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Articles

PSYCHOLOGICAL APPROACH TO ACHIEVING RESULTS IN SPORT

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Annotation: Wide opportunities for the application of psychological knowledge exist in the field of physical education and sports. The psychology of sports studies the laws of the mental activity of people in conditionsof training and sports competitions. Objects of study and practical work of the sports psychologist are ath- letes, coaches, the process of their interaction, aimed at mastering sports skills and enhancing athletic skills. The main goals of the psychology of sports are the study of the psychological patterns of the formation of sports skills and skills required for participation in competitions, as well as the development of psychologi- cally sound methods of training and preparation for competitions.

Keywords: Psychology, sport, competitions, psychological patterns, team, training, knowledge, emotional memory.

ПСИХОЛОГИЧЕСКИЙ ПОДХОД К ДОСТИЖЕНИЮ РЕЗУЛЬТАТОВ В СПОРТЕ

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Аннотация :Широкие возможности применения психологических знаний существуют в области физического воспитания и спорта. Психология спорта изучает закономерности психической деятельности людей в условиях тренировок и спортивных соревнований. Объектами изучения и практической работы спортивного психолога являются спортсмены, тренеры, процесс их взаимодействия, направленный на усвоение спортивных умений и повышение спортивного мастерства. Основные цели психологии спорта изучение психологических закономерностей формирования у спортсменов и команд спортивного мастерства и качеств, необходимых для участия в соревнованиях, а также разработка психологически обоснованных методов тренировки и подготовки к соревнованиям.
Ключевые слова: Психология, спорт, соревнования, команда, тренировка, воспитание, знание.

Деятельность спортивного психолога заключается в грамотном психологическом сопровождении всей спортивной жизни спортсмена и включает в себя следующие основные направления: психодиагностика; индивидуальная психологическая подготовка спортсмена; ситуативное управление поведением и состояний спортсмена.

1. Создание психологических условий, необходимых для улучшения психологической выносливости спортсмена, а также помощи ему в достижении высоких показателей силы, скорости и выносливости. Также, создание необходимых психологических условий, которые способствуют развитию у спортсмена специализированных видов восприятия.
2. Психологически подготовиться спортсмену к предстоящему соревнованию. Важно ознакомить спортсмена со всеми особенностями и тонкостями того соревнования, в котором он будет участвовать, чтобы спортсмен мысленно смог себе представить, как все будет происходить. Спортсмену нужно в своем воображении проиграть сцену предстоящих событий, чтобы адаптировать к ним свою психику.
3. Формирование личности спортсмена, для улучшения взаимодействия с другими спортсменами в команде и тренером. У спортсмена не должно быть никакой заносчивости или чувства угнетенности, иначе это пойдет во вред не только его личной результативности, но и всей команде. Это актуально, когда речь идет о командных видах спорта. «Личность спортсмена имеет огромное значение и для некомандных видов спорта». Для спортивного психолога работа с личностью очень тонкая и одна из самых сложных.
4. Психическая регуляция. Речь идет о способности спортсмена вызывать в своей голове, в том числе и по памяти, определенное эмоциональное состояние, которое понадобиться ему для успешного выступления.
5. Соответственно, чтобы настроить спортсмена на успешное выступление, нужно помочь ему вызы вать у себя такую эмоцию, которую он испытывал, побеждая в прошлом .
6. Повышение силы воли у спортсмена, чтобы в ситуациях, когда этот важнейший, для успешного выступления, показатель находится на низком уровне, помочь спортсмену преодолеть подобное состояние. Не менее важно контролировать этот показатель и в тех ситуациях, когда он слишком высок, поскольку есть риск того, что спортсмен может "перегореть" до того, как начнутся соревнования.
7. Оказание оперативной помощи спортсмену. Такая помощь заключается в проведении необходимой работы со спортсменом в те моменты, когда он чувствует очень сильное напряжение. Речь идет как о работе со стрессом, в частности о снятии предстартовых волнений, так и о помощи после неудачных выступлений спортсмена.

В современном спорте с каждым годом повышается роль спортивной психологии. Трудно представить себе работу спортивного клуба без спортивного психолога, не говоря уже о национальной сборной. Активно идут исследования в области изучения психологических возможностей спортсменов.

То, в каком состоянии находится спортивная психология является принципиально важным моментом для будущего спорта. В настоящее время большое внимание уделяется вопросам тестирования и отбора спортсменов, их дальнейшего грамотного воспитания в процессе тренировок на различных возрастных этапах.

Работа со спортсменом, который решил покинуть большой спорт – стоит считать отдельным важнейшим направлением спортивной психологии: как помочь человеку сделать это максимально безболезненно и грамотно, чтобы он смог начать новую жизнь вне большого спорта.

Завершение профессиональной спортивной карьеры – это очень сильный стресс для спортсмена как с психологической точки зрения, так и с физиологической. Так как спортс мен и его организм привыкли к ежедневным высоким нагрузкам определенного характера. Так же, психологическим стрессом является то, что большинство профессиональных спортсменов во время своей спортивной карьеры ничем больше не занимаются (нигде и никем не работают), и, после ее завершения, возникает пугающий вопрос: «Что я буду дальше делать в жизни?» В этот момент спортивный психолог крайне необходим, чтобы плавно и безболезненно (с наименьшим стрессом) подвести спортсмена к переходу из спортивного состояния к обычной гражданской жизни. Большую роль играют причины, по которым было принято решение об уходе из большого спорта (травмы, возраст и т.д.).

Современная спортивная тренировка неотделима от соревнования, тем более на уровне спорта высших достижений. Значительные по объему и интенсивности нагрузки, напряжение психических и физических функций, приводят к тому, что спортсмен оказывается, уже во время предсоревновательной подготовки, в экстремальных условиях

Особенно это характерно для спортивных игр, в которых многие тренировки представляют собой игру, мало отличающуюся от соревновательной. Поэтому, «при анализе содержания подготовки представителей спортивных игр, учитывают не только физиологическую стоимость отдельных упражнений, но и ту степень психической нагрузки стрессового характера, которую испытывают спортсмены в процессе подготовки к турниру». Кроме того, физиологический компонент стресса определяют значительные по интенсивности и объему физические нагрузки, а также неизбежные тренировки на фоне недовосстановления.

Психический компонент стресса определяется продолжительностью подготовки к турниру, его важностью, условиями жесткой конкуренции в команде, напряженностью контрольных матчей в игровых видах спорта и спаррингов в единоборствах. Стрессорами в такой же степени могут быть как предстартовая ситуация, так и условия деятельности, когда формируется установка на предстоящую деятельность, и спортсмен осознает масштаб психологических барьеров, которые необходимо преодолеть в предстоящем соревновании. Особенно часто стресс происходит в процессе обучения в индивидуальных видах спорта, когда он мало отличается по степени выраженности от соревновательного стресса. В игровых видах такие ситуации встречаются реже, в основном, когда решается вопрос о попадании спортсмена в команду.

Психология спорта изучает механизмы поведения, при помощи которых реализуется психическая дееспособность спортсмена в реальных условиях конкуренции. Спорт специфичен тем, что без стресса, без выраженного психического напряжения, невозможно полностью адаптироваться к нагрузкам, равно как невозможен и высокий уровень тренированности спортсмена.

Спортивная психология исследует структуру и динамику адаптационных процессов, которые происходят, когда спортсмен приобретает состояния тренированности. Для этого спортсмен должен обладать способностью к адаптивности, то есть индивидуальными возможностями приспособления к изменяющимся условиям, которые формируются целью, задачами, мотивами и ситуациями спортивной деятельности. Гибкая адаптивность

позволяет спортсмену быстро и без проблем приспосабливать свое поведение в данный конкретный момент времени.

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MATHEMATICAL MODELLING IN ENGINEERING

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Annotation: In this text the bibliography is reviewed whose theme is the application of mathematical modeling (MM) in teaching, specifically, in some subjects of the engineering career. Throughout the exposition, it reflect on the results that several researches have obtained on the subject, rescuing those proposals that have rethought the conception of the teaching of mathematics and the strategies in which it should be explored to achieve, among the students, an integral professional training, reflective and able to solve problems in the exercise of engineering. To gather the bibliographic information on the subject, it was tracked systematically and extensively with the Google search engine. The contributions of some leading researchers in the field of educational mathematics were considered, whose research results have been published and disseminated in articles from specialized journals, scientific congresses, books and other dissemination products.

Key words: Google search engine, quantity of one or another dimension, experiment began to be carried

Introduction

Mathematical modeling is successfully used in solving various practical issues in Exact Sciences. The method of mathematical modeling gives an opportunity to learn how to represent a quantity of one or another dimension that characterizes the issue, and then connect it.

On the basis of the method lies the concept of a mathematical model.

The object studied as a mathematical model is said to be a functional link between the characteristics expressed in the form of a mathematical formula or algorithm.

After the invention of the computer, the importance of mathematical modeling sharply increased. There was a real opportunity to create complex technical, economic and social systems, and then apply them with the help of computers. Now the experiment began to be carried out not on the object, that is, on the real system, but on the mathematical model that replaced it.

The computer-aided execution of enormous calculations associated with the movement train of spacecraft, the creation of complex engineering structures, the design of transport Highways, the development of economy, etc., confirms the effectiveness of the mathematical modeling method.

As a rule, the conduct of computational experiments on a mathematical model is carried out in cases where it is impossible to research an actual object in an experiment or when it is not purposeful from an economic point of view. It should also be taken into account that the results of such a calculation experiment are not very accurate compared to the experience conducted on a real object. But such examples can be cited that the computing experience conducted on a computer serves as the only source of reliable information about the process or phenomenon under study. For example, it is possible to predict the consequences of the nuclear war on the climate only by mathematical modeling and conducting computational experiments on the computer. The computer shows that there is no absolute victory in the nuclear armed war. Computer-based experience shows that as a result of such a war on earth, environmental

changes, that is, a sharp change in temperature, pollination of the atmosphere, melting of glaciers at the poles, even the earth can leave its axis.

Mathematical expressions of physical processes given in mathematical modeling are modeled. The mathematical model is a approximate description of the class of some phenomena expressed by mathematical signs of the outside world. The mathematical model is a powerful method of knowing the outside world, as well as for predicting and controlling.

The analysis of the mathematical model gives the opportunity to be integrated into the essence of the phenomenon under study. The study of phenomena using a mathematical model is carried out in four stages.

The first stage is the expression of laws that connect the main objects of the model. The second stage is to check the mathematical issues in the model.

The third stage is to determine whether the model satisfies the accepted practice criteria. In other words, to determine the issue of whether the results of observation of an object obtained by theoretical results from a model are compatible.

Materials And Methods

The fourth stage is the transfer of the sequential analysis of the model and its development, clarification by summing up the data on the studied phenomenon.

Thus, the main content of modeling is based on the initial study of the object by means of experiment and (or) theoretical analysis of the model, comparing the results with the data on the object, correcting (improving) the model, etc.

To draw up a mathematical model, initially the issue is formalized. In accordance with the content of the issue, the necessary characters are entered. Then a functional link is formed between the dimensions, written in the form of a formula or algorithm.

Modeling depending on the texture and characteristics of the object is different conducted in different ways. In the modeling of objects in subsequent times, mainly it is widely used in two different analytical and experimental methods.

When the object is modeled in an analytical way, the main texture of the same object and properties mathematical relations (equation, inequality, integral, differential, it is expressed using integral differential equations or their systems), that is, the texture and properties of the object are transferred to mathematical formulas. In this way mathematical relations contained all the basic properties of this object it is also required to be in simple form. Analytical method of modeling it requires a specialist to have in-depth knowledge of his field, as well as sufficient knowledge of the subjects of computational mathematics and programming in algorithmic language.

Usually the mathematical model of engineering issues algebraic equations, ordinary or private derivative differential equations, integrals or their if in the form of their systems, then the mathematical model of economic issues is expressed mainly in the form of inequality, logical expression or their systems.

For example, the mathematical model of the issue of bending an elastic band the given boundary conditions of a simple differential equation of the fourth order transport, which is an economic issue if brought to find a satisfactory solution and the mathematical model of the problem is simple linear algebraic inequality system, which satisfies and maximizes the target function variables are brought to find their values.

Experiments on model objects built in experimental method, that is, it is a model built on the basis of the results obtained by observations. The construction of an experimental model of an

object is an extremely complex process. Because some in order to build an experimental model of objects, it is necessary to conduct several observations over a long period of time, under different conditions. Mathematical models are usually composed of relationships and *variables*. Relationships can be described by *operators*, such as algebraic operators, functions, differential operators, etc. Variables are abstractions of system parameters of interest, that can be quantified. Several classification criteria can be used for mathematical models according to their structure:

Linear vs. nonlinear: If all the operators in a mathematical model exhibit linearity, the resulting mathematical model is defined as linear. A model is considered to be nonlinear otherwise. The definition of linearity and nonlinearity is dependent on context, and linear models may have nonlinear expressions in them. For example, in a statistical linear model, it is assumed that a relationship is linear in the parameters, but it may be nonlinear in the predictor variables. Similarly, a differential equation is said to be linear if it can be written with linear differential operators, but it can still have nonlinear expressions in it. In a mathematical programming model, if the objective functions and constraints are represented entirely by linear equations, then the model is regarded as a linear model. If one or more of the objective functions or constraints are represented with a nonlinear equation, then the model is known as a nonlinear model.

Linear structure implies that a problem can be decomposed into simpler parts that can be treated independently and/or analyzed at a different scale and the results obtained will remain valid for the initial problem when recomposed and rescaled.

Nonlinearity, even in fairly simple systems, is often associated with phenomena such as chaos and irreversibility. Although there are exceptions, nonlinear systems and models tend to be more difficult to study than linear ones. A common approach to nonlinear problems is linearization, but this can be problematic if one is trying to study aspects such as irreversibility, which are strongly tied to nonlinearity.

Static vs. dynamic: A *dynamic* model accounts for time-dependent changes in the state of the system, while a *static* (or steady-state) model calculates the system in equilibrium, and thus is time-invariant. Dynamic models typically are represented by differential equations or difference equations.

- **Explicit vs. implicit:** If all of the input parameters of the overall model are known, and the output parameters can be calculated by a finite series of computations, the model is said to be *explicit*. But sometimes it is the *output* parameters which are known, and the corresponding inputs must be solved for by an iterative procedure, such as Newton's method or Broyden's method. In such a case the model is said to be *implicit*. For example, a jet engine's physical properties such as turbine and nozzle throat areas can be explicitly calculated given a design thermodynamic cycle (air and fuel flow rates, pressures, and temperatures) at a specific flight condition and power setting, but the engine's operating cycles at other flight conditions and power settings cannot be explicitly calculated from the constant physical properties.

Discrete vs. continuous: A discrete model treats objects as discrete, such as the particles in a molecular model or the states in a statistical model; while a continuous model represents the objects in a continuous manner, such as the velocity field of fluid in pipe flows, temperatures and stresses in a solid, and electric field that applies continuously over the entire model due to a point charge

- **Deterministic vs. probabilistic (stochastic):** A deterministic model is one in which every set of variable states is uniquely determined by parameters in the model and by sets of previous states of these variables; therefore, a deterministic model always performs the same way for a given set of initial conditions. Conversely, in a stochastic model—usually called a "statistical model"—randomness is present, and variable states are not described by unique values, but rather by probability distributions.
- **Deductive, inductive, or floating:** A deductive model is a logical structure based on a theory. An inductive model arises from empirical findings and generalization from them. The floating model rests on neither theory nor observation, but is merely the invocation of expected structure. Application of mathematics in social sciences outside of economics has been criticized for unfounded models. Application of catastrophe theory in science has been characterized as a floating model.

  Strategic and non-strategic Models used in game theory are different in a sense that they model agents with incompatible incentives, such as competing species or bidders in an auction. Strategic models assume that players are autonomous decision makers who rationally choose actions that maximize their objective function. A key challenge of using strategic models is defining and computing solution concepts such as Nash equilibrium. An interesting property of strategic models is that they separate reasoning about rules of the game from reasoning about behavior of the players.

Results And Discussions

In business and engineering, mathematical models may be used to maximize a certain output. The system under consideration will require certain inputs. The system relating inputs to outputs depends on other variables too: decision variables, state variables, exogenous variables, and random variables.

Decision variables are sometimes known as independent variables. Exogenous variables are sometimes known as parameters or constants. The variables are not independent of each other as the state variables are dependent on the decision, input, random, and exogenous variables. Furthermore, the output variables are dependent on the state of the system (represented by the state variables).

Objectives and constraints of the system and its users can be represented as functions of the output variables or state variables. The objective functions will depend on the perspective of the model's user. Depending on the context, an objective function is also known as an *index of performance*, as it is some measure of interest to the user. Although there is no limit to the number of objective functions and constraints a model can have, using or optimizing the model becomes more involved (computationally) as the number increases.

For example, economists often apply linear algebra when using input-output models. Complicated mathematical models that have many variables may be consolidated by use of vectors where one symbol represents several variables.

Engineering mathematics is a branch of applied mathematics concerning mathematical methods and techniques that are typically used in engineering and industry. Along with fields like engineering physics and engineering geology, both of which may belong in the wider category engineering science, engineering mathematics is an interdisciplinary subject motivated by engineers' needs both for practical, theoretical and other considerations out with their specialization, and to deal with constraints to be effective in their work.

Successful applications of mathematical modeling techniques in engineering sciences have led the way to extend the techniques to more exotic areas of inquiry, like nanotechnology, nuclear-reactor engineering, material science, environment, weather prediction, biological processes, space sciences, cosmology, and also social sciences. Although the general philosophy of modeling in these new areas remains the same as discussed in this article, the simulation procedures and validation criteria are different and dependent on the types of models and the disciplines they belong to.

Mathematical modeling is a vast, multidisciplinary field that pleads to engage the interest and dedication of engineers, scientists and mathematicians to solve the problems facing the humankind. A significant development in the mathematical modeling activity is the availability of very-high-speed computers, which can solve a variety of complex models. In spite of all the advances in empirical knowledge, solution techniques, and computer assistance, it must be noted that human intelligence, experience, and intuition still play a significant role in mathematical modeling.

A mathematical model is a description of a system using mathematical concepts and language. The process of developing a mathematical model is termed mathematical modeling. Mathematical models are used in the natural sciences (such as physics, biology, earth science, chemistry) and engineering disciplines (such as computer science, electrical engineering), as well as in non-physical systems such as the social sciences (such as economics, psychology, sociology, political science). Mathematical models are also used in music, linguistics and philosophy (for example, intensively in analytic philosophy).

A model may help to explain a system and to study the effects of different components, and to make predictions about behavior.

The priorities of modern technological education, guaranteeing, its high quality, become the main howling the material of academic disciplines through immersion in activity ability and mastery of competencies, educational and professional communication identification, as well as the implementation of the principle complementarity as complementary understandability of humanitarian and technical preparation.

If humanitarization expresses activity content reversal engineer to environmental (including not meaning human ecology), aesthetic, and sociocommunicative etc. meanings, while strengthening historical and special.

Components preparation and deriving from historical given factors and conditions for achieving multilateral efficiency in action of the modern specialist techno sphere, then mathematization and modeling of engineering and technical education involves the formation future engineers have an effective technical apparatus for solving engineering tasks. Mathematization means bringing teaching the content of the discipline "Magmatic "to the needs of engineering specialists, and not just disclosure mathematical knowledge by itself, which greatly reduces the value to students and complicates them understanding.

Mathematization involves co-building of mathematical training, co- uniting fundamental mathematics technical knowledge with types of engineering tasks and revealing the possibilities of their solutions. This greatly enhances practical orientation of mathematics training and brings the foundation mental mathematical base under training within the actual engineering uneven component.

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WIRELESS PREPARATORY SYSTEM TRANSFER OF INFORMATION

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Direct chaotic communication systems are digital communication systems based on chaotic signals, in which the formation of a chaotic carrier and modulation with an information signal occur directly in the communication frequency band, and information is extracted without intermediate frequency conversion [1]

БЕСПРОВОДНАЯ ПРЯМОХАОТИЧЕСКАЯ СИСТЕМА ПЕРЕДАЧЕ ИНФОРМАЦИИ

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Прямохаотические системы связи - цифровые системы связи на хаотических сигналах, в которых формирование хаотической несущей и модуляция информационным сигналом происходят непосредственно в поло- се частот связи, а извлечение информации производится без промежуточного преобразования частоты [1].

Ключевым понятием представленной технологии является хаотический радиоимпульс. Он представляет собой фрагмент сигнала с длиной, превышающей длину квазипериода хаотических колебаний. Полоса частот хаотического радиоимпульса определяется полосой частот исходного хаотического сигнала, генерируемого источником хаоса, и в широких пределах изменения длины импульса не зависит от его длительности. Это существенно отличает хаотический радиоимпульс от классического радиоимпульса, заполненного фрагментом периодической несущей, полоса частот которого определяется его длиной.

Хаотические радиоимпульсы используются в качестве носителя информации в широкополосных и сверхширокополосных системах связи. Передаваемая информация в таких системах кодируется путём размещения этих импульсов на определённых временных позициях. В результате, образуется поток хаотических импульсов, состоящий из самих импульсов и интервалов между ними. Причём, в зависимости от скорости передачи информации и других условий, межимпульсные интервалы времени могут быть как сопоставимыми по длине с импульсами, так и намного превосходить их. Последний случай соответствует большой скважности следования импульсов.

Последовательность хаотических импульсов получают путем амплитудной модуляции стационарного хаотического сигнала на выходе источника хаоса. Однако такой

подход требует постоянной работы генератора хаоса, как на интервалах времени, когда формируются хаотические радиоимпульсы, так и в паузах между ними. Необходимость генерации хаотического сигнала в паузах между импульсами приводит к снижению энергетической эффективности системы в целом. Особенно значительным это снижение энергетической эффективности оказывается в случае больших скважностей следования импульсов. Именно такие режимы представляют значительный интерес для беспроводных сенсорных сетей и других приложений, чувствительных к сбережению энергии.

В данной работе исследуется возможность генерации потока хаотических радиоимпульсов путём воздействия внешнего периодического сигнала на динамическую систему, которая в автономном режиме способна генерировать хаотические колебания.

Задача заключается в том, чтобы за счёт такого воздействия обеспечить возбуждение хаотических колебаний на части периода внешнего сигнала, оставляя систему невозбуждённой на оставшейся части периода и получить периодическую последовательность хаотических импульсов с паузами между ними. Если в паузах генератор не будет потреблять энергию, или её потребление будет значительно меньше, чем на фазе генерации импульсов, то общее потребление энергии будет значительно ниже, чем при постоянной генерации хаоса. Таким образом, по сравнению с энергетической эффективностью системы с применением внешней модуляции, энергетическая эффективность системы в целом значительно повысится, особенно при больших скважностях.

С учетом вышесказанного был разработан генератор хаоса СВЧ-диапазона, схема которого приведен на рис. 1. Автогенератор выполнен на основе микрополосковой технологии с использованием одного активного элемента – биполярного СВЧ транзистора КТ982, включенного по схеме с общей базой. В качестве материала подложки в различных вариантах исполнения генератора, использовались фольгированные диэлектрики с различной проницаемостью (ε = 2. 7,.., 10).

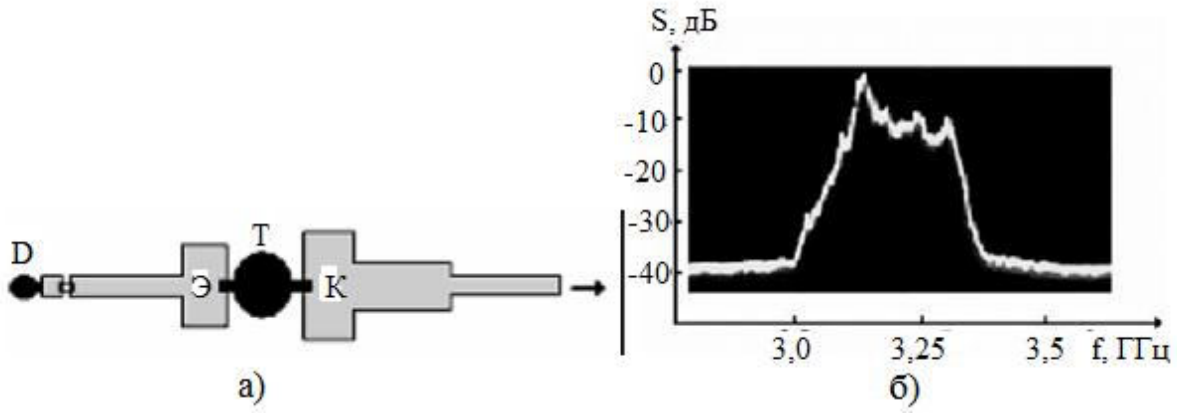

Рис. 1. Эскиз топологии (а) и спектр мощности (б) генератора хаоса СВЧ диапазона.

Выходная, коллекторная топология представляет собой двухступенчатый трансформатор, согласующий выходной импеданс транзистора Т с внешней нагрузкой (50 Ом) в рабочей полосе частот. Микрополосковый резонатор, расположенный в эмиттерной цепи транзистора с одной стороны согласует импеданс варакторного диода D с входным импедансом транзистора Т, а с другой стороны, его электрическая длина (L = λ/4)

определяет центральную частоту генерации в заданном диапазоне частот. Обратная связь между линейным и нелинейным контурами генератора осуществляется за счет внутренних емкостей СВЧ-транзистора. Было показано, что использование варакторного диода в качестве нелинейного элемента (нелинейной емкости), отсутствие энергетических затрат на его управление, позволяет получить КПД автогенератора до 25–30% в режиме хаотических колебаний.

Спектр выходного сигнала генератора приведен на рис.1б. В данном случае центральная частота диапазона f = 3.2 ГГц, а полоса генерации хаотического сигнала по уровню 10 дБ составляет ~200 МГц.

В последующем был разработан микрополосковый генератор широкополосных хаотических колебаний дециметрового диапазона (рис.2.)

В качестве активного элемента в генераторе использован транзистор 2Т938А-2. В основу конструкции была положена трёхточечная схема. Функцию резонансного элемента (пассивного осциллятора) выполнял резонатор на связанных полосковых линиях (РЭ). С макетом генератора были проведены эксперименты, которые показали, что при соответствующем подборе параметров элементов схемы в генераторе возбуждаются хаотические колебания, полоса и неравномерность спектра мощности которых на выходе генератора определяются полосой пропускания и неравномерностью амплитудно-частотной характеристики резонатора.

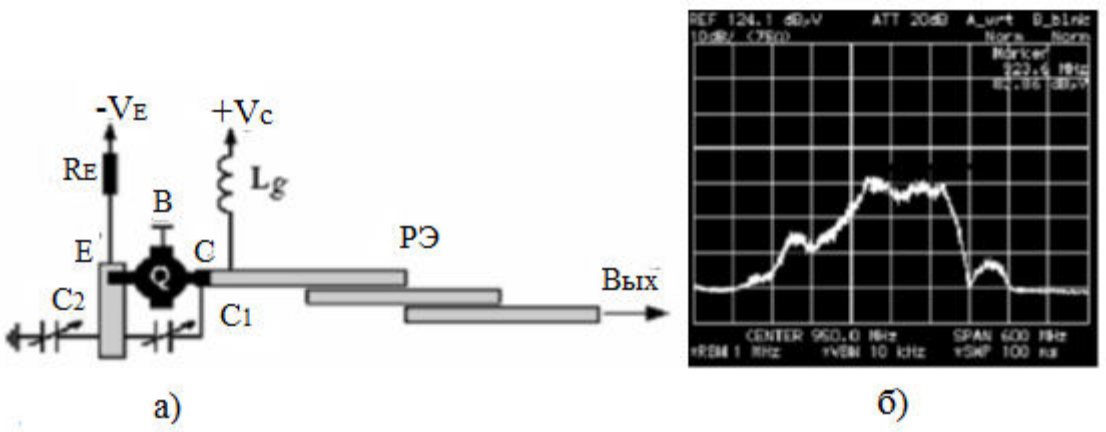

Рис.2. Эскиз топологии генератора (а) и его спектр мощности (б) в диапазоне 880–1030 МГц.

В качестве иллюстрации, на рис.2б представлен спектр мощности выходного сигнала генератора. По уровню 10 дБ полоса генерации составляет ~150 МГц, при центральной частоте ~950 МГц, неравномерность спектральной характеристики менее 5 дБ.

Эти разработанные генераторы использовались для беспроводной прямохаотической передаче информации.

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THEORETICAL AND LEGAL ISSUES OF THE INSTITUTE FOR GENDER AND LEGAL EXAMINATION OF LEGISLATIVE DOCUMENTS IN FOREIGN COUNTRIES

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Abstract: Today, in Uzbekistan, which has entered the New Renaissance, is renewing and developing in all areas, all spheres are taking on a new content and form, which is to increase women's political, economic and social activity, to increase their gender equality, to increase their gender equality. It is seen not only as a fair treatment of women, but also as one of the main conditions for ensuring the country's economic growth, stability and all-round development

ХОРИЖИЙ ДАВЛАТЛАРДА ҚОНУНЧИЛИК ҲУЖЖАТЛАРИНИ ГЕНДЕР-ҲУҚУҚИЙ ЭКСПЕРТИЗАДАН ЎТКАЗИШ ИНСТИТУТИНИНГ НАЗАРИЙ-ҲУҚУҚИЙ МАСАЛАЛАРИ

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Бугунги кунда Янги Ренессанс даврига қадам қўйган, янгиланаётган ва ҳар соҳада ривожланиб бораётган Ўзбекистонда барча жабҳалар янгича мазмун-у шакл касб этиб борар экан, улар баробарида хотин-қизларнинг сиёсий, иқтисодий ва ижтимоий фаоллигини ошириш, уларни камситишнинг барча шаклларига барҳам бериш, гендер тенгликни таъминлаш аёлларга нисбатан шунчаки адолатли муносабат сифатида эмас, балки мамлакатнинг иқтисодий ўсишини давом эттириш, барқарорлиги ва ҳар томонлама ривожланишини таъминлашнинг асосий шартларидан бири сифатида кўриб чиқилмоқда.

Бу борада биринчи қадам 1992 йил Ўзбекистон Республикаси Конституциясининг 46-моддасида ўз аксини топган бўлиб, унга кўра хотин-қизлар ва эркаклар тенг ҳуқуқлидирлар, деб эътироф этилган. Хотин-қизлар ва эркаклар тенглиги – уларнинг тенг ҳуқуқ ва мажбуриятлар соҳиби эканлигини англатади. Хотин-қизлар ва эркаклар тенглиги – демократиянинг муҳим элементидир. Бу тенглик фуқароларнинг давлат, қонун ва суд олдида расмий тан олинадиган ҳуқуқий тенглиги бўлиб, у ҳар бир фуқаронинг қайси жинсга мансублигидан қатъи назар тенг ҳуқуқ ва эркинликка эга эканлигини англатади.

Мазкур соҳада жорижий давлатлар тажрибасига назар ташласак, қонунчилик ҳужжатларини гендер-ҳуқуқий экспертизадан ўтказишнинг назарий-ҳуқуқий масалалари **ҳуқуқ оиласи** ўхшаш ва фарқли бўлган, **географик жойлашуви**, ҳудудий жиҳатдан турли минтақаларга тегишли бўлган, ҳаттоки **давлат тузилиш ва бошқарув шакли** турли бўлган **диний ва дунёвий** давлатлардв турлича эканлигига амин бўлдик. Жумладан, Испанияда 2007 йилда «Аёллар ва эркаклар тенг ҳуқуқлилигини тўғрисида»ги Қонун қабул қилинган бўлиб, Испания ҳукумати ҳузурида гендер тенгликни таъминловчи комиссия ташкил этилган. Мамлакатда гендер тенгликни таъминлашга оид стратегик режаларни қабул қилиш, аёллар ва эркакларга давлат секторидаги лавозимларда ишлашга, сиёсий ҳаётда

иштирок этишга бўлган ҳуқуқини таъминлашга қаратилган давлат сиёсати амалга оширилади. Шунингдек, қонун ҳужжатларининг гендер тенгликка таъсири ҳуқуқий экспертизадан ўтказилиб баҳоланади.

