olingan ma'lumotlarni tahlil qilganda, o'rganilgan tish blyashka namunalarida va periodontal sulkusdan olingan namunalarda *P. gingivalis* monoinfeksiyasi aniqlangan, u faqat 21 bemorda kuzatilgan, bu 34,4% hollarda; 18 bemorda (29,5% hollarda), mikroorganizmlarning ikki turdagi periodontopatogen turlari (*Treponema denticola* + *B. forsythus*) assotsiatsiyasi, 22 bemorda periodontopatogen turlarning uchta vakili (*P. gingivalis* + *Treponema denticola* + *B. forsythus*) kombinatsiyalangan vagonlari aniqlangan., bu 36,0% holatlarni tashkil etdi.

Og'irligiga ko'ra , mikrobiologik usullar yordamida olingan ma'lumotlarni tahlil qilish klinik guruhlarini kichik guruhlariga bo'lish imkonini berdi:

I guruh - (yengil og'irlikdagi 15 bemor). Jismoniy shaxslarning klinik kichik guruhlarida tahlil paytida yengil periodontal kasallik tashxisi qo'yilgan, 46,6% da 1-2-3 komponentli assotsiatsiyalar aniqlangan; 33,3%; 20%. Bemorlarning 46,6% (7) *P. gingivalis* monoinfeksiyasiga ega; 33,3% (5) da ikkita turning assotsiatsiyasi aniqlangan: *Treponema denticola* + *B. forsythus*, 3 tasida 20% hollarda - uchta turdagi assotsiatsiyalar: *P. gingivalis* + *Treponema denticola* + *B. forsythus*.

II guruh - 22 (36%). Kasallikning o'rtacha og'irligi bo'lgan bemorlarda tish plastinkasi namunalaridan ajratilgan markerlar tuzilishini tahlil qilganda, *P. gingivalis* belgilari eng ko'p (26,3%), 13,8% hollarda - *B. forsythus* va *T. dentikola*. Mikroorganizmlar 57,1% hollarda, asosan, uchta tur, 14,3% ikkita, 28,6% to'rt turdagi assotsiatsiyalar bilan ifodalangan.

III guruh - 24 (39,3%). Og'iz bo'shlig'i shilliq qavatining og'ir kasalliklari bo'lgan klinik kichik guruhlarda 21,3% da 1-2 komponentli assotsiatsiyalar, 2-3 va 3-4 komponentlar - 46,1% hollarda, 32,6% hollarda 4-5 komponentlar aniqlandi. Gingival cho'ntakda topilgan mikroblar assotsiatsiyalarning murakkabligi surunkali periodontal kasalliklarning rivojlanishiga va kuchayishiga yordam berdi.

XULOSA.

Mikrobiologik tadqiqot davomida biz 61 bemorda tish-gingival bo'shliq mikroflorasining tarkibini o'rgandik. O'ziga xos mikrofloraning miqdoriy va tur tarkibi har doim ham kasallikning klinik ko'rinishi haqidagi ma'lumotlarga mos kelmasligi aniqlandi. Mikroflorani an'anaviy bakteriologik tadqiqot usuli yordamida baholash mumkin, ammo molekulyar genetik usul parodontopatogen mikroorganizmlarning darajasi va birlashishini to'liq baholashning eng samarali usuli hisoblanadi.

PZR usuli yordamida olingan ma'lumotlarni tahlil qilish asosida kasallikning og'irligiga qarab, bemorlarda periodontopatogen turlarni tashilishining chastotasi periodontal to'qimalarda yallig'lanish jarayoni makroorganizmning umumiy qarshiligining pasayishi fonida prognostik ekanligi aniqlandi.

Surunkali yallig‘lanish jarayonining fonida patogen mikrofloraning rivojlanishi uchun qulay sharoitlar yaratiladi, bu esa o‘z navbatida periodontal to‘qimalarda yallig‘lanish jarayonlarini kuchayishiga olib keladi. Mikrobiologik tadqiqotlar natijalari kasallikning turli og‘irligi bo‘lgan bemorlarda periodontal to‘qimalar kasalliklarini davolashda nafaqat kasallikning og‘irligini, balki mikrofloraning tur tarkibini ham hisobga olish kerak, deb hisoblashga asos beradi. Ushbu yondashuv og‘iz mikroflorasining ularga nisbatan sezgirligini oldindan aniqlagan holda, kompleks davolashda antibakterial preparatlarni tanlashda to‘g‘ri va oqilona hisoblanadi.

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ФОРМИРОВАНИЕ ЗДОРОВЬЕСБЕРЕГАЮЩЕЙ КОМПЕТЕНТНОСТИ У БУДУЩИХ ПЕДАГОГОВ

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***Аннотация.** В статье рассматриваются вопросы теоретические аспекты формирования здоровьесберегающей компетентности у будущих педагогов.*

***Ключевые слова:** здоровьесбережение, компетентность, педагоги, студенты.*

***Annotation.** The article discusses the theoretical aspects of the formation of health-preserving competence among future teachers.*

***Key words:** health care, competence, teachers, students.*

Как известно одной из важнейших компетенций в области педагогической деятельности является готовность учителя к обеспечению охраны жизни и здоровья обучающихся, что требует необходимости обращения особого внимания на преподавание в педвузах дисциплин, лежащих в основе здоровьесберегающих технологий обучения.

Великий русский педагог К.Д.Ушинский обосновал важность для педагога знание таких наук как анатомия, физиология и школьная гигиена, в ходе преподавания, которых закладываются основные требования здоровьесберегающих знаний современного учителя, включающие следующие аспекты:

- обеспечение охраны жизни и здоровья обучающихся на протяжении всего образовательного процесса;
- научно теоретические знания основы педагогики, педагогической этики, детской, возрастной и социальной психологии, возрастной физиологии, школьной гигиены;
- неукоснительное выполнение требований к оснащению и оборудованию учебных кабинетов и подсобных помещений;

- соблюдения правил и нормы охраны труда, а также техники безопасности;

- знакомство с основными направлениями и перспектив развития образования и педагогической науки.

Вместе с тем возрастает роль классного руководителя, обязанного содействовать созданию благоприятных условий для индивидуального развития и нравственного формирования личности обучающихся, изучать их склонности, интересы, создавать для каждого благоприятную среду и морально-психологический климат. Совместно с медицинским работником классный руководитель должен обеспечивать сохранение и укрепление здоровья обучающихся, вести активную пропаганду здорового образа жизни, проводить мероприятия, способствующие психофизическому развитию детей и подростков, проводить работу по профилактике отклоняющегося поведения, вредных привычек, изучать семейные обстоятельства и жилищно-бытовые условия учащихся [1].

Анализ многочисленных научных исследований, медицинские обследования, представляет возможность считать, утверждать, что наблюдается заметное снижение уровня здоровья детей и подростков. Отмечено, что количество здоровых детей за период обучения в школах уменьшается практически в четыре раза, при этом дети, начинающие обучение в школе, уже имеют сниженный потенциал здоровья, обусловленный хроническими заболеваниями и функциональными нарушениями. Дело в том, что при поступлении в школу значительно увеличивается поток информации и нервно-эмоциональное напряжение, усиливается нагрузка на зрительный анализатор, опорно-двигательный аппарат. За период обучения в 5 раз увеличивается частота патологий зрения, в 3 раза - пищеварения, в 5 раз чаще встречаются нарушения осанки, в 4 раза - нервно-психические расстройства. Следует отметить что, профессионализм учителя сегодня определяется не только способностью достигать высокого педагогического результата, но и умением строить свою профессиональную деятельность с позиций здоровьесбережения всех участников образовательного процесса, что требует при подготовке педагогических кадров усиления аспектов гигиенического образования будущих учителей с тем, чтобы они, обладая необходимыми знаниями и умениями, непосредственно участвовали в создании оптимально благоприятных условий обучения учащихся. Исследователями накоплен определенный опыт в формировании здоровьесберегающей компетенции будущих учителей на всех этапах подготовки педагогических кадров на первом году обучения в рамках курса «Возрастная анатомия и физиология» студенты получают знания о

функциональных возможностях организма ребенка на каждом возрастном этапе развития, знакомятся с механизмами приспособительных реакций к различным видам деятельности, с гигиеническими требованиями к организации образовательного процесса [2].

Современные дидактические требования к созданию условий для сохранения психического и физического здоровья, обеспечения эмоционального благополучия обучающихся, формирование мотивации к здоровому образу жизни являются одними из приоритетных направлений. Этому способствует необходимость формирования здоровьесберегающей компетентности педагогов, которая представляет возможность сохранить здоровье обучающихся при высокой результативности обучения. Решения преодоления проблемы, связанной с несформированностью у педагогических работников компетентности в вопросах здоровьесбережения, требует комплексного решения, включающего создание организационно-педагогических условий, обновление содержания, форм и методов работы с педагогами, взаимодействие с организациями и учреждениями здравоохранения, спорта, культуры, совершенствование системы знаний педагогов в области здоровьесбережения [3].

По мнению исследователя В. Д. Шадрикова, компетентность - это новообразование субъекта деятельности, формирующееся в процессе профессиональной подготовки, представляющее собой системное проявление знаний, умений, способностей и личностных качеств, позволяющее успешно решать функциональные задачи, составляющие сущность профессиональной деятельности. При этом автор рассматривает компетенции как опредмеченные в деятельности компетентности работника круг вопросов, в которых кто-нибудь хорошо осведомлен, круг чьих-нибудь полномочий, прав, и относя здоровьесберегающую компетенция к обязательным профессиональным компетенциям. Взаимосвязь ее личностного (ответственное отношение к собственному здоровью) и профессионального аспектов (осознание ценности здоровья подрастающего поколения, всех субъектов образовательного процесса) позволяет рассматривать ее как универсальную компетенцию и ориентироваться на здоровьесбережение всех субъектов образовательного процесса без ограничений рамками учебно-предметной деятельности [4].

Согласно данным Е.А. Шатровой, здоровьесберегающая компетентность педагога - это интегральное качество личности, которое проявляется в способности и готовности к здоровьесберегающей деятельности в образовательном процессе, основанной на интеграции знаний и опыта. Здоровьесберегающая компетентность педагога не является застывшим

понятием, и определенная конкретная ситуация требует определенного подбора способностей, качеств личности, готовности педагога к здоровьесберегающей деятельности.

По мнению автора, здоровьесберегающая компетентность педагога включает в себя следующие компоненты:

- когнитивный, который представлен системой знаний о закономерностях сохранения и развития здоровья, а также стремления к самообразованию в вопросах здоровьесбережения;

- ценностно-мотивационный, который проявляется в интересе и потребностях педагога к ведению здорового образа жизни, внедрению здоровьесберегающих технологий в образовательный процесс, формированию навыков здорового образа жизни своих обучающихся;

- операционально-технологический, который проявляется во владении поведенческими моделями здорового образа жизни и здоровьесберегающими технологиями [5].

Заслуживает внимания, разработанная М.К.Еливаровой модель, представляющая собой педагогическую систему, включающую следующие взаимосвязанные компоненты:

- целевой, который заключается в целеполагании каждого этапа формирования здоровьесберегающей компетентности педагогов;

- теоретико-методологический, связанный с обоснованием методологических подходов и теоретических оснований организации процесса формирования здоровьесберегающей компетентности педагога, с принципами здоровьесберегающей педагогики. Здоровьесберегающая педагогическая деятельность должна строиться на основе определенных характерных для нее принципов, которые связаны со всеми компонентами педагогического процесса (целевым, мотивационным, содержательным, операционным, аналитико-результативным). Принципы здоровьесберегающей педагогики - это те основные требования, которые должны предъявляться содержанию, формам, методам деятельности по сохранению и укреплению здоровья в образовательных учреждениях;

- организационно-исполнительный компонент, представленный следующим блоком организационно-педагогических условий: дидактические, определяющие содержание образования; технологические, включающие комплекс форм, методов, средств и технологий обучения, позволяющих получить соответствующий результат образования; методические представлены методическими рекомендациями и учебными пособиями для педагогов по здоровьесбережению;

- оценочно-результативный компонент, содержащий критерии сформированности здоровьесберегающей компетентности педагога (мотивированность к здоровьесберегающей деятельности, готовность и способность к овладению теоретическими аспектами здоровьесбережения, активность реализации полученных знаний по здоровьесбережению на практике, способность проектирования здоровьесберегающих моделей поведения, оценка и регуляция собственного и состояния других людей).

Все указанные компоненты модели взаимосвязаны между собой, несут определенную смысловую нагрузку и работают на конечный результат - формирование у педагога здоровьесберегающей компетентности[6].

Необходимо отметить, что структурно-функциональная модель формирования здоровьесберегающей компетентности педагогов представляет практическую ценность в рамках данного исследования, поскольку позволяет:

- определить методологические подходы, содержание деятельности педагога по выявлению ценностей, потребностей, мотивов здоровьесберегающей деятельности; сформировать знания, необходимые для данного вида деятельности;

- создать условия для практической отработки здоровьесберегающих умений и навыков и развития необходимых качеств личности педагога;

- подобрать комплекс форм, методов, технологий, средств, которые необходимы для формирования здоровьесберегающей компетентности педагогов [7].

Таким образом, в повышении профессиональной компетентности педагогических работников одним из важных приоритетных направлений деятельности в сфере повышений качества образования является формирование у них здоровьесберегающей компетентности.

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TA'LIM TIZIMIDA ERKINLIKNING AHAMIYATI: O'ZBEK VA FIN TA'LIM TIZIMI ASOSIDA

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***Kalit so'zlar:** Oliy va maktab ta'lim tizimi, "Fin maktabi" misoli, Milliy ta'lim tizimidagi kamchiliklar va ularga potensial yechimlar, ta'limda erkinlik ahamiyati, individual ta'lim prinsipi, har bir individning o'ziga xosligi, potensial takliflar.*

Kirish: So'nggi o'n yilliklar davomida qilingan izlanishlar va amaliy sinovlar natijasida shu ma'lum bo'ldiki, ta'limda ham ta'lim oluvchi va ham ta'lim beruvchi uchun erkinlik berish muvaffaqiyatli ta'lim tizimi uchun fundamental vosita bo'lib xizmat qiladi. Chunki, bu jarayonda o'quvchilarning shaxsiy individual qobiliyatlari, fikrlashi va ijodiy potentsialini rivojlantirishga imkoniyat beradi. Ta'limda erkinlikning ahamiyatiga misol sifatida Finlyandiya mamlakatini ko'rsatish mumkin va bu maqolada shu yo'nalishda qilingan izlanishlarimiz, ularning asosi, resursi va taqribiy natijalarini chiqaramiz.