Шунингдек, **Австрияда** 2013 йилда ўтказилган федерал бюджет ислоҳотидан сўнг, парламент томонидан норматив ҳужжатларнинг эркаклар ва аёллар ўртасидаги «ҳақиқий» тенглик нуқтаи назаридан таҳлилини, шунингдек барча янги қонунлар, қонуности ҳужжатлар ва бошқа йирик давлат лойиҳаларининг гендер гуруҳларига таъсирини баҳолаш жорий этилди. Бу эса ўз навбатида мамлакат учун қонун ҳужжатларини гендер-ҳуқуқий экспертизадан ўтказишдаги янги қадам бўлган.

Белгия мамлакатида эса, "Гендер тенглик тўғрисида"ги 2007 йилда қабул қилинган қонунга биноан, давлат бошқарувига оид ишлаб чиқилаётган ҳар бир қонун ҳужжатида гендер тенглик соҳасидаги стратегик мақсадлар кўрсатилиши кераклиги, ҳар бир қонун лойиҳаси ёки таклиф қилинаётган стратегик дастур «гендер экспертиза» дан ўтиши кераклиги ва федерал ҳукумат қонунчилик актининг биринчи қисмида гендер тенглиги бўйича стратегик мақсадларни ўз ичига олиши кераклигини белгилайди. Албатта, қонунда ушбу босқичларни мониторинг қилиш ва баҳолаш кўзда тутилган.

Грузия ҳукумати ҳузурида норматив-ҳуқуқий ҳужжатларни гендер-ҳуқуқий экспертизадан ўтказувчи Кенгаш 2012 йилда ташкил этилган бўлиб, кенгаш қонун ҳужжатларининг гендер тенгликка таъсирини мониторинг ва баҳолашни ҳам амалга оширади. Биз юқорида таҳлил қилган мамлакатларда гендер-ҳуқуқий экспертиза мазкур давлатлар қонунчилигининг бир қисми ҳисобланади. Яъни бундай экспертиза қонунчилик актларидаги жинсга оид камситишларнинг ҳар қандай турини батараф қилишга қаратилган"[1].

Гендер тенглик ҳақида турли ҳукуматларнинг ўз тарихий, миллий қарашлари, мафкуралари бўлганидек, хусусан, "**Виктория ҳукумати**нинг (Ҳинд океанида, Африканинг шарқий соҳили яқинидаги Сейшел оролларида жойлашган давлат, пойтахти Виктория шаҳри) гендер тенглиги ҳақидаги ғоясида:

• хавфсиз ва тенг ҳуқуқли жамиятда яшаш;
• қувват, ресурс ва имкониятлардан тенг фойдаланиш ҳуқуқига эга бўлиш;
• қадр-қиммат, ҳурмат ва адолат билан муносабатда бўлиш илгари сурилган.

Хавфсиз ва кучли – бу Виктория штатидаги гендер тенглиги стратегияси бўлиб, гендер тенглигига эришиш бир кунда содир бўлмайди. Шунинг учун Виктория ҳукумати ўлчовли ҳаракатлар билан етакчилик қилмоқда. Биз энг яхши амалиётни моделлаштирмоқдамиз ва аёллар етакчилиги учун мақсадларни белгилаяпмиз. Биз ҳурмат ва адолат маданиятини шакллантириш учун жамоалар, мактаблар, иш жойлари, корхоналар ва ташкилотлар билан ишлаймиз. Гендер тенглигини таъминлашда барчамизнинг ролимиз бор. Гендер тенглигининг афзалликлари – бу ҳар бир инсон гендер тенглигидан фойдаланишидадир. Бу аёлларга нисбатан зўравонликнинг олдини олишга ёрдам беради, иқтисодиёт учун фойдалидир ва жамоаларимизни хавфсизроқ ва соғлом қилади. Бизнинг гендер тенглик стратегиямиз қуйидаги соҳаларда гендер тенгсизлигини кўриб чиқмоқдамиз: етакчилик, маданий ўзгариш, хавфсизлик, иш, иқтисодий хавфсизлик, соғлиқ ва фаровонлик"[2], дейди ҳукумат ва гендер тенгликни таъминлаш бўйича қонунлар экспертизасини амалга оширувчи ишчи гуруҳ аъзолари.

[1] http://www.xabar.uz/uz/huquq Anvarova.D Qonun hujjatlarini-gender-huquqiy-ekspertizadan-o'tkazish-zaruratmi?
[2] https://www.vic.gov.au/gender-equality-what-it-and-why-do-we-need-it

Ўз ўзидан кўриниб турибдики, Европа мамлакатларида гендер экспертиза Ўзбекистон Республикаси каби маълум кенгаш, коммиссия ёки ҳукумат қошидаги тегишли бўлимлар орқали ўтказилади. Уларнинг асосий иш фаолияти қонунлар, қонуности ҳужжатлар ва қонун лойиҳаларини гендер-ҳуқуқий экспертизадан ўтказиш, уларни мониторинг қилиш, баҳолаш ва демократик давлат қуришда имкон қадар идеаллашган қонунчилик базасини шакллантиришдан иборат. Норматив-ҳуқуқий ҳужжатлар ва уларнинг лойиҳалари ўзининг гендер-ҳуқуқий баҳоланиш доирасига кўра ҳам маълум соҳаларга бўлинади. Мисол учун юқорида кўриб ўтганимиз Испания давлатида асосий гендер-ҳуқуқий экспертиза давлат сиёсати ва сиёсий бошқарув соҳасида етакчиликни эгалласа, Белгия, Австрия давлатларида гендер-ҳуқуқий экспертиза у қайси соҳа бўлишидан қатъий назар, умумий ва ҳақиқий таҳлилни ўз ичига олади. Ўзбекистон Республикасининг "Хотин-қизлар ва эркаклар учун тенг ҳуқуқ ҳамда имкониятлар кафолатлари тўғрисида"ги 562 сонли қонунига асосан мамлакатимизда норматив-ҳуқуқий ҳужжатлар ва уларнинг лойиҳалари гендер-ҳуқуқий экспертизаси турли жинс вакилларига тақдим этиладиган тенг ҳуқуқ ва имкониятлар кафолатидан келиб чиққан ҳолда соҳавий тармоқларга (соғлиқни сақлаш, таълим, илм-фан, маданият, оилавий муносабатлар ва болалар тарбияси, ижтимоий ҳимоя, сиёсий, иқтисодий соҳаларга) ажратилган. Бу эса гендер-ҳуқуқий экспертизанинг нечоғлик мукаммал ва профессионал амалга оширилишидан далолатдир.

Қиёсий таҳлил сифатида диний давлат – "**Араб дунёсида** гендер тенгсизлиги масаласи кўп йиллар давомида жамоатчилик эътиборини тортиб келмоқда. Бироқ, диний қарашлар кучли бўлган, ислом ақидаларига бўйсунувчи ушбу давлатларда гендер тенгликни катта ҳажмдаги ҳақиқий маълумотлар асосида таҳлил қилиш имконияти минтақанинг етти мамлакатида ўтказилган **"Араб барометри"** лойиҳаси туфайли яқинда пайдо бўлди. Маълумотлар шуни кўрсатадики, мусулмон мамлакатларида ва хусусан, Араб Шарқида аёлларнинг мавқеи замонавий инсон ҳуқуқлари тўғрисидаги нутқда ҳам, қадриятларни ўрганишда ҳам муҳим муаммо бўлиб келган. Эркакларга боғлиқ бўлган, бизнесни юритишга қодир бўлмаган ва давлатни бошқаришга қодир бўлмаган аёлларга нисбатан муносабат уларнинг ҳуқуқларини бузилишига олиб келади шунингдек, минтақа давлатларининг иқтисодий қолоқлигига олиб келади, чунки турмуш қурган аёлларнинг аксарияти меҳнат бозорига жалб қилинмайди. Аёлларга нисбатан бундай муносабат кўпинча Ислом дини ва маданияти қадриятлари ва анъаналари билан боғлиқ ҳамда уларнинг қонунчилигида гендер-ҳуқуқий экспертизанинг ўтказилиши ҳалигача очиқ масала сифатида қолмоқда. Бироқ, бу фикрни тасдиқлаш керак. Ушбу тадқиқотимизда биз диндорлик даражасининг гендер тенглиги билан боғлиқ қадриятларнинг ўзаро боғлиқлигини таҳлил қиламиз. Бундан ташқари, аёлларга нисбатан кўпроқ консерватив муносабат кекса авлод вакилларига хос бўлса, араб дунёси ёшлари бу масалага нисбатан эркинроқ муносабатда бўлишади. Бу шуни англатадики, ёшроқ, кўпроқ маълумотли ва бадавлат ва кам диндор одамлар, айниқса, тенглик ва гендер тенглигини қўллаб-қувватлашга мойиллигини намойиш этадилар. Бундан ташқари, аёллар эркакларникига қараганда қадриятлар тўпламида тенгроқдирлар"[3]. Мусулмон халқларининг гендер

[3] Eduard D. Ponarin and Veronika V. Kostenko. (2013). Attitude to Gender Equality in the Arab East The National Research University "Higher School of Economics.,P 1838-1840.
∗ Eduard D. Ponarin* and Veronika V. Kostenko. (2013). Attitude to Gender Equality in the Arab East The National Research University "Higher School of Economics.,P 1838-1840.

тенглиги борасидаги қолоқлигини назарий тушунтиришни Самуел Хантингтоннинг (Хантингтон, 1996) асарларида топиш мумкин, унда у совуқ урушдан кейинги давр Ғарб насронийлиги ўртасидаги цивилизатсиялар тўқнашувига дуч келмоқда, деб таъкидлайди. С. Хантингтон фикрича, мусулмон жамиятлари ривожланмаган индивидуализм билан либерал ва демократик қадриятлар билан боғлиқ бўлган кучли раҳбарларни афзал кўришади. Шунингдек, у мусулмон давлатлари дунёдаги аёллар энг заиф мавқега эга минтақадир, деб тахмин қилмоқда.Ушбу тахминлар Роналд Инглехарт ва Пиппа Норис томонидан миқдорий маълумотлар бўйича синовдан ўтказилди (Инглеҳарт, Норрис, 2003а). Бу билан ислом жамиятлари аҳолиси демократияга интилаётгани исботланди”[4].

Яманда эса, индекс 0 дан 1 гача бўлган миқёсда кодланган, бу ерда 0 консерватив (шовинист), 1 - либерал деган маънони англатади. Шундай қилиб, индекс қанчалик юқори бўлса, респондент гендер тенглиги ғоясини қўллаб-қувватлайди. Гендер тенглигига бўлган муносабатни ва гендер-ҳуқуқий экспертизани амалга ошириш юқоридаги етти мамлакатда қуйидаги сифатлар билан аниқланган:

(1) турмушга чиққан аёл, агар хоҳласа, ишламайди;
(2) одатда эркаклар сиёсий соҳада аёлларга қараганда кўпроқ муваффақиятга эришадилар, аёллар учун бу соҳада имкониятлар қанчалик мавжуд;
(3) олий маълумот ўғил болалар учун қизлардан кўра муҳимроқдир;
(4) эркаклар ҳам, аёлларда ҳам мансаб имкониятлари тенг бўлиши керак;
(5) эркаклар ва аёлларга тенг иш учун тенг равишда ҳақ тўланиши керак;
(6) аёл, агар хоҳласа, ёлғиз ўзи чет элга саёҳат қилиши мумкин;
(7) аёл мусулмон давлатининг президенти ёки бош вазири бўлиши мумкин.

Араб давлатларининг гендер-ҳуқуқий экспертизасига кўра, таълим даражаси қанчалик юқори бўлса, респондент гендер тенглигини қўллаб-қувватлашга шунча мойил бўлади. Минтақадаги модернизатсия жараёнлари архаизатсия жараёнларига параллел, чунки ҳар бир ёш тоифасидаги маълумотли одамлар гендер тенглиги тўғрисида кўпроқ эркин қарашларга содиқ қолмоқдалар.

` Тадқиқот натижаларига кўра Араб дунёсида бир вақтнинг ўзида иккита тенденция амалга оширилмоқда деган хулосага келиш мумкин: модернизатсия ва архаизатсия. Биринчи тенденция доирасида 2007 йилда "Араб барометри" лойиҳасининг биринчи тўлқини пайдо бўлган пайтда 25-35 ёшдаги кишиларнинг ёш гуруҳи учун максимал даражага етган маълумотли одамлар сонининг ўсиши натижасида гендер –ҳуқуқий экспертиза ва гендер тенгликни таъминлаш кучайган. Аксинча, қадриятларнинг жамиятдаги гендер роллари ҳақидаги кўпроқ архаик ғоялар йўналиши бўйича ўзгариши минтақани исломлаштириш жараёнлари туфайли содир бўлиб, 65 ёшдан катта бўлган энг кам маълумотли тоифадаги эркаклар энг консерватив, шовинистик позитсияларни намойиш этади. Бунда ҳар бир ёш тоифасидаги ўқимишли одамлар ўз ёшига қараганда кўпроқ либерал қарашларга эга”[5].

Юқоридагиларга асосланиб, қуйидагича хулоса қилиш мумкин: мамлакатимиз тараққиёти халқ фаровонлиги, аҳолининг, турли жинс вакилларининг ижтимоий, иқтисодий, сиёсий, маданий соҳалардаги тенглигини таъминлаш билан узвий чамбарчас боғлиқ экан, бу

[4] https://cyberleninka.ru/article/n/attitude-to-gender-equality-in-the-arab-east

[5] Abou-Habib, L. (2003). Gender, Citizenship, and Nationality in the Arab Region. Gender and Development, 11/3, P 66-75.

борадаги кенг кўламли ишларни амалга оширишда давлат органлари ва бошқа ваколатли соҳа ташкилотларининг хизмати бениҳоя каттадир.

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THE FORMATION OF READINESS FOR SKILLED TENSIONS IN THE PROCESS OF PHYSICAL EDUCATION

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Annotation: The article discusses the formation of readiness for volitional stresses in the process of physical education. For this purpose, the theoretical and methodological foundations of the formation of will in schoolchildren are analyzed, since the volitional tension is one of the main volitional qualities in physical education in general educational institutions. The article shows that the correct application of the content, forms and methods of this study affects the formation of readiness for volitional stresses in the process of physical education.

Keywords: Physical education, volitional stresses,will, schoolchildren, general education institutions, volitional qualities, volitional efforts.

ФОРМИРОВАНИЕ У ШКОЛЬНИКОВ ГОТОВНОСТИ К ВОЛЕВЫМ НАПРЯЖЕНИЯМ В ПРОЦЕССЕ ФИЗИЧЕСКОГО ВОСПИТАНИЯ

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Аннотация: В статье рассматривается формирование у школьников готовности к волевым напряжениям в процессе физического воспитания. С этой целью проанализированы теоретические и методические основы формирования воли у школьников, так как волевое напряжение является одним из основных волевых качеств в физическом воспитании в общеобразовательных учебных заведениях. В статье показано, что правильное применение содержания, форм и методов данного исследования влияет на сформированность у школьников готовности к волевым напряжениям в процессе физического воспитания.

Ключевые слова: физическое воспитание, волевые напряжения, воля, школьники, общеобразовательные учебные заведения, волевые качества, волевые усилия.

Постановка проблемы. Анализ психолого-педагогической литературы (Е.П. Ильин, А.Ц. Пуни, А.И. Высоцкий и другие) по теме исследования показывает, что одной из наиболее сложных и значимых проблем при формировании личности - проблема воли и волевой регуляции поведения является главной в деятельности человека. Во времена античности понятие свободы было одной из основных категорий психологии наряду с разумом и чувствами. Воля является обязательной составляющей философских учений

наиболее известных мыслителей еще с эпохи античности. Особого распространения приобрело учение о свободе Аристотеля, который считал волю функцией, которая нужна для объяснения механизмов поведения с позиции разума. Уже в то время существовали понятия "волевые" и "произвольные действия". Причинами возникновения волевых действий Аристотель считал "умные стремление", ибо "там, где нет ума, там нет и свободы". Кроме того, свобода по Аристотелю, имеет общественную природу: человек способен тогда принять разумные решения, когда адекватно осознает собственные общественные обязанности [1].

Стоит отметить, что в процессе формирования волевой готовности в процессе физического воспитания, как отмечается в психолого-педагогической литературе, следует выявить взаимосвязи между показателями результативности упражнений и показателями эффективности волевых напряжений. Исследование этих взаимосвязей, основанных на проявлении волевых напряжений в зависимости от степени трудности того или иного спортивного упражнения, имеет определенный интерес. Существует предположение, что именно волевые напряжения в преодолении трудностей физических и интеллектуальных действий, соотнесены с видом и интенсивностью осуществляемой деятельности (в частности, спортивной), и имеют ряд специфических особенностей. В общем воля справедливо считается вершиной иерархии регуляторных процессов психики. Специфика этого высшего уровня традиционно связывается с преодолением внешних и внутренних препятствий, требует волевого напряжения и т.д. [2,3,4].

Анализ последних исследований и публикаций. В последние годы осуществлен ряд исследований, посвященных отдельным аспектам решения указанной проблемы. Это, прежде всего, исследования основ формирования у подростков готовности к волевым напряжениям в процессе занятий физическим воспитанием (Д.Й. Турдимуродов) [2], проведение соревнований по спортивным играм (Я.М. Абдуллаев, Д.Й. Турдимуродов) [3], организации спортивных соревнований на призы участников ветеранов боевых действий (Д.Й. Турдимуродов, Х.А. Менгликулов) [6] и др. Проведенный анализ психолого-педагогической литературы показывает, что к настоящему времени накоплен определенный опыт по формированию готовности к волевым напряжениям, однако проблема формирования у школьников готовности к волевым напряжениям в процессе физического воспитания исследована недостаточно.

Цель статьи - раскрыть содержание формирования у школьников готовности к волевым напряжений в процессе физического воспитания.

Изложение основного материала исследования. Изучение психологической литературы показывает, что вопрос о природе воли трактуется по-разному. Одни авторы связывают волю преимущественно с преодолением трудностей, другие указывают, что в основе волевых действий всегда лежит мотив. Попытка психологического анализа воли принадлежит К. Ушинскому, который указывает на тройное значение воли:

1) Воля это власть души над телом;
2) Воля "это чувство желания";
3) Воля "... нечто противоположное неволе".

От теоретического толкования понятия воли он обращается к практическим рекомендациям по поводу ее становления и проводит мысль об ограничении свободы как необходимого условия понимания человеком чувства свободы. По К. Ушинскому, понятие воли становится не просто необходимым для толкования человеческой личности, а стержневым ее элементом. Также стоит отметить, что волевая регуляция может быть

направлена не только на сознательную мобилизацию психических и физических возможностей человека, но и на снижение уровня активности, расслабление, релаксацию. Основываясь на таком понимании волевой регуляции, Д.Й. Турдимуродов определяет, что "волевое напряжение" (усилие) - это активное проявление сознания в мобилизации психических и физических возможностей человека или в необходимом снижении активности психики в ходе преодоления внутренних и внешних препятствий в процессе деятельности [5]. Таким образом, можно констатировать, что волевые качества относятся к разряду важнейших проявлений в характеристике личности школьника. Принимая во внимание актуальность и практическую значимость этой проблемы в процессе собственного исследования, автором была предпринята попытка оценки и изучения волевых напряжений у школьников общеобразовательной школы во время выполнения физических упражнений различного характера. Такая постановка вопроса вызвана наличием тесной взаимосвязи между уровнем физической и волевой готовности. Поэтому занятия различными видами физических упражнений способствуют формированию четко определенных волевых качеств. Связи с этим, процесс формирования воли предложено согласовывать с развитием конкретных физических способностей (качеств).

В процессе исследования подтвердилась эффективность педагогических условий предложенных Д.Й. Турдимуродовым по формированию готовности подростков к волевым напряжениям в процессе физического воспитания, а именно: обеспечение осознания учащимися задач физического совершенствования и их значимости на ближайшую и отдаленную перспективу; повышение интереса и мотивации школьников к занятию физическим воситанием; стимулирование сознательной активности учащихся в процессе занятий физическим воспитанием и планомерного увеличения объективных и субъективных трудностей с помощью соответствующих форм, методов физического воспитания; формирование у школьников готовности к волевым напряжениям. Формирование у школьников готовности к волевым напряжениям в процессе физического воспитания обеспечивалось путем внедрения структурных компонентов готовности школьников к волевым напряжениям (когнитивный, эмоционально-ценностный, деятельностный) [3]. Согласно указанных компонентов определены показатели сформированности готовности школьников к волевым напряжениям: совокупность знаний в соответствии со школьной учебной программы по физическому воспитанию, понимание значимости физического совершенствования, осознания сущности и роли волевых напряжений во время выполнения физических упражнений; интерес к физическому совершенствованию, желание воспитывать в себе такие волевые качества, как дисциплинированность, терпеливость, организованность, инициативность, удовлетворенность личными достижениями на уроках физического воспитания, проявление активности на уроках физического воспитания и тому подобное.

Также в процессе исследования автором были использованы тестовые физические упражнения и задания различного характера:

1. Силовые упражнения динамического характера.
2. Тест на задержку дыхания.
3. Тест на устойчивость (концентрацию) внимания.

Выяснено, что для формирования у школьников готовности к волевым напряжениям в процессе физического воспитания, кроме других факторов, определенное значение имеет выбор и характер физических упражнений. Как правило, учащиеся с большим двигательным опытом лучше владеют техникой выполнения многих физических

упражнений, имеют лучшую физическую подготовленность и увереннее чувствуют себя в процессе занятий физическими упражнениями [2]. Они действуют более самостоятельно, проявляют творческую инициативу, решительность, смелость и др. Стоит отметить, что показатели волевой составляющей значительно выше у учащихся, которые дополнительно занимаются в спортивных секциях, самостоятельно и имеют более высокий уровень физической подготовленности и тому подобное.

Выводы. Таким образом, определены теоретические основы проблемы воли и волевых напряжений школьников. На основе изучения научных источников выяснено, что воля - функция человеческой психики, которая заключается во власти над собой, управлении своими действиями и осознанном регулировании своим поведением; стремлении достичь цели. Выяснено, что именно сформированность волевых качеств обусловливает готовность человека к волевым напряжениям. Волевыми качествами, сформированность которых оказывается в готовности школьников к волевым напряжениям в процессе физического воспитания, является терпеливость, организованность, инициативность, дисциплинированность. Обосновано, что волевые качества формируются у учащихся при преодолении посильных трудностей и тому подобное.

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DEFINITION OF INDIA IN BOBURNOMA

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Annotation: This article deals with Zahiriddin Muhammad Babur's description of India, its nature, its differences from our lands, and its people in Baburnama.

Keywords: Zahiriddin Muhammad Babur, India, Boburnoma, Mount Kashmir, Fruit of Anba

BOBURNOMA" ASARIDA HINDISTON TA' RIFI

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Annotatsiya: Ushbu maqolada Zahiriddin Muhammad Boburning Boburnoma asarida keltirilgan Hindiston mamlakati, uning tabiati, bizning diyorlardan o'zgacha ekanligi, odamlari haqidagi ta'rifi borasida so'z yuritiladi.

**Kalit so`zlar:** Zahiriddin Muhammad bobur, Hindiston, " Boburnoma" asari, Kashmir tog`i, Anba mevasi

Bobur Mirzoning Hindistonga yurishi uning 1526-yilda Panipatni fath etganidan keyingi 5-6 yillar bilan chegaralanib qolmaydi. Balki 1505-yildan keyin u muttasil Hindistonning shimoli-g`arbiy tumanlariga qo`shin tortdi. Panjob va Sindning juda ko`p tog`li va pasttekkidliklarida vaqt o`tkazar edi. Bu haqda u " Boburnoma" da batafsil yozgan. Shu bois hindlarning rasm-rusumlari, madaniyati va tillari haqidagi ma' lumoti ortib bordi. Boburda o`qib-o`rganish, tug`ma salohiyat kuchli edi. [1.B.36]

Zahiriddin Muhamad Bobur Hindistonni o`zining mashhur asari " Boburnoma" da ham ta' riflab o`tgan.

Hinduston birinchi, ikkinchi va uchinchi iqlimda joylashgandir. U to`rtinchi iqlimga kirmaydi. Juda ajoyib mamlakatdir. Bizning yerlarga solishtirganda mutlaqo o`zga bir olam. Tog` va daryolari, o`rmon-u sahrolari, shahar va viloyalari, hayvon va o`simliklari, odamlari va tili, yomg`iri va shamoli – hammasi boshqacha, biznikiga o`xshamaydi. Kobul tarafidagi issiq viloyatlar qaysirir jihatlari bilan Hindistonga o`xshab ketsa-da, ba`zi jihatlari mutlaqo farq qiladi. Sind daryosidan o`tilishi bilan yer-u suvlar, daraxt-u toshlar, odamlar, yo`llar, odatlar – hamma-hammasi faqat Hindustonning o`ziga xosdir. [2.B.204]

Chindan ham boshqa yurtlar bilan solishtirganda Hindiston o`zgacha ahamiyat kasb etadi. Bobur Mirzo ham Kobuldan keyin Hindistonga borganda u yerni Kobuldan ko`ra yaxshiroq deb biladi. Hindistonning go`zalligida tog`larning ham ahamiyati katta. Xususan Hindistondagi Kashmir tog`ini " Boburnoma" da shunday ta' riflaydi:

Sind daryosining u tarafida Kashmirga tobe viloyatlar joylashgan. Garchi hozirgi paytda bu tog`dagi Pakliy va Shaxmang kabi ko`pgina viloyatlar Kashmirga bo`ysunmasalar-da, avvallari Kashmirning bir qismini tashkil etgan. Kashmirdan keyin kelailgan bu tog`da nihoyatda ko`p qabila va xalqlar, tuman va viloyatlar bor. Bu tog` aholisi Bangolagacha, hatto Muhit

dengizi qirg`oqlarigacha zich joylashgan. Bu tog`da e' tiborga molik shahar Kashmir bo`lib, undan boshqa shahar haqida hech gap yo`q. [3.B.204].

Hindistonda tog`lardan tashqari daryolar ham ko`p. daryolar Hindistonda dehqonchilikni rivojlantirishda va hosilning mo`l bo`lishida alohida o`rin tutadi. Zahiriddin Muhammad bobur o`z asarida Hindiston daryolariga o`zgacha ta' rif beradi:

Juda ko`p daryolar Kashmir tog`idan boshlanib, Hindustonni oralab oqib o`tadi. Ushbu tog`dan chiqqan olti daryo: Sind, Bixat, Chanob, Raviy, Biyax va saltaj Saxrindan shimol tarafga qarab oqib boradi. Multon atrofiga borganda bu suvlar qo`shilib, bir yerga quyiladi va uni endi sind deb ataydilar. Sind g`arb tomonga oqib tatta viloyatidan o`tgach, borib Ummon daryosiga quyiladi.

Bu olti daryodan boshqa yana: Juun, Rapat, Gumtiy, Gagar, Saro`, Gandak va yana ko`p daryolar bo`lib, ularning hammasi Gang daryosiga quyiladi va ular ham Gang deb ataladi. Bu daryo sharqqa qarab oqib, Bangola viloyati ichidan o`tib, Muxit ummoniga quyiladi. Ushbu barcha daryolarning manbayi Savalak Parbat tog`larida joylashgan. Yana Hindustonning hech qachon qor bo`lmaydigan tog`laridan chiqadigan Chanbal, Banas, Betviy va So`n kabi daryolari borki, ular ham Gang daryosiga qo`shiladi. [4.B.205].

Bunda tashqari dehqonchilikdan mo`l hosil olish uchun quduqlar qazilgan, ariqlarga suv chiqarish uchun charxlardan foydalanganlar. Ulardan qanday foydalanganliklarini Bobur Mirzo asarida ham haqida ma' lumotlarni ko`rishimiz mumkin.

Quduqning chuqurligicha uzunlikdagi ikkita arqonni xalqa qilib o`raydilar, ikki arqon orasiga tayoqlar bog`lab, u tayoqlarga g`o`zalarni mahkamlaydilar. Bu g`o`zalar mahkamlangan arqonni quduq ustiga o`rnatilgan charxga kiydiradilar. Charx o`qining bir tomoniga ikkinchi charxni bog`laydilar, ikkinchi charxning yoniga o`qini tik qilib uchinchi charxni o`rnatadilar. Ho`kiz ana shu charxni aylantirganida, uning parraklari ikkinchi charxning paraklariga kirib, uchinchi – charxni aylantira boshlaydi. Suv tushadigan yerga nov o`rnatishib, undan suvni turli tomonga oqizadilar. Yana Ogra, Chandvar, Bayana va shu atrofdagi joylarda yerni chelak bilan sug`oradilar. Bu mashaqqatli ish, nopokligi ham bor. Quduq yoniga yog`och ayrilarni mahkam o`rnatib, ayrining orqasiga g`altak o`rnatadilar. Uzun arqonga katta chelakni bog`lab, uni g`altakka kiydiradilar. arqonning ikkinchi uchini ho`kizga bog`laydilar. Bir kishi ho`kizni haydashi, ikkinchisi chelakdagi suvni to`kishi kerak. [5.B.205].

Ana shunda qiyinchiliklar bilan sug`orilgan yerlarda hosil albatta mo`l bo`ladi. Ayniqsa mevalari ham juda shirin va totli bo`ladi. Xususan Anba mevasi boshqalaridan ajralib turadi.

Anba mevasi

Bobur Hindiston mevalaridan, chunonchi, anba haqida mukammal va muhim ma' lumotlarni bizga manzur etadi: " Hindistongagina xos mevalaridan biri anbadar… Yaxshisi yaxshi bo`ladi, ko`p yeyish mumkin. Lekin yaxshisi kam bo`ladi. Uni aksar xom uzadilar: uyda turib pishadi. Xomi yaxshi osh qatig`i bo`ladi. G`o`rasining murabbosi ham yaxshi bo`ladi. Darhaqiqat, Hindistonning yaxshi mevasi shudir. Ba' zi odamlar anbani juda maqtab, qovundan boshqa barcha mevalardan ustun qo`ygan edilar. El maqtaganicha emas. Kordiy shoptoliga o`xshashligi bor. Pashakaal vaqtida pishadi. Ikki xil yeyiladi: birini siqib, po`la qilib, terisini teshib, so`rib suvini ichadilar; yana birini kordiy shoptolidek terisini archib yeydilar. Yaproqlari shoptoli bargiga o`xshaydi. Tanasi ko`rimsiz va hunukdir" . [6.B.22].

Zahiriddin Muhammad Boburning o`z asarlarida Hindistonni bunday ta' rifalagani bu mamlakatga bo`lgan behad mehr-muhabbatidan dalolatdir.

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ADVANTAGES AND DISADVANTAGES OF EXTENSIVE READING

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Annotation: This article highlights principles, advantages and disadvantages of extensive reading. The purpose is to show advantages and disadvantages of extensive reading strategies and methods to use in teaching process.

Аннотация: Мазкур мақолада кенг қамровли ўқишнинг тамойиллари афзаллик ва ноафзаллик томонларининг аҳамияти мавзуси кенг ёритилган. Мақоланинг мақсади –кенг қамровли ўқишнинг тамойиллари афзаллик ва ноафзаллик томонларидан таълим жараёнида фойдаланишни кўрсатиб беришдир.

Аннотации: В этой статье широко освещаются принципы всестороннего чтения и важность преимуществ и недостатков. Цель данной статья - продемонстрировать применение принципов всестороннего чтения в учебном процессе, как преимуществ, так и недостатков.

Today, in the Republic of Uzbekistan great attention is given to the radical reorganization of the educational system that will give an opportunity to raise it to the level of modern standards. One of our main tasks is to improve the quality of education in the higher education system and the introduction of innovative technologies in the learning process.

Extensive Reading gives students chances to read longer pieces of reading, which they choose, which they can read at their own speed and at their own ability level. This can be done with Graded readers.

Intensive Reading and Extensive Reading are complementary and teachers should use both. A balanced reading program uses Intensive Reading to introduce new language, and complements this with Extensive Reading which consolidates and raises awareness of this language leading to reading fluency.

There are many reasons why Extensive Reading is good for language development.

Extensive Reading builds vocabulary. When learners read a lot, they meet thousands of words and lexical (word) patterns that are not taught in textbooks. Extensive Reading allows the learner to develop an awareness of collocations (common word partnerships) and thousands of lexical phrases.

Extensive Reading helps learners understand grammar. In textbooks learners meet hundreds of grammar patterns. However, textbooks do not provide enough meetings with grammar for real acquisition to occur. Extensive Reading provides opportunities to see grammar in context so learners can deepen their understanding of how grammar is really used.

Extensive Reading helps learners to build reading speed and reading fluency. In particular, developing reading speed is important because it helps learners to understand language faster and better.

One objective of Extensive Reading is reading for pleasure. This builds confidence and motivation which makes the learner a more effective user of language.

1. Rationale for extensive. Extensive reading refers to when someone is reading for fun. The term 'extensive reading' was stated by Palmer (1997) to show the difference between extensive and intensive reading. Extensive reading is when someone reads a book, article or magazine in his/her own time. This form of reading can play an important role when it comes to developing comprehension. According to the TME 301 course reader, learners who want to learn a second language for example English, learners will need comprehensive input (TME course reader 301). This means that learners need to get plenty exposure to reading materials in the language they want to obtain. Krashen (1981) argues that learners can acquire language on their own if they receive plenty of exposure to and if it's done in a relaxed environment. Schools should make room for extensive reading in schools. Learners will be able to improve their vocabulary and language use. Extensive reading is a significant way of improving both the vocabulary of a person and ones reading skills (Nuttal 1982). When learners can improve their vocabulary they will enjoy reading and read more 'extensively '. If learners read more they will automatically learn more. Learner will show competence when participating in reading activities. Many people tend to read because they need it for work or study purposes and therefore do not associate it with relaxation or enjoyment. This sentiment generally begins in high school, when difficult literary classics such Shakespeare are mandatory.

In the past, reading was one of the few ways to pass the time, but that was before the advent of technologies beginning with the radio, then television and now computers, the Internet and gaming consoles — in other words, people have many other options for spending time nowadays. With leisure time a precious commodity in this hectic day and age, many people prefer to spend this time doing something that actually interests, relaxes or excites them, ranging from more active pursuits such as playing sports and socializing to more passive activities such as watching movies or video games.

Advantage: Reading Is Good Exercise For The Brain

Unlike watching television, reading activates parts of the brain that would otherwise remain dormant. Stimulating the brain through reading helps keep it strong and active, thereby reducing the risk of developing conditions such as Alzheimer's disease while improving concentration and memory.

Reading is also a valuable learning tool that helps expand knowledge, skills and vocabulary, which in turn give readers more confidence to deal with a variety of situations and discuss a wider variety of topics.

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Advantages of Reading Approach

There are some benefits in utilizing reading approach:

1. Reading approach can be used in a big class.
2. In reading approach, students can know much vocabulary because they have to read the passage.
3. Students focus what they are studying because they only learn grammar.
4. The reading method requires little teaching skill since the lesson-form is a standardized and fixed procedure.
5. The reading method is economical of time since the pupils all read simultaneously.
6. The reading method does not demand deep knowledge of the language on the part of the teacher, since the teacher does not have to compose the sentences and questions: everything is supplied in the book.

Disadvantages of Reading Approach

Reading approach also has limitation since there is no single teaching method that is categorized as the best based on some consideration such as: the curriculum, students' motivation, financial limitation, number of students, etc.

The main disadvantages of reading approach are as follow:

1. Since reading approach is only focused on written skill, this approach is lack in speaking skill.
2. Reading approach is oppressive approach because the vocabularies and grammar are controlled.

What are the benefits of Extensive Reading?

There is a wealth of research into the benefits of Extensive Reading for language learners. Here is a digest of what I consider to be the seven most important benefits:

1.Students become better reader

It is widely accepted that people become good readers through reading, and that learning how to read should mean a primary focus of attention on the meaning rather than the language of the text. It is pretty obvious that extensive reading helps students become better readers. Richard Day amongst many others shows that we learn to read by reading. The more language students read, the better readers they become. An integral part of this is learning new vocabulary.

2.Students learn more vocabulary

Probably the most cited benefit of Extensive Reading is that it can extend and sustain students' vocabulary growth. We know that vocabulary is not learned by a single exposure. Experts in language and literacy development such as Harvard University Education Professor Catherine Snow believe that you need to encounter a word or phrase in different contexts between 15 and 20 times to have a high possibility of learning the word or phrase. Students are highly unlikely to encounter vocabulary sufficient times within the classroom to learn it. However, if they read extensively they are much more likely to get multiple encounters with words and phrases in a variety of contexts.

3.Students improve writing

Students who read extensively also make gains in writing proficiency (Elley and Mangubhai 1981, and Hafiz and Tudor 1989). This is probably because as students encounter

more language, more frequently, through extensive reading, their language acquisition mechanism is primed to produce it in writing.

4.Students improve overall language competence

In addition to gains in reading and writing proficiency, research demonstrates that students who read extensively also make gains in overall language competence. For example, Cho and Krashen (1994) reported that their four adult ESL learners increased competence in both listening and speaking abilities through reading extensively. So Extensive Reading would seem to benefit all language skills, not just reading and writing.

5.Students become more motivated to read

It is highly motivating for students to discover that they can read in English and that they enjoy it. For this reason it is essential that the books are interesting to students and at a level appropriate to their reading ability. If students find the books compelling and interesting, and can understand them, they may become more eager readers. This can also help to boost their confidence and self-esteem as language learners.

6.Students develop learner autonomy.

Students can read anywhere, at any time, and reading extensively helps them become more autonomous learners. To promote learner autonomy extensive reading should be a student-managed activity. That is to say that students should decide what, when, where and how often they read.

7.Students become more empathic

Neuroscientific and social science studies have shown that people who read literary fiction extensively are more empathic. People who read novels about other people who are very different from themselves and their backgrounds are particularly empathic.

PRODUCT QUALITY AND CERTIFICATION BASIS

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Annotation: product quality is a set of product characteristics, determined by the degree to which it meets the needs of society and the individual. Improving product quality is an important condition for increasing production efficiency and ensuring product competitiveness. Certification is aimed at monitoring the sale of products that are dangerous to human life, health, property of legal entities and individuals, as well as the environment, ensuring the competitiveness of products in the world market, domestic enterprises, joint ventures. and in order to create conditions for entrepreneurs to participate in international economic, scientific and technical cooperation and international trade, to protect the consumer from the dishonesty of the manufacturer (seller, executor), to confirm the quality indicators set by the manufacturer (seller, executor) is done.

Keywords: Certification, conformity, product quality, vendor, certification, quality indicator

To be successful in business, your organization needs to deliver a high quality product or service at a time when your competitors are able to set competitive prices. Since quality is the key to a company's success, the quality management system is to get to know and be aware of current quality levels, meet customer needs for quality, not lose manufacturers through competitive payment programs, and be aware of the latest technology allows organizations.

What is quality? Speaking of which:

• The basis of the customer's understanding of the design of the product or service and to what extent it corresponds to the original features of the design;
• Satisfy the needs of the product and service offered and installed;
• Achieving coordination of existing needs within the organization;

The sum of the work involved in selecting the nomenclature of quality indicators of a given product, determining the values of these indicators and comparing them with the underlying values is called the assessment of the level of product quality. To assess the level of product quality, products are divided into two categories.

- Consumables.
- A product that consumes its own resources.

The rationale for the selection of the nomenclature of product quality indicators is based on the following.

- Conditions and function of the product.
- Analysis of consumer demand.
- Descriptive composition and structure of product quality.
- Basic requirements for quality indicators.

Factors affecting product quality can be divided into four categories.
-technical:
-organizational:

-economic:
-social:

Certification is an activity carried out to confirm the conformity of a product (product, commodity) or service to a certain standard or specifications, as a result of which the consumer is issued a certificate - a certificate assuring the consumer about the quality of the product (product, commodity).

The national certification system is a system that has its own procedures and management rules for conducting certification at the national level.

Certificate of Conformity - a document issued in accordance with the rules of the certification system to confirm the conformity of the certified product to the established requirements.

A mark of conformity is a duly registered mark placed on a product or service document to indicate that a particular product or service conforms to a specific standard or other regulatory document.

The procedure for export of products subject to certification from the territory of the Republic of Uzbekistan shall be determined by the Cabinet of Ministers of the Republic of Uzbekistan.

The following works:

- development of prospects for the development of certification, rules and recommendations for its implementation;
- providing official information in the field of certification;
- Participate in the work of international (regional) certification organizations and work with foreign national certification bodies;
- development of international (regional) rules and recommendations on certification and participation in their development;
- Carrying out research and other work of national importance on certification;
- State inspections and control over compliance with certification rules and certified products are funded by the state.

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TOPIC: "PECULIARITIES OF SUCCESSFUL MASTERING OF TEACHING MATERIALS BY STUDENTS."

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Abstract: The effective solution of complex tasks of quality, modern education and upbringing of students largely depends on the pedagogical skills, abilities, talents and experience of the teacher. In order to achieve high results in education, the teacher must understand the age, mental processes, individual and psychological characteristics, willpower and other mental states of students in the teaching process and, consequently, conduct lessons.

МАВЗУ: “ЎҚУВЧИЛАРНИНГ ДАРС МАТЕРИАЛЛАРИНИ МУВАФФАҚИЯТЛИ ЎЗЛАШТИРИШИНИНГ ЎЗИГА ХОС ЖИҲАТЛАРИ”.

Муаллиф: Артиков Жуманиёз Отабоевич,
Хоразм вилояти ўқитувчиларни қайта тайёрлаш ва уларнинг малакасини ошириш ҳудудий маркази «Педагогика ва психология, таълим технологиялари» кафедраси ўқитувчиси, психолог (тел. +998 972999813).

Ўқувчиларга сифатли, замонавий таълим ва тарбия беришнинг мураккаб вазифаларини самарали ҳал этиш кўп жиҳатдан ўқитувчининг педагогик маҳорати, қобилияти, истеъдоди ва тажрибасига боғлиқ. Таълимда юқори натижаларга эришиш учун эса педагог таълим бериш жараёнида ўқувчиларнинг ёши, психик жараёнлари, индивидуал-психологик хусусиятлари, иродавий сифатлари ва бошқа руҳий ҳолатларини тушуниши ва шундан келиб чиқиб дарс машғулотларини олиб бориши лозим.

Маълумки, таълим жараёнида ўқувчиларнинг мустақил ақлий меҳнат қилиши, мисол-масалалар ечиши, машқлар бажариши, такрорлаши иродавий зўр беришни талаб килади ва бу уларда ихтиёрий, барқарор, мустаҳкам, кучли ва фаол диққатни ривожлантиришга қулай шарт-шароит яратади.

Ўтин ёриш, ер чопиш каби энг оддий ишларни ҳам, техника билан ишлаш, илмий текширишлар олиб бориш каби мураккаб ишларни ҳам диққатнинг иштирокисиз бажариб бўлмайди. Ўқувчиларнинг дарс материалларини муваффақиятли ўзлаштиришлари, даставвал диққатнинг мавжуд бўлишига боғликдир. К.Д.Ушинскийнинг айтишича: “Диққат руҳий ҳаётимизнинг шундай ягона бир эшигидирки, онгимизга кирадиган нарсаларнинг барчаси шу эшик орқали ўтиб киради”. Демак, бутун бир таълимнинг муваффақияти ана шу иш муваффақиятига таянади.

Инсон бирор бир предметни ёки воқеа-ҳодисани идроқ килиши, ўрганиши, эслаб қолиши учун ўша нарсага диққатини қаратиши лозим. Акс ҳолда бу нарсани онгда акс эттириш, тасаввур қилиш ва ўзлаштиришнинг имкони бўлмайди. Диққатнинг иштирокисиз оддий игнага ипни ўтказишдан тортиб мураккаб ишларни бажаришни иложи

йўқ. Айрим ўқувчиларда учрайдиган ўзлаштира олмаслик ҳолатининг сабабини аввало улар диққатининг етарли эмаслигидан қидириш керак. Хотиранинг бўшлиги, ўқув материалларини ўзлаштиришнинг бўшлиги, асосан, диққатнинг бўшлигидан келиб чиқади. Мана шунинг учун ҳам педагог ўқитиш ишида юксак муваффакиятга эришишни истар экан, ўқувчилар диққатини, хусусан, энг барқарор ва энг кучли диққатини уюштириш ҳамда тарбиялаш ҳақида жон куйдириш лозим.

Ўқувчиларни диққатини бир маромда узоқ ушлаб туриш жуда мураккаб жараён. Чунки, ўқувчини диққатини 3-5 дақиқадан узоқ ушлаб туриб бўлмайди. Бунга сабаб, диққатнинг бўлиниши, кўчиши, тебраниши ва беқарорлиги каби хусусиятларга эга эканлигидир. Лекин, иккинчи томондан қаралса, шу ўқувчи мактабдан чарчаб уйига келгач телевидение ёки интернет орқали намойиш этилаётган кинофильм ёки видеороликни 1 ёки 2 соат давомида тўхтамасдан, диққатини бўлмасдан, чалғимасдан тамоша қилиши мумкин. Бунинг асосий сабаби, ушбу фильм ва роликдаги воқеалар ривожининг жуда кичик вақт оралиғида, дақиқалар ичида тез-тез алмашиши ва ўзгаришидададир. Натижада тамошабин фильмдаги сюжет нима билан тугашини интиқлик билан кутади ва шу тариқа вақт ўтганини сезмай қолади. Ўқитувчи ҳам бу ҳолатни эътибордан қочирмаслиги лозим. У дарс ўтиш жараёнида ўқувчиларни диққатини бўлинишига, кўчишига йўл қўймаслиги ва қизиқишларини сўндирмаслиги лозим. Бунинг учун эса бир хилликдан воз кечиш талаб этилади. Афсуски, аксарият ўқитувчилар халигача дарс беришнинг анъанавий усулидан, яъни йўқлама қилиш, уйга вазифани сўраш, баҳолаш, янги мавзуни тушунтириш, уйга вазифа бериш каби бир хиллик (шаблон) дан воз кеча олмаяпти. Мана шу бир хиллик эса кўпчилик ўқувчиларни дарсдан безишига, диққатини беқарорлашишига ва қизиқишларини сўнишига олиб келади.

Айрим ўқувчиларда бирон бир маълумотни ўзлаштириш жараёнида, кўпинча китоб ўқиш ёки маъруза тинглаш пайтида диққати бўлиниб унинг ўрнини турли бошқа нарсалар, акарият ҳолларда хаёллар эгаллайди. Борди-ю, ўқувчи ўқитувчининг тушунтиришларига аввал бошда қулоқ солиб, лекин 10-15 дақиқадан кейин бошқа нарса билан шуғулланса, ёки бошқа нарсалар тўғрисида хаёлга берилиб кетса, ёки бўлмаса китоб ўқиса-ю, унинг мазмунининг айрим жиҳатларига “эътибор бермапман” деса, билингки бу ўқувчининг диққати беқарордир.

Умуман диққатнинг бу хусусияти барча инсонларга хос бўлиб, хатто катталарда ҳам тез-тез учраб туради. Мисол учун, мактаб директори ўқитувчига, “эртага сизни дарсингизни таҳлил қилиш учун вилоят халқ таълими бошқармасидан мутахассислар келади, яхшилаб тайёргарлик кўринг!”, деб огоҳлантиради. Шунга мувофиқ ўқитувчи эртага бўладиган ушбу очиқ дарсга тайёргарлик кўради ва китоб ўқиши жараёнида бевосита унинг хаёлига бехосдан эртага кутилаётган дарс натижалари билан боғлиқ турли хил салбий ёки ижобий фикрлар келади: “Иш қилиб эртага бўладиган очиқ дарсим яхши ўтсин!”, “Ўқувчиларим уялтириб қўймасин” ва шунга ўхшаш хаёллар. Шу пайтда унинг диққати ўрнини хаёл эгаллайди. Ваҳоланки, у хали китоб ўқишни тўхтатгани йўқ. Мазкур жараёнда ўқилган матн мазмуни эса умуман эсда қолмайди.

Шуни ҳам эсдан чиқармаслик керакки, кўп вазифалилик ёки бирданига икки ёки ундан ортиқ ишни бажаришга уриниш самарали эмас, айниқса, гап ақлий фаолият ҳақида кетганда. Шу билан бирга, у мияга зиён ҳам. Ҳар сафар бир неча ишни баравар бажарганингизда мия ортиқча стрессга йўлиқади ва табиийки, янги вазифага диққатни қаратиш хусусияти пасаяди. Узоқ вақт давомида бир ишни бажарганингизда

бундай асоратлар бўлмайди. Бир вазифалилик янада самарали ишлашга ёрдам беради ва диққатни бир предметда жамлашга ўргатади.

Хусусан, автомобилни бошқариб бораётган ҳайдовчига бирон бир математик масала ёки мисолни ечиш вазифаси берилса, уни автохалокат содир қилиш эҳтимоли ортади. Шу боисдан хам барча давлатларда автомобилни бошқараётган ҳайдовчига телефонда сўзлашиш тақиқланган ва бу катта миқдорда жарима солишга сабаб бўлади.

Ёки буни қуйидаги тажриба мисолида хам кузатишимиз мумкин. Агар инсонга 10 сония оралиғида 1 дан 20 гача ёзиш ва 20 дан 1 гача овоз чиқариб тескарисига санаш вазифасини бирданига бажариш топшириғи берилса, аксар инсонлар буни уддалай олишмайди. Бунга сабаб иккита ишни бирданига бажариш жараёнида инсон диққатини у топшириқдан бу топшириққа ва аксинча, тез-тез кўчиришига тўғри келади ва шошилганидан рақамларда чалкашиб кетади. Лекин, инсон худди шу ишни юқоридаги вақт оралиғида, кетма-кет бажарса буни уддасидан чиқиши мумкин.

Худди шунингдек, агар инсонга маълум бир вақт оралиғида (3 дақиқа) белгиланган матнни ўқиб, мазмунини гапириб бериш ҳамда шу пайтни ўзида қоғозга «+» ва «–» белгиларини кетма-кетликни бузмаган ҳолда ёзиш каби иккита вазифани бирданига бажариш топшириғи берилганда ҳам буни уддасидан чиқа олмайди. Агар у диққатини матн мазмунига қаратса, қоғоздаги «+» ва «–» кетма-кетлиги бузилади. Мабодо эътиборини ушбу кетма-кетлик бузилмаслигига қаратса, матн моҳиятини, ундаги воқеа-ҳодисаларни эслаб қола олмайди.

Инсон бир нарсага диққатини қаратганида бошқалари эътибордан четда қолади. Энг кучсиз диққат – тарқоқ диққат, паришон диққат ёки тўғридан-тўғри паришонхонлик дейилади. Паришонхотирлик – бу диққатнинг бекрорлиги, яъни бошқа нарсаларга чалғишидан иборат психик ҳолат. Бунда одам ўз диққатини бир нарсада тутиб тура олмайди. Диққат бир нарсадан бошқа бир нарсага беихтиёр равишда ўтиб туради. Мактабда паришонхотир ўқувчилар учраб туради. Бундай ўқувчилар доим уёк-буёққа “аланг-аланг” қилаверади, бирон нарса устида диққатини тутиб тура олмайди. Уларни паришонхотир бўлиб қолишларига, кўпинча, ёшлигида диққатини етарли даражада тарбияламаслик сабаб бўлган.

Паришонхотирлик катта ёшдаги инсонларда ҳам кузатилади. Мисол учун айримлар ишга кетаётиб, ярим йўлда ўйлаб қолади ва ўзига-ўзи турли саволларни беради: “Эшикни қулфладимми?”, “Газни ўчирдимми?”, “Дазмолни электрдан уздими?” ва хаказо. Бунга сабаб, эшикни қулфлаётган пайтда диққати бошқа жойда бўлган, масалан телефонга жавоб бераётган бўлган: “Мана-мана чиқдим, йўлдаман, кетаяпман”, деган. Натижада эшикни қулфлаган ёки қулфламагани аниқ эсида қолмаган.

Бундан кўринадики, диққат билан хотира бевосита бир-бири билан чамбарчас узвий боғлиқ жараён. Ўқувчи қайси предметга диққатини ихтиёрий ва фаол қаратса, ўша предметни ўзлаштиради ва хотирасида сақлаб қолади ва аксинча.

Педагог ўз ўқувчиларига маълумотларни ўзлаштиришда юқоридаги каби ҳолатларга йўл қўймаслик, диққатини ихтиёрий равишда ўрганилаётган маълумотларга қаратиш ва бунда ирода кучини ишга солиш йўлларини тушунтириши ва ўргатиши керак.

Шу билан бирга ўқувчиларни диққатини бир жойга тўплаш ва уларни зериктирмаслик учун педагогнинг ўзи ҳам янада кўпроқ ўз устида ишлаши, дарс ўтишнинг интерфаол методларидан фойдаланиши, бир хилликдан воз кечиши ва креатив фикрлашни одат қилиши лозим.

Шунингдек, педагог ўқувчилар диққатининг кучли ва барқарор бўлиши бир қатор шартларга: диққат объектининг мазмундорлигига, фаолиятга, иш бажарилаётган вазиятга, ўқувчининг руҳий ҳолатига, иродасига ва қизиқишларига бевосита боғлиқ эканлигини билиши ва унга амал қилиши шарт. Ўқитувчининг дарси қанчалик мазмундор, қизиқарли ва турли-туманликларга бой бўлса, ўқувчиларнинг диққати ҳам шунчалик кучли ва барқарор бўлади. Мисол учун, бир варақ тоза қоғозга чизилган доирага узоқ вақт диққат билан қараб туриш ёки қимирламай турган нуқтага тикилиб туриш анча қийин.

Ўқувчилар диққатини жалб этишда кўргазмалилик (картиналар, мум нусхалар, жадваллар, чизмалар ва бошқалар) дан мақсадга мувофиқ фойдаланиш, тажрибаларнинг намойиш қилиниши ва мустақил равишда ўтказилиши, таълимда техника воситаларидан фойдаланиш катта аҳамият касб этади. Муҳими, бир хилдаги, узоққа чўзилиб кетадиган, ижодий бўлмаган иш диққатнинг тўпланишини сусайтириб юборишини, унинг барқарорлигини пасайтиришини эсдан чиқрмаслик лозим.

Диққатни сақлашда дарснинг ташкил этилиши: машғулотларнинг пухталик билан боғланиши, ишлаш учун зарур шарт-шароитларнинг мавжудлиги ва ҳоказолар катта аҳамиятга эга. Бу ўринда дарс ўтишнинг суръатини алоҳида ажратиб кўрсатиш керак. Жонли, жадал суръат диққатни яхшироқ сафарбар этади. Ҳаддан зиёд тез суръат чоғида шошиш оқибатида «диққатнинг нотўғри жалб этилиши» содир бўлади, секин суръат эса ўқувчида иштиёқ уйғотмайди ва чалғиши учун шароит туғилади. Таълим суръати материалнинг мазмунига, уни ўзлаштиришнинг қийин ва ентиллигига, ўқувчиларнинг ёшига албатта боғлиқ бўлади.

Хулоса ўрнида айтиш жоизки, бугунги замонавий таълимда ўқувчиларни қизиқтириш, уларнинг диққатини жалб қилиш ўқитувчидан дидактик қобилият - мураккаб билимларни ўқувчиларга осон йўл билан тушунтира олиши талаб этилади. Бунда таълим берувчи зарурат туғилган ҳолларда ўқув материалини ўзгартиради, соддалаштиради, қийин нарсани осон, мураккаб нарсани оддий, тушунарсиз нарсани тушунарли қила олади. Ана шундагина у кўзлаган ижобий натижага эриша олади.

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INFORMATION TECHNOLOGY IN DIFFERENT COUNTRIES

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Abstract: At the same time, a number of systemic problems and shortcomings in the management and implementation of information technologies and communications impede the accelerated development of this sphere, the provision of high-quality information services, in particular

Having decidedly decided that the introduction and development of ICT in many areas of life is the necessary element that simplifies and accelerates many processes related to society, government and business, both among themselves and within, it is important to highlight the main guidelines, based on which, you can track the direction of ICT development. Among them can be divided into:

Improving the legal framework. It should be noted that most of the regulations are directly or indirectly interconnected, creating a picture of mutual complementarity and structuring. At the same time, it is important to specify the legislative framework that is the flagship of the regulation of individual areas of ICT development.

Thus, the Law of the Republic of Uzbekistan "On e-government", adopted on December 9, 2015, number ZRU-395, defines the main tasks facing the state in matters of interaction with business and society. In fact, the law provides mechanisms for the introduction of innovative technologies through:

- creation of communication channels between business and public authorities - electronic document flow in the processes of providing statistical reports, customs clearance, issuing licenses, permits, certificates, as well as obtaining information from government bodies;
- expanding business opportunities in the use of e-commerce systems, the procurement through electronic platforms, the introduction of automated accounting systems, control and payment of utilities, the development of non-cash electronic payment systems, etc .;
- creating channels of communication with the public - introduction of the "One Window" principle, virtual reception and other platforms for social communications;
- formation of databases of state bodies within the framework of their functions, for example, the Unified portal of interactive state services and the Unified register of electronic state services.

Another important part of this document is to ensure the effectiveness, efficiency and transparency of the activities of the state bodies themselves, as well as strengthening their responsibility and executive discipline. In addition, as part of the implementation of the e-government development program, databases of legal entities and individuals, vehicles, a register of directories and classifiers and an interdepartmental integration platform (75 systems and resources) have been created.

In addition to this law, the Resolution of the President of the Republic of Uzbekistan "On measures to further improve the project management system in the field of information and communication technologies" No. PP-3245 of August 29, 2017 is supposed to create a Single Integrator for the creation and support of state information systems, whose tasks will be enter:

- ensuring the development, implementation and integration of information systems, resources and software products in the "Electronic Government" system and information technologies in sectors of the economy;
- implementation of comprehensive measures to improve the quality of e-government services to the population and business entities;
- promoting the development of the domestic market of information and communication technologies and software products;
- introduction of information systems and networks of inter-agency electronic interaction and information exchange between government agencies and other organizations. [1]

Decree of the President of the Republic of Uzbekistan. The country conducts consistent work on the development of modern information technologies and communications, creating an integrated system for the provision of electronic public services, and introducing new mechanisms for dialogue between government agencies and the public.

At the same time, a number of systemic problems and shortcomings in the management and implementation of information technologies and communications impede the accelerated development of this sphere, the provision of high-quality information services, in particular:

first, the telecommunications infrastructure is underdeveloped, remote settlements of the country remain unsecured by telecommunications networks, the quality of mobile communications and the Internet does not meet the needs of the population; **second,** due to the ineffective implementation of a single technological approach in the implementation of information technologies and communications in the public administration system, departmental information systems and resources are introduced fragmentarily, which complicates the process of their integration into a single information space; **third,** due attention is not paid to the introduction of integrated trading and marketing platforms, online stores, payment systems, and logistics systems in e-commerce, which is becoming one of the reasons for restraining the development of the economy and entrepreneurship, attracting foreign investment; **the fourth,** weak organization of work to ensure information security and protection of information in state information systems and resources increases the possibility of unauthorized access to information, violation of the integrity and confidentiality of databases; **fifth**, the heads of the majority of state bodies and organizations do not pay sufficient attention to the implementation of informatization projects and the introduction of modern information technologies and communications aimed at improving the quality and efficiency of the services provided to the population, eradicating bureaucratic procedures, reducing paperwork; **sixth,** effective measures are not being taken to modernize postal services and the logistics system, introduce qualitatively new working methods of the national postal operator and increase the prestige of its activities in the market;

Seventh, the current system of training, retraining and advanced training in the field of information technology and communications does not take into account the rapid pace of development of IT-technologies, and also does not allow for organizing an effective dialogue with leading educational institutions of foreign countries to introduce advanced teaching methods;

Eighth, there is no systematic work on the in-depth study and implementation of the experience of countries that have advanced significantly in the development of e-government, e-commerce, the system of e-government services, their transparency and openness, as well as telecommunications infrastructure. [2]

The interaction of business and the public with the authorities. One of the breakthrough steps in the development of the dialogue between the state and the population was the launch of the well-known virtual reception room of the President of the Republic of Uzbekistan. Today it does not make sense to describe the effectiveness, quality of work and the benefits that this project brought to the integration of high technologies in the sphere of social communications. Here the other thing is more important - the functionality of the created system - the reception, accumulation, classification and systematization of incoming calls, as well as monitoring and control over their full, timely and high-quality consideration. In the case of a virtual reception room, the Unified Call Processing Center also operates, which receives oral requests around the clock.

Thus, a two-channel platform for receiving and processing requests was created, through which over 1.2 million calls have passed, of which 557 thousand were received through the Unified Call Center.

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THE ROLE OF INNOVATIVE TECHNOLOGIES IN DESIGN

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Abstract The article discusses heuristic, creative and innovative technologies in costume design. Sometimes the use of traditional methods in solving creative problems is not an interesting solution. Therefore, the design process should be aimed at enhancing the creative activity of the designer.

INNOVATSION TEXNOLOGIYALARNING DIZAYN SOHASIDAGI O'RNI

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Annotatsiya:Maqolada kostyum dizaynida evristik, ijodiy metodlar va innovatsion texnologiyalar haqida ilmiy izlanishlar olib borildi. Ba'zan ijodiy vazifa yechilganda an'anaviy usullarni qo'llanishi qiziqarli yechimni bermaydi. Shuning uchun loyihalash jarayonida dizaynerning ijodiy faoliyatini intensifikatsiyalashga yo'naltirish kerak.

В статье рассматриваются эвристические, креативные и инновационные технологии в дизайне костюмов. Иногда использование традиционных методов в решении творческих задач не является интересным решением. Поэтому процесс проектирования должен быть направлен на активизацию творческой активности дизайнера.

"Innovatsiya" so'zi ingliz tilidan kelib chiqqan, uning tarjimasi yangilanish, o'zgartirish, yangilik kiritish degan ma'noni bildiradi. Innovatsiya fenomeni o'zining evristik asosiga ko'ra, birinchidan, yangilikka yo'nalgan, ya'ni madaniyat yangiliklarini ochishga qaratiladi, ikkinchidan, u ijtimoiy-ma'daniy hodisa sifatida madaniyatning bugungi kunini ham aks ettiradi. Innovatsiya subyektning kreativ-nazariy va predmetli amaliy faoliyatining mahsuli sifatida ham talqin etiladi. I.T.Blabanov ta'kidlashicha, "Innovatsiya—yangi texnika yoki texnologiya, yangi ishlab chiqarish, xizmat ko'rsatish va boshqaruv, shuningdek, nazorat, hisob-kitob, rejalashtirish uslublari, tahlil va boshqalarni tashkil etishning yangi shakllariga mablag' kiritish orqali erishilgan moddiylashgan natijadir". Zamonaviy adabiyotlarda innovatsiya jarayonining uch komponenti mavjud. Bulardan birinchisi, subyektli, kreativ (ijod), amaliy (mehnat) komponentlar alohida o'rganiladi. Jumladan, ma'lum bo'ladiki, hozirgi kunda ijod madaniyatida mehnatning ahamiyati ortib, u kreativ xarakter kasb etmoqda, yangilikni obyektivlashning ijtimoiy-ma'daniy modeli sifatida innovatsiya namoyon bo'lmoqda. Chunki zamonaviy ijtimoiy-

ma'daniy ijodning o'ziga xosligi kommunikativ innovatsiyalar bilan belgilanadi. Uning ma'daniyatda keng qo'llanilishi esa ijtimoiy-ma'daniy tizimining vertuallashuvi va globallashuviga olib keladi. Bugun innovatsiya texnikaviy-iqtisodiy chegaralardan o'tib ma'daniyatning turli jabhalarida ham keng qo'llanilmoqda. Bu holat ilmiy-ijodiy faoliyat mahsuli bo'lgan fanda ham yorqin namoyon bo'lmoqda.