ASOSIY MATN

Avvalo bizda savol tug'iladi: ta'limda erkinlik o'zi nimani bildiradi? Bu savolga javob har xil tizimlarda turlicha tushunilib, konsepsiyaga har xil qaraladi. Tarixdan ma'lumki, hammaga teng darajada va teng imkoniyatlar asosida o'qish imkoni berish uchun, ta'lim tizimi yaxlit qolipga solinishi kerak edi: ya'ni davlat tekin ta'lim beradigan maktablar ham yuqori, ham quyi qatlam bolalariga o'qish uchun teng imkoniyatlar yaratdi va qariyb oxirgi bir asr davomida shu usul eng optimal variant sifatida qaraldi va ko'plab natijalarga erishildi. Ammo so'nggi o'n yilliklarda yana bir muammo bo'y ko'rsatyaptiki, maktablarning haddan tashqari tizimlashuvi kuchli qobiliyatli bolalarning ta'limda zerikishiga va sekin tezlikda o'rganuvchi bolalarni esa aksincha ulgura olmay, o'qish davomida ruhiy va psixologik qiynalishiga olib keladi. Aynan shu sababli, asr boshidan beri turli davlatlar va turli ta'lim muassasalarida bu muammoni hal qilish uchun har xil tajriba va izlanishlar amalga oshirilib, bulardan Finn ta'lim tizimi eng optimali sifatida zamonamizning eng yaxshi ta'lim tizimi sifatida qaralmoqda.

Finlyandiya ta'limda erkinlik prinsiplarini samarali foydalanuvchi eng yangi ta'lim tizimi bilan mashhur. Ushbu mamlakatda o'quvchilar o'zlarini qiziqtiradigan fanlarni tanlash va o'zlarining talablariga mos ta'lim tezligini tanlash imkoniyatiga ega. Ushbu erkinlik har bir o'quvchining o'zini ta'lim jarayonida topishiga, o'zining kuchli va zaif tomonlari va qiziqtiradigan joylari rivojlantirishiga imkon beradi. O'quvchilar bilan bir qatorda, Finlyandiya ta'lim tizimi uchun asosiy elementlardan birini muallimlarga ishonish tashkil etadi. Muallimlar o'quv usullarini tanlash va o'quvchilarning baholashini o'zlarining erkinliklarida qolgan muddatda bajarish imkoniyatiga ega. Bu ularning har bir o'quvchiga alohida yondashilgan, uning xususiyatlari hisobga olingan individual yondashuvlar yaratishiga imkon beradi. Finlyandiya ham o'quvchilarning o'zlarining mustaqil fikrlash va tanqidiy fikrlash ko'nikmalarini rivojlantirishga e'tibor qaratadi. Bu ularning faqat o'qishlarida emas, balki kelajakda o'zlarining mustaqil hayot va karyerasiga tayyorgarlik qilishlariga yordam beradi. Finlyandiyadagi ta'limda erkinlik, faqatgina yaxshi o'quvga yordam berish emas, balki faol, mustaqil va mas'ul fuqarolarni shakllantiradi. Finlyandiya tajribasi ko'rsatadiki, erkin va hamkor ta'lim tizimi shaxsiylikni rivojlantirish va zamonaviy dunyo sharoitlariga muvofiq muvaffaqiyatli moslashishga yordam beradi.

Aynan Finn ta'lim tizimi elementlariga to'xtaladigan bo'lsak, Finlyandiya ta'lim tizimi dunyoda eng yaxshi sifatga ega bo'lib, unda o'quvchilarga erkinlik va qisqa muddatli ta'lim tezligi tanlash imkoniyati beriladi. Bu tizimda o'quvchilar o'zlariga qanday qilib o'rganishlari, qanday fanlar bilan shug'ullanishlari va qanday muddatda o'rganishlari haqida o'zlarining o'zini tanlashlari mumkin. Bu esa ularning o'zlarini rivojlantirish va o'z fikrlarini ifodalashlari uchun muhimdir.

Bir necha yillik ta'lim davomiyligi davomida, o'quvchilarning o'zlashtirishlari va o'zlarini rivojlantirishlari uchun xohlagan qo'shimcha ta'lim turini tanlashi mumkin. Bu esa ularning qiziqishlarini va istaklarini qondirishlari uchun imkoniyat yaratadi va ularni mustaqil o'rganishlari va rivojlantirishlari uchun ilhomlantiradi. Finlyandiya ta'lim tizimida har bir o'quvchi o'zining o'ziga xos yo'nalishda o'rganish va rivojlantirish uchun mas'uliyatga ega hisoblanadi. Bu esa ularning o'zlarini rivojlantirishlari va o'zlashtirishlari uchun muhit yaratadi va ularning o'zlarining o'ziga xos yo'nalishda o'rganishlarini ta'lim jarayonida osonlashtiradi.

Finlyandiya ta'lim tizimida o'quvchilar o'zlarining o'zlashtirishlarini rivojlantirish uchun muhim hisoblanadigan birinchi bosqichda boshqa mamlakatlarga nisbatan yuqori darajada erkinlik beriladi. Bu esa ularning o'zlarini o'rganishlarini va rivojlantirishlarini o'zlashtirishlari uchun yaxshi imkoniyat yaratadi va ularning o'zgaruvchan dunyoda o'zlarini o'zlariga yaxshi ta'sir qoldirishlarini ta'minlaydi.

Shu o'rinda, Finlyandiya va O'zbekistonning ta'lim tizimlari tuzilishi, falsafa va natijalari jihatdan markaziy farqlari va o'xshashliklariga to'xtalamiz. Birinchi bo'lib, Finlandiya ta'lim tizimi o'quvchilarga yo'naltirilgan, boshqaruvchi yondashuv, individual ta'lim va barcha o'quvchilar uchun teng imkoniyatlar asosida tanlashi bilan mashhurligini aytsak bo'ladi.. Tizim, ijodiy potentsial, tanqidiy fikrlash va hayot davomida o'rganish qobiliyatlarini rivojlantirishga yo'naltirilgani bu tizimning eng asosiy o'ziga xosligi va yutuq'I hisoblanadi. Ya'ni, bu tizimda qilingan har bir yangilik avvalo o'quvchilar nuqtai nazaridan o'rganib chiqiladi va keyin amalga tatbiq qilinadi. O'zbekiston ta'lim tizimi esa uslubiy ravishda an'anaviy bo'lib, akademik yutuqlar va bilim olishga e'tibor qaratadi. O'zbekistonda tizimda qilingan oxirgi islohotlar va o'zgarishlar, tizimni yanada rivojlantirish va tanqidiy fikrlashni rivojlantirishga yo'naltirilgan.

Tuzilma va dasturlar nuqtayi nazaridan, Finlandiyada o'quvchilar o'zlariga yoqqan dasturlarda, amaliy ko'nikmalar va loyihalar asosida ta'lim olishadi. Dastur, o'quvchilarning talablariga va qiziqtirishlariga javob berish uchun mo'ljallangan. O'zbekistonda esa dasturlar ko'proq tartiblangan va markaziyashtirilgan, matematika, tabiiy fanlar, tillar va adabiyot kabi asosiy fanlarga e'tibor beriladi. Dasturlarni turli ko'rsatkichlar va o'qitish usullari bilan yanada ko'paytirishga harakat qilingan, lekin hali ham an'anaviy fanlar va o'qitish usullari ahamiyatini saqlab qolgan.

Keyingi asosiy farq o'qitish jarayoni va umumiy metodologiyada ko'zga tashlanadi. Finlandiyada o'qituvchilarga o'zlarining o'qitish usullarini tanlashda yuqori darajada ozodlik beriladi. Ular, innovatsion o'qitish usullaridan foydalanish, o'quvchilarni qatnashishni yaxshilash va individual o'qitishga e'tibor qaratishlari tavsiya etiladi. O'zbekistonda esa o'qitishda an'anaviy usullar ko'proq ishlatiladi, o'qitish jarayonida muallimning boshqaruviga ko'ra, yodlash va standartlashtirilgan testlar muhim ahamiyatga ega. O'qitish usullarini modernizatsiyalash va yanada rivojlantirishga urinishlar ayni uslublarni rivojlantirishga qaratilgan.

Baholash va nazorat sohasida esa, Finlandiyada standartlashtirilgan testlar kamroq ishlatiladi, o'quvchilarning baholashida davomiy baholash, muallimning fikri va o'quvchilarning o'zlarining baholashlariga e'tibor beriladi. Baholashda o'quvchilarning qiziqishlari, ko'nikmalari va qobiliyatlari hisobga olinadi. O'zbekistonda standartlashtirilgan testlar asosiy baholash usullari sifatida ishlatiladi. Baholashda o'quvchilarning faoliyati yoki boshqa qobiliyatlari ko'rib chiqilmaydi, balki faqat test natijalari hisobga olinadi.

Bundan tashqari, Finlandiyada ta'lim tizimi barqarorlik, barcha o'quvchilar uchun teng imkoniyatlar taqdim etishga qaratilgan. Maxsus ta'lim xizmatlari asosiy maktablarga integratsiya qilingan, shuningdek, barcha o'quvchilar uchun ta'limning o'zlashtirishini ta'minlash asosiy maqsad hisoblanadi. O'zbekistonda ta'limga kirishni

yanada yaxshilashga qaratilgan harakatlar amalga oshirilmoqda, lekin mahalliy ko'rsatkichlar va chuqur yo'nalishlarda ham muammoni hal qilish zarurati kattaligini rad eta olmaymiz.

Umumiy ravishda, Finlandiya va O'zbekiston ta'lim tizimlari o'zaro farqlangan bo'lib, Finlandiya ta'lim tizimi ko'paytirilgan, individuallikka qaratilgan, bizning ta'lim tizimi esa yuqori darajada an'anaviy bo'lib, akademik yutuqlar va bilim olishga e'tibor qiladi.

Ushbu taqqoslashlar davomida, biz o'zimizning milliy tizimni rivojlantirish uchun Finn tajribasidan bir nechta muqobil takliflarni ishlab chiqishga harakat qildik. Xususan, O'zbekiston ta'lim tizimida har bir o'quvchining shaxsiy talablari va qobiliyatlari hisobga olinishi kerak. O'quvchilarga o'zlarining qiziqishlariga va o'z talablari bo'yicha tanlov imkoniyati berish ham har bir o'quvchining o'ziga xosligini ta'minlaydi. Bundan tashqari, muallimlarga innovatsion o'qitish usullarini qo'llash va o'quvchilarni qatnashishga chaqirish ham muhim soha hisoblanib, mahalliy va xalqaro ta'limning eng yangi metodlarini o'rganish va amalga oshirish uchun imkon yaratadi.

Boshqaruv tizimiga kelsak, boshqaruv tizimini rivojlantirish va muallimlarga, o'quvchilarga va ota-onalarga qulayliklar yaratish asosiy maqsadga aylantirilib, boshqaruv organlari va muassasalarining samarali ishlashi uchun texnologiyalardan foydalanish va xorijiy tajribani faol o'rganib, amalga tatbiq etishga e'tibor berilishi kerak. Ijtimoiy qatlamlar orasidagi farqlarni kamaytirish uchun esa, barcha o'quvchilarga barqarorlik va barpo etish imkoniyatlari taqdim etish va qaror qabul qilishda va ta'lim jarayonida barqarorlikni ta'minlashda o'quvchilarning moliyaviy holatini e'tiborga olish ustida ham ishlash kerak.

Rivojlanayotgan texnologiyalardan foydalanib, onlayn ta'lim vositalarini o'qitishning integratsiyasini ko'paytirish uchun ham alohida e'tibor berilishi kerak, chunki bunday usullar o'quvchilarning ma'lumotlarni oshirish va yangi ko'nikmalar olishlarini ta'minlaydi. Muassasalarda ilmiy-tadqiqot ishlari va yangi o'quv-uslubiy materiallarni rivojlantirish uchun moliyaviy va ma'naviy qo'llab-quvvatlashni oshirish ustidan ham oxirgi yillarda ko'plab yangi ishlar amalga oshirilmoqda, lekin hali ham sohada qiladigan ishlarimiz ko'pligini rad eta olmaymiz. O'quvchilarga sport, san'at, ijtimoiy fanlar va boshqa sohalarda ham rivojlanish imkoniyatlarini taqdim etish esa ustuvor yo'nalishga aylanishi kerak. Chunki, bunday holatda o'quvchilarning o'zlarini yanada kengroq rivojlantirishlari mumkin. Chet tillarini o'rganish va milliy va xalqaro almashish dasturlari bo'yicha imkoniyatlar yaratish esa bizning fikrimizcha eng muhim qilinadigan ishlardan biri, chunki bu orqali ko'nikmalar o'quvchilarning global dunyo bilan yaqinroq tanishishlarini ta'minlaydi.

XULOSA

Biz bu maqolani yozish davomida, nafaqat Finn balki boshqa ilg'or tizimlarni ham yutuqlari haqida o'rgandik. Eng erkin Amerika maktablaridan tortib, Xitoyning qattiqqo'l va temir intizom talab qiluvchi maktablarigacha, eng yaxshi natija beruvchi tizim avvalo o'quvchi va o'qituvchi erkin bo'la olgan tizimlar ekanini ko'rdik. O'quvchilarning maktab tugatgach, yaxshi xulqli va ilmi inson bo'lib, jamiyatga qo'shilishi, ularning hayotda muvaffaqiyatlilik va baxtlilik darajasini ko'rsatish bo'yicha o'tkazilgan xalqaro so'rovnomalar natijasiga ko'ra ham, Finn ta'lim tizimidagi erkinlik va o'ziga xoslikka urg'u berish, bizga eng yaxshi ta'lim uslubi bo'lib ko'rindi. Xulosa, o'rnida maqolaning asosiy matnida taklif etilgan o'zgarishlar orqali biz ham tizimdagi hozirgi muammolarni hal qilib, tez orada yuqori o'rinli davlatlar orasiga ko'tarilishimizdan umidvormiz va o'quvchilarimiz ham Davlat ularga qilayotgan g'amxo'rlikning qadrini bilgan holda, sharaflil va ilmi insonlar bo'lishiga ishonamiz.