Hozirda innovatsiyaga ilmiy-tadqiqod faoliyatining bosh manbai sifatida qaralmoqda. Ma'lumki, innovatsiya murakkab ijtimoiy-madaniy fenomen. Innovatsiya ijtimoiy-ma'daniy hodisa sifatida madaniyatning barcha tendensiyalarini o'zida mujassamlashtiradi. Shuningdek, innovatsiya yangilikka yo'naltirilgan fenomen sifatida o'zi bilan madaniyat kelajagini belgilab beradigan everestik g'oyalarga asoslanadi.

Ilmiy-tadqiqot faoliyatidagi innovatsiyalarga maxsus to'xtaladigan bo'lsak, ularsiz ilmiy-tadqiqotlarni tasavvur qilish mumkin emas, chunki ularda takrorlanmaydigan hodisalar sifatida namoyon bo'ladi. Shu ma'noda, ularning sabablari yetarli darajada aniqlanmagan bo'lib, biror nima uchun emas, har doim ham emas, kata qismi bo'yicha ham emas, biror qonun bo'yicha ham emas, faqatgina ularning everistik xususiyatidan kelib chiqib baholash mumkin. Shuning uchun ham U.Uevell: "Oldingi haqiqatlar quvilmaydi, rad qilinmaydi, balki kengaytiriladi va har bir fan tarixi—haqiqatdan innovatsion xarakterga egadir", deb yozadi. Biroq U.Uevell tahminicha, fan bo'sh joyda paydo bo'lmagan ko'p hollarda yangi ilmiy g'oya, albatta, o'z manbasiga ega bo'lgan, ya'ni fandagi har bir yuksalish, undagi an'anaviy ilmiy g'oyalar bilan bir qatorda yangidan yangi innovatsiyalar va novassiyalar asosida bosqichma-bosqich amalga oshirilgan. Umuman olganda, innovatsiya bilan ilmiy ijodiy faoliyat asosida qo'lga kiritilgan yutuqlarni biroz o'zgartirish mumkin. Ammo ularni mutlaqo rad qilib bo'lmaydi, ya'ni turli doiradagi innovatsiya va novassiyalar asosida yangi gipotezalar paydo bo'ladi. Ammo biz fan rivojida sekin va ketma-ket o'zgarishlar bo'lganligini ham inkor qila olmaymiz. Darhaqiqat, ko'pgina fan yutuqlari ulardan oldin mavjud bo'lgan nazariya yoki gipotezalarga tayanmagan. Bu jarayon ayniqsa "vaqtidan ilgari" paydo bo'lgan ilmiy kashfiyotlarga taa'luqlidir.

Innovatsiya ilmiy tadqiqot faoliyatining mavjud shakl va usullarini yangilashga, ularni amalga oshirish uchun yangi maqsad va vositalar yaratishga qaratilgan paradigmal faoliyatdir. U olimning butun salohiyati rivojlanishi, har qanday, hattao kutilmagan holatlarga ham tayyor turishi, yangi vaziyatlarga tez moslasha olishi uchun muhim shart-sharoit yaratib beradi. Ilmiy-tadqiqot faoliyati to'g'risidagi zamonaviy qarashlarda ko'proq uning innovatsion komponentlariga alohida e'tibor berilmoqda. Shuning uchun ham hozirda ijodiy faoliyat deganda, Insonning yangi moddiy va ma'naviy qadriyatlar yaratishga qaratilgan va ijtimoiy ahamiyatga yo'naltirilgan innovatsion faoliyat usuli tushunilmoqda. Ayni shu ma'noda, ijodiy maxsus shakli bo'lgan ilmiy ijod ham o'ziga xos innovatsion xarakterga ega. Uning asosiy vazifasi esa hodisalarning real imkoniyatlari va predmetlariga yangilik kiritish orqali namoyon bo'ladi. Ijodiy jarayon—bu mazmun va shakl birligini qidirishdir. Evrestika—bu mas'ul ijodiy fikrlashni o'rganadiga fandir. Ijodiy jarayon juda murakkab va o'ta xilma xil hodisa. Ijodiy tasavvurni rivojlanishi, loyiha ijodiy vazifani noan'anaviy usullar bilan yechish, psixologik enertsiyani yengish—bu evrestik usullarning imkoniyatlaridir. Assotsiatsiya usuli—g'oyani vujudga kelish usullaridan biridir. Agar dizaynerlarning ijodiy tasavvuri tashqi muhitni turli g'oyalarda qartilsa, u holda bu usul yaxshi natija berishi mumkin. Dizaynerni assotsiativ fikrlashi buyumli, abstrakt va psixologik assotsiatsiyalarni ob'ekt yechimini grafik qidiruvda o'zlashtirishdir.

Kostyum dizayneri real borliqni qandaydir transformatsiya va o'zlashtirish natijasida kiyimda qo'llashi mumkin va barcha narsalarni olishi mumkin. Assotsatsiyalar har xil bo'lishi mumkin: Buyumli, abstrakt, psixologik va noreal.

Empatiya usuli loyihalayotgan buyumni "roliga kirish". Bu usul bilan teatr aktyorlari foydalanadi. Ilg'or texnologiyalari usuli—"Ideal buyumni" qidirish usuli. Uning asosiy maqsadi buyum mo'ljaliga ideal mos bo'lishi kerak. "Aql hujumi" usuli—bu qisqa muddatda kollektiv g'oyalarni generatsiya qilish. Bu usulda ushbu muammo bilan shug'ullanmaydigan turli mutaxassisli odamlardan kollektiv tashkil etiladi. Kollektiv korxona bilan bog'liq emas joyda yig'iladi, uni ta'siri bo'lmasligi uchun. Bu holda quyidagi wartlar qo'yiladi: kollektiva kata emas bo'lmasligi lozim, kollektiv a'zolari ketma-ket tez o'z fikrini eshitishi kerak. Tnqid man etiladi, jarayon magnitafonga yoziladi. So'ng kollektiv ish natijasi mutaxassislariga beriladi, ular g'oyalarni tahlil etishadi, hattoki bemani hazil yoki porodoksal bo'lsa ham, baholashadi va yechish mohiyatini aniqlashadi. O'yin usuli modada o'yin fursatini nazarda tutadi, o'yin esa doimo innovatsion faoliyat bilan bog'liq. O'yin moda namunalari va siymolarini o'zgarishiga olib boradi va qidirishni rag'batlantiradi.

Xulosa sifatida ta'kidlash joizki: zamonaviy dizayner ko'pincha analogiya, assotsatsiya, kombinatsiyalash, inversiya va boshqa usullarga asoslangan oddiy evristik usullari bilan foydalanadi. Loyihalovchi evristik usullari bilan foydalanishni bilishi kerak.

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XV аср жаҳон ва шарқ маънавиятининг буюк сиймоси, ўзбек мумтоз шеъриятининг султони, улуғ шоир ва мутафаккир А.Навоий ҳам фозил жамият қуришга доир бой илмий мерос қолдирди. А.Навоий сиёсий қарашларининг шаклланиши ва ривожланишини икки даврга бўлиб ўрганиш мумкин.
Биринчи давр- унинг ёшлик йилларидан то 1476 йилда Ҳусайн Бойқаро ҳокимиятидаги вазирлик мансабидан истеъфо этиб кетишигача бўлган вақтни ўз ичига олади.
Иккинчи давр эса 1476 йилдан бошлаб умрининг сўнгги кунларигача бўлган вақтни қамраб олади.

Биринчи даврда А.Навоий мамлакатда ҳокимият тепасига адолатли подшо келишига, бахтли жамиятга эришиш мумкинлигига ишонади ҳамда уни амалга ошириш учун курашади. У мамлакат ижтимоий ҳаётидаги сиёсий тарқоқликка чек қўйиш, тахт учун кетаётган қон тўкишларнинг олдини олиш борасида саъй-ҳаракатлари кутилган натижани бермагач сиёсий фаолиятдан воз кечади. Унинг сиёсий фаолиятидаги иккинчи давр бошланади. Мутафаккир адолатли давлат, маърифатпарвар шоҳ ғоясини яратишга киришади. А.Навоий ҳам бир қанча шарқ мутафаккирлари сингари фозил жамиятни орзу қилган ва бунинг учун ўзи ҳам бевосита амалий ҳаракатлар олиб борган.

Мутафаккир адолатли ҳукмдор, яъни "аҳли маъни"га мансуб бўлган подшоларни улуғлайди, ижтимоий-сиёсий ҳаётда юз бераётган ноҳақликлар, адолатсизликларни эса қоралайди. Ҳақиқий инсонларга хос бўлган адолат, меҳру-мурувват, меҳнатсеварлик, тўғрисўзлик, ватанпарварлик, ҳалоллик, инсонпарварлик, саховатпешалик каби фазилатларнинг ижобий жиҳатларини кенг ёритиб беради. Унингча, адолатли жамиятни юксак фазилатли, маънавиятли, маърифатли инсонларгина барпо этишлари мумкин. Шунинг учун мутафаккир инсон маънавиятини юксалтириш асосида фозил жамият қуриш ғояларини илгари суради. У ўзининг "Ҳайрат ул- аброр" ("Яхшилар ҳайрати") асарида одамларни икки гуруҳга- "аҳли маъни" ва "аҳли суврат"га бўлиб, уларнинг ҳар бирига

таъриф беради. Алишер Навоийнинг фикрича “аҳли суврат” тоифасидаги кишилар инсоний муносабатларнинг фақат шаклу-шамойилига эътибор берадилар. Уларга виқорли бўлиш, кибрланиш, зебу-зийнатга берилиш, ўзгаларга зулм ўтказишдан ҳузурланиш хосдир. “Суврат аҳли” учун дунёни қалбан англаш, эзгулик ҳис-туйғулари бутунлай ётдир. Улар инсоний муносабатларнинг фақат ташқи кўринишларини тан оладилар, моҳият ва мазмунга кириб бора олмайдилар. Бу тоифадаги кишилар кучлилар олдида қул, ожизлар олдида зулмкор. Бундай инсонлар фақат жоҳил жамиятни хуш кўрадилар. Асарда у кибр, худбинликни қоралаб шундай дейди: “Такаббурлик- шайтон иши ва манманлик нодон иши. Такаббур одам барчага ёқимсиз. Худбиннинг ҳеч бир иши элга маъқул эмас. У ўз билими билан мағрур, аммо билимдонлар қаршисида эса айбдор. Худпарастликдан будпарастлик яхшироқдир”[1].

“Аҳли маъни”- юксак тафаккур соҳибларидир. Уларнинг маънилиги шундаки, бу тоифадаги одамлар учун ақл-идрокли бўлиш, турли муносабатларнинг моҳият ва мазмунини англаш хосдир. Бундай одамлар ўз эҳтиёж ва манфаатларини ўзгаларники билан уйғунлашган ҳолда идрок этадилар. Жамият ва халқ учун хизмат қилиш ҳамда яшашдан лаззатланадилар. Улар ҳар бир ҳатти-ҳаракат ва воқеликнинг оқибатини ўйлаб иш тутадилар, бу дунёнинг қисқа, ўткинчи эканлигини ҳис қиладилар. А.Навоийнинг уқтиришича, “аҳли маъни”га мансуб бўлиш учун инсон эркин, довюрак, ҳақиқатпарвар, бурч ва масъулиятни ҳис этувчи, камтар, куч ва тазйиқ ишлатишдан холи, халқ ва дин учун фидоий, иймонли, ҳаёли, ўзга инсонлар учун ҳамдард, ҳар қандай зулмга қарши бора оладиган, адолат олдида ҳар қандай бойлик, иззат-нафс ва манфаатлардан воз кеча оладиган, ўз фикрига эга бўлиши лозим.

Мутафаккир подшоҳсиз раият ва давлатсиз жамият бўлиши мумкин эмас, деб ҳисоблайди. Жамият бўлиши учун давлат бўлиши зарур. Чунки манфаат кишиларни бир-биридан ажратади ва айни пайтда бирлаштиради. Бу жамият қонуни. Шу қонунни назорат қилиш одил подшонинг вазифаси. Подшо ва лашкар, подшо ва бошқарув тизими халқнинг осойишта ҳаёт кечириш учун муҳим роль ўйнайди,- дейди А.Навоий. Унингча, одамлар билим ва амалий фаолият, зеҳну заковатда бир хил эмас, биров ақлли, биров ўта ақлли, кимнингдир ақли кам, биров эса жоҳил. Чунки ҳар бир кишида Оллоҳнинг бир сифати акс этади, сифатлар эса турлича, икки сифат бирдай эмас. Шундай бўлгач, ахлоқ нуқтаи-назаридан ҳам одамларни тенг бир ҳолга келтириб бўлмайди. Ана шулардан келиб чиқиб мутафаккир адолатли жамият ва адолатли шоҳ ғоясини тавсифлайди.

“Хамса”нинг энг охирги достони “Садди Искандарий”, яъни “Искандар девори”да А.Навоий адолатли шоҳ тўғрисидаги қарашларини батафсил баён этган. “Садди Искандарий” “Хамса”даги энг катта достон бўлиб, 89-боб, 7215 байтдан иборат. Достоннинг муқаддимаси XIV бобни ўз ичига олади. Асарда шоир “Форс- Эрон шоҳлари ҳақида” алоҳида бир бобни бағишлайди. А.Навоий бу бобда ўз давригача бўлган 4336 йилу 10 ой мобайнида Эронда ҳукмронлик қилган 4 сулола –пешдодийлар, каёнийлар, ашконийлар, сосонийлар подшоҳлари ҳақида маълумотлар келтиради, уларнинг бошқарув сиёсатига таъриф беради

[1] А.Навоий. Ибратли ҳикоятлар ва хислатли ҳикматлар. Т, Sano-standart, 2016, 135-б.

А.Навоий “Садди Искандарий” асарида мамлакат раҳбарининг сифатлари тўғрисида тўхталар экан, уларга қуйидаги 4 талабни қўяди:
1.раҳбар донишманд бўлсин;
2.раҳбар қонун тарафдори бўлсин;
3. раҳбар қўлида ҳокимият бўлсин;
4.раҳбарда имомлик (раҳнамолик) хислатлари бўлсин.

Асарнинг XVIII-бобида “Шоҳликнинг тартиб-қоидалари ҳақида” фикр юритилади. Ушбу бобда мутафаккир давлатчилик асослари хусусидаги ўз мулоҳазаларини баён этади. Унингча, оламнинг барча ишларида муайян тартиб, низом ва уйғунлик мавжуд бўлганидек, давлатчиликда ҳам бехато ва аниқ ишлайдиган тизим бўлиши лозим. Мамлакатдаги барқарорлик ва ривожланишни таъминловчи асосий масала- ҳар бир одамни ўз лаёқати ва вазифасига қараб тайинлаш, ҳар бир давлат ходимининг ўз иши билан шуғулланиши ҳамда бошқалар ишига дахл қилмаслигидир. Бу фикрни А.Навоий қуйидаги байтлар орқали тушунтиради:

Эшик ит еридир, гар ўлсун бўри,
Мушукка мақом ўлди уйнинг тўри.
Гар ул дашт сайдини айлар фигор
Ва лекин уй сайдин айлар шикор [2].

А.Навоий ўз қарашларини ҳайвонлар ҳаёти мисолида баён қилишга ҳаракат қиларкан, итнинг вазифаси уйни ташқи душмандан ҳимоя қилиш бўлгани учун эшик ортида, мушук эса, сичқон ва бошқа хонаки зараркунандалардан тозалаш учун уйнинг тўрини макон тутади,-дейди. Яна асарда бу ҳақида шундай фикрлар келтирилади: “Одам қанча саъй-ҳаракат қилгани билан, бу махлуқларнинг бири қилган ишни иккинчисига қилдира олмайди. Ановисини ўз ерида овқатлантириш зарур бўлгани каби бунисини ҳам ўзига муносиб парвариш қилмоқ лозим. Агар аҳамият бериб қарасангиз, зарурат вақтида буниси ҳам, униси ҳам керакдир”[3].

Буларнинг ҳар бири ўз ўрнида керакли бўлгани каби давлатчиликдаги турли муаммоларнинг ечими учун лаёқати ва лавозимига қараб ходим танлаш ҳамда уларга шунга муносиб мақом ва мартаба бериш лозим,- деб ҳисоблайди.

Мутафаккирнинг талқинича: “Кимки шоҳлик қилишни истаса, барча аскарларнинг ҳолидан воқиф бўлсин. Уларнинг таъминоти масаласини ҳал қилганда, ҳар кишининг даражасига қараб иззатини бажо келтирсин. Улуғ мартаба эгасига улуғвор илтифот кўрсатиб, кичигига кичикча саховат айласа; кимки ўрта даражадаги амалга эга бўлса, унга нисбатан: “Ҳар бир ишнинг яхшиси ўртача ҳолат, деган сўзга амал қилса, дуруст бўлур. Улуғ кишиларни кичиклардек камситмаслик, кичикларни улуғлар қаторига кўтариб юбормаслик лозим. Шундай қонун-қоидаларга риоя қилган шоҳнинг эл-юрти тез орада гуллаб-яшнаб кетади. Ўз ишида бахт-саодатга, яхши натижаларга эришади ва салтанатини идора қилишда ҳамма мақсадларига етади”[4].

[2] Ш.Сирожиддинов.Д.Юсупова. О.Давлатов. Навоийшунослик. Т,Тамаддун, 2018, 159-бет.
[3] Ўша ерда. 82-бет.
[4] А.Навоий. Садди Искандарий, Т, Ғафур Ғулом, 1978, 81-бет.

А.Навоий шоҳ ўз қўл остидагиларнинг хизматларини рағбатлантириш ва қадрлашга ҳам эътибор қаратиш зарурлигини, бу алоҳида ёндашув талаб қилишини уқтиради. Буни бир қанча мисоллар билан тушунтиради. Жумладан, “ёш бола ўзини хурсанд қилиши учун шатранж ўйнайман, деб доналарни тергани билан, на ўйнашни, на теришни билмаса, на олишни-ю ва на беришни билмаса; масалан, пиёдани шоҳнинг ёнига қўйса-ю, филни рухнинг ўрнига терса ва умуман, ҳамма доналарни шу хилда пойма-пой жойлаштирса... Унинг бу ўйини қанча чўзилса ҳам, барибир ўйин эмас ва ўйинлик аҳамияти ҳам йўқ. Бу худди, ит тувагига сомон солиб, от охурига суяк ташлаб қўйгандек ишдир”[5], -дейди. Мазкур фикрлар орқали мутафаккир подшоҳдан талаб қилинадиган энг асосий масала-одамлар қобилиятини тўғри аниқлаш ва шунга мувофиқ уларга амал ёки мартаба бериш ғоясини илгари сурганлигини англаш мумкин. Унингча, истеъдодлининг қадрига етмаслик ёки истеъдодсиз одамни улуғлаш-гавҳарнинг қадрига етмаслик ва эшакмунчоқни эъзозлаш каби бир хил зиён келтирувчи ишлардан ҳисобланади.

Ушбу манбада А.Навоий шоҳларга муомала борасида қуйидаги насиҳатни келтиради: “Тағин бир ажиб ҳолат бор, шоҳлар буни ҳам билиб қўйишлари шарт. У ҳам бўлса, жавоҳиршунослардек, фаросат билан ҳар кимнинг феъл-атворига қараб муомала қилмоқдир. Яъни, лаълни кўраркан, чўғ деб гумон айламасаю, чўғни кўрганда гавҳар деб ўйламаса; ферузани эшакмунчоқдан ва бутун чиннини синиқ сопол кўзадан фарқ қилса. Лекин бу ишда анчагина қийинчилик бор, зеро, дунёдаги одамларнинг ҳаммаси аслида бир хилга ўхшайди. Ҳамма ҳам кўринишда одамга ўхшагани билан, бир-биридан ер билан осмонча фарқ қилади” .[6]

А.Навоий салтанатни идора қилиш, давлатда барқарорликни таъминлашда подшоҳнинг халқ ва хизматкорлар билан муомаласи асосий ўрин эгаллашини ва бу борада ҳаммага бир хил ёндашиб бўлмаслиги, давлат бошлиғи шуларни назардан четда қолдирмаслиги кераклигини таъкидлайди. Ҳатто бир онадан эгизак бола туғилганда ҳам, улар бир хил бўлмасликлари, бири яхши, иккинчиси ёмон бўлиши мумкинлигини айтади. Ёки асарда муз сумалаги ва шам кўринишида бир-бирига ўхшаса ҳам, улар ўртасида ўзаро тафоввут мавжудлиги, бирининг бошоғида ўт бўлса, иккинчисиники сув, шакар билан туз бир-бирига монанд бўлса-да, бири шўр-у, иккинчиси қанд эканлигини ёдда тутиш кераклигини, улар ўртасидаги фарқни англаш лозимлигини уқтиради.

Хуллас, мутафаккирнинг асарларида илгари сурилган давлатни бошқариш тўғрисидаги ғоялар бугунги кунда ҳам ўз аҳамиятини йўқотмаган. А.Навоий сиёсий қарашларидаги ўзига хослик- сиёсий жараён ва ҳолатни бадиий усулда баён этилишидир.У шоҳнинг нафақат адолатли, балки фаҳм-фаросатли, эътиборли бўлиши керак, деб ҳисоблайди.

[5] Ш.Сирожиддинов. Д.Юсупова. О.Давлатов. Навоийшунослик. Т, Тамаддун, 2018, 81-бет.
[6] Ўша ерда. 82-бет.

WOMEN'S SPORTS AND PROBLEMS WITH REPRODUCTIVE HEALTH

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Abstract: The paper deals with the process of physical training of female athletes. Recommendations are given on the formation of the load within reasonable limits, which differ from the intensive mode of training.

Key words: Women's sports, reproductive health, fertility, infertility.

ЖЕНСКИЙ СПОРТ И ПРОБЛЕМЫ С РЕПРОДУКТИВНЫМ ЗДОРОВЬЕМ

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Аннотация: В работе рассмотрен процесс физических тренировок женщин спортсменок. Даны рекомендации по формированию нагрузки в разумных пределах, отличающихся от интенсивного режима занятий.

Ключевые слова: женский спорт, репродуктивное здоровье, фертильность, бесплодие.

Занятия спортом, интенсивные тренировки, чрезмерные физические и психические нагрузки на организм спортсменов, а также применение различных химических, в т.ч. и гормональных препаратов для укрепления организма и повышения его работоспособности, зачастую приводят к изменениям их репродуктивной системы, в виде снижения фертильности и, нередко, к бесплодию [1,5]. Всемирная организация здравоохранения (ВОЗ), давая определение понятию"репродуктивное здоровье" рассматривает его не только, как отсутствие болезней и патологических состояний мужских и женских половых и детородных органов, но и объясняет его как «…отсутствие патологии и нарушений репродуктивных функций у мужчины и женщины». Следуя этой концепции, ВОЗ также определяет репродуктивное здоровье как «физическое, психическое и социальное благополучие обоих партнеров, как мужчины, так и женщины» [1,2,4].

Фертильность – одна из старейших составляющих репродуктивной системы мужчины и женщины, определяющая возможность зачатия ребенка. Медико-

биологический термин «фертильность» происходит от лат. «fertilis» — «плодородный, плодовитый». Это способность половозрелого организма производить жизнеспособное потомство [2,3]. Синонимы понятия «фертильность» - «fertility», «reproductivity». т.е. «фертильность» человека, как эволюционно сложившаяся способность организмов приносить жизнеспособное потомство [2,3].

Фертильность является проявлением сохранности овуляторной функции женщины и генеративной функции у мужчин. Выбор образа жизни, в т.ч. и занятия спортом или интенсивные тренировки, а также занятия фитнесом, танцами или иными видами спортивно-тренировочной активности, может особенно существенно повлиять на женскую фертильность [1,3,5].

Что касается вопроса бесплодия, то термин «бесплодие», как предварительный диагноз, используют по отношению к семейной паре или партнёрам, при отсутствии беременности в течение года, а точнее 12 ОМЦ (овариально-менструальных циклов) после начала регулярного, незащищенного секса, т.е. без применения каких либо методов или средств контрацепции. Согласно опубликованным данным исследований, в 60 % случаев беременность наступает в период между 3 и 7 месяцами планирования ребенка. 10 % женщин беременеют спустя 10-12 месяцев [1,4].

Возраст также играет важную роль в женской фертильности. У женщин, в отличии от мужчин, шансы забеременеть напрямую связаны с их возрастом. Женщины являются наиболее фертильными в возрасте около двадцати лет, и их фертильность чаще всего начинает снижаться, когда они достигают возраста тридцати лет и более. В акушерско-гинекологической практике принято считать, что женщины после 30 лет, условно считаются «старородящими» или «старыми первородящими». И связано это именно с возможными проблемами с состоянием её физического и психического здоровья и, несомненно, с их фертильностью [2,3,4] .

Не секрет, что большинство женщин спортсменок, в особенности представительницы профессионального «большого спорта», откладывают создание семьи, и в особенности рождение ребёнка, на «потом», иногда до окончания своей профессиональной карьеры [1,2,4]. Это особенным образом касается женщин-спортсменок, у которых самый лучший «репродуктивныйй возраст» уходит на тренировочно- соревновательный период, когда ей не до семьи и рождения детей [1,2,3].

Откладывание беременности может уменьшить вероятность того, что женщина, много лет пребывающая в интенсивном тренировочно-соревновательном режиме, будете вообще в состоянии зачать ребенка [2,5]. И таких примеров, как в отечественном, так и в зарубежном профессиональном спорте очень много. Уделом этих женщин, к сожалению, является длительное лечение бесплодие, методы искусственного оплодотворения, суррогатное материнство или усыновление детей.

Если у спортсменки сохранён нормальный ИМТ и она планирует забеременеть в ближайшее время, то ей нужно подумать об ограничении аэробных упражнений до семи часов в неделю. Но в случае, когда у спортсменки появляются проблемы с весом, в особенности когда её масса тела приближается к критическому уровню, недостаточному для сохранения наиболее важной репродуктивной составляющей, такой как менструирование, необходимо срочно проконсультироваться с гинекологом-эндокринологом, строго контролировать свой вес и количество жировой ткани, а также пройти ряд специальных исследований состояния её репродуктивной системы. Со

спортивным врачом, по результатам проведённого обследования необходимо будет согласовать свой тренировочно-соревновательный цикл и индивидуально определить, какое количество аэробных нагрузок помогут вам привести себя в порядок [2,3,4].

Поэтому процесс физических тренировок должен быть сформирован в разумных пределах, отличающихся от интенсивного режима занятий. В противном случае расход всей имеющееся в системе энергии приведет к такому истощению ее резервов, при котором энергетического заряда просто не хватит — ни на овуляцию, ни на оплодотворение, и уже тем более на беременность [1,3,4].

Выводы:

1. Если у женщины спортсменки появились любые проблемы с репродуктивным здоровьем, а тем более она думает о беременности, и она обеспокоена воздействием на плодность своего образа жизни, ей немедленно надо посоветоваться со своим тренером и спортивным врачом, пересмотреть свои нагрузки, режим тренировок, скорректировать ИМТ и проконсультироваться у врача гинеколога-эндокринолога. Он сможет помочь вам методы и способы, которые помогут улучшить фертильность и увеличить шансы забеременеть.

2. Разумно подобранные нагрузки, сбалансированность питания, нагрузок и отдыха, взвешенность и грамотное построение тренировочно-соревновательного цикла спортсменки помогут ей во всей полноте ощутить прелести женского счастья и пережить радость материнства.

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MONETIZATION OF NEWS SITES: FROM PROMOTION TO PROFIT

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Monetization of news sites also offers great opportunities, since you can choose many different ways to earn money. We will talk about it in today's article.

News web resources, websites or blogs are a separate category of Internet projects with their own features of content filling, with specific traffic, nuances of SEO promotion and monetization. Let's look at each item in more detail.

Content

The main content is text news. You can also post videos and images to improve behavioral factors. As a rule, news reports cover incidents briefly, so their size most often varies between 1000-2000 characters, but it can be more.

Content should appear daily, as this is the most important point in the promotion. Unlike information sites, where an article is written once and sometimes brings traffic for years, news sites have a very short period of content relevance. Consequently, the traffic to the news fades very quickly, so you need to throw people fresh portions of content every day. It is advisable to publish at first at least 3 news items a day, and they must be unique (at least a rewrite).

Traffic

Traffic to news sites, as a rule, is unstable. There are sharp jumps and declines. It all depends on how high-profile and popular events are covered on the site, and how successfully the event queries reach the top.

The main source of visitors is, of course, search engines. Traffic also comes from aggregators: Yandex. News, Rambler.News, Google.News and the like. When the news site starts to link and share events, some of the visitors will come from other sites and social networks. Also, with regular content, people will start adding your project to the browser bookmarks, subscribe to the e-mail newsletter, and your pages in social networks.

The purchasing power of the target audience of the news site depends on the subject of the project, but in general, these are people who do not buy very willingly. They go to news sites in between work, over a cup of coffee in the morning, so the traffic is “cold”. However, due to the fact that the increase in visitors as promotion occurs intensively, they are monetized due to the volume of visitors quite successfully (especially if you chose a monetary theme with a high cost of click in contextual advertising).

Promotion features

As we have already mentioned, regular content is the most important criterion. For the first few months, you need to publish at least 4 news items daily in order for the site to be accepted into aggregators, because they can bring tens or even hundreds of thousands of visitors a day. This is a pretty powerful source of traffic.

Internal optimization is the same as for other projects:

- Unique meta tags-title, description;
- CNC;

- internal linking;
- regular filling.

External promotion is the purchase of links, the creation of your own channels in social networks and the publication of news in them, the purchase of shares (reposts). With links, you need to be very careful: set unique anchors, make most of the links unencumbered, and do not publish links on “garbage” sites.

It is better to buy backlinks infrequently, but from trust news sources:

- TIC from 50;
- domain age-more than a year;
- lack of sanctions;
- finding the site in Yandex.News and Google News.

You can limit yourself only to content and internal optimization, and do not purchase links. Your project will grow even without them, just a little slower. The peculiarity of news portals is that ordinary people themselves willingly put links to them on forums, social pages and other sites with free comments.

Features of monetization of news sites

The site can be monetized after several months of promotion, so that at the very beginning it does not attract too much attention from search engines. News projects are monetized mainly through contextual advertising, teasers, banners, link sales, and other methods. Let's talk about them further.

Blocks of teaser networks. Teasers-enticing images with text that encourages you to make a click. Consequently, webmasters get paid for each click. The advantage of teasers is that ad blocks are easy to put, and many networks allow projects to participate with minimal traffic (from 50 unique visitors per day).

There are more disadvantages: to earn money normally, you need to have a well-visited portal (several thousand visitors per day). You have no control over which ads appear in the teaser block. Outright slag in advertising can significantly damage the reputation of the site, worsen its behavioral factors and indirectly affect the ranking in a bad way.

Banners. You need to register in the banner network and offer places for advertising on your site. The payment will be made for every 1000 impressions or for a certain period of time (usually 1 month). You can also place banners of partner companies and CPA networks, as well as direct advertisers. In these cases, the earnings may be higher than when working through the network.

Both on the news and information portal, banner advertising is a traditional way of monetization. However, do not overload the site with intrusive blocks to increase earnings. You should place a maximum of 4 banners on the page, as a larger number of them can worsen behavioral indicators and increase the site loading speed.

Contextual advertising. Contextual blocks are the best way to earn money on a news site. The user is shown ads that are relevant to the user's content or recent search queries in the search engine. The cost per click here is higher than in teaser networks, especially if you run a news portal about finance and business: these are some of the most effective topics for earning money in Yandex.Yandex. Direct and Google Adwords.

Direct advertisers. They tend to appear on their own as traffic grows. The main thing is to create a "Contacts" section so that customers can find you and provide additional income. The advertiser can order a banner, link placement, review writing, or other collaboration format.

Offers. In CPA networks, they pay for certain actions of customers that you bring from your news project by clicking on the link. For example, there are offers with payment for registration, sales, application installations, etc. If you guess the theme of the affiliate program, you will earn many times more than in contextual, teaser or banner advertising. The downside is that for effective monetization, you need to constantly monitor the relevance of the offer: it may be unclaimed, or it may be disabled and traffic will go to waste. You will have to go through more than one affiliate program until you are satisfied with the amount of earnings.

Native advertising. The native format is the most harmless for earning money on a news site, since advertising information is presented in useful content in a veiled form. For example, it may be news about the introduction of new technologies in the advertised company. Among the rest of the content, the native format looks quite natural and does not cause irritation among visitors, does not violate the rules of search engines.

Selling links and articles. You can sell places for links or articles on exchanges or to advertisers directly. Content and link promotion of sites is still in demand, although it already has a much smaller impact on positions than before. To earn money on a news site using links, you need to add it to specialized exchanges or create a separate section - " Advertiser", where you can indicate the cost of placement and at the same time tell about the advantages of your project and its audience. This is how much it can cost to publish a news item on the Webartex exchange:

In addition, the site owner can find the advertiser himself and offer him cooperation.

MONETIZATION OF NEWS SITES OF DIFFERENT TOPICS

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Entertainment, gaming, and film industry news. Such projects are very easy to fill and cheerfully gain traffic, but it is poorly converted into sales, so the profit here is small compared to other topics. If you still want to create a similar project, then monetization is possible here with the help of gaming partners, offers with payment for app installations, and other methods listed above. Product offers are not going very well here, as people who are interested in entertainment are potentially not ready to buy, or have not reached the age of paying. Although you can try monetization with WOW-offers (goods of explosive demand), which people buy impulsively, on emotions.

Sports news: A great way to earn money here is to make forecasts for sports events. For example, in the Betadvert affiliate program, you can put a forecast widget on a news portal and attract users from there to the landing page with a subscription to free forecasts. If they buy a premium subscription, you will receive a considerable percentage of sales. How to make money in other ways: look for sports goods or food, dietary supplements and offer sellers places for advertising. In addition, there are many affiliate programs for monetization on sports topics.

Politics: How to make money on political events? One option is to sell souvenirs, T-shirts and other things with prints of slogans, flags and other patriotic symbols. It is also worth understanding that adult solvent people are interested in politics, so they can be offered other offers, not only commodity, but also financial (microloans, loans, etc.).

Gadgets: Here you can write reviews and news for new products in the world of gadgets and offer them to purchase on the advertiser's website with an affiliate link. And, of course, there are additional ways to earn money: context, banners, and so on.

Science, medicine: Webmasters who run news portals in this niche can set up their monetization with the help of pharma partners and CPA offers offering generic drugs and herbal medicines. Here you can also add offers from the category of beauty and health: creams, gadgets for weight loss, anti-wrinkle products, baldness and much more. Under the product, the news is written, for example, that clinical trials of a miracle drug were conducted and it showed high effectiveness. Inside is a link to the landing page, where it can be purchased.

Regional and city news: You can make several news projects for major cities or regions. In this case, there is a great chance to attract advertisers from offline businesses: restaurants, food delivery services, boutiques, etc. You can attach a bulletin board to the city portal and take money for publishing ads.

Celebrities: Scandals and gossip about celebrities have always attracted crowds of people, so news stories about them are a great idea. As a rule, women are interested in the life of stars, so you can monetize such projects with a wide range of products for beauty and health, clothing, accessories and other ladies ' things.

General topic: News sites about everything in the world are good because it is easier for owners of portals with a wide coverage to find advertisers for monetization. However, you should understand that you will need to write content for each category of news on a daily basis. The more sections, the more content you need to create, the more investment you need. But for each category, you can find and test different affiliate programs and offers that are suitable for

the topic. Remember also that the owners of sites with a general theme will have to survive in a highly competitive environment. In narrower niches, you can find low-competitive areas, but the circle of potential buyers of advertising will be the smaller, the more specific the topic.

Zen and Pulse channels

You can also post content from the news site to Yandex.Zen channel. This will attract a lot of new traffic to both the channel itself and the site. In addition, Zen channels can be monetized separately from the site, which will give additional income.

Pulse from Mail - a news feed of the Yandex type.Zen, but news gets there automatically from your RSS feed. Pulse cannot be monetized separately.

PUSH mailing lists

In the news-related field, users often subscribe to PUSH notifications so that they don't miss important news. This can be used to monetize mailing lists using numerous services.

Recommended PUSH partner programs: Leocash, Evadav, Pushprofit, Megapush.

Novice mistakes that prevent you from making money on a news project

They abandon the publication of news. To promote a news site, you need to regularly update the content over a long period of time. As a rule, you will have to work and invest money for at least 6 months before it begins to bear monetary fruit. Beginners give up the idea after working for 1-2 months. You should not do this, because the newsman "dies" very quickly, if you do not feed him with fresh news.

Unnecessarily stuffed with advertising at first. After receiving the first 50 units a day, they strive to squeeze the maximum out of the project in the first months, for which they receive bad behavioral factors, pessimization in search engines and zero earnings.

They make mistakes in monetization. For example, they choose an affiliate program that does not correspond to the target audience. Another case: a novice puts contextual advertising ad blocks and does not test them in any way, does not consider other formats and places for placement. Because of this, he does not know the full potential of the site and makes little money on it.

Wrong, in a large number of purchases of links. The link profile is teeming with backlinks from garbage sites that do not bring traffic. They not only do not work, but also drag the project to the bottom with a stone. It is better to invest in content and high-quality links than to strive for a large volume of garbage incoming links.

Starts selling outgoing links from the news portal too intensively. This makes the newscaster a link washer, for which it is subject to sanctions in the PS and traffic drops to a minimum. If you do not know how to make money on links, first study the current information, because the rules of the game for search algorithms change several times a year, and the old tips do not work. Monetization should not be harmful.

A news site is a good choice for a novice webmaster with a small budget. Even if there is no money for content, you can rewrite the news yourself until the project reaches its first profit. It can be reinvested in content to make the process go faster.

To create a news portal, it is best to use a Word press CMS. You can use one of the thousands of free or paid templates or use a unique design.

After creating a website, you need to always "keep your finger" on the pulse and follow the latest news. The earlier the news will appear on your site-the better. Subscribe to the RSS feeds of major news portals and publish the latest news as soon as it appears. Don't forget to add the news to the Zen Channel before your competitors do.

After your site gets a certain trust and passes the test of time, try to apply to the news aggregators: Yandex.News, Google News, and Rambler News

Add your site to less well-known aggregators, for example, A news or Subscriber.

Do not forget about social networks. The more people who follow you, the better. You can try to work on a different" feed" of news than other sites. It will give you a personality.

Also, be sure to use accelerated versions of the pages. For news sites, this is very relevant. Turbo pages from Yandex and AMP pages from Google.

NETWORK-SIDE TRUST MODEL FOR ROAMING AND NON-ROAMING CASES

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Evolution of the trust model: The trust model changes as we move from a non-autonomous to an autonomous 5G system. It is believed that the trust in the network decreases as you move away from the core. This affects the decisions made when developing a 5G security system.

The trust model in the UE is quite simple: there are two trust domains - the Universal Integrated Circuit Card (UICC), which contains the USIM card (Universal Subscriber Identity Module) and mobile equipment (Mobile Equipment - ME). ME and USIM together form the UE.

The network-side trust model for roaming and non-roaming cases is shown in Figures 1 and 2, respectively, which demonstrate trust at multiple levels, like an onion.

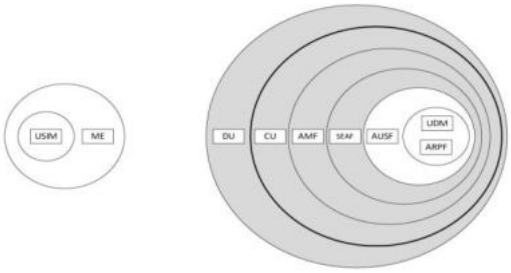

Figure 1 Trust model of non-roaming scenario

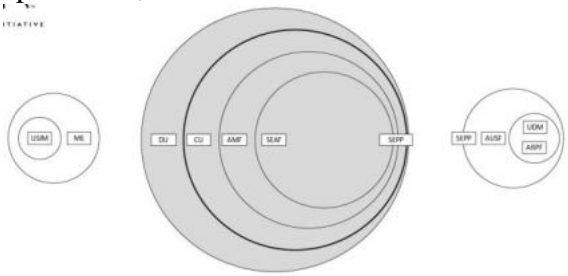

Figure 2 Trust model of roaming scenario

The Radio Access Network (RAN) is divided into distributed units (DU) and central units (CU) - DU and CU together form gNB, the 5G base station. DU does not have access to communication with clients, as it can be deployed on uncontrolled sites. The CU and Non-3GPP interaction feature (N3IWF - not shown in the figures), which completes the security of the Access Stratum (AS) layer, will be deployed to sites with more restricted access.

The Access Management Function (AMF) completes the security of the Non-Access Stratum (NAS) layer on the underlying network. In the 3GPP 5G Phase 1 standard, AMF is combined with the Security Anchor Function (SEAF), which contains the root key ("anchor key") for the visited network.

The Authentication Server Function (AUSF) stores the key obtained after authentication for reuse in the case of simultaneous registration of the UE in various network access technologies, i.e., 3GPP access networks and Non-3GPP access networks, such as the IEEE 802.11 wireless Local Area Network (WLAN). The Authentication credential Repository and Processing Function (ARPF) stores the authentication credentials. This is reflected by using USIM on the client side, that is, on the UE side. The subscriber information is stored in the Unified Data Repository (UDR). Unified Data Management (UDM) uses data stored in the UDR

and implements application logic to perform various functions, such as creating authentication credentials, user identification, session continuity, etc. Active and passive attacks through the cloud service are considered both at the management level and at the user level. In a roaming architecture, the home and guest network are connected via a Security Edge Protection Proxy (SEPP) to control the inter - network connection plane. This improvement is made in 5G due to the number of detected attacks, such as key theft and altered routing attacks in SS7, as well as network node simulation and source address spoofing in signaling messages in DIAMETER, which exploited the trust nature of the internetwork.

5G Phase 1 Security (Release 15): Phase 1 5G introduces several improvements to 4G LTE security.

Primary Authentication. Device authentication in a 5G network is based on primary authentication. This is similar to what was implemented in 4G, but with some differences. The authentication mechanism has built-in home control, allowing the home operator to know if the device is authenticated on a given network and accept the final authentication call. In Step 1 of 5G, there are two mandatory authentication options: 5G Key authentication and negotiation (5G-AKA) and the Extended Authentication Protocol (EAP-AKA). Optionally, other EAP-based authentication mechanisms are also allowed in 5G. In addition, primary authentication is independent of radio access technology, so it can work with technologies other than 3GPP, such as IEEE 802.11 WLAN.

Secondary authentication: Secondary authentication in 5G is intended for authentication in data networks outside the mobile operator's domain. Various EAP-based authentication methods and associated credentials can be used for this purpose. A similar service was possible in 4G, but now it is integrated into the 5G architecture.

Security between operators: In the inter-operator interface, there are several security issues that arise from the SS7 or Diameter protocols in earlier generations of mobile communication systems. 5G Phase 1 provides security between operators from the very beginning.

Privacy Policy: The problems associated with subscriber identification have been known since the days of 4G and earlier generations of mobile systems. 5G has developed a privacy solution that protects the persistent user ID from active attacks. The public key of the home network is used to ensure the confidentiality of the subscriber's identification.

Service-based architecture (SBA): The underlying 5G network is based on a service-oriented architecture that was not present in 4G and earlier generations.

Central (CU) and distributed network units (DU): In 5G, the radio access network is logically divided into CU and DU. Security is provided for the CU-DU interface. This separation was also possible in 4G, but in 5G it is part of the architecture that can support different deployment options. DU's that are deployed at the very edge of the network do not have access to any user data when privacy protection is enabled. Even with CU-DU separation, the security point of the radio interface in 5G remains the same as in 4G, namely in the radio access network.

SYNTHESIS OF DISADVANTAGES IN THE DISTRIBUTION OF DIGITAL TELEVISION SIGNALS

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Introduction. At present, analog television has been completely discontinued in the Republic of Uzbekistan, and the transition to digital television has been gradually completed. However, the key issue remains the quality of TV signals and the need to study the processes of full coverage. Thus, this leads to the synthesis of indicators of the quality of the propagation of a digital television signal, and also analyzes the problems and solutions to increase the coverage of digital television signals in the Kashkadarya region.

Keywords. Digital television, terrain, radius of coverage, interference, noise immunity, loss of signals.

In practice, the issue of ensuring high-quality reception of TV broadcasts in the mountains is topical. After all, the level of field voltage and, accordingly, the quality of reception of television signals strongly depend on the characteristics of the relief. This should be taken into account when choosing the location of the antenna and the height of its support. [1]

The use of digital TV methods and means gives a number of advantages over analog TV data transmission methods:

- Improving the noise immunity of transmission and recording channels of a television signal;
- decrease in the power of television transmitters;
- a significant increase in the number of TV programs broadcast in one frequency band;
- Improving the quality of the image and sound on television receivers;
- Expansion of the functionality of studio equipment used in the preparation and broadcast of television programs;
- transmission of various additional data in a television signal, transformation of a television receiver into a multifunctional information system;
- creation of interactive television systems that allow the viewer to interact with the broadcast program. [2]

Taking into account the fact that the territory of the Republic of Uzbekistan has a different geographic relief, the task is to analyze the location of reliefs when transmitting terrestrial television signals. The creation of a terrestrial digital television system is a very difficult task, because the complex landscape of the city, various types of buildings, the refraction of radio waves in buildings lead to the formation of waves that reflect light, that is, to interference. In addition, on the terrain, obstacles in the form of hills, dams, railroad barriers are often encountered, behind which shadow zones are formed [2], which leads to a sharp decrease in the field strength. For example, the line-of-sight response of the field strength behind a hill or railroad barrier is shown in Figure 1.

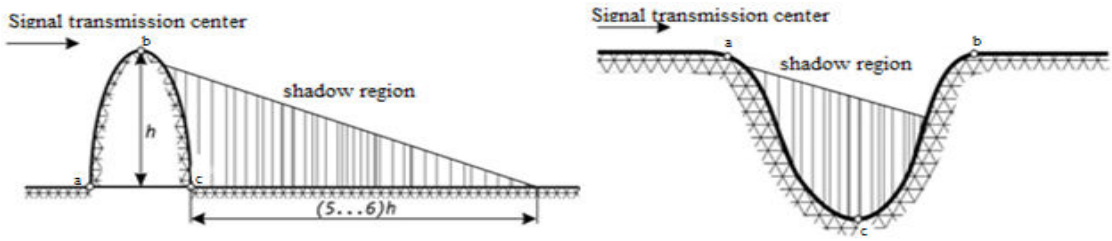

fig. 1. The formation of shadow zones (zones without a signal) from obstacles.

As the slope increases towards the center of transmission (from point a to point b), the field strength remains approximately constant or increases slightly and reaches a maximum at the top of the slope (point b). On the rear slope, the field strength is initially weak, then sharply decreases, reaching a minimum at the foot of the hill (point c). With distance from the hill, the field voltage begins to increase smoothly and reaches the same level as the lateral slope, when it reaches a distance of approximately (5 ... 6) h, where h is the height of the hill. This creates a shadow area (shadow region) behind the hill.

Thus, the electromagnetic voltage in the receiving area can constantly change even when the receiving point is directly visible, i. E. the appearance of dead zones can lead to the fact that the signal will not be received. Therefore, terrestrial digital television must meet the following requirements:

• ensuring a high level of noise immunity;

• high-quality transmission of service information, teletext and data protection from unauthorized access;

• Development of a universal standard compatible with digital satellite and cable television devices in order to reduce the cost of television receivers;

• provide signal reception using portable receivers and indoor antennas;

• ensuring the operation of a single-frequency network, etc.

In digital television channels, they cannot function normally if noise immunity is not provided properly [1]. Therefore, the reasons for the following errors can be considered:

• various natural types of interference and interference (thermal interference, generation-recombination interference of charge carriers, partial interference, etc.) They are mainly manifested in the input stages of receivers;

• industrial and atmospheric disturbances (myopia, arc discharges - in welding equipment, electric vehicles, during a thunderstorm);

• Interference is interference from radio transmitters operating at the same frequencies in adjacent areas;

• Interference from multipath radio waves can occur on the ground, in buildings, on metal surfaces, etc. returning radio waves [3].

Signal reception conditions are especially difficult in rugged and mountainous areas. Large shadow zones are usually formed behind mountains and ridges that cannot be accepted. Repetitive reflections of radio waves from mountain slopes result in repetitive signals that distort television footage.

In the practice of receiving television in mountainous conditions, an event called signal amplification due to obstacles is sometimes observed. This phenomenon is due to the fact that the field strength behind a mountain or ridge can sometimes be greater than the field transmitted by the signal through a smooth spherical surface. The reason for this phenomenon is that if the

mountain is in the shape of a dagger, then its upper part illuminates the TV signal in different directions, and at some points behind the mountain, two or more waves in phase may be added, i.e. direct wave, reappears from above and is reflected from the ground. At the point where the wave phases meet, a significant increase in the field strength occurs.

This is necessary to protect against typical errors associated with the practical use of this phenomenon. Due to the spherical nature of the Earth, the effect of signal amplification behind a mountain or ridge, as a rule, can manifest itself only at large distances, i.e. when the receiving point is in partial shade or shady areas away from the TV center. In other words, signal amplification can only be thought of in relation to a weak diffractive signal that occurs in the absence of a mountain range at the receiving point located in the penumbra or shadow zones. Therefore, one should not rely too much on the signal amplification event due to obstacles in the mountains, especially in practice when there is no signal amplification event from dagger-shaped obstacles (for example, flat and uneven hills, series of mountains at different heights, etc.).

Conclusion. The analysis of the above study shows that the scientific tasks that need to be done in this area are to determine the signal strength in the foothills and beyond the mountains and conduct research based on the results to prevent interference, to study the effects of weather on the propagation of the signal.

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PRODUCTION OF ANTIBIOTICS BY STRAINS OF ACTINOMYCETES OBTAINED FROM COTTON AND WHEAT SOILS OF UZBEKISTAN

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Annotation: This publication examines the dynamics of the biosynthesis of antibiotic substances of protein nature by local strains of soil actinomycetes of the genus Streptomyces isolated from the cultivated areas intended for the cultivation of cotton and wheat. The data of the cultivation conditions of 6 strains of soil actinomycete Streptomycessp, in 4 variants of nutrient media for maximum protein production in the cultured medium, are presented. Highly active representatives of actinomycetes, protein producers, have been identified.

Key words: Actinomycetes, nutrient medium, cultivation, dynamics of growth, development, proteins, enzymes, optimization.

ПРОДУКЦИЯ АНТИБИОТИКОВ ШТАММАМИ АКТИНОМИЦЕТОВ ПОЛУЧЕННЫХ ИЗ ПОЧВ ХЛОПКОВЫХ И ПШЕНИЧНЫХ ПОЛЕЙ УЗБЕКИСТАНА

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Аннотация. В данной публикации рассматривается динамика биосинтеза антибиотических веществ белковой природы местными штаммами почвенных актиномицетов рода *Streptomyces*, выделенных из посевных площадей предназначенных для возделывания хлопчатника и пшеницы. Приводятся данные условий культивирования 6-ти штаммов почвенного актиномицета ***Streptomycessp*****,** в 4-вариантах питательных сред для максимального образования белка в культивируемой среде. Определены высокоактивные представители актиномицетов –продуценты белков.

Ключевые слова: актиномицеты**,**, питательная среда, культивирование, динамика роста, развития, белки, ферменты, оптимизация.

Экономическое развитие Узбекистана, как аграрной Республики во многом зависит от сельскохозяйственного производства, высокоурожайности посевных площадей на которых культивируются стратегически важные культуры, такие как хлопчатник, пшеница, кукуруза, подсолнечник и др.,

Продуктивность полей и её повышение на прямую связаны с высоким содержанием биосинтетически активных микроорганизмов, включающих ферменты, белки, низкомолекулярные углеводы и др., продукты микробного синтеза. Среди них особое место отводится антибиотиксинтезирующим микроорганизмам, которые подавляют рост и развитие почвенных фитопатогенов, защищают растения от корневой гнили, гомоза, вертицеллёза, фузариоза и др., иногда и от действия насекомых вредителей [1,2]. Однако, не все почвенные микроорганизмы образуют антибиотические и другие физиологически активные вещества. Неактивные штаммы актиномицетов при соответствующих условиях способны в той или иной степени образовывать антибиотические вещества.[3,4]

Исходя из вышеизложенного, целью наших исследований явилось изучение способности некоторых штаммов актиномицетов, выделенных из почвы под хлопчатник и пшеницы к образованию белка на различных питательных средах

Материалы и методы исследований.

Для изучения способностей актиномицетов продуцировать белки были использованы культуры *Streptomycessp.:*124, Streptomycessp.:113, *Streptomycessp.:*166, *Streptomycessp.:*165, *Streptomycessp.:*307 и *Streptomycessp.:*115, выделенные их почв под хлопчатник в Берунийском районе Республики Каракалпакстан и под пшеницу Уйчинского района Наманганской области..

Культивирование проводили глубинным способом при температуре 28°-32°С в конических колбах Эрленмейра объемом 1 л содержащей 300 мл питательной среды различного состава, при pH 7,0-7,5 на круговых качалках, со скоростью вращения 240 об/мин.в течение 72-240 часов в зависимости от появления максимального количества белка. С целью оптимизации питательной среды для роста, развития, образования белка, использовали среды следующих составов:.

1. Пептоновая среда – пептон – 1,0 %, глюкоза – 0,2 %, $NaNO_3$ – 0,3 %, $MgSO_4$ - 0,05%, K_2HPO_4 – 0,1%, KCl – 0,05%, $FeSO_4$ – следы;

2. Органическая среда – глюкоза 1,0 %, пептон 1,0 %, гидролизованный казеин – 0,2 %, дрожжевой экстракт – 0,2 %, NaCl – 0,6 %;

3. Крахмал-аммиачная среда – растительный крахмал – 1,0%, K_2HPO_4 – 0,1 %, $MgSO_4$ –0,1 %, NaCl – 0,1 %, $(NH_4)_2SO_4$ – 0,2 %, остальное водопроводная вода;

4. Мучная среда – мука – 2,0 %, послеспиртовая барда – 10%, $CaCO_3$ – 0,1 %, остальное водопроводная вода.

Для инокуляции на простерилизованные питательные среды использовали культуры, хранящиеся в коллекции культур в пробирках со средой скошенном агаре

Количество белка на фильтрате культуральной жидкости (КЖ) определяли по методу Лоури[10].

Результаты исследований и их обсуждение

Изучение зависимости роста и образование белка актиномицетами от питательной среды показали, что испытуемые 6- штаммов культур отличаются между собой как по росту, так и по накоплению белка в используемых 4-х питательных средах. Так например, **п**ри наблюдении накопления белка на испытуемых средах обнаружили высокие результаты на крахмал –аммиачной, затем на мучной среде. Изучение динамики накопления белка в зависимости от времени показали, что к 72 часам роста почти все штаммы актиномицетов рода *Streptomyces,* по сравнению к исходному варианту образовали такое количества белка, который превышал количество исходного уровня среды в 2-5 раз.

Штамм *Streptomycessp* 165 в мучной среде повысил содержание белка в 5 сутки на 300% по сравнению с исходным уровнем и составлял 10,8 мг/мл.

Активность биосинтеза белка этого же штамма в крахмал- аммиачной среде (по сравнению к исходному, где исходное содержание белка было 0,25 мг/мл) на 7 сутки составлял 3,3 мг/мл, т.е. увеличился в 13 раз.

Следует отметить, что максимальный уровень синтеза белка штаммом *Streptomycessp.:*307 на крахмально – аммиачной среде через 168 часов роста (7 сутки) от начала культивирования, увеличился в 17 раз в сравнении с исходным показателем.

Накопление белка актиномицетами в пептоновой и органической средах к 72 часам наблюдался незначительный подъем в количестве 0,05-2,5 мг/мл у штаммов 124 и 166, а понижение в штаммах ***Streptomycessp***113 и 165 от 7,5 мг/мл до 4,75-5,625 мг/мл.

На 5 сутки культивирования ***Streptomycessp*** штамм166 на пептоновой среде увеличивает синтез белка в 2 раза по сравнению с исходным уровнем. Максимальное количество белка синтезируемого актиномицетами на пептоновой среде отмечается на 7 сутки (168 дней).

Штамм ***Streptomycessp***166 продуцирует 21,75 мг/мл белка, что составляет увеличение на 200% биосинтеза. На 10 сутки идет снижение накопления белка, но всё же на 14 сутки уровень синтеза превышает исходный на 70%. На органической среде синтез белка штаммом 307 достигает максимума (13мг/мл) на 14 сутки культивирования . Внимание привлекает штамм115 для которого характерно начальное снижение (3сутки), а затем постепенное (за 4сутки) повышение продукции белка в органической среде культивирования.

Таким образом, различная интенсивность биосинтеза белков различными штаммами актиномицетов рода ***Streptomycessp*** на средах с крахмалом или глюкозой может объясняться не ролью углеводов в биосинтезе, а общим неспецифическим влиянием промежуточных углеводов на рост и развитие культур, оказывающий индуцирующее влияние на биосинтез белка в течение пролонгированного времени.

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METHODS OF TEACHING HUMAN ANATOMY IN THE DIRECTION OF PHYSICAL EDUCATION

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Abstract: The article presents some recommendations that should be taken into account when teaching science in the direction of sports business, sports education.

Keywords: Anatomy, technology, pedagogy, coach, physiologist, antagonist, synergist, posture, scoliosis, psychologist, sports.

МЕТОДИКА ПРЕПОДАВАНИЯ АНАТОМИИ ЧЕЛОВЕКА ПО НАПРАВЛЕНИЮ ФИЗИЧЕСКОГО ВОСПИТАНИЯ

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Аннотация: в статье представлены некоторые рекомендации, которые следует учитывать при преподавании науки в направлении спортивное дело, спортивного образования.

Ключевые слова: анатомия, технология, педагогика, тренер, физиолог, антагонист, синергист, осанка,сколиоз, психолог, спорт.

ЖИСМОНИЙ ТАРБИЯ ТАЪЛИМ ЙЎНАЛИШЛАРИДА ОДАМ АНАТОМИЯСИ ФАНИНИ ЎҚИТИШ УСЛУБИЁТИ

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Аннотация: мақолада анатомия фанининг номутахассислик таълим йўналишларида ўтили, спорт таълим йўналишида фанни ўтишда эътибор берилиши керак бўлган айрим тавсиялар келтирилган.

Калит сўзлар: анатомия, технология, педагог, мураббий, физиология, антогонист, синергист, қад-қомат,сколиоз, психолог, спорт.

Бугун Ўзбекистон демократик ҳуқуқий давлат ва адолатли фуқаролик жамияти қуриш йўлидан изчил бораётганлиги учун кадрлар тайёрлаш тизими тубдан ислоҳ қилинди давлат ижтимоий сиёсатида шахс манфаати ва таълим устуворлиги қарор топди. Ўқув-тарбиявий жараённи илғор педагогик технологиялар билан таъминлаш зарурати ҳам Кадрлар тайёрлаш миллий дастурини рўёбга чиқариш шартларидан биридир. Шу сабаб

биз бу педагогик феноменнинг пайдо бўлиши ва ривожланиш жараёнини ўрганишга тарихий ёндашмоқдамиз.

Республикамиздаги олий (ўрта махсус касб-ҳунар мактаб) таълим тизимида фаолият кўрсатаётган профессор-ўқитувчиларни малака ошириш курсларида илғор педагогик ва ахборот технологиялари бўйича янги билимлар тизими билан қуроллантиришни узлуксиз ташкил этиш давр талабидир. Шунинг учун ҳам бугунги кунда юқори малакали кадрларни тайёрлашда ўқитишнинг ҳозирги замон тизимлари ва янги педагогик технологиялари асосида ҳамда хорижий илғор тажрибалардан фойдаланиб амалга оширилиши мақсадга мувофиқдир.

Олий таълим муассасалари талабалри учун дастлабки икки йил давомида умумий ривожлантирувчи ва умум касбий фанлар ўтилади. Шу фанлар билан бир қаторда иккинчи даражали мутахассислик фанлари ўтилади. Шулар қатори Жисмоний маданият ва жисмоний тарбия, жисмоний тарбия психологияси каби таълим йўналишларида ҳам иккинчи асосий фанлар ўтилади. Жисмоний тарбия таълим йўналиши учун Одам анатомияси иккинчи асосий фанлар қаторига киритилади. Жисмоний маданият психологияси таълим йўналиши учун Олий асаб фаолияти фани асосий номутахассислик фанларидан хисобланади.

Жисмоний тарбия таълим йўналишида Одам анатомиясини ўтишда йўналишнинг ихтисослигини албатта инобатга олиш керак. Масалан кураш йўналиши бўладиган бўлса, албатта шу спорт турида кўпроқ фаол бўладиган аъзолар анатомияси, уларнинг физиологияси кенг ёритилиши керак. Қўл мушаклари, гавда мушаклари, асосий динамик мушаклар, асосий статик фаолиятда иштирок этадиган мушаклар, уларнинг тузилиши, гавда мускулларининг анатомияси, антогинист ва синергист мушаклар, уларнинг фаолияти ёритилиши керак.

Педагог дарс жараёнида таълим йўналишининг мутахассислигидан келиб чиқиб маъруза ва амалий машғулотларни олиб борса шу йўналиш талабаларини фанга нисбатан қизиқтира олади ва ўзларининг амалиётларида учраб турадиган ҳолатларга ҳам ечим топадилар.

Масалан: нега сколиотик қад-қоматли болага сузиш спорт тури билан, шунингдек бадиий гимнастика спорт тури билан шуғулланиш тавсия этилади. Уларнинг қад-қоматларидаги камчиликлар асосан таянч-харакат аъзоларининг туғма ёки орттирилган деформацияси бўлиб, шу аъзолар ишини фаоллаштириш натижасида маълум миқдорда, касаллик ҳолатларидан келиб чиқиб, касаллик белгилари йўқолиши ёки маълум даражада боланинг қад-қоматида яхшиланишга олиб келиши мумкин.

Спорт психологияси таълим йўналишида асосан Олий асаб фаолияти фанининг чуқур ўтилиши режалаштирилган. Чунки, спортчининг фаол ҳаётида у доимо рухан тайёр, рухан кучли бўлиши талаб этилади. Спортнинг қўл-оёқ жанги турлари билан шуғулланадиган болалар жуда қизиққон, фан тилида айтадиган бўлсак, гиперфаол болалар бўлишади, бундай болалар ўз кучларини тўғри йўналтира олишлари, фақатгина спорт беллашувларидагина ўз кучларини кўрсатишлари кераклигини мураббийлари ўқтириши керак, бунинг учун албатта фан ўқитувчиси спорт психологиси таълим йўналишида таҳсил олаётган талабага олий асаб фаолияти, унинг турлари, темпераментлари ҳақида чуқур билим бериши кераклиги тавсия этилади.

Жисмоний тарбия йўналиши талабаларининг барчалари хам мураббийлар эмас, улар орасида ўрта таълимнинг педагог ходимлари хам етилиб чиқади. Мактабда, коллеж

ва лицейларда жисмоний тарбия мураббийси сифатида фаолият олиб боришади. Ўз фаолиятлари давомида болаларнинг ёшидан келиб чиқиб жисмоний нормативларни белгилашлари, болаларни индивидуал анатомик ва физиологик ривожланганлик даражасидан келиб чиқиб жисмоний юкламаларни беришлари керак.