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ОИЛАДА ЭРКАКЛАРГА НИСБАТАН ЗЎРАВОНЛИК ИЖТИМОЙ-ПСИХОЛОГИК МУАММО СИФАТИДА

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***Аннотация:** Ушбу мақолада жамиятда оилавий зўравонликдан нафақат хотин-қизлар, балки эркакларнинг жабрланиши, бу муаммонинг ҳамон яширин ҳолатда эканлиги, патриархар жамият бир томондан эркакларнинг жамиятда устунлигини даъво қилса, бошқа томондан жабрланган эркакларни яшириши тенденциясини давом эттириётгани хақида сўз боради.*

***Аннотация:** В данной статье говорится о том, что от семейного насилия в обществе страдают не только женщины, но и мужчины, что эта проблема до сих пор скрыта, что патриархальное общество, с одной стороны, утверждает превосходство мужчин в обществе, а с с другой стороны, сохраняется тенденция скрывать тот факт, что мужчины также страдают от насилия в семье.*

***Abstract:** This article states that not only women, but also men suffer from domestic violence in society, that this problem is still hidden, that patriarchal society, on the one hand, asserts the superiority of men in society, and on the other On the other hand, there remains a tendency to hide the fact that men also suffer from domestic violence.*

Кириш. Ижтимоий-иқтисодий соҳада содир бўлган ўзгаришлар оилавий кадриятлар тизимининг ўзгаришига олиб келди, унга кўра эркак энди оиланинг асосий "боқувчиси" бўлмай қолди. Оилада эр ва хотиннинг ҳуқуқ ва мажбуриятлари "эгилувчан" бўлиб, бугунги кунда турмуш ўртоқларнинг хар бири учун маълум бир ролни қатъий белгилаш ҳам кескин ўзгарди. 20-асрнинг 90-йилларда содир бўлган иқтисодий инкироз оқибатлари Ўзбекистонда ҳам шахслараро муносабатлардаги кескинликнинг кучайишига ҳисса қўшди, бунда аёл тобора фаол ва тажовузкор ҳаракатланиш усулига ўтишди. Бироқ, бу ҳолат эр-хотиннинг ўртасида юзага келадиган зўравонлик муаммосини тушунишга таъсир қилмади, бу фақат аёлларга нисбатан зўравонлик сифатида қабул қилиниши давом этмоқда.

Ўзбекистон Республикасининг 2023 йил 11 апрелдаги ЎРҚ-829-сонли Қонуни билан оилавий зўравонлик учун жавобгарликни белгиловчи нормалар

белгиланди. Ушбу Қонунга асосан хотини ёки эрини дўппослаганлик маъмурий ёки жиноий жавобгарликка тортилиши мумкин.[1] Қонунчиликда эркакларнинг ҳам зўравонликка учраши киритилди. Оилавий зўравонлик ҳолатларини профилактикаси ва оилавий зўравонлик оқибатларини бартараф этишда нафақат “гендер зўравонлик” бу аёлларнинг зўравонликка учраши деб фаол ҳаракат қилиш, балки оилавий зўравонлик ҳолатлари оиланинг ҳар бир аъзоси зўравонликка учраши ва ҳар бир аъзонинг ҳимояси билан илмий амалий жиҳатдан иш олиб бориш.

Методлар: мавзуни ўрганишда назарий ва методологик асослари сифатида структурали – функционал ёндашув яъни зўравонлик тушунчасини шахсларо муносабатлар тизимида алоҳида шакл, қатъий буйсуниш, нормалар деб қарашга имкон берадиган ёндашув, шунингдек, гендер ёндашув, оилавий зўравонлик ёндашуви асосларида таҳлил қилинади ва маълумотлар умумлаштирилади. Илмий тадқиқотнинг методологик тамойили сифатида тизимлилик тамойили яъни оилавий зўравонликни тизимли ўрганишни, бу оилавий зўравонлик ҳодисаларнинг ўзига хос хусусиятларини, уларни ташкил этган ҳолат ва вазиятларни ўзаро муносабатларига хос хусусиятлар билан бирга гендер зўравонликка ўрғу беришни талаб қилади. Тизимли ёндашув тамойили асосида оилавий зўравонлик ва гендер зўравонликни ҳам алоҳида ҳам бир бирига боғлиқ тушунча сифатида таҳлил қилиш ва улар ўртасидаги тизимли функционал алоқаларни ажратиш ва ўзаро боғлиқлик даражаларини ҳосил қилувчи омилларни асослаб беришни тақозо этади.

Натижалар: Эр-хотиннинг зўравонлиги оилавий зўравонликнинг бир туридир. У зўравонликнинг икки турини ажратади: эрнинг хотинига нисбатан зўравонлиги ва хотиннинг ўз эрига нисбатан зўравонлиги. Турмуш ўртоғи зўравонлиги муаммоси ҳақида гапирганда, кўпинча одамлар аёлларни қурбонлар сифатида кўрсатадилар, аммо замонавий жамиятда оилада нафақат аёл балки эркак ҳам оилавий зўравонликка учраши илмий-амалий тадқиқотлар орқали исботланиб келмоқда. АҚШ ва Ғарбий Европа мамлакатларида асосан калтакланган хотинлар муаммосига бағишланган (XX асрнинг 60-йиллари) оилавий зўравонлик бўйича тадқиқотлар бошлангандан бери фақат аёллар оилавий зўравонликка учрайди деган фикр кучайди. Бироқ, тез орада бу фикрни рад этиш учун далиллар пайдо бўлди.

Аёлларнинг эркакларникига тенг даражада зўравонлик қилиши ҳақидаги назария "гендер симметрияси" деб аталади. Гендер симметриясининг дастлабки эмпирик далиллари 1975 йилда М. Страсс ва Р. Хеллес томонидан 2146 та оилаларда ўрганилди. АҚШда оиладаги зўравонлик миллий тадқиқотининг бир қисми сифатида калтакланган хотинларнинг 23% дан 83% гача, камида бир

марта, ўзини ҳимоя қилиш ёки ҳужум қилиш мақсадида, ўзлари шерикларига нисбатан жисмоний зўравонлик қилишлари ҳақидаги маълумотлар тақдим этилди.[6]

XX асрнинг 70-йилларида АҚШлик социолог С. Стайнметц оилавий зўравонлик, хусусан эр ва хотиннинг бир бирига зўравонлигининг тор феминистик талқинини енгилга ҳисса қўшди. С. Стайнметц ўз тадқиқотлари асосида янги "калтакланган эр синдроми" атамасини киритди ва шу билан муаммонинг муҳимлигини таъкидлади. Бундан ташқари, тадқиқотларда оилада эркакнинг зўравонликка учрашини жамият томонидан оммавий равишда масхара қилиниши ва оилада эркакнинг зўравонликка учраши яширин муаммо эканлигини эътироф этади.

Бизнинг фикримизча, оилада эркакларга нисбатан зўравонликни жиддий қабул қилинмаслиги аввало гендер зўравонликни инкор этишнинг бир кўриниши сифатида қабул қилиниши керак.

Америкалик социолог М. Страус ҳам ўзининг "Аёлларнинг эркакларга нисбатан зўравонлиги ижтимоий муаммо сифатида" мақоласи билан илмий жамоатчилик эътиборини эркакларнинг оилавий зўравонликка учраши муаммосига қаратди. Кейинчалик, икки юздан ортиқ хорижий тадқиқотлар натижалари аёлларнинг эркаклар билан бир қаторда агрессив ва зўравонлик кўрсатишини тасдиқлади. Кўришиб турибдики, конфликт иштирокчиларидан фақат бирига эътибор қаратиш оилада содир бўлган воқеаларнинг бузилган тасвирини шакллантиради.

Россиялик тадқиқотчи Харламов В.С рус илмий манбаларида эркакларнинг оилавий зўравонликка учраши бўйича тадқиқотлар жуда кам деб кўрсатиб ўтган.[12] Бинобарин, Россияда шахслараро муносабатларда, биринчи навбатда оилавий зўравонлик муаммоси илмий тадқиқот мавзуси сифатида оила криминологияси йўналишида Ю.М. Антонян, А.Н. Ильяшенко, С.В. Максимов, В.П. Ревин, Д.В. Ривман, Д.А. Шестаков, социология йўналишида И.А. Алексеева, Е.Н. Волкова, И.Д. Горшкова, Т.А. Гурко, С.В. Кочеткова, М. Малышева, П.В. Пучков, Н.М. Римашевская, М.В. Смагина, Т.Я. Сафонова, В.В. Солодников, Е.И. Цымбал, И.И. Шурыгиналар тадқиқот ишларини олиб боришмоқда. Шу билан бирга таъкидлаш жоизки, оила психологияси, ижтимоий ва этнопсихология доирасида оила аёлларнинг эркакларга нисбатан зўравонлик қилишлари, уларнинг сабаблари, хавф омилларини аниқлашга бағишланган тадқиқотлар деярли йўқ. Ўзбекистонда ҳам эркакларнинг оилавий зўравонликка учраши бўйича тадқиқотлар олиб борилмаган.

Оиладаги зўравонлик ҳақида гап кетганда, барча адабиётларда оилавий зўравонликка ҳар доим аёллар ёки болалар учрайди деб кўрсатилади. Илмий

манбаларда аёллар зўравонлиги ҳақидаги маълумотни фақат оилавий криминология материалларидан олиш мумкин. Муаммо шундаки, бундай маълумотлар очик эмас ва вазиятнинг тўлиқ тасвирини бермайди, чунки у жиний ҳуқуқбузарликлар билан боғлиқ. Шунини таъкидлаш керакки, аёллар нафақат шахслараро зўравонлик ва қотиллик қурбонлари, балки шахслараро зўравонликни ўзлари ҳам фаол равишда амалга оширишлари мумкин. Ҳозирги вақтда криминологлар ва психиатрлар аёлларнинг жиний фаоллигининг ўсиши тенденциясини қайд этишмоқда. "Австралияда (2016) PSS 2012 шахсий хавфсизлик сўровига кўра - барча эркакларнинг 8,2 фоизи аёл шериги томонидан зўравонликка дучор бўлган."

А. Бирюков аёлларнинг эркакларга нисбатан зўравонлиги нисбати оиладаги зўравонлик статистикаси бўйича унчалик кичик эмаслиги хусусан, АҚШ Адлия вазирлигининг берган маълумотига кўра 2000 йилда АҚШда 15 та аёл эри томонидан калтакланган бўлса, 8 та эр хотини томонидан калтакланган.

Бугунги дунёда эркакларга нисбатан зўравонлик муаммоси тобора кенгайиб бормоқда. Оиладаги зўравонлик ҳақида гап кетганда, жабрланувчи аёл, агрессор эса эркак эканлиги тахмин қилинади, гарчи бу ҳар доим ҳам шундай эмас. Бунинг сабаби, жамиятда маълум бир стереотиплар мавжуд: "Эркак кучли бўлиши керак", "Эркак мустақил бўлиши керак", "Эркак ёрдам сўрамаслиги керак", "Эркак оғриқни ҳис қилмайди", "Эркак киши мустақил бўлиши керак". Эркак шикоят қилмаслиги керак", "Агар сизни аёл калтаклаган бўлса - бу шармандалик ва ҳақоратдир ва сиз айбдорсиз". Эркак, масалан, хотини уни калтаклашини тан олишдан уялади. Эркак аёл уни таҳқирлашини тан олса, масхара қилиш, камситиш, ҳақорат қилиш ва қадрсизланиш хавфини туғдиради.

Эркакларга нисбатан зўравонлик муаммоси барча мамлакатларда кўпчилик одамлар ва эркакларнинг ўзлари томонидан қабул қилинмайди. 2014-йилда Британиянинг ManKind Initiative хайрия ташкилоти аъзолари томонидан ўтказилган ижтимоий тажриба иштирокчилари аёл эркак кишига ҳужум қилишини безътибор қолдириб, эркакнинг аёлга нисбатан зўравонлик қўллашига кўпроқ эътибор қаратишди.[3] Тажриба қуйидагича амалга оширилди: эркак ва аёл кўчада енгил жисмоний зўравонлик кўрсатиш билан жанжал қилишди. Эркак томонидан жисмоний куч ишлатилганда кўплаб ўткинчилар ўраб олишди ва муаммо нимада эканлигини аниқлашга киришдилар. Аёл эркакни нафақат итарибгина қолмай, балки сочларини ушлаб тортқилаган бўлсада одамлар шунчаки жилмайиб қараб туришган. Ҳеч ким ёрдамга келмаган, бу эркакларга нисбатан зўравонлик одамлар томонидан муаммо сифатида қабул қилинмаслигидан далолат беради.

Замонавий ғарб социологиясида тадқиқотчилар бир томондан Р.П.Добаш, Р.Э.Добаш, Л.Уокер, К.Ёлло, А.Дворкин, Д. Рассел ва бошқалар ўзларини феминистик йўналиш "феминистик истикбол" ғоясига риоя қилган ҳолда оиладаги зўравонликни содир этишда гендер ассиметрияси яъни эркеклар агрессор, аёллар эса оиладаги зўравонлик қурбони деб ҳисоблайдилар. Бошқа томондан эса, тадқиқотчилар М. Страус, М. Фиберт, Б. Крахе, Л. Миллс, Д. Хайнцлар оилавий зўравонликда жинсий симметрия ғоясини ҳимоя қилиб, аёллар эркекларга нисбатан зўравонлик кўрсатишда тахминан тенг имкониятга эга эканликларини таъкидлайдилар. Иккала ёндашув вакиллари ўз тадқиқотларини турли методологик ёндашувларни асослайдилар ва "зўравонлик" тушунчасини ҳар хил концепция контекстида кўрадилар. Баъзи олимлар натижалар ва унинг оқибатида оиладаги зўравонликнинг олдини олиш чораларидаги фарқларни ажратишади. [7]

1995-йилда америкалик тадқиқотчи М. Джонсон оиладаги зўравонликнинг икки тури: "эр-хотин зўравонлиги" «common couple violence» ва "патриархал терроризм" «patriarchal terrorism» мавжудлиги ҳақидаги концепциясини ишлаб чиқди. М.Джонсонинг фикрича феминистик тенденция вакиллари, биринчи навбатда, патриархал терроризм, яъни аёллар қурбони бўлган оиладаги зўравонликнинг энг оғир шакллари ва "эр-хотин зўравонлиги" ҳақида гапирганда эса, бу эрда эркеклар ва аёллар тахминан тенг равишда бир-бирига нисбатан зўравонлик қилишлари ҳақида гапириш керак.

Л. Берковиц аёл можаронинг ташаббускори бўлганми ёки йўқлигидан қатъи назар, аёл турмуш ўртоғига жиддий зарар етказиши мумкинлиги, зўравонликдан ким кўпроқ азият чекишидан қатъи назар, ушбу муаммони муҳокама қилишда баъзи аёлларнинг оилада нисбатан юқори даражадаги агрессив бўлишларини кўрстайиш муҳим деб таъкидлайди. Улар ҳар доим ҳам эркекларни "аёлларни ўз ўрнига қўйиш" воситаси сифатида зўравонлик қилишни буюрадиган жамиятнинг ожиз қурбони бўлавермайди. [2] Шу билан бирга, аёллар томонидан эркекларга нисбатан руҳий ва эмоционал зўравонлик ўзининг шафқатсизлиги, руҳий жароҳати билан жисмоний зўравонликдан қолишмайди.

Жамиятда аёлларнинг эркекларга нисбатан зўравонлигини ижтимоий муаммо сифатида мавжудлигини тан олмасдан, оиладаги зўравонлик даражасини пасайтириш бўйича профилактика чоралари ва таъсирчан воситаларни ишлаб чиқиш мумкин эмас.

Аёллар зўравонлик жиноятининг сабаблари сифатида Д.В. Синков ўз асарларида микромуҳитнинг таъсирини кўриб чиқади. Микромуҳит деганда бевосита атроф-муҳит, яъни оила, таълим ёки меҳнат жамоаси ва бошқа гуруҳлар тушунилади. У микромуҳитни тажовузкорлик ва худбинлик, кундалик ҳаётга

яроқсизлик, ташвиш, қандайдир ўзини пастлик ҳисси ва бошқалар каби криминологик аҳамиятга эга бўлган инсоний хусусиятларнинг пайдо бўлишига ва мустаҳкамланишига ёрдам берадиган омил деб билади. Муаллиф таъкидлаганидек, аёллар микро муҳитнинг айниқса кучли таъсирини бошдан кечиришади, чунки улар атрофдаги микромуҳитнинг салбий томонларини кўпроқ эмоционал идрок этишга мойилдирлар. [8]

Аёллар томонидан зўравонликнинг намоён бўлишини замонавий ижтимоий роллар билан изоҳлаш мумкин. Борган сари хотинлар нафақат анъанавий аёл вазифаларини бажаришлари, балки моддий бойлик билан таъминлашлари керак. Улар кўпинча эркаклар муҳитида ишлайдилар, ўзларининг эркак ҳамкасблари каби тажовузкорлик ва куч билан пул топадилар ва рақобатлашадилар.[9] Шу билан бирга эркаклар ҳам аёл муҳитида ишлай бошлайдилар ва янада ҳиссий ва заифроқ бўладилар. Жамиятда ижтимоий роллар, жумладан, психологик компонентлар тенглаштирилмоқда: аёллар кучайиб боради, эркаклар эса аксинча.

“Маиший муносабатларда аёлларнинг эркакларга нисбатан зўравонлиги муаммосини ўрганган Швейцария ижтимоий ходими С.Торрент бундай жинойатчининг типик портретини тасвирлаб берди: бу муносабатларда ўзини кичкина қизча каби тутадиган, ғазабдан фойдаланиб, хоҳлаган нарсасини олади. Бу хулқ-атвор отаси ўзини ўта авторитар, атрофдагиларни камситган ёки онаси аниқ ҳукмрон, кўпинча золим бўлган оилада шаклланган. Айнан шу сабабларни С.Торрент аёлнинг эркакка нисбатан эр-хотин зўравонлигида кўради. [10]

Эркак ўзига нисбатан зўравонлик қилинаётганини сезмаслиги ёки унга эътибор бермаслиги мумкин. Портал iz.ru портали эркакларга нисбатан оиладаги зўравонлик мавзусида психолог ва ҳуқуқшунослар билан суҳбат ўтказди. Психиатр "... узоқ вақтдан бери матриархат мавжуд: деярли ҳар доим ўғил онасининг катта таъсири остида ўсади ва аёл учун эркакни эркак бўлишга ўргатиш қийин. Ўғил болалар эса эркаклар учун асосий бўлган иккита хатти-ҳаракатда чекланган: тажовузкорлик ва либидо. Натижада, одам "асосий хусусиятларга кўра" чеклов билан ўсади - тажовузга жавоб бера олмайди, уни бошқара олмайди, чекинишга одатланган.[5] Бундан ташқари, муаллифлар халқаро амалиётга таяниб, суд ва ҳуқуқни муҳофаза қилиш органлари томонидан эркаклар кўпроқ "иккинчи даражали қурбонлар" сифатида кўриб чиқилишини таъкидладилар. Эркакларнинг ўзлари эса расмий органларга мурожаат қилишдан қочади, буни "уятли" деб ҳисоблайди ва эркак ўз муаммоларини ўзи ҳал қилиши керак деган муносабатга эътибор қаратади.

Натижалар ва мунозара. Эркакларга нисбатан зўравонлик муаммоси бугунги кунда долзарб бўлиб қолмоқда, аммо бу ҳақда ҳали ҳам гапирилмайди.

Бунинг сабаби, **биринчидан**, бу мавзу шунчалик тақиқланганки, зўравонлик қурбони бўлган эркак бу ҳақда гапиришга журъат эта олмайди, хаттоки у ҳақиқий жисмоний зарар кўрган. Ахир, эркак, таърифига кўра, кучли жинс ҳисобланади ва ўзига, шунингдек, хотинидан зўравонликни тан олиш унинг учун муваффақиятсизликни англатади. Агар жамиятда аёлларга нисбатан жабрланувчини айблаш авж олган бўлса, аёл зўравонлигига дучор бўлган эркакни нима кутаётганини тасаввур қилишингиз мумкин. **Иккинчидан**, аёл зўравонлиги кўпинча жисмоний эмас, балки психологик соҳада жойлашган. У яширинча, манипуляция, камситиш ва шантаж орқали, ҳар қандай мавжуд таъсир воситаларидан фойдаланган ҳолда ҳаракат қилади. Бундай хатти-ҳаракатлар психикага ҳалокатли таъсир кўрсатади, лекин шу билан бирга, бундай айбдорлик ҳисси эркак қурбонда пайдо бўлади, у ҳамма нарсада ўзини ва фақат ўзини айблайди.

Аммо эркакларга нисбатан зўравонлик муаммосига тобора кўпроқ эътибор қаратилмоқда. Шундай қилиб, 2017 йил 5 июн куни ёш қизларга матнли мурожаат Америка Интернетини портлатиб юборди. “Унда йигитларини психологик зўрлашни бас қилишга чақириқ билан қизларнинг йигитларига нисбатан зўравонлик ҳаракатлари санаб ўтилган.

Агар эркак шундай йўл тутса, жамият буни зўравонлик муносабатлари сифатида қабул қилган бўларди, аксинча вазиятда эса бунга нисбатан бағрикенгроқ муносабатда бўлар эди. Турмуш ўртоғига нисбатан зўравонликнинг барча турларидан психологик зўравонлик энг кенг тарқалгани ҳисобланади, айниқса аёлларнинг эркакларга нисбатан зўравонлиги ҳақида гап кетганда.

Аёллар камдан-кам ҳолларда жисмоний куч ишлатишади, лекин улар маънавий зарар этказиши мумкин. Хотиннинг эрига нисбатан иқтисодий зўравонлиги ҳам мумкин. Бу барча молиявий оқимларни кузатиш, иш ҳақи талаби билан боғлиқ. Хотин ҳисоб-китоб ва иш ҳақининг аниқ миқдорини билади, уни ҳар бир кичик харидни муҳокама қилишга мажбур қилади. Эркак ўз хотинидан ўз пулини сўрашга мажбур бўлади, чунки у "яшириб қуйиш" имкониятига эга эмас.

Одатда, эркакларга нисбатан жисмоний зўравонлик аёлларга нисбатан камроқ тарқалган. Аммо бу содир бўлганда, у доимо психологик зўравонлик билан бирга келади: камситиш, обрўсизлантириш.

Кенг жамоатчиликда аёл эрига нисбатан жисмоний зўравонлик қила олмайди, деган фикр бор. Бироқ, М. Страус ва Р. Геллес тадқиқотларига кўра, "оилада аёллар томонидан содир этилган жисмоний зўравонлик даражаси эркакларники билан тахминан бир хил ва ундан ҳам юқори. Илмий жамоатчилик эътиборини

оиладаги аёллар жинояти масаласига қаратган М.Страус “Аёлларнинг эркакларга нисбатан зўравонлиги – ижтимоий муаммо” номли мақоласида ушбу муаммонинг мавжудлигини тан олмасдан туриб, бу борадаги таъсирчан чоралар кўрилишини таъкидлайди. олдини олиш ва оиладаги зўравонлик даражасини камайтиришни ривожлантириш мумкин бўлмайди.[6] Аёл томонидан жисмоний зўравонлик мавжудлигининг тасдиқланишини содир бўлган воқеа деб ҳисоблаш мумкин. Буюк Британия. 2018 йилда суд қизни оиладаги зўравонлик ва "мажбурий назорат" иши бўйича 7,5 йилга озодликдан маҳрум қилган. Бу Буюк Британияда биринчи марта содир бўлди. “Бундан олдин бир қиз бир неча йил давомида гидросефалия билан оғриган йигитни безорилик қилган. Йигитнинг сўзларига кўра, қиз унга пичоқ билан жароҳат етказган, устига қайноқ сув қуйиб, у билан бир каравотда ётишни тақиқлаган ва қандай кийим кийишни ўзи ҳал қилган. Бундан ташқари, Скилга қариндошлари ва дўстлари билан алоқа қилиш тақиқланган.[4]

Зўрлаш каби жинсий тажовуз ҳам камроқ учрайди. Жамиятда эркакни зўрлаш мумкин эмас деган фикр бор, гарчи эрекция механик равишда юзага келиши мумкин, яъни бу эркакнинг хоҳишидан қатъи назар, масалан, асабий зўриқиш туфайли содир бўлиши мумкин. Аммо жинсий хулқ-атворни манипуляция қилиш анча кенг тарқалган. Манипуляцияга эркак керак бўлган вазиятлар киради жинсий алоқага "лойик" ёки у жазо тури сифатида ундан маҳрум бўлади. Эркаклар жинсий зўравонликни, умуман, зўравонлик каби жиддий қабул қилмайди. Кўпчилик фақат шерикларининг ҳасадгўй хатти-ҳаракатидан хавотирда, баъзи эркаклар эса "никоҳ бурчини бажариш" ни истамаслигидан хавотирда.

Юқорида таъкидлаб ўтилганидек, эркаклар жисмоний ва жинсий зўравонликдан, аёллар эса психо-эмоционал зўравонликдан фойдаланадилар. Аёлнинг хатти-ҳаракатлари жамоат учун хавф туғдирмайди, улар қонуний жавобгарликка тортилмайди. Бироқ, ақлий, ҳиссий таъсир кўпинча жисмоний ёки иқтисодийдан кўра кўпроқ ҳалокатли. Зўравонлик билан оилада яшаш эркаклар учун қуйидаги оқибатларга олиб келиши мумкин: кўрқув ҳисси (айбдорлик, уят), одамларга ишончсизлик, ташвиш, ғазаб, ўзини паст баҳолаш ва ўзидан нафратланиш, депрессия ёки ўз жонига қасд қилиш ҳақидаги фикрлар. Жинсий дисфункция, спиртли ичимликлар ёки гиёҳванд моддаларни суиистеъмол қилиш, касаллик ва жисмоний шикастланиш пайдо бўлиши мумкин. Хотини билан жанжаллашган тақдирда, натижада болалар билан алоқа йўқолиши мумкин.[11]

Эркак ҳам аёл каби ёрдам олиш ҳуқуқига эга, акс ҳолда гендер камситишлари юзага келади. Шу билан бирга, эркакларга ёрдам учун

мутахассисларга мурожаат қилиш уят эмаслиги ва баъзида бу ҳатто зарур эканлиги ҳақидаги фикрни етказиш муҳимди. “Эркаклар, қоида тариқасида, камдан-кам ҳолларда ёрдам сўрашади, чунки улар аёлларга қараганда кўпроқ ёпиқ. Улар учун муаммони ҳатто ўзларига ҳам тан олиш қийинроқ, - деб ёзади из.ру порталига психиатр, психотерапевт, тиббиёт фанлари номзоди Э Фомин. Эркаклар, худди аёллар каби, ёрдам сўрашга шошилмаяптилар, айниқса ҳуқуқни муҳофаза қилиш органларига. Эркакларга зарар етказиш факти юзасидан ички ишлар органларига ариза беришдан бошлаб, жамиятда шаклланган эркакларнинг кучли жинс вакиллари ҳақидаги стереотиплари сақланиб қолмоқда. Бундан ташқари шеригидан қасос олиш кўрқуви, болалар билан алоқани йўқотиш кўрқуви ёки салбий, истехзоли реакциядан кўркиш ҳолати ҳам таъсир кўрсатади. Бу хатти-ҳаракатлар уйдаги зўравонликдан азият чекаётган аёлларнинг хатти-ҳаракатларига жуда ўхшайди. Тимко С.А., Кузнецова И.А. эркаклар ўртасида ўтказилган сўров шуни тасдиқлайди: "Агар сиз турмуш ўртоғингиз томонидан зўравонлик қурбони бўлган бўлсангиз (биргаликда яшовчилар), сиз полицияга шикоят қиласизми?" деган саволга 62% йўқ деб жавоб берганлар. Бунинг сабаблари жамиятнинг гендер ролларига бўлган муносабатида ётади: респондентларнинг 3/4 қисмидан кўпроғи турмуш ўртоғи устидан шикоят қилишни уят деб ҳисоблайди.