Хусусан, кичик мактаб ёши болаларида "Ҳаракатли ўйинлар"дан, асосан "халқ харакатли ўйинлари"дан кенг фойдаланиши керак. Бу ўйинлар ўқувчиларда миллийлик рухини ривожлантириш билан бир қаторда уларнинг анатомо-физиологик кўрсаткичларининг яхши ривожланишига ижобий таъсир кўрсатади. Бундай кўрсаткичларни ривожлантириш учун албатта жисмоний тарбия мураббийси ўзи одам танаси аъзоларининг тузилиши, уларнинг ёш хусусиятлари ва физиологиясини чуқур билиши талаб этилади.

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DESIGN OF COMPLEX 3D OBJECTS OF A VIRTUAL STUDIO FOR MODERN TELEVISION BROADCAST

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Annotation: A brief description of VS is presented regarding both the equipment needed and the issues related to the correct matching of real foreground with virtual background. Given this scenario, an important role is covered by the camera supporting structure that allows a more correct execution of the standard filmmaking shots such as: medium shot, close-up, low/high angle shot and tracking shot. The work shows how the structure design has been carried through the Axiomatic Design focusing on how a coupled and a redundant design have been identified and solved. The approach has led to a significantly different design from classic camera support structures such as Cranes and Jibs and advanced Motion Control Rigs used in cinematography. The complexity reduction compared to Motion Control Rigs makes the designed structure suitable for a low budget VS set up.

Key words: COMplexity reduction, Axiomatic Design focusing, redundant design

Introduction

Modern news moves at the speed of a tweet and local outlets are expected to move with it. Local stations must compete with each other and of late with digital media sources for viewership.

They are expected to produce polished, sophisticated looking shows despite often working from small studios with minimal budgets and small crews. Additionally, local news stations need ways to brand and differentiate themselves from their competition.

These are just some of the reasons why virtual studios are becoming a popular solution for local news production.

What are the key components for successfully using virtual studio for local news?

- VS allows designers to experiment with bolder and more impactful set designs, bringing a higher end look to local news.
- Keying and lighting are essential to achieving a seamless look and marrying talent and graphics together, especially in smaller studios.
- Camera blocking and movement are important in highlighting the features of your VS set.
- Today, virtual studios are an emerging technology that is quickly being adopted across the industry. It has the potential to radically change the way local news production is done. The possibilities are endless.
- **What are the ways local news can integrate virtual studio solutions?**
- Local stations and affiliates are retooling existing stages into full virtual studios by replacing hard sets with green screen cycs, including the floors. These sets are usually configured with three walls and utilize real news desks and furniture specifically designed for green screen environments.
- The 'Hybrid Studio' concept is a good way to use VS technology while still maintaining many of the features of a hard set. These studios combine green screen areas with hard set elements and can be a cheap and flexible solution. Current set design aesthetics often

require big ticket items such as LED walls to display large graphics. This look can be easily mimicked using combinations of hard sets and green screens at a much lower cost.

- VS set extensions can be used to create a big look on a small budget by extending a real set to make it look larger. These extensions can be used for a variety of storytelling scenarios and are particularly useful in turning a small weather corner into an impressive looking "weather center".

Virtual reality as we know it today actually has a long history. With origins dating back decades, we see it used for practical applications like NASA flight simulations and for entertainment like the sensational.

But never in history has virtual reality ever been so achievable—and profitable. Recent tech advances in VR have many predicting it will eventually permeate all industries. Evangelists suggest its most beneficial applications to be:

- educational aids for students
- physical therapy
- psychological treatment, like acclimating people with PTSD
- cancer research
- image modeling for architects (or rearranging your living room)
- employee training
- empathy training, like the gender-swapping in The Machine to Be Another
- a new artistic medium
- remote communication
- virtual tourism
- archeological research
- a more immersive website, potentially changing the way we browse the web

There are also the documented benefits on personal growth and introspection—yes, you read that right. A Stanford study showed that users who saw themselves aged 70 years in a VR mirror later set aside "significantly more money" for retirement than the control group. A separate Stanford-University of Georgia study showed that users subjected to a VR lumberjack simulation used 20% less paper products afterwards.

IMPROVING THE PROFESSIONAL COMPETENCE OF FUTURE BIOLOGY TEACHERS

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Abstract: the article presents information about the development of professional competencies of students in the field of biological education, the improvement of pedagogical skills, the effective use of new pedagogical technologies in the educational process.

Key words: competence, professional competence, pedagogical skills, pedagogical technology, information, information technology, intelligence

БЎЛАЖАК БИОЛОГИЯ ЎҚИТУВЧИЛАРИНИНГ КАСБИЙ КОМПЕТЕНЦИЯЛАРИНИ ТАКОМИЛЛАШТИРИШ

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Аннотация: мақолада биология таълим йўналиши талабаларининг касбий компитенцияларини ривожлантириш, таълим бериш махоратини ошириш, янги педагогик технологияларни таълим жараёнида самарали қўллаши тўғрисида маълумотлар келтирилган

Калит сўзлар: компитенция, касбий компитенция, педагогик махорат, педагогик технология, информация, информацион технология, интеллект.

ПОВЫШЕНИЕ ПРОФЕССИОНАЛЬНОЙ КОМПЕТЕНТНОСТИ БУДУЩИХ УЧИТЕЛЕЙ БИОЛОГИИ

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Аннотация: в статье представлена информация о развитии профессиональных компетенций студентов направления биологического образования, совершенствовании педагогического мастерства, эффективном применении новых педагогических технологий в образовательном процессе

Ключевые слова: компетентность, профессиональная компетентность, педагогическое мастерство, педагогическая технология, информация, информационная техника, интеллект.

Жаҳонда технологиялаштириш, автоматлаштириш ва сунъий интеллект тизимларининг интенсив ривожланиши бўлажак биолог-мутахассисларнинг касбий тайёргарлиги сифатини орттириш ва меҳнат бозори талабларига мос рақобатбардош, компетентли кадрлар тайёрлашнинг креатив моделлари таълим жараёнига татбиқ этилган. Европа Экспертлар Ассоциацияси TUNING лойиҳаси доирасида "таълим натижаси сифатида муайян йўналиш таълим дастури ҳар бир цикли битирувчи фаолиятининг компетенциялар (competences) ёки қобилиятларини тавсифлайди" [1] дея таъкидланган. Биология фан тармоқларининг кенгайиши, биотехнология, молекуляр биология, ген инженерияси, микробиология соҳаларининг ривожланиши бўлажак биология ўқитувчиларининг касбий компетенциялари шаклланганлик даражасини баҳолашни методик жиҳатдан такомиллаштириш бўйича тизимли ишлар амалга оширилмоқда.

Республикамизда касбий етук, компетентли ҳамда илғор хорижий тажрибалар, халқаро мезон ва талабларига мос салоҳиятли мутахассис-кадрлар тайёрлаш, автоматлашган баҳолаш моделларини татбиқ этишнинг меъёрий асослари яратилди. Ўзбекистон Республикаси Президентининг "Ўзбекистон Республикасини янада ривожлантириш бўйича Ҳаракатлар стратегияси тўғрисида"ги фармонида: – "таълим ва ўқитиш сифатини баҳолашнинг халқаро стандартларини жорий этиш асосида олий таълим муассасалари фаолиятининг сифати ҳамда самарадорлигини ошириш"[2] устивор вазифалар этиб белгиланди. Шу нуқтаи назардан эгаллаган таянч билимларни замонавий технологик шароитларда фаол татбиқ этиш компетенцияларига эга мутахассислар тайёрлаш, касбий компетентлигини баҳолашнинг автоматлашган тизимини методик жиҳатдан такомиллаштириш имкониятлари кенгаяди.

Республикамиз ва хорижий давлатларнинг олимлари томонидан биология дарсларида талабалар касбий компетенцияларини шаклланганлик даражасини баҳолашни интерактив технологиялар асосида ташкиллаштиришга оид бир қатор тадқиқот ишлари амалга оширилган.

Республикамизда таълимни ахборотлаштириш, сифатини бошқариш, назорат қилиш ва диагностикалаш, бўлажак мутахассисларнинг касбий компетенцияларни ривожлантириш: А.А.Абдуқодиров, Б.З.Тўраев, Р.Б.Абдурахманова, Г.Ғ.Азизова, У.Ш.Бегимқулов, У.И.Иноятов, Н.Н.Нарзиева ва бир қатор олимлар томонидан тадқиқ этилган.

Бўлажак биология ўқитувчиларининг касбий компетенцияларини шаклланганлик даражасини баҳолашнинг интерактив технологиялар асосида ташкиллаштиришни дидактик шарт-шароитлари педагогик, психологик муаммолари амалий жиҳатдан узвий ўрганилиб педагогик муаммо сифатида асосланганлиги; талабалар касбий компетенцияларини шаклланганлик даражасини баҳолашнинг интерактив технологиялар асосида ташкиллаштириш мазмуни, методик шарт-шароитлари, замонавий интерактив метод, шакл ва воситалари аниқланганлиги; биология дарсларида талабалар касбий компетенцияларини шаклланганлик даражасини баҳолашнинг интерактив технологиялар асосида ташкиллаштириш методикаси ишлаб чиқилган бўлиб илмий тадқиқотларим давомида самарадорлиги аниқланган.

[1]Ефремова Н.Ф. Подходы к оцениванию компетенций в высшем образовании: Учеб. пособие. – М. Исследовательский центр проблем качества подготовки специалистов, 2010,–С. 216.

[2] Ўзбекистон Республикаси Президентининг "Ўзбекистон Республикасини янада ривожлантириш бўйича Ҳаракатлар стратегияси тўғрисида"ги ПФ-4947-сон 07.02.2017 фармони.

Хулоса қилиб айтганда, талабалар компетентлигини баҳолаш кўрсаткичлари ва баҳолаш воситалари фондини шакллантириш бўлажак ўқитувчиларнинг касбий фаолиятга тайёрлаш самарадорлигини оширишга ижбий таъсир кўрсатади.

Бўлажак биология ўқитувчилари касбий тайёргарлиги сифатини компетентли-методологик парадигма асосида компетенцияларни баҳолашнинг янги технологияларини, янги тизимини ишлаб чиқиш лозим.

Айни вақтда ҳар бир таълим муассасаси ўқув ва касбий фаолият соҳалари бўйича касбий компетенцияларни баҳолаш муаммосини амалий ҳал этиш, баҳолаш фондини яратишга эътибор қаратмоқда.

Тадқиқотимиз давомида талабаларнинг касбий фаолиятга тайёргарлигини бевосита касбий компетенцияларини баҳолаш мезонлари, жараёнлари, метод ва технологиялари йиғиндиси сифатида тадқиқ этилиб, баҳолаш воситалари фондини шакллантириш, компетенцияларни эгаллаш мониторинги дастурини ишлаб чиқишга қаратдик.

Талабаларнинг шахсий компитентлигини баҳолашда янги педагогик технологияларни самарали ва моҳирона қўллай олиши ҳам муҳимдир.

Бизнинг бўлажак биология ўқитувчиларининг касбий компетенцияларини такомиллаштириш мавзусида олиб бораётган тадқиқот натижаларимиздан келгусида компетенцияларни баҳолаш соҳасида таълим жараёнларини автоматлаштириш сифат менежменти тизимларини ишлаб чиқиш ва ривожлантиришда фойдаланиш мумкин.

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PROFESSIONAL AND PEDAGOGICAL COMPETENCE OF A FOREIGN LANGUAGE TEACHER

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Annotation: The professional competence of a teacher is understood as a set of professional and personal qualities necessary for successful pedagogical activity.
A professionally competent teacher can be called a teacher who, at a sufficiently high level, carries out pedagogical activities, pedagogical communication, and achieves consistently high results in teaching and educating students. This article discusses some professional and pedagogical competence of a foreign language teacher.

Key words: Professional competence, pedagogical activities, pedagogical communication, capable, social adaptation,

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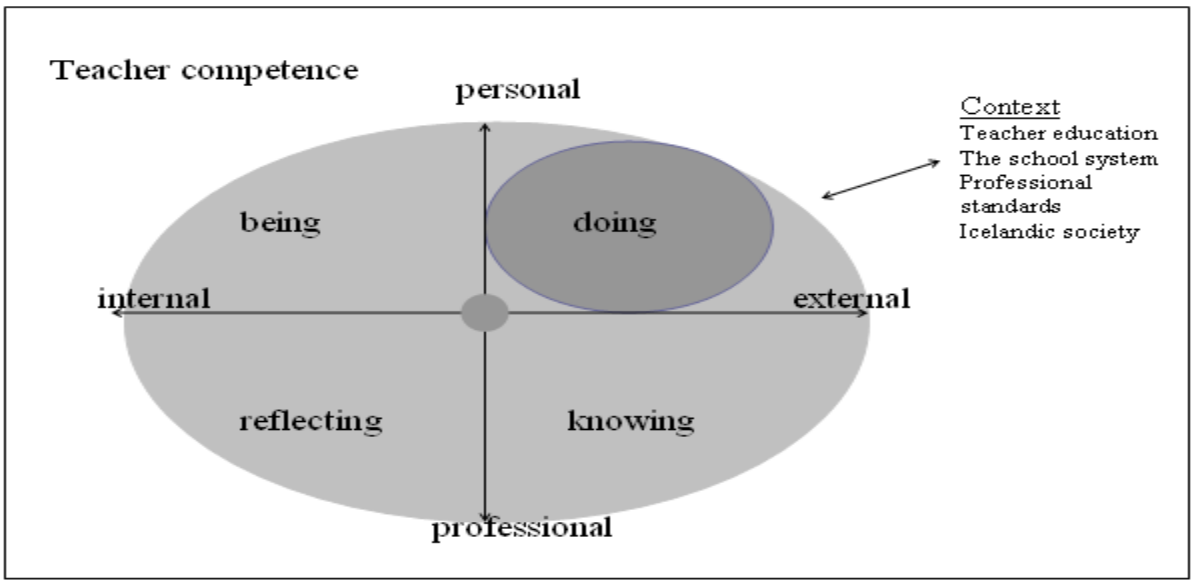
A professionally competent teacher can be called a teacher who, at a sufficiently high level, carries out pedagogical activities, pedagogical communication, and achieves consistently high results in teaching and educating students.

The development of professional competence is the development of a creative individuality, the formation of receptivity to pedagogical innovations, the ability to adapt in a changing pedagogical environment. The socio-economic and spiritual development of society directly depends on the professional level of the teacher.

The changes taking place in the modern education system make it necessary to improve the qualifications and professionalism of the teacher, that is, his professional competence. The main goal of modern education is to meet the current and future needs of the individual, society and the state, prepare a diversified personality of a citizen of his country, capable of social adaptation in society, the beginning of labor activity, self-education and self-improvement. A freely thinking, predicting the results of his activities and modeling the educational process, the teacher is the guarantor of achieving the set goals. That is why the demand for a qualified, creatively thinking, competitive personality of a teacher, capable of educating a personality in a modern, dynamically changing world, has sharply increased at present.

Picture-1. Teacher competence.



Based on modern requirements, it is possible to determine the main ways of developing the professional competence of a teacher:

- *Work in methodological associations, creative groups;*
- *Research, experimental activity;*
- *Innovative activity, development of new pedagogical technologies;*
- *Various forms of pedagogical support;*
- *Active participation in pedagogical competitions, master classes, forums and festivals;*
- *Generalization of their own pedagogical experience;*
- *Use of ICT.*

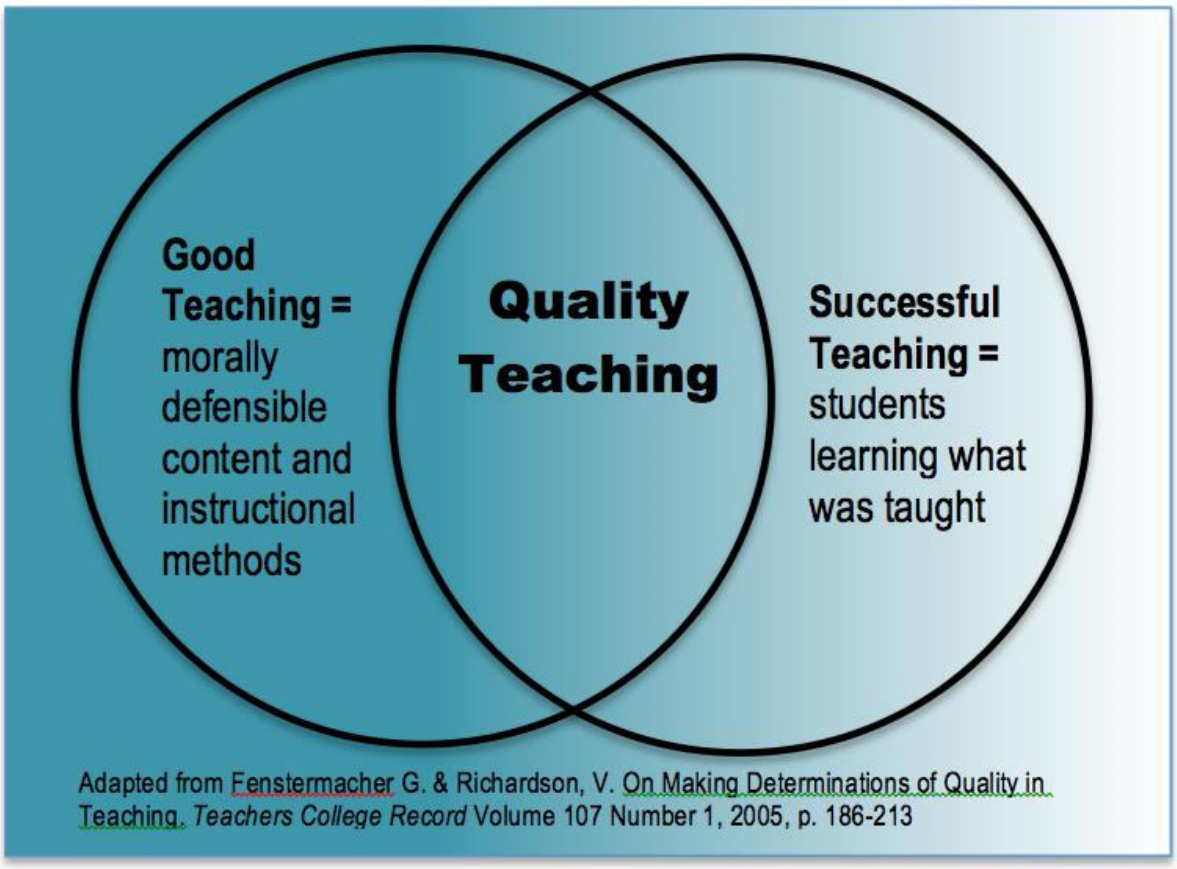
But none of the listed methods will be effective if the teacher himself does not realize the need to improve his own professional competence. This implies the need to motivate and create favorable conditions for pedagogical growth. It is necessary to create the conditions in which the teacher independently realizes the need to improve the level of his own professional qualities. An analysis of one's own pedagogical experience activates the teacher's professional self-development, as a result of which the skills of research activities are developed, which are then integrated into pedagogical activities. The teacher must be involved in the process of managing the development of the school, which contributes to the development of his professionalism.

Picture-2.Teacher as Professional.

The Council of Europe identifies five basic competencies required today by any specialists who, in the context of training a foreign language teacher, according to E.N. Solovova, acquire a special meaning, namely: *political and social competences associated with the ability to take responsibility, participate in joint decision-making, participate in the functioning and development of democratic institutions. competencies related to life in a multicultural society, designed to prevent the emergence of xenophobia, the spread of a climate of intolerance and promote both the understanding of differences and the willingness to live with people of other cultures, languages and religions. competencies that determine the mastery of oral and written communication, important in work and social life*. This group also includes proficiency in several languages, which are becoming increasingly important. competences related to the emergence of the information society. Possession of new technologies, understanding of their strengths and weaknesses, the ability to have a critical attitude to information and advertising disseminated through the media and the Internet. competencies that realize the ability and desire to learn throughout life, not only professionally, but also in personal and public life

The development of professional competence is a dynamic process of assimilation and modernization of professional experience, leading to the development of individual professional qualities, the accumulation of professional experience, involving continuous development and self-improvement.

Picture-3. Quality of teaching.



The stages of the formation of professional competence can be distinguished:

- *introspection and awareness of the need;*
- *self-development planning (goals, objectives, solutions);*
- *self-manifestation, analysis, self-correction*.

The formation of professional competence is a cyclical process, because in the process of pedagogical activity, a constant increase in professionalism is necessary, and each time the listed stages are repeated, but in a new quality. In general, the process of self-development is biologically determined and is associated with the socialization and individualization of the personality, which consciously organizes its own life, and hence its own development. The process of forming professional competence is also strongly dependent on the environment, therefore it is the environment that should stimulate professional self-development. A democratic system of government must be established in the school. This is a system of incentives for employees, and various forms of pedagogical monitoring, which include questionnaires, testing, interviews, and intra-school events for the exchange of experience, competitions, and the presentation of one's own achievements. These forms of stimulation can reduce the level of emotional anxiety of the teacher, affect the formation of a beneficial psychological atmosphere in the team.

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CASPIAN REGION AS A GEOPOLITICAL CONSTRUCTION

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Abstract: The Caspian region is the most important geopolitical junction connecting Europe, Asia and the Middle East. At the same time, the Caspian region is a source of enormous energy and biological resources. A specific feature of the Caspian Sea can be considered the fact that today it is one of the few corners of the globe where the system of access to the richest natural resources is being restructured in an open form and with many costs.

КАСПИЙСКИЙ РЕГИОН КАК ГЕОПОЛИТИЧЕСКАЯ КОНСТРУКЦИЯ

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Каспийский регион является важнейшим геополитическим узлом, связывающим Европу, Азию и Ближний Восток. Одновременно Каспийский регион является источником огромных энергетических и биологических ресурсов. Специфической особенностью Каспия можно считать то, что ныне это один из немногих уголков земного шара, где в открытой форме и с множеством издержек происходит перестройка системы доступа к богатейшим природным ресурсам.

После образования в начале 90-х годов XX в. на постсоветском пространстве новых независимых государств возникла необходимость разработки и принятия нового порядка использования богатств Каспийского моря в интересах каждой из стран региона и всех других заинтересованных государств, определить правовой статус Каспия, соответствующий современным геополитическим реалиям.

В последнее время основными движущими силами Каспийского региона были две проблемы: нерешенность правового статуса Каспийского моря и ожидания сверхвысоких доходов от разработки углеводородных запасов. Первая проблема возникла объективно после распада Советского Союза и трудности ее разрешения определялись столкновением национальных интересов прикаспийских государств. Интерес же к запасам углеводородного сырья на Каспии поддерживался во многом благодаря усилиям крупных иностранных государств, пришедших в регион для отстаивания своих интересов. По сути, они провоцировали страны Каспийского региона на конфронтационный настрой к своим соседям и односторонние действия. Была создана ничем не подкрепленная уверенность в близости нефтяного бума и быстрого обогащения.

Напряженные дискуссии не положили конец манипуляциям с оценками запасов углеводородного сырья. До сих пор в отношении каспийского региона существует довольно много различных оценок прогнозных запасов нефти. Еще недавно они колебались от 17 до 250 млрд. баррелей и более, а два года назад Госдепартамент США сообщил, что «доказанные и возможные» запасы нефти Каспийского бассейна составляют

178 млрд. баррелей. Каспий ставили в один ряд с такими регионами, как Персидский залив и Северное море.

При этом, в условиях нарастающей международной активности проблема установления юридического статуса Каспия приобретает особую актуальность и приоритетность.

Во-первых, от характера ее решения зависят интеграционные процессы в странах СНГ, геополитические позиции России в регионе, ее способность влиять на новые прибрежные государства с целью затруднить одностороннюю эксплуатацию ими месторождений нефти.

Во-вторых, что представляется наиболее важным, установление статуса Каспия напрямую соотносится с вопросом собственности на природные ресурсы, прежде всего энергетические, находящиеся в шельфе Каспийского моря.

В-третьих, решение проблемы связано с вопросом свободного транзита грузов, предназначенных для Казахстана, Азербайджана и Туркмении по российским водным магистралям Волго-Балтийского и Волго-Донского каналов.

В-четвертых, от определения статуса Каспия зависит сохранение уникальной экосистемы: не просто редкостной, но единственной в мире фауны, а в итоге - благосостояние и здоровье населения прибрежных территорий.

В-пятых, от стратегически выверенного статуса Каспия, отвечающего исключительно интересам пяти прибрежных государств, зависит эффективность противодействия политике Запада, прежде всего США, объявивших Каспийский регион зоной своих «жизненно важных интересов». Их нынешнее военное присутствие и упрочнение позиций в Центральной Азии еще более осложняют обстановку.

В целом, документом, регулирующим статус Каспия с учетом всех заинтересованных сторон, может и должна стать Конвенция о правовом статусе Каспийского моря, принятие которой возможно только на основе консенсуса. В последнее время предпосылки и «подвижки» к подписанию такой конвенции все очевиднее.

Так сегодня взгляды Азербайджана, Казахстана и России по вопросу раздела водоема практически совпадают. В Москве, Астане и Баку договорились о разделение дна Каспия на национальные сектора по так называемой модифицированной срединной линии, оставляя акваторию в общем пользовании. Это позволило трем государствам договориться между собой о разграничении дна водоема на сопредельных участках и заключить двусторонние соглашения в целях осуществления суверенных прав на недропользование. В последнее время позиция Туркменистана также близка к российской.

Основным препятствием по ключевому вопросу — каким образом должен быть поделен Каспий - является позиция Ирана, который претендует на 20% часть акватории. В этом случае соседям Ирана придется делиться с ним своими морскими участками. Изначальный принцип, по которому определялось, какая часть Каспия должна отойти под национальную юрисдикцию каждого из прибрежных государств, базировался на длине его береговой линии. Иранский же участок составляет всего 14% периметра Каспия. Позиция Ирана не претерпела изменений за эти годы. Иранская дипломатия возлагает большие надежды на второй саммит каспийской пятерки, который должен состояться в Тегеране во второй половине нынешнего года.

Однако существуют и другие проблемы, которые вероятнее всего, будут определяющими в XXI в. К ним, в первую очередь, относятся вопросы связанные с экологией, рыболовством и судоходством.

В настоящее время Россия выступает за то, чтобы не дожидаясь окончательного решения по вопросу о статусе Каспия приступить к практическому решению этих вопросов, поскольку несогласованность приводит к тому, что всему природному комплексу региона наносится огромный ущерб. Кроме того, Каспийское море - это уникальный водоем, «поведение» которого и закономерности еще до конца не изучены и не определены.

Вопрос о правовом статусе Каспия является проблемой политической, в то время как экология, природопользование являются неотъемлемой биосоциальной чертой современной жизни. Свою негативную роль в нарушении экологии на Каспии играют не только нефтяные загрязнения, но и плохо регулируемое судоходство, процветающее браконьерство. В этой связи, заслуживающим внимания являются предложения специального представителя президента РФ В.Калюжного о создании единого регионального центра мониторинга состояния природной среды Каспийского моря.

Каспийский регион притягивает к себе пристальное внимание многих стран мира. Однако их в большей степени волнуют нефтяные запасы, выгодное географическое положение, богатые запасы биологических ресурсов, растущие потребности в перевозках и экспорте энергоносителей. Западные страны активно продвигают идею расширения НАТО с включением в него Азербайджана (Турция - уже член НАТО), однако очевидно, что «натовский вариант» не решает проблемы безопасности в регионе — уже по причине неприятия его Россией и Ираном.

С другой стороны, ни Россия, ни США в одиночку не в состоянии обеспечить безопасность региона. В то же время, если их усилия будут в основном направлены на вытеснение друг друга, то Каспий действительно может превратиться в одну из болевых точек новой Евразии. Результаты, при этом могут оказаться отрицательными для каждого из участников. В противоположном случае вполне может получиться положительный для всех результат.

России, чтобы закрепить свои позиции в Каспийском регионе, следует более активно работать не только со странами, имеющими непосредственный выход на Каспий, но и с их соседями. Такие страны Азии, как Пакистан, Иран и Китай, которые имеют свои цели в регионе, не должны выпадать из поля зрения России.

В отношении Ирана, который претендует на положение географического, религиозного и исторического лидера региона, США могут пойти на серьезную корректировку своего курса. США осознают, что продолжающаяся изоляция Ирана может принести им больше вреда, в то время как сбалансированное развитие с ним отношений выгодно как американским интересам, так и нефтяным компаниям.

Одновременно с этим США могут пойти на поддержку Пакистана, понимая, что эта страна может стать неплохим барьером на пути растущего влияния Ирана в регионе. Пакистан прекрасно подходит для этих целей, поскольку имеет серьезные интересы в этом регионе. Более того, маршрут трубопровода из Каспийского бассейна через Пакистан к Индийскому океану более прямой и не вызывает споров. Кроме того, рассматривается также южный экспортный треугольник: маршруты из Туркменистана, Казахстана и Узбекистана.

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DIABETES

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Annotation: Diabetes mellitus is a metabolic disease that combines different diseases according to their causes, developmental pathways and clinical symptoms. A characteristic feature of all these diseases is a chronic increase in blood sugar (glucose).

Keywords: Diabetes, glucose, insulin, angiopathy, macroangiopathy,

QANDLI DIABET

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Anotatsiya: Qandli diabet — moddalar almashinuvi kasalligi bo'lib, kelib chiqish sabablari, rivojlanish yo'llari va klinik alomatlariga ko'ra tarkibiga turli xil xastaliklar birlashgan. Bu kasalliklarning barchasiga xos bo'lgan jihat — qon tarkibidagi qand (glyukoza) ning surunkali ortishi.

Kalit so'zlar: Qandli diabet,glukoza,insulin, angiopatiya, makroangiopatiya,

Qandli diabet — moddalar almashinuvi kasalligi bo'lib, kelib chiqish sabablari, rivojlanish yo'llari va klinik alomatlariga ko'ra tarkibiga turli xil xastaliklar birlashgan. Bu kasalliklarning barchasiga xos bo'lgan jihat — qon tarkibidagi qand (glyukoza) ning surunkali ortishi.Sog'lom kishilarda nahorda qon tarkibidagi glyukoza 5,5 mmol/l (100 mg%)dan, ovqatlanganidan 2 soat o'tgach esa, 7,8 mmol/l (140 mg%)dan ortmaydi. Agar glyukoza 10 mmol/l (180 mg%)dan ko'tarilsa, buyrak qon tarkibidagi qandni "saqlab tura" olmaydi va qand peshob bilan birga ajralib chiqa boshlaydi.U organizmga asosan oziq-ovqat bilan tushadi. Odam iste'mol qiladigan oziq-ovqat mahsulotlari asosan uch narsa — oqsil, yog' va uglevodlarlan iborat. Oqsil tana uchun qurilish ashyosi hisoblanadi, yog' va uglevodlar kuch-quvvat manbaidir.

Glyukozaning asosiy manbai esa uglevodlar sanaladi. Uglevodlarning katta qismi ichakdan qonga glyukoza tarzida so'riladi. Uglevodlar samarali qayta ishlanib, quvvatga aylanishi uchun insulin mavjud bo'lishi zarur.

Insulin yuqori darajada faol bo'lgan kimyoviy molda (gormon) bo'lib, u oshqozon osti bezining alohida hujayralarida ishlab chiqiladi. Quvvat hosil qilish uchun sarflangan glyukozaning bir qismi insulin ishtirokida glikogenga aylanadi hamda quvvat zaxirasi sifatida

jigar va mushaklarda yig‘iladi. Ovqatlanishlar oralig‘ida, tashqaridan glyukoza kelmagan paytda glikogendan glyukoza hosil bo‘ladi va u quvvat hosil etishga sarflanadi. Agar jigar va mushaklarda to‘planganidan so‘ng glyukozaning muayyan mikdori ortib qolsa, insulin uning yog‘ga aylanishi hamda teri ostiga — yog‘ kletchatkalariga yig‘ilishiga ko‘maklashadi. Xullas, ovqat bilan kirgan glyukoza insulin yordamida o‘zlashtiriladi. Turli sabablarga ko‘ra tanada insulin yetishmovchiligi yuzaga kelganda qandli diabet kasalligi rivojlanadi. Insulin taqchilligi oqibatida glyukoza quvvat hosil qilish uchun kam sarflanadi yoki butunlay sarf bo‘lmaydi. Natijada oqsil, yog‘ va glikogendan glyukoza hosil bo‘lishi kuchayadi. Bularning barchasi qon tarkibidagi qand mikdorining ortishiga olib keladi.

Ma’lumki, qandli diabetning ikkita asosiy turi mavjud: birinchi tur — insulinga qaram diabet, ikkinchi tur — insulinga qaram bo‘lmagan qandli diabet. Birinchi tur diabet insulinning mutloq yetishmasligi natijasida kelib chiqadi. Bu tur ko‘proq o‘smirlik va o‘spirinlik yoshida paydo bo‘ladi.

Kasallik odatda yuqumli xastaliklarni boshdan kechirgandan so‘ng keskin boshlanadi. Ular insulinsiz yashay olishmaydi, albatga, insulin qabul qilishlari shart. Kasallikning eng muhim alomatlari – chanqash, og‘izning qurib qolishi, katta miqdorda peshob ajralishi, ozib ketish, holsizlik kabilar. Bu tur da bemorlar bir kecha-kunduz davomida 3-5 litr dan 7-8 litrgacha suyuqlik ichishi va taxminan o‘shancha miqdorda siydik ajratadi. Tashxis qo‘yilgunga qadar bemor 5-15 kilogrammgacha vazn yo‘qotishi ham mumkin. Ularning qoni tarkibidaщ glyukoza mikdori eng yuqori darajadan eng quyi darajagacha tez-tez o‘zgarib turadi.Qandli diabetning ikkinchi turi esa ko‘proq kattalarda uchraydi. 40 yoshdan oshgan, ayniqsa, 50-60 yoshli odamlarda juda ko‘p kuzatiladi. Bu turda insulinning nisbiy yetishmasligi mavjud. Ikkinchi turga chalingan bemorlarining 80-85 foizi semiz bo‘ladi. Semizlik «natijasida mushak yog‘ to‘qimalarining insulinga sezgirligi pasayib ketadi va insulinning nisbiy yetishmasligi sabab qandli diabet kelib chiqadi. Kasallik asta-sekin, yashirin rivojlanadi. Xastalikning boshlanishida bemorda og‘iz qurishi, chanqash, ozish kabi alomatlar unchalik yaqqol bilinmaydi, bemorlarning bir qismida ozish umuman kuzatilmaydi. Ularni ko‘proq holsizlanish, toliqish, chanqash bozovta qiladi. Sekin rivojlangani uchun bemor kasallikni sezmay qoladi. Keyin teriga har xil furunkulyoz yaralar chiqa boshlaydi. Ba’zi bemorlarning tishlari parodontoz natijasida to‘kilib ketadi. Shuning uchun ikkinchi tur diabet bemor boshqa kasallik bilan shifokorga murojaat etganida aniqlanadi. Qandli diabet butunlay yo‘q bo‘lib ketmaydi. Ammo bemorlar yaxshilab davolanib turishsa, xuddi sog‘ odamlardek yurishadi.Qandli diabet o‘z vaqtida to‘g‘ri davolanmasa, og‘ir oqibatlarga olib keladi. U asosan qon tomirlarga asoratlar beradi. Diabetning asoratlari diabetik angiopatiyalar deyiladi.

Agar katta qon tomirlari shikastlansa, u makroangiopatiyalar deyiladi. Makroangio-patiyalarning asosida ateroskleroz yotadi. Qon tomiri makroangiopatiyalari insult, infarktga olib kelishi mumkin. Ateroskleroz diabet bo‘lmaganlarda ham uchraydi, lekin diabet bo‘lganlarda ertaroq, ko‘p tomir havzalarida kuzatiladi va og‘ir asoratlar beradi.Mikroangiopatiyalarda mayda qon tomirlar shikastlanadi. Tomir devorlarining bazal membranasi yo‘g‘onlashadi. Ko‘pincha funksional zo‘riqishlar tushadigan a’zolarda ertaroq rivojlanadi. Masalan, ko‘zda diabet retinopatiyasi yuzaga keladi. Agar u oxirigacha yaxshilab davolanmasa, ko‘rlikkacha olib kelishi mumkin Buyrakning diabet tufayli shikastlanishiga diabet nefropatiyasi deyiladi. Diabet nefropatiyasi natijasida buyrak yetishmovchiligi rivojlanishi mumkin. Buyrak yetishmaganidan keyin qon buyrak orqali yaxshi tozalanmaydi. Organizm o‘zini o‘zi zaharlaydi. Birinchi tur diabetning asosiy o‘lim sababi diabet nefropatiyasi hisoblanadi. Mikroangiopatiya — barcha

a'zolarning (teri, mushaklar, nerv tolalari va hokazolar) kapillyarlarini shikastlovchi tinimsiz jarayon.Biroq diabetga oid mikroangiopatiya jismoniy jihatdan katga zo‘riqishga uchraydigan buyrak, ko‘z, oyoq kabi a'zolarda ko‘proq va ertaroq namoyon bo‘ladi. Oyoq qon tomir nervlarining diabet natijasida shikastlanishi diabet polineyropatiyasi deyiladi. Eng keng tarqalgani — periferik diabet neyropatiyasi. Periferik neyropatiya ko‘proq oyoqlarda uchraydi: oyoqlar og‘riydi, muzlaydi, qiziydi, jimirlaydi. Qatgiq og‘riqar uxlashga xalaqit beradi. Shuningdek, vegetativ neyropatiyalar bor. Vegetativ nervlarning shikastlanishida oyoq to‘qimalarining ozikdanishi yomonlashadi. Agar harakat nerv tolalari shikastlansa, harakat ham qiyinlashadi va bemor lapanglab yuradigan bo‘lib qoladi. Nerv tolalari va oyoqqa borayotgan qon tomirlarining shikastlanishi natijasida oyoqning . oziqdanishi, qon bilan ta'minlanishi buziladi. Shu bilan birga neyropatiyaning rivojlanishi oyoq sezuvchanligini pasaytiradi. Bemor yaxshi sezmaganidan keyin oyog‘ini kuydirib olishi yoki tuflisining ichiga tosh yoki mayda narsalar tushib qolib, uzoq yurganda ular oyoqni zararlab, yara hosil qilishi mumkin. Natijada diabet to‘pig‘i sindromi yuzaga keladi. U og‘ir asorat – gangrenagacha olib borishi mumkin. Shuning uchun diabet bo‘lgan bemorlar oyoqlarini ehtiyot qilishlari, ularni toza tutishlari kerak. Bundan tashqari, oyoq sezuvchanligi pasaygani uchun poyabzal kiyishdan oldin uni qoqib tashlaxp lozim. Og‘riqni va oyoq tubida yara bor- yo‘qligini sezmaydiganlar vannaga yoki karavotining yoniga kuzatuv oynasini qo‘yib qo‘yishlari zarur. U bilan har kuni oyoq tagini kuzatib turishlari kerak. Oyoq kiyim loyiq bo‘lishi, siqmasligi shart. Yalangoyoq yurish mumkin emas. Yangi tufli olganda bir necha kun poyabzal sal yozilguncha oz-ozdan kiyib turish lozim. Shuningdek, paxtadan tikilgan va rezinkasi qismaydigan paypokdar kiyish kerak. Agar qattiq qissa, qon aylanishi buziladi. Diabet kasalligida oyoq to‘g‘ri parvarish qilinsa, 70 foiz hollarda diabet to‘pig‘i sindromi rivojlanishining oldini olish mumkin.

Diabet asoratlarining oldini olishning asosiy yo‘li diabetni komnensatsiyalashdir, ya'ni diabetda bo‘ladigan modda almashinuvini normallapggirish. Buning uchun birinchi galda qondagi glyukoza miqdorini me'yorlashtirish zarur. Diabet kasalliklarida kompensatsiya bo‘lishi uchun qonda glyukoza mikdori 6,5 mmol/ldan oshmasligi kerak. Agar glyukoza kompensatsiyalanib tursa, uzoq vaqttacha diabet asoratlarining rivojlanishi susayishi, to‘xtashi yoki ro‘yobga chiqishi kechikishi mumkin. Bu hamma asoratlarga taalluqli: diabet nefropatiyasimi, neyropatiyami, retinopatiyami, angiopatiyami, xullas, hammasiga. Keyin ovqat yegandan keyin glyukozani o‘lchash ham muhim ahamiyatga ega. Ovqatlangandan 2 soatdan keyin qand mikdori 8 mmol/ldan oshmasligi kerak. Hozirgi vaqtdagi talablardan kelib chiqib diabetda yog‘-modld (lipidlar va moddalar) almashinuvi o‘zgaradi. Natijada qonda giperlipemiya (qonda neytral ta'sirli yog‘lar mikdorining anomal ravishda yuqori bo‘lishi) kelib chiqadi. Lipidlar ko‘proq ateroskleroz rivojlanishida ishtirok etadi. Shuning uchun hozirda diabet bemorlariga lipodemik,shpolipidemik moddalar buyurish tavsiya etiladi. Statinlar (neyrogormonlar) ko‘proq diabetda ishlatiladi. Lipid modddsi xolesterinni va boshqa yog‘ moddalarining mikdorini kamaytirib beradi.Yana eng muhim ahamiyatli jihatlardan biri shuki, diabet bemorlarining 60-70 foizida gipertoniya kuzatiladi, ya'ni ularning arterial bosimi baland bo‘ladi. Arterial bosimning baland bo‘lishi ham diabetda uchraydigan asoratlarning rivojlanishini tezlapggiradi. Gipertoniya kasalliklarida ko‘proq insult, infarktlar uchraydi. Shuning uchun yana bitga talab — arterial bosimni me'yorda saqlash kerak. Qondagi arterial bosim 120/80 mm s.u. bo‘lsa, yaxshi. Biroq 140/90 mm s.u .dan oshmasligi kerak. Agar oshib ketsa, u ham asoratlarning rivojlanishiga imkon yaratadi.Diabetning har ikkala turi boshqa-boshqa davoni talab qiladi. Diabetni davolashda eng birinchi o‘rinda turadigani bu — parhez. Birinchi tur

diabetda bemorlar qabul qilayotgan uglevodlarining mikdorini hisoblashlari kerak. Parhez xususiyati shundan iboratki, oson o‘zlashtiriladigan uglevodlarni iste’mol qilmaslik yoki kamroq iste’mol qilish lozim. Nega deganda oson o‘zlashtiriladigan uglevodlar oshqozonga tushgan zahoti so‘rilib, qandni birdaniga ko‘tarib yuboradi. Shuningdek, murakkab uglevodlar ham mavjud. Guruch, bug‘doy, grechka, no‘xat, loviyada murakkab uglevodlar bor. Ular polimer shaklda bo‘ladi, oshqozonga tushganidan keyin parchalanishi lozim. Murakkab uglevodlar to qand holatiga kelguncha, so‘rilguncha ancha vaqt o‘tadi. Shuning uchun ham birdaniga qandni ko‘tarmaydi. Ularni diabetiklar iste’mol qilishimumkin. Chunki diabet bemori ovqatining umumiy tarkibi xuddi sog‘ odamlarnikidek fiziologik me’yorga to‘g‘ri kelishi kerak. Ammo utlevodlar xilini iste’mol qilishda farq bor. Oson o‘zlashtiriladigan uglevodlarni iste’mol qilish chegaralanadi: qand, qand tutgan mahsulotlar, ya’ni qandolat mahsulotlari – pirojnoye, tort, shokolad, marmelad,. Mevalardan uzum sof glyukozadan iborat, uni bir kunda bir shingil yeyish mumkin. Nima uchun chegaralangan? Agar ularga umuman man qilib qo‘yilsa, mutlaqo parhez tutmay qo‘yishlari mumkin. Bundan tashqari, qovun-tarvuzlarda ham qand bor, ulardan 1-2 karch yeyish kifoya, ko‘p yeyish tavsiya etilmaydi. Masalan, shirin shaftoli, shirin nokni bir o‘tirishda bittasini yeyish mumkin. Xohlagancha yeyish mumkin bo‘lgan mahsulotlar — bodring, turp, karam, sabzi. Shuningdek, oqsillardan qora go‘sht, tuxum, parranda go‘shtini yeyish mumkin. Ular asosan oqsillardan iborat bo‘lgani uchun qandni uncha ko‘tarmaydi. Yog‘li ovqatlarni yeyish esa tavsiya etilmaydi,Diabetning ikkinchi turiDagi perhezga to‘xtalyb o‘tsak. Bu tur bemorlari asosan semiz bo‘lishadi. Diabet ko‘p jihatdan semizlik natijasida rivojlanadi. Shuning uchun ular ham kaloriya va energetik qiymatni, ham uglevodlarni hisoblashlari kerak. Ikkinchi tur diabetda yog‘li va yuqori kaloriyali ovqatlar tavsiya etilmaydi. Energiya ideal vaznga nisbatan hisoblanadi. Ideal vazn bu — hozirgi semirgan paytidagi emas, bo‘lishi kerak vazn. Agar ideal vaznga ozuqaviy mahsulotlarning energik qiymati hisoblansa, bemor sekin-asta oza boshlaydi. Diabet to‘g‘ri va vaqtida davolanmasa, bolalarda jismoniy, jinsiy va aqliy yetishmovchilik rivojlanishi mumkin. Katgalarda ish qobiliyatining yo‘qolishi, pasayishi, asoratlar rivojlanishi kuzatiladi. Shuning uchun diabetni, albatta, davolash kerak.
Diabetni davolashning to‘rtta usuli bor. Birinchisi, parhez, ikkinchisi, jismoniy harakat, jismoniy harakat qilganda glyukoza insulinsiz kuyadi. Parhez bilan jismoniy harakatning kuchi yetmaganda qandni tushiruvchi hab dorilar hamda insulin qo‘llaniladi. Yana eng muhim davolardan biri diabet kasallarini o‘qitish, ular o‘z-o‘zini nazorat qilishni o‘rganishlari lozim. Diabet bemorining vazifasi — u o‘zining qandini o‘zi boshqara olishi kerak

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CHRONIC RENAL FAILURE

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SURUNKALI BUYRAK YETISHMOVCHILIGI.

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Anotatsiya: SBYE deb, nefronlar sonining kamayishi va funksional o‘zgarishi natijasida buyrakning ekskretor va sekretor faoliyatining buzilishiga va buning natijasida tana ichki muhitini normada tutib tura olmasligiga aytiladi.

Kalit so'zlar: Gemodializ,diurez,uremiya,nefron,anuriya.

Etiologiyasi. SBYEga olib keluvchi sabablar. Glomerulonefritlar,surunkali piyelonefrit, interstitsial nefrit. Siydik tosh kasalligi,gidronefroz, siydik ajratish tizimining o‘smalari. Buyrak arteriyalarining stenozi, arterial gipertenziya.Biriktiruvchi to'q im an in g diffuz kasailiklari. Qandli diabet,amiloidoz, podagra, kalsiy almashinuvining buzilishi. Polikistoz, buyrak gipoplaziyasi. Bu kasalliklar o ‘rtasida SBYEning kelib chiqishida glomerulonefritlar 33% ni, surunkali piyelonefrit 21-30% ni tashkil qiladi. Buyrak polikistozi 9% ni, qandli diabet 9% ni, amiloidoz 7,5% ni tashkil qiladi. Patogenezi. Turli-tuman sabablarga qaramasdan buyrakdagi morfologik o 'zg a rish la r bir xilda kechadi va sklerotik jarayonlar rivojlanishiga olib keladi. SBYEda normal vazifani bajaruvchi nefronlar sonining 30% dan kamayishi tufayli buyraklar suv-elektrolit almashinuvini va osmotik gomeostazni boshqara olmay qoladi. Siydik bilan chiqarilishi lozim bo‘lgan moddalarni ajrata olmaydi. Zaharli moddalar badanga yig‘ila boshlaydi. SBYE da badanda oqsil almashinuvi mahsulotlari — mochevina, kreatinin, siydik kislota to‘planib qoladi.Ularning miqdori ko‘paya boradi . Suv-elektrolit muvozanati buziladi. SBYEning dastlabki bosqichlarida buyrakning konsentratsion vazifasi buziladi. Vazifasi saqlangan nefronlar yuqori bosim ostida zo‘riqib ishlaydi va normadagiga nisbatan ko‘proq suyuqlikni chiqarib tashlashga to‘g‘ri keladi. Shuning uchun poliuriya rivojlanadi, siydik ajralishining kunlik ritmi buziladi va izostenuriya kelib chiqadi.

SBYEning so ‘nggi bosqichlarida siydikning miqdori keskin kamayadi va oliguriya hamda anuriya kelib chiqadi. Tana natriy ushlab turish qobiliyatini asta-sekin yo'qotadi, tuz yetishmovchiligiga olib keladi. Ba'zi bir kasallarda tanada natriy to‘planib qolishi harn mumkin. SBYEning dastlabki bosqichlarida gipokaliyemiya, oxirgi bosqichlarida esa giperkaliyemiya

kuzatiladi. Kislota-ishqor muvozanati buziladi va atsidoz yuzaga keladi, kanalchalarning vodorod ioni va organik kislotalarning sekretsiya qilishi kamayadi. Fosfor, kalsiy almashinuvining buzilishi kuzatiladi, gipokalsiyemiya bo‘ladi, bu ichaklarda kalsiy so‘rilishining kamayishi bilan boradi, shuningdek giperfosfatemiya kuzatiladi. Buyraklarda eritropoetin ishlanishi buziladi, natijada anemiya rivojlanadi. Renin ishlanishi davom etadi, uning aktivligi oshadi va doimiy yuqori arterial gipertenziyaga sabab bo‘ladi. Tasnifi. Ye.M.Tareyev ko‘rsatmasiga binoan SBYEda 2 ta bosqich tafovut qilinadi. I konservativ bosqichida buyrak koptokchalarining filtratsiyasi 40 ml/min gacha kamayadi. II terminal bosqichida filtratsiya 15 ml/min gacha kamayadi.Klinikasi. SBYEning klinik manzarasida quyidagi sindromlarni ajratish mumkin: Nevrologik, gastroenterologik, distrofik, anemik,gemorragik, suyak-bo‘g ‘im sindromi. I bosqichda bemorlar hech qanday shikoyat qilmasligi mumkin. SBYE rivojlanib borayotganda dastlab nevrologik sindromlar: holsizlik, uyquchanlik, charchash, ishtahaning pasayishi, befarqlik bo’ladi. Gastroenterologik sindrom: ko‘ngil aynishi, ishtaha yo‘qolishi, ozib ketish, ich ketishi bilan kuzatiladi. Dispeptik shikoyatlarning kelib chiqishiga uremik gastrit sabab boiadi. Uremik zaharlarning tanada to‘planib qolishi badan qichishiga, burundan va oshqozon-ichakdan qon ketishiga, teri ostiga qon quyilishiga sabab b o’la d i. Uzoq vaqt tanada siydik kislotasi yigilib qolishi ≪uremik≫ podagraga olib keladi. Qon bosimi oshganligi natijasida ko‘rish qobiliyati pasayadi. Yuqoridagi shikoyatlarning SBYEda y u zag a chiqishi turlicha b o 'lib , ba’zi kasallarda yillab davom etadi, ba’zi kasallarda esa bir necha oydan keyin yuzaga chiqadi.

II bosqichida teri oq-sariq rangga kiradi, teri ostiga qon quyilishlar kuzatiladi, teri quruq bo’ladi, timalganda izi qoladi va teri qurib tusha boshlaydi, tananing og‘irlig i kamayadi. Qon aylan ish tizimi tekshirilganda qon bosimi oshganligini, yurak chegarasining chapga siljiganini, aorta ustida II tonning kuchayganini ko‘rish mumkin, ba’zi kasallarda qon bosimi oshmasligi mumkin. Seroz-bo‘g ‘im sindromi quruq plevrit rivojlanganda yuzaga keladi. Ogizdan siydik hidi kelib turadi, til quruq, mallarang karash bilan qoplangan b o’ladi. Qorinni paypaslab ko‘rilganda epigastral sohada og‘riq kuzatilishi mumkin.

SBYE bilan og‘rigan kasallar infeksiyaga beriluvchan b o’lad i, pnevmoniya buyraklarning funksional holatini yomonlashtiradi. Nevrologik simptomlar kuchayganda titrash, polineyropatiya kelib chiqadi, bemor komatoz holatga tushadi. Shovqinli yoki xirillab nafas oladi. Ko‘pincha gipotermiya kuzatiladi. II bosqichida diagnoz qo‘yish uchun buyrakning funksional holatini va azot shlaklarining to‘planib qolish darajalarini bilish kerak. Zimnitskiy sinamasi o ‘tkazilganda izostenuriya va gipostenuriya kuzatiladi. Tanada kreatinin to‘planib qolishi buyrak vazifasining buzilishi bilan boradi. Bemorlaming ahvoli yomonlashishi bilan kreatinemiya darajasi ortadi. Keyinchalik giperurekemiya kuzatiladi,

p e rife rik qonda gipoxrom anemiya kuzatiladi. Trombotsitopeniya aniqlanadi. BYEning terminal bosqichida giperkaliyemiya kuzatiladi. SBYEda ichki a ’zolar va tizimlarni asboblar yordamida tekshirish yaxshi natija beradi. EKGda chap qorinchaning gipertrofiyasi kuzatiladi. Giperkaliyemiya paydo bo‘Iishi bilan QRS segmenti kattalashadi va T-tishchaning amplitudasi

ham ortadi. Ko‘z tubi tekshirilganda og‘ir retinopatiya aniqlanadi. O‘pka tekshirilganda uremik o ‘pka manzarasini ko‘rish mumkin (o‘pka ildizidan boshlab ikki tomonlama o ‘choqli qorong‘ilashish). Suyaklar rentgenografiya qilinganda ularning demineralizatsiyasini aniqlash mumkin. Oshqozon sekretsiyasi pasaygan boiadi, oshqozon shilliq qavati atrofiyaga uchraydi. Oxirgi bosqichida uremik perikardit, perikardning ishqalanish shovqinini eshitish mumkin.

Kechishi. Surunkali buyrak yetishmovchiligining kechishida asosiy kasallik muhim ahamiyat kasb etadi. Boshqa kasalliklardan farqli o‘laroq, surunkali glomerulonefritdan kelib chiqadigan surunkali buyrak yetishmovchiligi juda tez rivojlanishi bilan ajralib tuj-adi. Kamdan-kam xurujli nisbiy turg‘un gipertoniya va asta-sekinlik bilan rivojlanib boruvchi surunkali buyrak yetishmovchiligi aksariyat keksa yoshdagi kishilarda uchraydi. SBYE 30 yoshgacha bo‘lgan bemorlarda tez rivojlanadi, bunday bemorlarda asosan buyrak kasalligining xuruji arterial gipertenziyaga olib keladi, ko‘pincha bir vaqtning o‘zida shishlar ham paydo bo‘ladi.

Tashxisi. SBYE ni aniqlash odatda qiyinchilik tug‘dirmaydi. Tashxis anamnez (uzoq muddat buyrak kasalliklari bilan kasallanganligi), bemomi bevosita tekshirish, laboratoriya tekshiruvlari (siydik tahlili,qondagi azot qoldiqlari, koptokcha filtratsiyasining miqdori) natijalariga asoslanadi.

SBYEga olib keluvchi buyrak kasalliklarini farqlash birmuncha qiyinchilik tug‘diradi. Ayniqsa, buyrakning birlamchi va ikkilamchi sklerozini farqlash qiyin. Bunday holatda anamnezga e ’tibor beriladi: buyrak patologiyasi bo‘lmagan holda uzoq muddatli gipertenziya mavjudligi, kunlik proteinuriyaning oz miadorda bo‘lishi, siydikda o‘zgarishlar unchalik darajada bo‘lmasligi buyrakning birlamchi skleroziga xos. Yurakdagi (chap qorincha gipertrofiyasi) va ko‘z tubidagi o'zgarishlarga e’tibor beriladi.Amiloid-buyrak sklerozidan kelib chiqqan SBYEni farqlash ham o ‘ziga xos qiyinchilik tug‘diradi. Ikkilamchi amiloidozda buyrak sliikastlanishiga olib keluvchi asosiy kasalliklar (sil, osteomiyelit, revmatoid artrit) hamda uzoq muddat nefrotik sindrom mavjudligini hisobga olish kerak. SBYE klinik tashxisining to‘liq ifodalanishi quyidagicha: SBYEga olib kelgan kasallik (nomi, klinik ko‘rinishi, morfologik varianti), kechish xususiyati va jarayon bosqichlari, xuruj, remissiya). SBYEning bosqichi. SBYEning asosiy sindromlari.

Davolash. Asosiy vazifa tananing zaharlanishini kamaytirish, gomeostaz doimiyligini ta’minlash, buyrak shikastlanishini bartaraf qilish, bemorning subyektiv holatini yaxshilashdan iborat. SBYE bilan kasallangan bemorlarda koptokcha filtratsiyasi minutiga 35-40 ml bo‘lsa, ulami davolashda quyidagi muolaja tadbirlari amalga oshiriladi. Suyuqliklarni bir me’yorda iste’mol qilish. Tanaga kaliy va natriy yuborishni nazorat qilish. O qsillar almashinuvi o xirgi mahsulotlarining hosil boiishi va tanada ushlanib qolishini kamaytirish, atsidozning oldini olish, gipotenziv muolaja, anemiyani davolash, infeksion asoratlarga qarshi kurashish. Agar koptokcha filtratsiyasi kam miqdorda bo‘lsa (SBYEning oxirgi bosqichida), yuqorida sanab o‘tilgan tadbirlaming hammasini amalga oshirish lozim. Bundan tashqari, birmuncha faol (gemodializ, plazmaforez, buyrakni ko‘chirish) davolash ham maqsadga muvofiqdir. Kreatinemiya miqdori 0,4 mmol (4 mg %) dan ko‘p, lekin 1,5 rnmol/ 1 (15 mg %) dan oshib ketmasa, koptokcha

filtratsiyasi 40 ml/min, lekin 10 ml/min dan past boimasa, bemorning kunlik diurez miqdori 2-3 1 bo'lishini ta'minlay oladigan miqdorda suyuqlik berish kerak bo'ladi.Bunday diurez qoldiq mahsulotlar reabsorbsiyasi kamayishiga olib keladi va tanadan ulami ko'plab miqdorda chiqib ketishini ta'minlaydi. Bemorda qusish, ich ketishi kuzatilsa, suyuqliklarni vena ichiga yuborish lozim. Koptokcha filtratsiyasi minutiga 15 ml dan kam bo'lgan hollarda tanaga suyuqlik yuborishda diurez hisobga olinadi: bir kunlik suyuqlik qabul qilish va kunlik diurez 300-500 ml ga teng bo'lishi kerak. Agar oliguriya va anuriya rivojlansa, yuqori dozada kuniga 1-2 g dan, hatto 4 g gacha) furosemid yuborish kerak. SBYE bilan og'rigan bemorlarda shish va arterial gipertenziya kuzatilmasa, natriy qabul qilishni cheklashga hojat bo'lmaydi. Bemorda shish va arterial gipertenziya belgilari bo is a natriy qabul qilishning kunlik miqdorini 3-5 g gacha kamaytirish kerak. Qonda kaliy miqdori ko'paygan b o'ls a , tarkibida kaliy tuzlari ko'p bo'lg a n mahsulotlarni cheklash kerak; tanada kaliyni ushlab qoladigan siydik haydovchi dorilar (veroshpiron, triampur) tavsiya qilinmaydi. 5% li 500 ml glyukoza eritmasi 8 TB insulin bilan birga venaga yuboriladi. Koptokcha filtratsiyasi minutiga 40 ml ni tashkil qiladigan surunkali buyrak yetishmovchiligining ilk bosqichi oqsil iste'mol qilishni bir oz cheklashni talab qiladi (0,8-1,0 g 1 kg tana vazniga yoki 40-60 g 1 kunga), bundan 40 g hayvon oqsilini tashkil qilishi kerak. Lespenefril vena tomiriga tomchilab yuboriladi. Agar koptokcha filtratsiyasi minutiga 10 ml va undan kam miqdorni tashkil qilsa, oqsil iste'mol qilishni kuniga 20 g (0,25-0,3 g 1 kg tana vazniga) gacha cheklab qo'yish kerak. Atsidozni bartaraf qilish uchun kuniga 3-9 g natriy gidro-karbonat yoki uning 3-5% li 300-500 ml eritmasini venaga yuborish tavsiya qilinadi. Gipertoniyaga qarshi dorilarni q o ila s h SBYE belgilarini karnaytiradi. Natriyni cheklash, tanadan natriyni chiqaruvchi vositalar — furosemid yoki gipotiazid tavsiya qilish kerak. Gipotenziv vositalardan berlipril, kaptopril, klofellin, dopegit, apressin (koptokcha filtratsiyasini va buyrak qon aylanishini kuchaytiruvchi vositalar) tavsiya qilinadi. Boshqa gipotenziv vositalar, angiotenzin faolligini pasaytiruvchi dorilar (gemiton, rauvolfiya, guanitidin) berish qon bosimining yuqoriligiga qarab tayin etiladi. (3-blokatorlar nifridipin bilan birga beriladi. Anemiyani davolash uchun temir birikmalari ferkoven, feropleks qoilaniladi, androgen preparatlar testosteron, sustanon eritropoetin ishlab chiqarishni faollashtiradi. Rekormonni 1000 ta'sir birligida teri ostiga yuborish maqsadga muvofiq bo'ladi. SBYE bilan kasallangan bemorlarda immunitet pasayishi sabab infeksion asoratlar tez-tez uchrab turadi (pnevmoniya, siydik yo'llari infeksiyasi), bular o'z navbatida buyraklar faoliyati pasayishiga olib keladi. Bunda nefrotoksik ta'siri boimagan antibiotiklar — penitsillin, oksatsillin, metatsiklin, eritromitsin odatdagi dozaiarda buyuriladi. Surunkali buyrak yetishmovchiligining oxirgi bosqichida buyrakdan tashqari qonni tozalovchi gemodializ usuli qo 'llaniladi. Bu usul uremiyada qonda ko'payib ketadigan moddalarni yarim o'tkazgich membranada ushlab qolishga asoslangan. Gemodializ muolajalari 5 soatdan haftasiga 3 marta o 'tkaziladi. Quyidagi holatlar gemodializ uchun ko'rsatma bo'lib xizmat qiladi: Koptokcha filtratsiyasining miqdori minutiga 5 ml dan kam bo'lsa; kunlik diurez miqdori 700 ml dan kam bo'lsa; qondagi kreatinin miqdori 1,2 mmol/1 dan oshib ketsa; boshlanib kelayotgan perikardit, ensefalopatiya va nefropatiya belgilari bo'lsa.

SBYEni davolashga boshqa usullardan buyrak transplantatsiyasi va peritoneal gemodializ qo'llaniladi.

Oqibati. SBYEning ilk bosqichida bemorning mehnat qobiliyati saqlanib qoladi, biroq buyrak faoliyati buzilishi avj olib borsa, bemorni nogironlikka olib boradi. Gemodializ va buyrak transplantatsiyasi bemor ahvolini biroz yaxshilanishiga olib keladi. Profilaktikasi. SBYEga olib keluvchi kasalliklarni o 'z vaqtida davolashdan iborat.

O'zbekiston Respublikasi Vazirlar Mahkamasining 2017 yil 23 oktyabrdagi №859 sonli «Yaqin qarindoshlar orasida buyrak va (yoki) jigar bo'lagini transplantatsiya qilish tartibi to'g'risidagi Vaqtinchalik Nizomni tasdiqlash haqida»gi qarori asosida 2019 yilning shu davrigacha RShTTYoIAM va RIXMlarida 190 ga yaqin bemorda buyrak transplantatsiyasi amaliyoti o'tkazildi. Shulardan 3 nafari voyaga yetmagan bolalar.