Франциядаги «SOS Hommes battus» зўравонлик қурбонлари ассоциацияси асосчиси, психолог С. Спитзер шундай ёзади: “Агар аёл полиция бўлимига эри уни урганини айтиб, далилсиз келса, унинг шикояти қабул қилинади ва унинг эри зудлик билан қамоққа олинади. Аммо агар эркак полицияга хотини калтаклагани ҳақида далил билан келса, ҳар иккисидан бири унинг юзига кулади, тўртдан учтаси рад этилади” Бундан ташқари, аёлларнинг камдан-кам ҳолларда ҳибсга олиниши, бундай ҳолларда уларга нисбатан чиқарилган суд қарорлари жуда юмшоқ бўлиши муаммони янада кучайтирмоқда. Британия ҳуқуқ-тартибот идораларига ҳам эркаклар тез-тез даъво қилсаларда, улар "иккинчи даражали қурбонлар" сифатида қаралади ва кўплаб полициячилар уларни жиддий қабул қилмайди.

“Австралия Статистика Бюросининг ҳисоб-китобларига кўра, турмуш ўртоғи томонидан зўравонлик қурбони бўлган эркакларнинг атиги 5,3 фоизи полицияга мурожаат қилган. Жабрланганларнинг ҳақиқий сони сезиларли даражада юқори: сўровда қатнашганларнинг 33 фоизи сўнгги 12 ой ичида ҳозирги шериги томонидан зўравонлик ҳаракатини бошдан кечирган эркаклар эди. Францияда (14 ёшдан 75 ёшгача бўлган фуқаролар орасида) жамоатчилик фикрининг мониторинги шуни кўрсатдики, турмуш ўртоғи томонидан жисмоний

ёки жинсий зўравонлик қурбони бўлганларнинг 67 фоизи аёллар ва 33 фоизи эркеклардир.

Оилада аёл томонидан эрига зўравонлик кўрсатилишини эркек зўравонлиги билан белгиланадиган ёндашув мавжуд. Яъни, аёллар ўзини ҳимоя қилиш учун, асосан, жисмоний, рухий зўравонлик ёки одам томонидан илгари қилинган зўравонлик учун қасос олиш мақсадида зўравонлик кўрсатади. Бундай ҳолда, аёлнинг турмуш ўртоғига нисбатан зўравонлиги ҳам глобал патриархал меъёрлар билан белгиланади.

Ўзбекистонда Ф.У. Хамдамова аёллар жиноятчилиги соҳасида оилавий зўравонлик ҳақида ҳам тўхталади ва оилада аёллар зўравонлиги туфайли эрлар, болалар ва оиланинг бошқа аъзолари ҳам қурбон бўлишларини таъкидлайди. [13] **Хулоса.** Шундай қилиб, Ўзбекистонда гендер тенгликни амалга ошириш, оилавий зўравонлик муаммоларини бартараф этишда оилада эркекларнинг ҳам зўравонликка ураши, оилада аёлларнинг зўравонлик жиноятларини аниқлашни чуқурроқ ўрганиш ва тушунишнинг илмий ва амалий эҳтиёжи юқорида даражада шубҳасиз. Ўз навбатида, оилавий муносабатлар ҳам шахснинг шаклланишида, ҳам унинг ривожланишидаги оғишларда, шу жумладан бошқалар учун хавфли бўлган хатти-ҳаракатларнинг пайдо бўлишида асосий рол ўйнайди. Оилавий зўравонлик қайси жинс вакилига қаратилган бўлишига қарамай, оилада зўравонлик хавфини баҳолашни ўтказиш, муаммони эрта аниқлаш ва бартараф этишга кўмак беради.

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ИСТОРИЯ АМИРА ТЕМУРА – ОБЕСПЕЧЕНИЕ ПРИОРИТЕТА ПРАВА

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При изучении истории «Уложение Темура», несомненно, надо обратить внимание на описывающий теорию и практику построения государства и общества. Амир Тимур строго следовал советам и указаниям своего духовного наставника Абу Бакра Тойбоди, а также полагался на собственный интеллект. О письме, полученном им от своего пира в он пишет: «... что девять частей дел государстве я решаю посредством совещаний, мероприятий и советов, а оставшаяся часть с помощью меча. Те, кто говорят (мудрые), могут открыть ворота любой страны, где бессилён меч большой армии, действиями, предпринятыми на их месте, и победить вражеских солдат. По моему опыту, один решительный, предприимчивый, бдительный, закаленный в боях, смелый и полный энтузиазма человек лучше, чем тысяча бездействующих и равнодушных людей. Потому что один опытный человек командует тысячами людей. Я также на своем опыте убедился, что поражение армии противника происходит не из-за большого количества войск, а поражение не из-за недостатка войск. Возможно, победа произошла благодаря помощи (Бога) и действиям его слуги. Например, я шел на крепость Карши с двумястами сорока тремя людьми с советом и мероприятием. Амир Муса и Малик охраняли крепость и ее окрестности примерно двенадцатью тысячами всадников. Но с помощью Всемогущего Бога я захватил крепость Карши, приняв правильные меры.

1. Амир Тимур понимал экономику как основу любого государства.

"Государство, - говорит Тимур в своем "Уложении", - живет тремя вещами - имуществом, казной и армией". При этом Тимур подчеркивает, что для выживания и социального развития государства, прежде всего, необходимо иметь экономические возможности.

2. По мнению Амира Темура, каждая страна, исходя из своих различных экономических возможностей, должна «иметь полную информацию обо всех регионах и учитывать их экономические особенности».

¹ Мукимов Зиядулла. Законы Амира Темура

3. Амир Темура уделял большое внимание земельной собственности, которая является основным средством производства, поддерживал порядок государственной, фондовой и частной землевладения в управлении каждым регионом, определял объем земельной площади и права собственности в интересах государства.

4. Тимур имел в виду созидательную деятельность труда и понимал ее как общественную ценность.

5. Амир Темура уделял большое внимание финансовым вопросам в системе экономических принципов. Потому что, по мнению Темура, финансы считались экономической поддержкой государства. Политические и правовые взгляды Темура основаны на его моральных взглядах и построены на религиозной морали.

Тимур стремился к справедливости, правдивости и справедливости в своей политике, что бы он ни делал, он делал это в рамках шариата, основываясь на правилах мусульманской юриспруденции, и действовал силой ислама в целом. По его мнению, он проложил путь торговле и бизнесу и создал для них льготы. Но он поощрял честную, настоящую трудовую торговлю и даже в течение трёх лет не собирал налогов с таких предпринимателей.

Тимур создал совершенную систему передовых политических взглядов своего времени не только как глава государства, но и как мыслитель. Потому что, когда он анализировал идею в уме, он учитывал все аспекты дела. Он обладал способностью слышать и принимать мнение других.

Человечность находится в центре политического принципа Темура. Темура, построивший политику своего государства на основе суфизма, высоко поднял знамя справедливости и призвал народ подчиняться человеческой дисциплине, а не пустым законам. Темура придавал божественный оттенок человеческой дисциплине и освятил ее. Даже когда Амир Темура завоевал большую часть мира и стал великим правителем, он поставил исламские дела выше мирских дел. Он пишет об этом так: «Во-первых, я начал заниматься своим повседневным трудом только после того, как завершил свое послушание Богу». Подобно тому, как неизбежно разрушение государства, далекого от райята (народа) и не опирающегося на требования ислама, так и в стране, где религия и шариат ослаблены, унижаются великие учёные, попирается справедливость, происходят притеснения и увеличивается коррупция. Амир Темура, который исходил из исламской веры, пишет: «Если в какой-либо стране возрастает отступничество (ильхад) и зиндик (безбожие, неверие в религию) и народ этой земли, райят Сипоху, занимается различными занятиями и их союзы разрушаются, разрушение этой страны неизбежно».

В центре его находится суть законодательства эпохи Амира Темура, гражданин и государство. Об этом известного ученый Азамата Зия давал высокую оценку, говоря, что "в законодательстве Амира Темура интересы граждан стояли на первом месте". Ведь экономически беспомощное государство слабеет и разлагается. Экономическая власть создается народом. Роль справедливого законодательства несравненна.

Одной из ярких сторон гениальности Амира Темура является то, что он смог понять эту истину и продемонстрировать ее на практике.

Ценность конституций Амира Темура высока, а содержащиеся в них политико-правовые взгляды могут служить программой управления независимым государством Узбекистан сегодня.

В мировой истории, государства и права Узбекистана эпоха Тимура и Тимуридов XIV-XV веков занимает особое место. Созданием этого государства и своим государственным искусством Амир Темур внес большой вклад в историю и цивилизацию народов мира, что было признано международным научным сообществом. Вкратце мы можем указать следующее:

а) Он заложил основу для возникновения тюркского исламского государства и цивилизации в Центральной Азии» (Хильда Хакхэм). освободил народы Средней Азии, Хорасана, Ирана и Афганистана от монгольских захватчиков;

в) создал мощное централизованное государство, устранив политические разногласия и конфликты в этой сфере;

с) помог Руси избавиться от монгольской тирании;

д) восстановил и развил международный «Великий шелковый путь», соединяющий Запад и Восток;

е) представил миру славу Моваруннахра, развил науку, ремесла, архитектуру, искусство и культуру до небывалого уровня, то есть заложил основу возрождения государства Тимуридов;

ж) поднял государственную систему на более высокий уровень человеческого развития, ввел новые законы и правила поведения;

з) Он усовершенствовал военное искусство. Сегодня конституционный путь Узбекистана к построению демократического правового государства имеет свои исторические корни в форме Тимура и государства Тимуридов. Недаром утверждается, что «если государство не будет построено на основе религии, если оно не будет связано с системой, то слава, мощь и порядок королевства будут потеряны». Возникновение государства Тимуридов, его централизация, экономика, политика развития науки, ренессанс Тимуридов – это не случайность, а плод и результат действий.

² (Азамат Зия. «Голос Узбекистана», 10 октября 1995 г.)

На протяжении веков наша государственность органично развивалась с такими добродетелями нашего народа, как высокая духовность, справедливость, просвещение, восточная философия и учение ислама.

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O‘ZBEKISTON TASVIRIY SAN’ATIDA TARIXIY JANR

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ANNOTATSIYA:

Maqolada XX asrning ikkinchi yarmida, O‘zbekiston madaniyatida tasviriy san’atning tarixiy janrining rivojlanishi o‘rganiladi.

KALIT SO‘ZLAR: *Muzey, shoir Alisher Navoiy, olim Hamid Sulaymonov, rassomlar, tasviriy san’at asarlari, tarixiy janr, tomoshabin, xalq.*

ИСТОРИЧЕСКИЙ ЖАНР В ИЗОБРАЗИТЕЛЬНОМ ИСКУССТВЕ УЗБЕКИСТАНА

АННОТАЦИЯ:

В статье исследуются развитие исторического жанра изобразительного искусства в культуре Узбекистана во второй половине XX века.

КЛЮЧЕВЫЕ СЛОВА: *Музей, поэт Алишер Навои, ученый Хамид Сулейманов, художники, произведения изобразительного искусства, исторический жанр, зритель, народ.*

HISTORICAL GENRE IN THE VISUAL ARTS THE ART OF UZBEKISTAN

ANNOTATION:

The article examines the development of the historical genre of fine art in the culture of Uzbekistan in the second half of the twentieth century.

KEYWORDS: *Museum, poet Alisher Navoi, scientist Hamid Suleymanov, artists, works of fine art, historical genre, spectator, people.*

O'rta asrlar miniatyurasi milliy maktablarining mavjud xususiyatlarini tasviriy san'at ustalari tomonidan chuqurroq o'rganishga intilish XX asr ikkinchi yarmidagi tarixiy janrdagi O'zbekiston tasviriy san'ati taraqqiyotining muhim tamoyillaridan biri bo'lib qoldi. Ushbu janrdagi yo'nalish xalq badiiy an'alariga bo'lgan qiziqish, uning ifodasi mazmuni va, ayniqsa, shaklini aholining tasviriy merosi bilan boyitishga bo'lgan intilish tufayli vujudga keldi. XX asrning ikkinchi yarmigacha bo'lgan davrdagi tasviriy san'atning barcha turlaridagi tamoyillarning o'xshashligi taraqqiyot birligini aks ettirdi, u yosh iqtidorlarni ochishga ham, o'ziga xos maktab sifatidagi tasviriy san'at umumiy o'zbek maktabini shakllanishiga ham yordam berdi. O'zbekiston Respublikasi fanlar akademiyasi Alisher Navoiy nomidagi Davlat adabiyot muzeyidagi kolleksiyalardan tarixiy janrdagi ko'plab asarlarda ana shu tamoyillardan biri namoyon bo'ldi.

O'zbekistondagi milliy maktab doirasida tasviriy san'atning boshqa turlari kabi tarixiy janr ham XX asrning ikkinchi yarmida jadal rivojlandi. Milliy maktabning o'ziga xosligini qandaydir umumiy xususiyatlarga taqab bo'lmaydi. U bu xususiyatlarning betakrorligida namoyon bo'ladi, ularning har biri alohida olingan holatda ham umuminsoniy mulk hisoblanadi. O'zbekistonda bu davrlarda yaratilgan tarixiy janrdagi tasviriy san'at asarlari tomoshabin ko'z oldida fikrlar, hissiyotlar va shakl-shamoyil, usullarning ko'pqirrali ranginligini namoyon qiladi. Zero, bunda ularning o'ziga xosligi tashqi ko'rinishlaridagina emas, balki rassom ongining chuqur qatlamlarida va uning xalqining madaniy tajribasida vujudga keladi. XX asr ikkinchi yarmidagi milliy tasviriy san'at maktabining muhim farqlaridan biri O'zbekistondagi yirik respublika ko'rgazmalarida kuzatildi, rassomning tarixiy voqelik sifatidagi milliy estetik an'analarga e'tiborida ko'rindi. Haqqoniy tarix urf-odatlarini, jo'shqin maylni, insoniy timsollarning axloqiy qonunlarini belgilab beradi, ular bir millatga mansub insonlarning bir-biriga, tabiatiga va tashqi olamga bo'lgan munosabatini ko'rsatadi. Bu an'ana avloddan-avlodga o'sib boraveradi, xalqning ma'naviy va moddiy madaniyatining barcha yodgorliklarida o'z aksini topadi.

Rassom shaxs sifatida shakllanib borgan sayin o'z xalqi an'analari, hayot tarzini o'zida singdirib boraveradi. Har bir katta tasviriy san'at asarlari uchun dolzarb bo'lgan milliy etik o'z-o'zini anglash muammosining murakkabligi shunda. O'tgan asrning boshlari va ikkinchi yarmida O'rta Osiyoga, xususan O'zbekistonga olib kelingan yevropacha klassik tasviriy maktab tili o'zbek tasviriy san'at maktablari, xususan o'rta asrlar miniatyuralari milliy badiiy an'analari bilan uyg'unlashib ketdi. Olamni badiiy aks ettirish tilining bu uyg'unlashuvi ijodiy izlanishlar va tarixiy janrdagi tasviriy san'at asarini yaratish jarayonida tarixiy mavzulardagi devoriy suratlar va rangtasvir asarlarida o'z aksini topdi. Taniqli sanat ustalari Malik Nabiyeu, Chingiz Axmarov, Rahim Ahmedov, Abdulhaq Abdullayev, Ne'mat Qo'ziboyev, Ro'zi Choriyeu,

Sa'dulla Abdullayev, Javlon Umarbekov, Bahodir Jalolov kabilar o'z asarlarini shunday yaratdilar va yaratmoqdalar. Ular yaratgan asarlar O'zbekiston va xorijdagi ko'plab muzeylar, galereyalar, davlat muassasalarida namoyish etilmoqda. 1939 yili Alisher Navoiy nomidagi davlat adabiyot muzeyini tashkil etilishi bu davr tasviriy san'ati rivojidadagi asosiy omillardan biri bo'ldi. Muzey buyuk shoir tavalludiga 500 yil to'lishi munosabati bilan tashkil etildi.

“1958 yili muzey O'zbekiston Respublikasi fanlar akademiyasi Til va adabiyot Instituti qoshida tashkil etildi. 1967 yili 18 noyabrda O'zSSR Ministrlar soveti Qarori bilan muzey O'zbekiston fanlar akademiyasi ilmiy-oqartuv muassasasi maqomiga ega bo'ldi. 1976 yili Alisher Navoiy nomidagi Davlat adabiyot muzeyi qoshida qo'lyozmalar Instituti tashkil etildi. 1989 yil 13 sentyabrda muzey ilmiy-madaniy muassasa bo'lib qoldi”.

O'zbekiston madaniyatida ma'naviy-moddiy voqea bo'lib qolgan adabiyot muzeyi va qo'lyozmalar Institutini tashkil etilishi eng avvalo yirik olim, adabiyotshunos Hamid Sulaymonov (1911-1979) nomi bilan bog'liq. O'tgan asrning 1930 yillarida u yozuvchi Said Ahmad va boshqa O'zbekiston ziyolilari qatorida qatag'on qilindi. 1940 yillar oxiri va 1950 yillar boshlarida Hamid Sulaymonov ozodlikka chiqqach, butun hayotini buyuk mutafakkir va shoir Alisher Navoiyning ijodiy merosini o'rganishga bag'ishladi.

Ta'kidlash joizki, o'zbek ziyolilari va nafaqat o'zbek, balki boshqa kasbdagi ko'plab mashhur shaxslarning o'limiga sabab bo'lgan qatag'onning fojeaviy oqibatlariga qaramasdan, “San'at xalqnikidir” shiori sovet hokimiyatining madaniyatdagi bosh shiori hisoblanar edi. Toshkent viloyati ijroiya komitetining ko'rkam binosi urushdan keyin Alisher Navoiy nomidagi muzeyga berilgan edi. Unga Hamid Sulaymonov direktor etib tayinlandi. Muzeyga noyob qo'lyozmalar, Alisher Navoiy hayoti haqidagi kitoblar, tarixiy va XX asr ikkinchi yarmi xalq hayotiga bag'ishlangan tasviriy san'at asarlari oqib keldi, yarim asr o'tgach ularning barchasi ham tarixiy asarlarga aylandi. Alisher Navoiy nomidagi Davlat adabiyot muzeyi 1968 yili rasman ochildi, unga xalq oqib keldi. Ochilishida ko'plab xorijiy, boshqa Respublikalardan, O'zbekiston Respublikasining barcha viloyatlaridan kelgan ko'plab mehmonlar ishtirok etdi. Muzeyni ochilishi buyuk shoir tavalludiga 525 yil to'lishiga bag'ishlandi. Muzeyning ochilishi olimlar, adabiyotchilar va rassomlarni buyuk shoir hayoti sahifalari haqida yangidan-yangi asarlar yaratishga ilhomlantirdi. Umuman jamiyatda va uzoq xorijda ham buyuk shoir Alisher Navoiy haqida eshitmagan odam kam topiladi. Muzey rasman ochilganidan keyin uning direktori ko'p marotaba xorijga xizmat safariga borib keldi. Xizmat safaridan u Kamoliddin Behzod va uning shogirdlari miniatyura asarlaridan, qo'lyozmalardan, litografiyalardan nushalar, Alisher Navoiy davriga tegishli bo'lgan tasviriy va amaliy san'at asarlaridan fotonushalar olib keldi.

Ko'p yillar davomida muzeyda badiiy ekspert komissiyasi ishladi. Shuni ta'kidlash lozimki, Alisher Navoiy nomidagi muzeyda saqlanayotgan XX asrning ikkinchi yarmida yaratilgan tarixiy janrdagi ko'pgina tasviriy san'at asarlari yuksak badiiy saviyaga ega. Bu asarlar saviyasi Hamid Sulaymonov, Rahim Ahmedov, Chingiz Ahmarov, Ne'mat Qo'ziboyev singari mashhur olimlar va rassomlar a'zo bo'lgan martabali ekspert komissiyasi tomonidan ko'p bora muhokama qilingan edi, negaki muzey direktori o'sha davrdagi eng yetuk Navoiyshunoslar, shuningdek, tasviriy san'atning barcha turlari ustalaridan iborat eng yaxshi mutaxasislarni yig'gan edi.

Yarim asrdan keyin ularning sotib olingan eksponatlarning sifati haqidagi fikrlari o'z tasdig'ini topdi. Muzeyda tarixiy janrdagi tasviriy san'at asarlarining ko'plab turlari yig'ilgan edi. Bular rangtasvir, grafika, devoriy suratlar, haykaltaroshlik, gobelen kabilardan iborat bo'lgan edi. Ulardan ko'pchiligi sotib olingan bo'lib, Chingiz Ahmarovning devoriy suratlarini esa Hamid Sulaymonov hayotligi chog'ida ishlangan edi. Muzeyda 17 mingdan ortiq san'at asari va 65 ming litografik kitoblar saqlanadi. Ular muzeyning to'rt qavatida namoyishga qo'yilgan va XV-XX asrlar madaniyati va san'atini aks ettiradi. Ikkinchi qavatda Amir Temur, Mirzo Ulug'bek, Mirzo Bobur davrlari haqida hikoya qiluvchi zallar bor. O'zbek klassik adabiyoti, rus va Yevropa adabiyoti, jadid ma'rifatparvarlar obrazlarini aks ettiruvchi tasviriy san'at asarlari, litografiyalar uchinchi qavatdagi zallarda joylashgan. Muzeyda mingdan ortiq qo'lyozmalar asrab-avaylab saqlanayotgan fond bor.

Shuningdek muzeyning ikkinchi qavatida Alisher Navoiy davrini aks ettiruvchi tarixiy janrdagi asarlar namoyishga qo'yilgan. Ular Alisher Navoiyning ijodiga, adabiy merosiga, qo'lyozma nusxalariga, haykallari va rangtasvir portretlari, shoirning hayotidan hikoya qiluvchi tasviriy san'at asarlariga bag'ishlangan.

Tarixiy mavzudagi tasviriy san'at asarlaridan iborat boy kolleksiya ziyolilar va talabalar e'tiborini tortadi. O'sha yillari tarbiya va ta'lim tizimida zakovat va ijodning roli oshgan edi. "Ijod faqat ma'lum ijtimoiy muhitda bo'lishi mumkin. Faqat ma'lum muhitdagina kashfiyotlarga, ulardan jamoatchilik hayotida foydalanishga qiziqish bo'lishi mumkin, ijtimoiy muhitning o'zi esa madaniyatning noyob hodisalaridan biri hisoblanadi". Aynan shu qulay muhit tufayli bu yillarda Alisher Navoiyning ijod namunalari yangi nashrlari va unga bag'ishlangan ijodiy va badiiy asarlar ko'plab yaratildi.

Muzeylar, ko'rgazma zallari va ma'rifiy tashkilotlar o'nlab yillar davomida keng tomoshabinlar ommasini estetik tarbiyalash tajribasini orttirdilar. San'at va tomoshabinlar o'rtasida haqiqiy muloqotni chuqurlashtirish va kengaytirishga yordam beruvchi ish shakllari zarur bo'ldi. Masalan XX asr ikkinchi yarmida Davlat san'at muzeyini rassom Somiq Abdullayev va yetakchi san'atshunos mutaxasislar tomonidan

mahorat bilan boshqarilganligi tufayli muzeyga tomoshabinlar jalb etish uchun ko‘p ishlar qilindi. Bu maskan Respublikaning turli burchaklaridan kelgan xalq ommasi ko‘p tashrif buyuradigan muzey bo‘lib qoldi, bu yerga ko‘plab xorijiy mehmonlar kelib, tarixiy mavzudagi ko‘plab rangtasvir asarlari bo‘lgan muzey eksponatlari bilan tanishayaptilar. Tasviriy san‘atning tarixiy janri XX asrning ikkinchi yarmida tasviriy san‘at tizimiga zamon mafkurasining tazyiqiga qaramay, san‘at ustalari tomonidan yaratilgan asarlar tufayli katta o‘rin tutdi.

Muzey rivojining har bir bosqichi mazmuniy teranlik va ifodaviy vositalar boyligini yangilash va izlanishlar omili bo‘lib xizmat qildi, o‘z davrining yetakchi yo‘li va shakl-shamoyili tamoyillarini ifodaladi. O‘sha davrlarda yaratilgan tarixiy janrdagi asarlar ezgulik g‘oyalari bilan yo‘g‘rilgan hayot tufayli vujudga keldi. Bu g‘oyalarga xurmat O‘zbekistonda davlatchilik qurilishida ko‘p xizmat qilgan va madaniyatimizning ma‘naviy va moddiy boyligini yaratgan olimlar, yozuvchilar va boshqa barcha kasb egalariga ehtirom sanaladi. “Har qanday davlat bu butun jamiyatni yaratish natijasidir. Yaratuvchanlikni esa ijodiy tafakkur va mehnatsiz tasavvur qilib bo‘lmaydi. Odamlar turlicha bo‘lganligi tufayli o‘z shaxsiyatiga xos va xilma-xil fikrlaydi va harakat qiladi. Shu sababli taraqqiy etgan, ilg‘or davlatni shakllantirish uzoq davom etadigan, ijodiy jarayon hisoblanadi. U ko‘plab odamlarning yaratuvchanlik faoliyatini qamrab oladi. Ular umumiy maqsad uchun o‘z halovatidan kechganlar”.

Bularning barchasida O‘zbekiston tasviriy san‘ati tarixiy janrdagi asarlariga xos bo‘lgan ma‘lum xalqona tarbiyaviy yo‘nalish jamlangan. U o‘z navbatida tabiatiga, xalqni ma‘naviy tarbiyalashdek o‘z ijtimoiy vazifasini bajarishga intildi. Bu jarayon tasviriy san‘at tanqidi va uni ommalashtirish bilan shug‘ullanayotgan gumanitar sohalar mutaxassislari oldiga yangi vazifalar qo‘ydi. Tasviriy san‘at tarixiy janri taraqqiyoti manfaati yuzasidan tasviriy san‘at ustalarining barcha ijodiy izlanishlarini madaniyatshunoslik va san‘atshunoslik nuqtai nazaridan aks ettiruvchi va anglovchi joriy badiiy amaliyotni mufassal tahlil qilish talab etiladi. Bevosita tomoshabinlar ommasiga qaratilgan targ‘ibot ishlari nihoyatda muhimdir. Bunda muzeylarda, badiiy galereyalar va ko‘rgazma zallarida ishlayotgan mutaxassislar tajribasiga ehtiyoj ortaveradi. Yangi g‘oyalar, mavzular, hayot talablari asosida ifodaviy usullar kabilar bilan boyib, yangilanib borayotgan tasviriy san‘at tarixiy janrlaridagi asarlar tomoshabinlarda ko‘plab savollarni uyg‘otmoqda. Omma va tasviriy san‘at tarixiy janrlari o‘rtasidagi muloqot samarali bo‘lishi kerak. Ammo, shuni unutmaslik kerakki, tasviriy san‘atdagi ijodiy tafakkurning jonli harakati nafaqat ijodkorlar, balki ijod namunalari tomoshabinlari orasida ham o‘z ustida ma‘naviy ishlar olib borishni talab qiladi.

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REPRODUKTIV YOSHDAGI AYOLLARDA JINSIY A'ZOLARNING PAPILLOMAVIRUSLI INFEKTSIYASINI ERTA TASHXISLASH

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ANNOTATSIYA

JSSTning bachadon bo'yni saratonini sog'liqni saqlash muammosi sifatida yo'q qilish bo'yicha global strategiyasi 21-asrda kasallikni yo'q qilishdir (Jahon sog'liqni saqlash tashkiloti, 2019 yil). 2020-2030 yillarda global maqsadga erishish. Quyidagi tadbirlar rejalashtirilgan: qizlarning 90 foizi 15 yoshgacha HPV ga qarshi emlanadi; 35 va 45 yoshdagi ayollarning 70 foizi yuqori aniqlikdagi testlar yordamida skrining bilan to'liq qamrab olingan; Bachadon bo'yni kasalligi tashxisi qo'yilgan ayollarning 90 foizi davolanadi va nazorat qilinadi.

Hozirgi vaqtda JSST bachadon bo'yni saratoni skriningi va diagnostikasi uchun uchta turdagi testlarni tavsiya qiladi: HPV ning onkogen turlarini tekshirish, an'anaviy Papanikolova yoki suyuqlik texnologiyasidan foydalangan holda sitologik tadqiqotlar, sirka kislotasi va yod eritmalari bilan kolposkopiya.

Kalit so'zlar: *bachadon bo'yni saratoni, HPV, onkogen, sitologiya.*

EARLY DIAGNOSIS OF HUMAN PAPILLOMAVIRUS INFECTION OF THE GENITALS IN WOMEN OF REPRODUCTIVE AGE

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ABSTRACT

WHO's global strategy to eliminate cervical cancer as a public health problem is to eliminate the disease in the 21st century (World Health Organization, 2019). Achieving the global goal in 2020-2030. The following measures are planned: 90% of girls will be vaccinated against HPV before the age of 15; 70% of women between the ages of 35 and 45 are fully covered by screening using high-precision tests; 90% of women diagnosed with cervical cancer are treated and controlled.

Currently, WHO recommends three types of tests for cervical cancer screening and diagnosis: testing for oncogenic types of HPV, cytological studies using traditional Pap or liquid technology, colposcopy with acetic acid and iodine solutions.

Key words: cervical cancer, HPV, oncogene, cytology.

KIRISH.

Suyuq sitologiya usulning samaradorligi to'g'risida ishonchli ma'lumotlarni ko'rsatsa ham, bachadon bo'yni saratoni bilan og'rig'an bemorlarda kasallanish (60-90%) va o'lim (90% ga) kamayishiga ta'sir qiladi, uni amalga oshirish yuqori malakali mutaxassislar va yuqori sifatli laboratoriya jihozlarini talab qiladi. Namuna olishdan keyin natijalar bir necha kundan bir necha haftagacha olinishi mumkin. Suyuq sitologiya tadqiqot uchun yuqori sifatli namuna olish imkonini beradi va sog'liqni saqlash darajasi yaxshi rivojlangan mamlakatlarda ko'proq qo'llaniladi. Suyuqlikka asoslangan sitologiyadan foydalanganda qoniqarsiz smearlarning ulushi Papanikolau usuli bilan solishtirganda keskin kamayadi, bu menopauzadagi ayollarda anatomik va gormonal muammolar tufayli ayniqsa muhimdir. [6].

AXBOROTLAR TAHLILI VA METODOLOGIYA.

O'simtadan oldingi va o'simta to'qimalari namunalarida, biologik suyuqliklarda mikroRNK ifoda profilini tavsiflash bachadon bo'yni xavfli va o'simtadan oldingi patologiyasini tasdiqlangan diagnostika uchun standart sitologik usullar bilan solishtirganda yangisini izlash nuqtai nazaridan muhimdir. bachadon bo'yni saratonining rivojlanish xavfini, prognozini va monitoringini aniqlash uchun markerlar. Skuamoz intraepitelial lezyonlarda servikal to'qimalarda mikroRNKlarning ifodasini baholash kanserogenezing kanserogen mexanizmlarini tushunish uchun muhimdir. . Shunday qilib, suyuqlik sitologiyasining axborot tarkibini mikroRNK ifodasini tahlil qilish bilan birgalikda o'rganish, uning nazariy ahamiyatidan tashqari, amaliy nuqtai nazardan ham dolzarbdir. [1,2].

Birinchi marta mikroRNK-20a, mikroRNK-21, mikroRNK-23b, mikroRNK-375 ifodasi uchun demarkatsion diagnostika darajalari o'rnatildi, bu esa usullarni birgalikda qo'llashda suyuqlik asosidagi sitologiyaning diagnostik informativligini oshirishga imkon beradi. skuamoz intraepitelial lezyonlar va bachadon bo'yni saratonining differentsial diagnostikasi.

Ish dalillarga asoslangan tibbiyotning uslubiy tamoyillariga muvofiq va skrining, diagnostik, prognostik testlarning qiyosiy tahlilini o'tkazish, nisbiy xavf qiymatlarining ishonchliligini, sezgirliги va o'ziga xosligini baholash asosida amalga oshirildi. Ushbu ishda foydalanilgan bachadon bo'yni patologiyasi bo'lgan bemorlarni o'rganish uchun klinik, sitologik, gistologik, genetik, statistik usullar.

NATIJALAR.

Tadqiqot ob'ekti sifatida 120 nafar bachadon bo'yni saratoni bemorlar, Chayld-Pyu bo'yicha B sinf bemorlar tanlab olindi.

- 1 gurux 40 ta(33.3%) HPV bilan kasallangan bemorlar,
- 2 gurux 40 ta(33.3%) HPV qonida aniqlangan bemorlar,
- 3 gurux 40 ta(33.3%) noma'lum etiologiyali bemorlar.
- Nazorat guruhi yoshi va jinsiga mos 40 nafar sog'lom shaxslar olindi.

MUHOKAMA.

Inson papilomavirusi juda keng tarqalgan va odatda teri va shilliq qavatlarda paydo bo'ladi. HPV 18 VA 16 turlari ayniqsa xavfli. Aynan shu turlari saraton kelib chiqishiga yetakchilik qiladi. Ayni paytda aholini shu virus haqida bo'lgan bilimlarini oshirish talab etiladi. HPV haqida, bemorlarning emlash istagi pastligi. Kichik foiz tufayli emlangan, displazi va malign o'smalarning rivojlanish xavfi ortadi

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MAGISTRATURA BOSQICHIDA ILMIY FAOLIYATNI TASHKIL ETISH TIZIMINI TAKOMILLASHTIRISHNING ILMIY-NAZARIY ASOSLARI

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Annotatsiya: Ushbu maqolada magistratura bosqichida tahsil olayotgan talabalarning ilmiy faoliyati tashkil etish hamda ijobiy natijalarga erishish uchun amalga oshiriladigan ishlar va ularning natijalari haqida fikr yuritilgan.

Kalit so'zlar: manbalar, didaktik tamoyillar, tajribalar, texnologiyalar, texnologiyalashtirish, metodika, statistik tahlil, ta'lim, ilmiy faoliyat, magistratura, tizim, tajriba, amaliyot, tizimli faoliyat, ilmiy ishlarni tashkil etish, nazariy bilimlar.

Annotation: This article reflects on the organization of the scientific activities of students studying at the master's level and the activities and their results to achieve positive results.

Key words: resources, didactic principles, experiences, technologies, technology, methodology, statistical analysis, education, scientific activity, master's degree, system, experience, practice, systematic activity, organization of scientific work, theoretical knowledge.

Аннотация: В данной статье размышляется об организации научной деятельности студентов, обучающихся в магистратуре, а также о деятельности и ее результатах для достижения положительных результатов.

Ключевые слова: ресурсы, дидактические принципы, опыт, технологии, технология, методология, статистический анализ, образование, научная деятельность, магистратура, система, опыт, практика, систематическая деятельность, организация научной работы, теоретические знания.

Magistratura bosqichida tahsil olayotgan talabalarning kompetentsiya yondashuvi kontent birliklarini (standartlarni) standartlashtirishga qaratilgan kredit yondashuviga dialektik muqobil sifatida qaraladi. Pedagogik nazariya va amaliyotda kompetentsiyani muayyan faoliyat sohasidagi muammolarni hal qilish qobiliyati va o'z kasbiy rolini bajarishga tayyorligi sifatida ta'riflash umumiy qabul qilingan.

Kompetensiyalar nafaqat o'rganishning bashorat qilinadigan natijasi, balki ta'lim mazmunini mantiqiy aniqlash va tanlash uchun asos bo'lib xizmat qiladi. G.I. Zvereva ta'kidlaganidek. "O'qituvchining hissasiga yo'naltirilgan tizimdan o'quvchining ta'lim faoliyati natijalariga yo'naltirilgan tizimga kontseptual o'tish bo'lishi kerak ... talaba o'zini butun ta'lim jarayonining markazida topadi" [2, 55].

Ta'lim dasturi doirasida amalga oshiriladigan tadbirlar majmuini, xususiyatlarini hisobga olgan holda, har bir faoliyatning maqsadlaridan kelib chiqqan holda, kelajakdagi kasbiy faoliyat sohasi, faoliyat ob'ektlarining xususiyatlari va uning turlarini belgilaydi. Oliy ta'lim muassasalarida ta'lim yo'nalishi bo'yicha magistratura dasturida ikkita asosiy faoliyat turi (o'qitish va tadqiqot) mavjud. Har bir faoliyat turi muayyan kasbiy muammolarni hal qilish bilan bog'liq. Ta'lim yo'nalishi bo'yicha magistratura bitiruvchisi tayyorlanishi kerak bo'lgan faoliyatning o'ziga xos turlari orasida biz uchun tadqiqot faoliyati ustuvor bo'lib tuyuladi. Bunda magistratura dasturi tadqiqotning magistratura modullaridan iborat bo'ladi. Tadqiqot dasturlarini ochish zarurati bir qator ijtimoiy-madaniy tendentsiyalar bilan bog'liq:

- zamonaviy jamiyatda ilm-fanning rolini oshirish, bu ilmiy axborotni tarqatish tezligining oshishi, ilmiy tadqiqotlarning asosan amaliy xususiyati va ushbu soha xodimlari sonining ko'payishida namoyon bo'ladi;

- ijodiy tarkibiy qism muhim o'rin egallay boshlagan pedagogik faoliyat mazmunining o'zgarishi, muvaffaqiyati uchun o'qituvchi ma'lumotni izlash va tahlil qilish, tadqiqot usullarini tanlash, bilishning adekvat metodologiyasini aniqlash va bilish qobiliyatiga ega bo'lishi kerak;

– ilmiy hamjamiyat magistratura ta'limining afzalliklarini anglab yetadi va uni ilmiy kadrlar tayyorlashning optimal modeli sifatida e'tirof etadi. Ushbu tendentsiya magistrlik va nomzodlik dissertatsiyalarini loyihalash va natijalariga qo'yiladigan talablarning bosqichma-bosqich yaqinlashishi bilan tasdiqlanadi.

Kelgusi yillarda oliy ta'limda magistratura ta'lim dasturlarini qurishda ilmiy yo'nalishlarini kuchaytirishda modul prinsipi zarurligini anglamog'imiz lozim. Shu bilan birga, Oliy ta'lim muassasalari kafedra tomonidan o'n yildan buyon olib borilayotgan magistratura talabalarining bitiruv malakaviy ishlarini tayyorlash, bajarish va himoya qilish jarayoni tahlili shuni ko'rsatadiki, ko'plab talabalar ilmiy-tadqiqot ishlari yetarli darajada rivojlanmagan. O'quv kurslari majmuasi va uzoq muddatli tadqiqot amaliyoti bu muammoni to'liq hal qila olmaydi. O'qituvchi ta'limining kompetensiyalarni rivojlantirishga e'tibori e'lon qilingan faoliyat turlariga muvofiq o'quv fanlari va amaliyotlarini magistratura tayyorlash jarayonida o'zaro bog'liq modullar ko'rinishida taqdim etishni nazarda tutadi. Bunga ta'lim dasturlarini ishlab chiqish jarayonida kompetensiyaga asoslangan va modulli yondashuvlarning kombinatsiyasi orqali erishiladi, bu har bir ta'lim darajasi, modul chuqurligi va kursni o'zlashtirish uchun aniq "kirish" talablarini hisobga olishni o'z ichiga oladi.

Ta'lim jarayonini qurishda kompetensiyaga asoslangan yondashuv magistratura dasturlarini ishlab chiqish shartlarini belgilaydi:

· asosiy ta'lim dasturini yangi ta'lim texnologiyalari asosida modulli asosda qurish;

· ilmiy sohadagi ekspert-tahliliy, loyiha-konstruktorlik, tashkiliy-konsultativ ishlarning nazariy tayyorgarligi, ijtimoiy-amaliy bilimlari, ko'nikma va malakalari o'rtasida yaqin munosabatlarga erishish.

Asosiy ta'lim dasturining mazmuni ilmiy-tadqiqot faoliyati sohasida bitiruvchilarning ilmiy tadqiqot natijalarini tahlil qilish, ularni fan va ta'lim sohasidagi aniq tadqiqot muammolarini hal qilishda qo'llash va mustaqil ravishda ilmiy tadqiqotlar olib borish qobiliyatiga ega bo'lishini belgilaydi. Tadqiqot muammolarini mustaqil hal qilish uchun individual ijodiy qobiliyatlardan foydalanishga tayyorgarlikni amalga oshirish. Ushbu kompetensiyalarni rivojlantirish, albatta, turli fanlar asosida amalga oshiriladi, ammo o'quv rejasida aniq tadqiqot yo'nalishi bo'lgan kurslar mavjud.

Modulning birligi ma'ruza va amaliy topshiriqlar mavzulari hamda mustaqil ish uchun topshiriqlar majmuasi muvofiqlashtirilgan umumiy dastur ishlab chiqish bilan belgilanadi. Modulli dasturning yana bir muhim tarkibiy qismi tadqiqot amaliyoti bo'lib, unda talabalar kasbiy kompetensiyalarni rivojlantirishga qaratilgan vazifalarni bajardilar, ularni shakllantirish faqat tadqiqot faoliyati orqali mumkin.

“Tadqiqot faoliyati” moduli quyidagi tushunchalarga asoslangan ilmiy-tadqiqot kompetensiyalarini rivojlantirishga ko'maklashishi kerak: fan va ta'lim rivojlanishining hozirgi tendentsiyalari, metodologiya asoslari, psixologik-pedagogik tadqiqot usullari; mantiqiy va psixologik-pedagogik tadqiqotlar dasturini ishlab chiqish, tegishli ilmiy usullarni tanlash va ulardan foydalanish bo'yicha amaliy ko'nikma va malakalarni egallash. Albatta, modulli dasturni ishlab chiqish va amalga oshirish, agar malaka oshirish darajasini monitoring qilish va baholash uchun tegishli vositalar ishlab chiqilmasa, kutilgan natijalarni bermaydi. Yangilangan standartlarni joriy qilish sharoitida ko'plab universitetlar optimal baholash modellarini ishlab chiqmoqdalar. Qisman kompetensiyaga asoslangan yondashuv kurs ishlarini, o'quv va mehnat amaliyotlarini va tadqiqot ishlarini baholashda amalga oshirilishi mumkin. Qobiliyatlarni baholash, olingan bilimlarning hajmi va sifatini aniqlashga qaratilgan imtihon testlaridan farqli o'laroq, faoliyatni tashxislashning ob'ektiv usullaridan (kuzatishlar, kasbiy faoliyat mahsulotlarini ekspertizadan o'tkazish, o'quv jarayonlarini himoya qilish va boshqalar) ustuvor foydalanishni nazarda tutadi. Olimlarning ta'kidlashicha, kompetensiyaga asoslangan yondashuv doirasida sertifikatlashtirish tartib-qoidalari individual (sinov, kurs va diplom loyihalari, reytinglar va boshqalar) va institutsional (faoliyatning ommaviy ekspertizasi, sertifikatlashtirish va litsenziyalash, ta'lim muassasalari reytingi, va hokazo) yuqori natijalarni beradi.[1,93]

Magistratura talabalarining ilmiy-tadqiqot kompetensiyasining rivojlanish darajasini baholash uchun joriy, oraliq va yakuniy nazoratning turli shakllarini

(magistrlik dissertatsiyasini himoya qilish paytida yuzaga keladigan) kombinatsiyasi zarur. "Tadqiqot faoliyati" moduliga kiritilgan kurslar allaqachon malakalarni rivojlantirishga qaratilgan vazifalarni o'z ichiga oladi.

"Ilmiy tadqiqot metodologiyasi" fan dasturida ma'ruza materiallari va seminarlar mazmuni ilmiy tadqiqot mantig'iga mos ravishda tuzilgan. Magistratura talabalari quyidagilar bilan tanishadilar va o'zlashtiradilar, ilmiy axborot manbalari bilan ishlash ko'nikmalari; pedagogik hodisalarni kuzatish va tahlil qilish usullari; pedagogik tajribani o'rganish va umumlashtirish, dolzarb tadqiqot muammosi, uning maqsad va vazifalarini aniqlash, gipotezani shakllantirish, pedagogik eksperiment o'tkazish, tadqiqot natijalarini qayta ishlash va sharhlashni, tadqiqot materiallarini kurs ishi va yakuniy malakaviy ishlar shaklida umumlashtirishni o'rganish. Seminar mashg'ulotlari va mustaqil ish uchun topshiriqlar talabalarni mavzu tanlashga tayyorlash, ilmiy apparat, metodika va tadqiqot usullarini belgilashga muvofiq tuzilgan. Masalan, birinchi seminar darsiga qadar talabalar quyidagi vazifalarni bajarishlari kerak:

mavzuni aniqlashda va dissertatsiya ustida ishlashda foydalanish mumkin bo'lgan ilmiy jurnallar ro'yxatini tuzish;

yetakchi tadqiqot tushunchalarining mikrotezausini tuzish; tadqiqot mavzusi bo'yicha referat va maqolaga sharh yozish;

tadqiqot muammosi ustida ishlashda yordam beradigan beshta sayt taqdimoti.

Ta'lim mazmunidan tashqari, modulda qo'llanilgan o'qitishning bir qancha shakllari va usullarini ajratib ko'rsatishimiz mumkin. Samarali usullardan biri bu keys usulidir. Modulli dasturda o'qituvchi yoki magistratura talabasi tomonidan ishlab chiqilishi mumkin bo'lgan har xil turdagi keyslarni yaratish va muhokama qilishdan foydalanilgan bo'lib, bu bizga kerakli ma'lumotlarni izlash, mazmunini aniqlash, keys ishlab chiqish ko'nikmalarini yangilash va rivojlantirish imkonini beradi. Rejalashtirish, kerakli diagnostika vositalarini tanlash, ya'ni pedagogik tadqiqotlarni amalga oshirish uchun zarur bo'lgan barcha ko'nikmalar hosil bo'ladi.

Magistratura uchun ilmiy-tadqiqot faoliyatini o'zlashtirishning bir qismi sifatida o'quv va tadqiqot holatlaridan kompleks foydalanish dolzarbdir. Magistraturada namunaviy tadqiqot masalalarini yechish amaliyotini o'zlashtirish bilan bir qatorda keys usulini qo'llagan holda, yangi tadqiqot va ilmiy-amaliy muammolarni qo'yish bo'yicha kasbiy ko'nikmalar shakllanadi, shuningdek, ularni ijodiy, mustaqil hal etish uchun foydali ko'nikmalar shakllanadi. Magistratura talabasining sinfda va tashqarida holatlar bilan ishlashi kognitiv, instrumental, tarbiyaviy, tarbiyaviy murakkab effekt yaratishi mumkin. Professional tarzda tuzilgan va "o'ynagan" holatlar tadqiqot va muloqot qobiliyatlarini rivojlantiradi, vaziyatni tahlil qilish va qaror qabul qilish qobiliyatini rivojlantiradi.

Tadqiqot modulida magistratura bosqichi talabalari uchun interfaol ta'limning shakl va metodlari majmuasida talabalarning ilmiy va ilmiy-amaliy muammolarni ijodiy qo'yish va ularni mustaqil hal etish qobiliyatini rivojlantirishni nazarda tutuvchi loyiha usuli muhim o'rin tutadi. Individual va guruh loyihalarini tayyorlash va amalga oshirish jarayonida magistrantlarda ilmiy vositalarni ongli ravishda tanlash va ularni amaliyotda qo'llash ko'nikmalari shakllanadi. Sinf va sinfdan tashqari loyiha ishlarining elementlari muammoli seminarlar va amaliy mashg'ulotlarga kiritilishi mumkin. Loyiha usuli magistraturaning yakuniy malakaviy ishini tayyorlash jarayonida to'liq taqdim etiladi.

Magistratura talabalarining ilmiy-tadqiqot faoliyatiga tayyorgarligini oraliq kompleks nazorat qilishning mumkin bo'lgan shakllaridan biri ilmiy-reflektor seminari bo'lishi mumkin. Bunday seminarda ilmiy tadqiqotning o'zlashtirilgan texnika va usullari sinovdan o'tkazilib, zamonaviy fanda ishlab chiqilgan ilmiy ishlar tanqidiy muhokama qilinib, ekspert bahosi o'tkaziladi. Bunday seminarning ko'p komponentliligi uning ishiga moderatorlar, magistrantlar va ularning ilmiy rahbar-professorlaridan tashqari, seminar ishiga ekspert bilimlari komponentlarini kirituvchi turli ijtimoiy-madaniy soha mutaxassislarini ham kiritishni nazarda tutadi. O'qituvchining tadqiqot faoliyatini o'zlashtirish darajasi va sifatini baholashdan tashqari, o'z-o'zini sertifikatlashning turli shakllari samarali bo'lishi mumkin, adabiyotda uning turli xil o'zgarishlarining tavsifini topish mumkin [3, 57].

Tadqiqot moduliga kiritilgan fanlarni o'zlashtirish jarayoni modulning barcha o'quv kurslari bo'yicha mustaqil ishlash uchun topshiriqlarni o'z ichiga olgan ishchi daftar bilan ham birlashtirilishi mumkin. Uning rivojlanishining asosiy sharti ilmiy-tadqiqot faoliyatining mantiqiyliigi va barcha topshiriqlarning magistrlik dissertatsiyasi mavzusiga yo'naltirilganligi bo'lishi kerak. Yangi standart bo'yicha ishlash sharoitida, materialning muhim qismini bakalavriat talabalari mustaqil ravishda o'zlashtirishlari kerak bo'lganda, bunday o'quv-uslubiy ishlanmalar bakalavriatning ta'lim maydonini tashkil etishga yordam beradi, turli xil o'quv kurslarini yagona semantik va ma'noga birlashtiradi. faoliyat bloki, va o'qituvchilar ishini muvofiqlashtirish. Modulli dasturlarga o'tish, shuningdek, bunday modelda bitta bo'lishi kerak bo'lgan o'quv-uslubiy majmuani, shuningdek sertifikatlash materiallarini, boshqaruv tizimini va boshqalarni ishlab chiqish jarayonini o'zgartiradi.

Magistrlik tadqiqot modulini amalga oshirishga yuzaki qarash ham shuni ko'rsatadiki, yangi standartlar magistraturada ishlashning butun tizimini o'zgartirishi kerak; ular faqat yangi ta'lim natijalarini belgilaydiganga o'xshaydi, lekin ularni amalga oshirishning birinchi amaliyoti shuni ko'rsatadiki, ta'lim jarayonining butun mantiqiy va tuzilishini o'zgartirmasdan turib, bu natijalarga erishish mumkin emas.

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ИСККУСТВЕННЫЙ ИНТЕЛЛЕКТ И ПЕШЕХОД

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***Аннотация:** Данная статья посвящена разработке и созданию интеллектуальной системы, в управлении движением: пешеходов, детей, инвалидов и пожилых людей на переходах и перекрестках улиц.*

***Ключевые слова и направления:** робот, переход, перекресток, улица, пешеход, светофор, знаки, микропроцессор, интеллектуальная система.*

ARTIFICIAL INTELLIGENCE AND THE PEDESTRIAN

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***Abstract:** This article is devoted to the development and creation of an intelligent traffic management system for pedestrians, children, the disabled and the elderly at crossings and street intersections.*

***Keywords and directions:** robot, crossing, intersection, street, pedestrian, traffic light, signs, microprocessor, intelligent system.*

Целью данной исследовательской работы является, создание интеллектуальной системы, т. е. сопровождающего робота, в переходах, перекрестках улиц, для сопровождения: детей, инвалидов и пожилых людей.

Развитие интеллектуальных систем и его служба в народном хозяйстве является не ограниченным, потому что человечество будет искать и находить новые и новые варианты проблем, а их надо обнаруживать/находить и создавать. Если в Японии, робот в качестве официанта может обслужит едоков, то почему же робот не услужить пешеходам.

Нам необходимо разработать и создать «сопровождающего робота» в переходах и перекрестках улиц. Данная проблема является очень важным особенно в наших городах где, мало подземных переходов и еще уличные переходы не спроектированы на нужном уровне. Такие работы будут разрабатываться еще очень много, потому что, необходимо решит очень много проблем: автодорог, подземных переходов, пересекающих дорог с метрополитеном, со стадионами, дворцами культур и т.д.

Например, рассмотрим только одну, проблему, которая связана с пешеходными переходами, думается в процессе разработки появятся еще нами не учтенные варианты и предложения.

Независимо от выполняемой функции в данной работе, в общем необходимо, создать:

- робот с ростом человека, который был виден издали (чтобы он отличался от человека по своему цвету и внешности;
- он свободно передвигался, как человек (особенно по пешеходному тротуару);
- жестикулирую мог давать команду пешеходам и транспорту;
- а также, говорил и отвечал на трех языках (узбекском, русском и английском);
- а также, смог жестикулировать на сурдопедагогике инклюзив [1-7];
- если, человеку плохо, он мог позвонить в скорую помощь 02;
- при обстоятельстве (если человек пьянь или нагрубил, или нарушил правило дорожного движения) позвонить в милицию 03;

Конструктивную часть данной работ необходимо разбит на три части:

- первая часть выполняется со стороны разработчиков для согласования с создателями;
- вторая часть согласование и изготовление всех деталей, узлов, блоков, агрегатов в виде готового механизма;
- третья часть – сборка, наладка и эксплуатация спроектированного.

Для проведения данной работы требуется создать три творческие группы:

первая – разрабатывает «мягкую часть», т.е. программную, которое бы запрограммирует все функции выполнения «жесткой части» и «лингвистической части» данной системы;

вторая – будет создавать «жесткую часть», т.е. конструктивную: ходовую часть, а также оформительские роботы - работа;

третья – будет создавать «лингвистическую часть», т.е. работы, связанные с: узбекским; русским; английским языками общения и сурдопедагогика инклюзив [1].

Участвуя в:

- первой группе, разработать техническое задание; изучить каждую функцию в отдельности; для каждого из них разработать алгоритм функционирования; составить программу и отладит ее на определенном алго языке и внедрит в систему управления автотранспортом города;

- в «жесткой части»: сконструировать робот величины человека, чтобы он был виден/замечен с обеих сторон улицы пешеходами и транспорту; он отличался и по своему цвету, чтобы отвлечь всех внимания; он механически «координировал и жестикулировал» над пешеходами и транспортом; [7]

- в «лингвистической части», тоже организовать три группы, состоящих из лингвистов: которые бы, разработали и внедрили общение на узбекском, русском, английском и сурдопедагогика инклюзив [8].

Не скажем что, у выше приведенных групп работа не из простых, и не дешевая, но у каждого есть свой, не повторимый труд.

В данной работе, большая доля интеллектуальных работ приходится в первую группу, потому что, эти работы связаны: с математиками, системщиками, программистами, с проектировщиками и специалистами в данной области, которые будут руководит проектами и работой второй и третьей группы.

Данная задача – эта сложная система, которая состоит из множества подсистем и является громоздким с точки зрения участников, потому что, до принятия конечного решения в каждом разделе или подсистемы будет необходимо проверять на корректность, т.е. на точность: проекта, расчета, изготовления и эксплуатации.

Потому что, по разработанному проекту будет выделен пешеходная дорога и по ихнему алгоритму будут маршрутировать-функционировать роботы, и осуществлять: сопровождение пешехода; сигнализировать, разговаривать, регулировать транспортом, звонить и т. д. В проектировании необходимо будет учесть всех этих функций и виды выполняемых работ робота.

РЕЗЮМЕ: в данное время в области интеллектуализации разработаны очень много работ, особенно с появлением новых многофункциональных Chat Gt, Arduino Uno R3 микропроцессоров. Но они все востребованные, когда они будут внедряться на промышленной основе – серийно, тогда их придется минимизировать. То, есть, когда промышленно районы и города будут перепроектированы и построены, тогда из них многое отойдут, но вместо их придут другие, инновированные.

Данная работа на стадии создания, является очень сложным, которая:

- в связана с финансированием;
- разработкой «жесткой части», как, конструированием самого робота;
- проектированием пешеходной части дорог;
- проектированием трансляторов на трех языках и сурдопедагогика инклюзив;
- созданием распознающую систему на языке и сурдопедагогика инклюзив [5,6] и т.д.;

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