Kasallikning profilaktikasi va davosi haqida so'z borganda, biz, avvalo, xalqimizning tibbiy madaniyatini oshirishimiz, ular ongiga ushbu xastalik yomon oqibatlar va asoratlarga olib kelishi, o'lim ko'rsatkichi yuqori bo'lgan dardlar turkumiga kirishini doimiy va tizimli ravishda singdirib borishimiz zarur.

Aslida har bir inson bebaho boyligi sanalgan sog'ligi uning o'zi va oila a'zolari uchun muhim ekanini anglab yetishi darkor. Shundagina u profilaktik ko'riklardan doimiy o'tib turadi va og'ir kasalliklarning erta aniqlanishiga hamda kerakli tavsiyalar olishga muvaffaq bo'ladi. Maslahatim, surunkali infeksiya o'choqlari, ya'ni murtak bezlarining yallig'lanish kasalliklari, quloq-burun xastaliklari, kariyesga uchragan tishlarni o'z vaqtida davolating, o'zingizni zax va sovuqdan ehtiyotlang, toksik moddalar bilan ishlaganda me'yor qoidalariga rioya eting – bular ham sog'lom turmush asosi hisoblanadi

Buni qarangki, sog'lom, buyragidan shikoyat qilmaydigan kishining buyragidan tanadagi qon bir kecha-kunduzda 360 marta o'tar ekan.

Foydalanilgan adabiyotlar:

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THE EXPRESSION OF NATIONALISM IN THE WORK OF ABDULLAH SHER

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Abstract: Abdullah Sher is a versatile artist, and when we look at his work, we feel the national spirit and nationalism that runs through his poems. The themes of the poet's poems are diverse, mainly reflecting the simplicity, diligence and integrity of the Uzbek people. The poet's work reflects the boundless love and respect of our people for the Motherland. In his poems, which are full of special love for the Motherland, the poet expressed the landscapes of the Motherland, endless steppes, beautiful corners, villages and their beautiful nature in simple and familiar words familiar to every reader.

АБДУЛЛА ШЕР ИЖОДИДА МИЛЛИЙЛИК ИФОДАСИ

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Абдулла Шер серқирра ижодкордир, унинг ижодига назар солган саримиз шеърларига йўғрилган миллий руҳни ва миллийликни ҳис этамиз. Шоирнинг шеърларида қаламга олинган мавзулар ранг- барангдир, унда асосан ўзбек халқининг соддадилиги, меҳнаткашлиги, беғуборлиги ўз ифодасини топган. Шоир ижодида халқимизнинг Ватанга бўлган чексиз муҳаббати ва эҳтироми ҳам акс этирилган. Ватанга ўзгача муҳаббат туйғулари билан йўғрилган шеърларида, шоир Ватан манзараларини, бепоён далаларини, сўлим гўшаларини, қишлоқлар ва уларнинг гўзал табиатини оддий ва содда, ҳар бир китобхонга таниш сўзлар орқали ифода этган.

Шоир ўз ижодида халқимиз характерини ёрқин ва теран фикрлар ифодаси орқали баён эта олган. Унинг миллийлик билан йўғрилган асарларини ўқиган китобхон кўз ўнгида халқимизнинг меҳнаткаш, соддадил фазилатлари намоён бўлади. Адиб ижодида Ватанимизнинг сўлим гўшалари, бепоён далалари, гўзал манзараларини ифодалаш баробарида, асарларига миллийлик ифодасини ҳам жо эта олган. Ижодкор шеърларини ўқиш жараёнида китобхон қалбига ўзбекона миллий руҳ ҳам сингиб боради:

Орзунинг сандиқлари бўшаб бормоқда бир-бир,
Қани гавҳар, забаржад, қани заррин заҳира?!
Қолган йўлимда энди дуч келмас менга Хизр,
Айланмагай бу палос учар гиламга сира.
Қизғалдоқли томини ҳилпиратган ул гўша
Болалигим достонин куйлаб турар осмонга;
Сомоншувоқдан чиққан исмалоқ, буғдой – ўша,
Фақат оёғим етмас бугун ёғоч нарвонга.

Ушбу мисраларни ўқиган китобхон кўз ўнгида бевосита қишлоқ манзаралари билан бирга, қишлоқнинг танти, меҳнаткаш, беғубор одамлари ҳам намоён бўлади. Шоир асарларида инсонларнинг маънавий дунёси, ўй- истаклари, интилишлари ўзига хос поэтик маҳорат билан ифодаланган. Адиб ўз асарлари орқали ўзи туғилиб ўсган юртнинг сурури, тароватини, ҳамда халқининг самимияти, руҳиятини ўзига хос ифода билан адабиётимизга олиб киришга муваффақ бўлган ижодкорлардан ҳисобланади.

Шоир “Ёз” шеърида ёз тароватини тасвирлаш орқали Ватан манзараларини юксак шоирона маҳорат билан куйлайди, ижодкор табиатни тараннум этиш баробарида, ўз мисраларига халкимизга хос бўлган хис-туйғуларни, ички кечинмаларни, ҳиссиётларини ҳам мужассам этади. Адиб асарларининг асосий ғояси ва қаҳрамонлари, оддий, камтар ўзбек халки ва унинг пок, беғубор кечинмаларидир.

Гоҳ арава ўтса ирмоқдан
Кўприк сувни тўлдирар хасга.
Тўнтарилган тарғил пучмоқдан
Тўкилади аланга пастга.
Ўримини кутар бош эгиб,
Пайкалларда қуюқ, сара дон.
Пешиндан сўнг уфққа тегиб,
Қайтиб келар яна саратон.

Адиб юртимиз фаслини шундай маҳорат билан тасвирлайдики, уни ўқиган китобхон, ўзининг ёзнинг иссиқ кунларида, ўрим пайкалларида тасаввур қилади. Абдулла Шер лирикасида Ватан мавзусидаги шеърлар кўп учрайди. Шоирнинг лирик қаҳрамони инсоният ва ер куррасининг тақдири, Ватанининг бугуни ва келажаги тўғрисида куйиб-пишиши, қайғуриши, беҳаловатлик, безовталик билан яшавочи ўзбек халқидир. Ватан ва халқининг келажагини, ўтмиши ва бугуни билан юраги жўш уриб турган образлар адиб асарларининг асосий қаҳрамонларидир. Шоир нозик мисралар орқали халқимиз қалб туғёнлари, ички ҳиссиётлари ва руҳиятини кўз ўнгимизда гавдалантириб бера олган ижодкорлардан ҳисобланади. „Манзарали дарахтлар“ шеърида шоир шаҳар кўчаларини, ундаги дарахтларни инсон ҳислари билан ҳамоханг тарзда ифодалайди, мисраларни ўқиган сарингиз юрагингизни алланечук нотаниш туйғулар қамраб олади:

Савлат тўкиб яшайди манзарали дарахтлар
Хиёбону кўчалар, зиёратбоп жойларда.
Ҳар саҳарда фаррошлар сув сепишар, яраклар –
Чангга ботган барглари ёз-ёғинсиз ойларда.
Печакларнинг севгиси уларга ёт бир умр,
Атрофида унмайди бирор бегона гиёҳ.
Сувлар ҳам лойқа эмас, уруғ ташимас бир қур –
Бетон ариқ бўйида силкинмас ялпиз, қиёқ.

Шоир жимжимадор сўзлардан фойдаланмайди, балки халқона содда тил ва содда қочиримлар унинг асарлари сюжетини ташкил қилади. Шеърдаги ҳислар жилваси, туйғулар манзараси ва теран фикрлар қалбимизнинг туб-тубига сингиб бориб, уни жунбушга келтиради. Шоир асарларини ўқиган саримиз Ватанга бўлган муҳаббатимиз юксалаверади, содда, меҳнатсевар халқимизга севгимиз ортаверади, чунки шоир бизни сеҳрли, жилвадор мисралари билан мафтун қила олди ва биз унинг шеърлар дунёсида бирга сайр қилдик.

Ижодкорлик оллоҳ томонидан берилган буюк неъматдир, унинг мевалари эса адибларни бизга тақдим қилаётган асарлари ҳисобланади. Асарларини китобхон юрагига, қалбига сингдира олган ижодкоргина хақиқий ёзувчи бўла олади, ишонаманки, Абдулла Шер асарлари ҳам узоқ йиллар давомида китобхонларни ром қила олган, туйғуларини жунбушга келтира олган асарлар сифатида узоқ йиллар қалбларда муҳрланиб қолади.

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NORAVSHAN TASVIRLARNI GRAFIK PROSESORLAR YORDAMIDA QAYTA ISHLASH ALGORITMLARI

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Tasvirlarga ishlov berish va tahlil etish inson faoliyatining tasvirlarga aloqador bo'lgan bir muncha sohalarda qo'llaniladi. Ko'pchilik mutaxassis va olimlarning fikriga ko'ra tasvirlarga ishlov berish usullari rivojlanishi fan va texnikaning yorqin kelajakka ega bo'lgan yangi yo'nalishlarini vujudga kelishiga olib keldi. Tasvirlarga ishlov berishda asosan tasvirlarga qayta ishlov berish yoki tasvirlarga raqamli ishlov berish nomlari bilan yuritiladi. Bu sohani insonning ko'rish tizimini bilmay turib, uni o'rganib bo'lmaydi. Inson ko'rish tizimidan andoza olinishi tasvirlarga raqamli ishlov berish sohasini taraqqiy etishiga ulkan hissa qo'shmoqda.[1]

Bu butun texnologiya sanoatini, shu jumladan "tasvirni tanib olish" mashinalarini o'rganish va sun'iy intellektni (SI) uchun jiddiy muammo.

Xususan, kompyuterni ko'rish yoki tasvirlash texnologiyasi o'zini o'zi boshqaradigan avtomashinalar, yuzni aniqlash va tibbiy natijalarni bashorat qilish kabi ko'plab innovatsion texnologiyalarni amalga oshirishda asosiy omil hisoblanadi.

Ushbu maqolada yangi tushunchalar, muammolar va ularni hal qilish usullari bilan tanishtib o'tilgan.

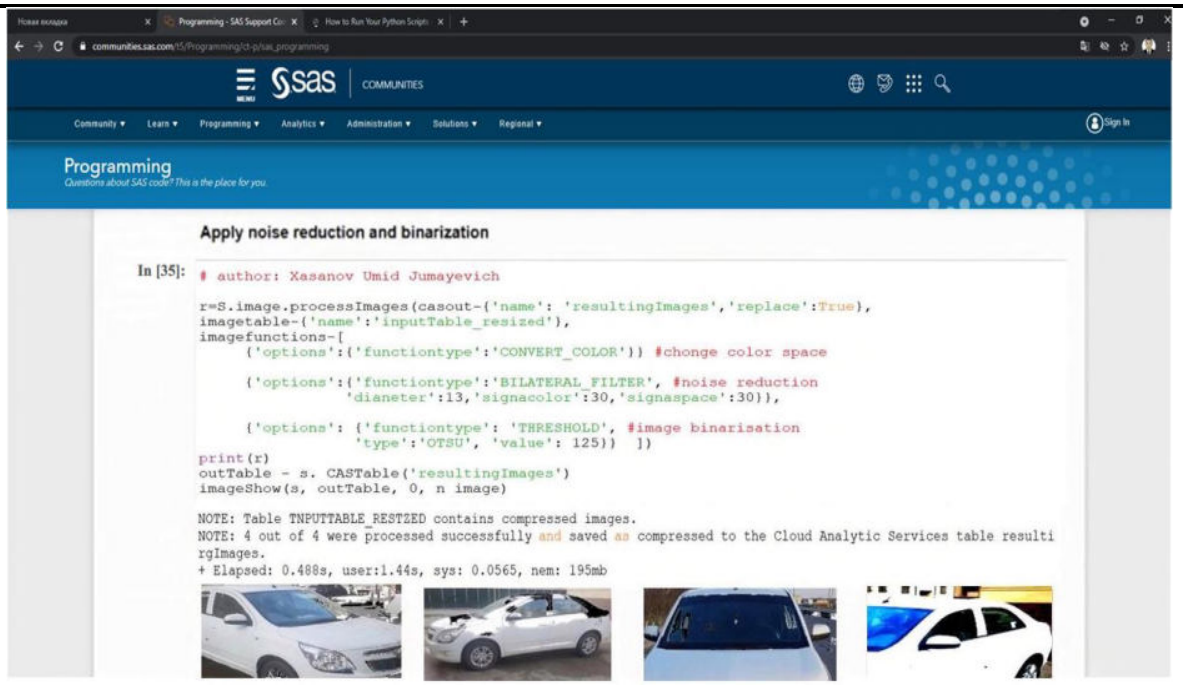
Deylik, avtosug'urta kompaniyasi avtohalokat sodir bo'lgan joydagi transport vositalariga zarar yetgan qismini smartfon orqali tushirilgan tasvirni tahlil qilib, mijozning transport vositalariga etkazilgan zararni baholaydi. Shu nuqtada tasvirni qayta ishlash jarayonida operativ kadr bilan tekis harakatli jadvalga aylantirilgan mos tasvir o'rtasidagi farq qiluvchi bazi xususiyatlar bo'lishi mumkin.

Ushbu farq qiluvchi xususiyatlarga ega bo'lgan tasvirlarga chuqurroq ishlov berish uchun zaruriy dasturiy vositalar majmuasi quyidagi vazifalarga ega bo'lishi kerak.

– Rang moodeli
– Tasvir faylida 3D-ni qo'llab-quvvatlaydigan bir nechta qatlamlar mavjudligi.
– Tasvirning ba'zi joylarini tashlab yubora olishi
– maqsadli hodisani ajratib turadigan tasvir ob'ektining chegarasini (bu holda, to'liq zararni qoplash yoki sug'urtalashni talab qilish kerakligi).
– Kamera burchaklaridagi farqlarni hisobga olish uchun bizga o'quv ma'lumotlari to'plami kerakligi.
– Dastlabki tasvirlarning bir qismini yoki barchasini biroz o'zgartirib, o'quv ma'lumotlari to'plamini boyitish mantiqiyligi.

Chuqur o´rganish signalni kuchaytirish yoki shovqinni pasaytirish amalyoti orqali erishiladi. Bu bizga majmua ko´rinishdagi tasvirlar variantlarini qayta ishlash operatsiyalarining axamiyatini o´rganish va tushunishga yordam beradi.

Keyingi modellashtirish ishlariga qarab signalni kuchaytirish uchun (yoki aksincha shovqinni kamaytirish uchun) tasvirni qayta ishlashdan foydalanish tavsiya etiladi.



1-rasm: SAS Viya Image Processing platformasida tasvirini qayta ishlashni Jupyter daftarida qo'llash

Tasvirni qayta ishlash operatsiyalari uchun turli xil variantlarni va turli xil tasvirlarni qayta ishlash operatsiyalarining ahamiyatini o'rganish va tushunish muhimdir.

Tasvir o'lchamini o'zgartirish. Umuman tasvir o'lchamlari o'zgartirilganda signallarning ma'lum bir qismi yo'qotilish kuzatiladi. Ularni tiklash uchun interpolatsiya usullar qo'llanilib tasvirlar muafilashtiriladi. Bu esa yechim qabul qiluvchi shaxsga tasvirlarning ishonarli alternativ varyantlarini taqdim etishga xizmat qiladi. Ushbu algoritmlarda tasvirlar o'lchamini o'zgartirish va komalatsion neron tarmoqlar kabi chuqur o'rganish algoritmi keltirilgan.

Agar biz avtoulov sug'urtasi holatiga qaytsak va 100 mijozdan xuddi shu avtohalokatni suratga olishni so'rasak 100 ta turli xil tasvirlar istisnosiz yaratiladi. Bunday tasvirlar to'plamini tahlil qilishda, qoida tariqasida, statik tasvirlar to'plami qanchalik statik bo'lsa, individual tasvirlar orasidagi farqlarni ko'rish shunchalik oson bo'ladi. Va bu qiziqarli naqshlarni tanib olishni osonlashtiradi. Bunday holda, sug'urta kompaniyasi mijozlarga yo'l-transport hodisalari natijasida etkazilgan zararning yagona tuzilishini ta'minlab, bir xil taqqoslash mezonlaridan foydalanishi mumkin bo'lgan dasturni taqdim etishi mantiqiy bo'lishi mumkin.

Masalan, yuqori texnologiyali yoki umumiy ishlab chiqarish muhitida, agar siz ishlab chiqarish liniyasi inshoatida suratga olsangiz, yorug'lik va ramka doimiy bo'lgani uchun tasvirlarning juda mos burchagini olishingiz mumkin. Keyin ushbu rasm yordamida ishlab chiqarish jarayonidagi nozik o'zgarishlarni aniqlashingiz mumkin. Ushbu o'zgarishlar ishlab chiqarish jarayoni bosqichlarida nuqsonlarning ko'rsatkichi bo'lishi mumkin.

Load Images

```
In [7]: r=s.image.loadImages(casout={'name': 'action', 'replace':True},
              path='/home/viyauser/Additional_images/Manufacturing/')
        #yuqoridagi kodda S ulanish yordamida tasvir harakatlar to'plamiga tegishli bo'lgan tasvirni yuklash harakati bajariladi
        imageTable = s.CASTable('action')
        imageShow(imageTable, 0, 5)
        print (r)
```

```
NOTE: Loaded 14 images from /home/viyauser/Additional_images/Manufacturing/ into Cloud Analytic Services table actio
n.
+ Elapsed: 0.00454s, user: 0.003s, sys: 0.001s, mem: 4. 75mb
```

2-rasm: yarim o'tkazgich ishlab chiqarish liniyasining namunaviy tasviri

Yana bir misol tariqasida - jinoyatchilar va jinoiy harakatlarni qo'lga olish uchun jamoat kuzatuv kameralarini ko'rishimiz mumkin. Odatda, olomonni kuzatish vaqtida siz kuzatuv kamerasining burchagi va ramkasini boshqarishingiz mumkin, ammo yorug'lik va yoritish tizimi juda sust.

Noise Reduction

```
In [12]: r=s.image.processImages(casout={'name': 'resultingImages','replace': True},
               imagetable={'name': 'action'},
               imagefunctions=[
         {'functionoptions': {'functiontype': 'CONVERT_COLOR'}}, #change color space

         {'functionoptions': {'functiontype': 'BILATERAL FILTER', #noise reduction
                              'diameter': 13, 'sigmacolor': 30, 'sigmaspace': 30}}]}
         print(r)
         imageShow(outTable, 0,4)
```

```
NOTE: Table ACTION contains compressed images.
NOTE: 4 out of 4 images were processed successfully and saved as compressed images to the Cloud Analytic Services tab
le resultingImages.
+ Elapsed: 0.731s, user: 0.731s, mem: 8.96 mb
```

3-Rasm: Yoritish va mavzudagi o'zgarishlar maqsadni aniqlashni murakkablashtirishi mumkin.

Texnik qurilmalarning ma'lumotlarni qabul qilish xususiyati va tasvirga olish vaqtidagi yorug'lik darajalari kabi omillar tasvir sifatiga turlicha ta'sir qiladi. Agar tasvir sifati yomon bo'lsa uni yaxshilash zarur. Chunki, sifatli bo'lmagan tasvirlarda o'rganilayotgan obyekt yoki inson yuz elementlarini topish qiyin kechadi. Bunday xollarda tasvir sifatini yaxshilashning turli usullari mavjud. Masalan, tasvir chegaralarni kuchaytirish, to'siqlarni yo'qotish, tiniqlikni oshirish va x.k.

Thresholding

```
In [12]: r= s.image.processImages(casout={'name':'resultingImages','replace':True},
               imagetable={'name':'action"},
               imagefunctions=[
         {'options': {'functiontype': 'convert_color'}}, #rang oralig'ini o'zgartirish

         {'options': {'functiontype': 'BILATERAL FILTER', #shovqinni kamaytirish
                  'diameter':13, 'sigmacolor':30,'sigma space":30}),

         {'options':{'functiontype': 'THRESHOLD', #tasvirni binarizatsiya qilish
                  'type': 'OTSU', 'value':125}}))
         print (r)
         imageShow(outTable, 0, 4)
```

```
NOTE: Table ACTION contains compressed images.
NOTE: 4 out of 4 images were processed successfully and saved as compressed images to the Cloud Analytic Services tab
le resultingImages.
+ Elapsed: 0.731s, user: 0.731s, mem: 8.96 mb
```

4-rasm: Shovqinni kamaytirish uchun tasvirni qayta ishlash

Tasniflash ishlari uchun eng oddiy modelni tanlash maqsadga muvofiqdir. Buning sababi shundaki, model qanchalik sodda bo'lsa, u shunchalik barqaror bo'ladi va uni biznes manfaatdor tomonlariga tushuntirish osonroq bo'ladi. Biroq, umuman olganda, tasvirni tanib olish tasvir ma'lumotlarining murakkabligi tufayli ancha murakkab modelni talab qiladi. Shu sababli, Convolutional Neural Networks (CNN) kabi chuqur o'rganish algoritmlari aksariyat dunyoda tasvirni tanib olishning tasniflash muammolari uchun ajralmas hisoblanadi.

Foydalanilgan adabiyotlar

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TAX POLICY OF KHIVA KHAN MUHAMMAD RAHIMKHAN

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Keywords: Khiva khanate, economic and political situation, property, Karakalpaks, tax system, seeds, landowners, tax.

If we look at the past, we can see from the analysis of historical sources, scientific literature that in all countries of human history, the system of taxes has been established and their payment has become mandatory for all. After all, the financial situation and development of the state in one way or another depended primarily on the state of the state treasury, the types, amount and weight of taxes collected from the population. In this way, states have been able to fully recognize their position, both militarily, economically and politically.

In this way, states have been able to fully recognize their position, both militarily, economically and politically. Their amount was as prescribed by the Shari'a. In addition to taxes, the population had to fulfill various obligations.

In particular, in the first spring, one person from each household had to work for 15 days to clean the canals and dig new ones. In the Khiva khanate, the tax on private land depended on the category to which it belonged. Labeled property, ie land tax (dahyak) levied on private lands with a label allocated for use by a person under the khan's label from state lands. Ordinary private lands, which have long been considered private property of the population, are also taxed. Aday property (deliberate property in the vernacular) is not a land tax, but a land tax. The amount of this tax is determined by the size of the taxpayer's property. The house fee (housing tax) was similar to the income tax. They paid the solgut and the dahyak to the whole state, and a part of the dahyak to their waqf offices. In addition to the zakat fee, scales, and other taxes imposed on traders, traders in the shopping centers of the Khiva khanate (Urgench Khanka, Khiva, Gurland, etc.) paid the khan a "rich money" tax every year. Labels were sent to the trading cities, and in the labels each town was to send a certain amount of money as a loan to the khan's treasury. But the money received would not be returned to the owners. The money was distributed to the townspeople. These specific borrowings were repeated two to three times a year. The khan's government collected zakat from the Kazakhs and Karakalpaks in the amount of 1/40 for livestock, depending on the number of livestock. It is also known as the tax-torchop, which is completely arbitrarily levied on herdsmen on the right bank of the Amudarya. In this case, the tax is also levied on the owners of yantak cattle in the coastal areas. One head of sheep was taken from each herd that passed through the grove. In the Khiva khanate there are about 25 different permanent and emergency schools.

Lpons, liabilities, and taxes. These ġlpon and obligations-The amount was determined at the request of the khan and the khan's officials.gan. . The Juraalpals paid large taxes to the treasury of the Khiva khanate had to.

According to archival documents, the heavy tax policy of the Khiva khanate that such a burden fell on the masses of peasants not hard to imagine. Solií is the main source of income for

the Khiva khanatewas the source. In other words, the amount of land tax is the same as in the khanate budget.would define the jet. Taxes are a means of enrichment for tax collectors.
has been "Muhammad Rahimkhan's dissatisfaction has intensified.To change tax procedures in the wake of the uprising entered. An old tax called a tax and levied in kind (product tax) system will be abolished. Instead, it's called paralysis

The money tax has been introduced. "" Muhammad Rahimkhan arbitrarily-lost the plunder, established a permanent order in tax collection medicine, increased revenue. Established customs and other institutions " , - writes N. Muravev.

However, with the introduction of such procedures, looting has completely disappeared not gone. According to the archives of A.L.Kun, the customs of the khanate in the van - in the palace, in the White Mosque, in the Shohabbas Valley, in the Jalandarkhana, Jipchak, Kuhna in Urgench, Hiloli in Shari, Uzabot. Pishkonik, in karakul again located in Beshariada. The governors of each district officials who collect taxes and zakat, taking his account the destinations are marked. In the first quarters of the XIX century from the Karakalpaks left and zakat obtained only naturally. New by Muhammad Rahimkhan Since the introduction of the tax system, the monetary tax has been "left" was taken. However, rivers, canals, and lakesfrom semi-shared peasant farmers living in It was very difficult to collect taxes from incense and Karakalpak peasants. That is why the Uzbeks of this semi-settled island are Turkmen and Kazakhs.

The amount of tax to be levied on Karakalpaks. About him A.L.Kun states, "Muhammad Rahimkhan has eliminated all disputes. agreed with the Karakalpak elders for dental purposes:
1.No matter how much land the Karakalpaks use, the khan every year
They pay 20,000 small gold coins;
2.They send 2,000 soldiers to the khan.
3.6,000 people are hired for general work every year, ”he wrote.

Such a determination of the amount of tax in Khorezm, called the "solgut cut." Collection of documents of Khiva state archive the number of notebooks with taxes from Karakalpaks in the lecture In the 60s of the XIX century it reached 12. 3 of them have reached us.gan. However, the island lasted from the first quarter of the XIX century to 1860 Uzbeks, Turkmens and Karakalpaks Most of the riots took place in 1855-1859. burned by the Nazis. In existing notebooks 20,000 gold tax from Karakalpaks to their tribes chiefs beklarbegi, aqtali, biy, centurion, deputies is shown. Taxes on tribal farming the number is distributed according to the amount of land owned.

The Khiva State Archive has such documents in the form of applications, letters,“they have 20,000 Karakalpaks every year for several years reported that they had not been able to pay the "gold bar" in full. information is given. At the same time, the officials of this tribe, the clergy, owns the bulk of the land, under which the tenant dexí-they were exploited. From the above data it can be concluded that Karakalpak-

Some of the tax documents are black. while the amount of tax levied on hats, some a tax levied on fourteen tribes or bell ethnic groups indicated the amount of Less than $ 20,000 in taxes paid First of all, I have to pay for it second, the same amount of tax in the same year. it means that he has paid and the rest is in his care. Tax- The unpaid portion of is written in the fraction book. Also in Khiva khanate there were specific rules of tax collection. A. L. Kunin the archives of the tax from the time of the opening of the cocoons, and so on procedures. Including taxes previously reported to taxpayers through a special person, he it was called a runner.

Everyone because of the time it takes to pay taxes he would take a coin from the beginning. The taxpayer pays 1.5 -2 coins to the tax collector had to give. If the tax is not withheld within 8 months, it is doubled was increasing. If the taxpayer miscalculates the tax to pay 9 tenge to the office if he applies to higher authorities had to. Everyone who casts their eyes upon it, wants a go added a coin at the expense of a gold coin. Usually October every year from the month of (aqrab) to four months, half of the tax, and another four months Then collect the other half, that is, until May of the following year order was followed. This means that the relevant tax must be paid within 8 months. was a mine. Therefore, the documents do not specify the amount of tax paid by Karakalpaks.

The drug is indicated differently. In addition, natural disasters (disasters) water years of floods, droughts, and plagues Karakalpakstan in the face of the plight of its people. Officials would again have to give in to the public. They are khan, bird,

The tax liability to the Devonbegi is 3000-5000 gold out of 20 thousand gold-The severity of the condition is due to the fact that it is less productive.They would send letters of petition, asking them to write that they were suffering.

From the time of Muhammad Rahimkhan to the first quarter of the XX century all three Karakalpak farms provided one digger. If you dig a If he didn't come to dig, he would pay five gold coins. Half of the archive documents man, the words of a half-digger are said to refer to money, 2.5 gold meaning. Every tenth Uzbek is a dekhkan committed to provide a digger for the land of the tanob. Agar: 5 ta- a half-digger if the nob land, and a quarter digger if less. Money relatively 5 gold, 2.5 gold or less.

In short, the documents show that the Khiva Khanate of Karakalpakstan The so-called "solgut cut" tax paid in the early 19th century 20,000 small gold coins were marked by Muhammad Rahimkhan Until 1873, the khans of Khiva collected the same amount of taxes and became Karakalpaks has ruthlessly crushed its workers. But 20 thousand of them years of high gold taxes. 20 thousand small of tax only the khan could decide whether it was less than gold.

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RESEARCH OF POTASSIUM FERTILIZERS AND THEIR RAW MATERIALS

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Annotation: Information on potassium fertilizers and their derivatives is provided. Potassium crops and raw materials and methods of their use are given. Potassium minerals and their useful properties are mentioned.

Keywords: Potassium fertilizer, phosphorus, potassium chloride, potassium salt, buds, vegetative, immune.

Potassium fertilizers are very important for plants along with phosphorus and nitrogen fertilizers, because potassium is an important element for them and is one of the three whales in which the whole vital potential of any organism is preserved, so you can in which case you should not neglect the application of potassium fertilizers. On top of that, there are many fertilizers that contain potassium, and you can choose the most suitable soil type for your site and the plants that grow on it.

What are potassium fertilizers? These potassium-containing fertilizers are derived from potassium ores, which are mined openly by nature. Potassium fertilizers can be applied to any soil, including chernozem, clay soil, sandy loam and sandstone. Potassium fertilizers enrich the soil with potassium and contribute to the normalization of sugar transport through plant tissues, thereby ensuring the full flow of nutritional processes, which in turn is well developed to meet the diversity fruits, berries, vegetables. In addition, potassium as an element regulates the growth of leaf mass, when it is abundant in the soil, the plants have a strong harmful immunity, which allows them to reliably resist pests and various diseases. Fruits formed on plants grown in potassium-rich soils are usually much better preserved in winter. Interestingly, the potassium in potassium fertilizers is almost absorbed by plant organisms when they enter the soil with them. Potassium fertilizers, especially potassium fertilizers, are also very compatible with other minerals, and this leads to the formation of complex fertilizers. Potassium fertilizers are now produced in large quantities. Let's talk about potassium chloride. The chemical formula of potassium chloride is KCl. The name scares many, what it can be - what kind of fertilizer contains chlorine, which is toxic to all living things. However, not everything is so bad, in addition to chlorine, this fertilizer contains up to 62% potassium, and this is obvious. Potassium chloride should be added in advance to neutralize the chlorine in the soil to prevent damage to the plants. Potassium chloride is a suitable potassium fertilizer for many berry crops, but in the fall, if it is planned to plant berry or fruit crops in this area, the most appropriate use of it should be applied in the fall. Before planting, do not add potassium chloride to planting holes or holes, which can have a very negative effect on plants. This fertilizer has another name - potassium sulfate. The chemical formula of potassium sulfate is $K_{2\ 2\ 4}$. Most gardeners, gardeners and even gardeners agree on one point: Potassium sulfate is the best potassium fertilizer, it usually

contains up to 50% potassium. Among the large number of fertilizers containing this element is only potassium sulfate, which does not contain toxic substances, does not contain chlorine, sodium and magnesium. Among other things, potassium sulfate is allowed to mix with other fertilizers, and this does not cause any harm to the plant organism. Of course, do not abuse the doses and it is recommended to calculate them depending on the needs of a particular plant organism, soil composition and season. Typically, in the fall, when digging the soil, you need to make about 28–32 g of potassium sulfate per square meter, in the spring, before planting, it is recommended to reduce the amount of fertilizer to 4–6 g per square meter. Potassium sulfate can be applied as a fertilizer not only in open ground, but also in greenhouses and greenhouses. By using potassium sulfate, you can slightly increase the amount of sugar in fruits and berries, improve their taste, flavor, and increase the vitamin content. With the introduction of potassium sulfate, the plant's immunity is enhanced and their resistance to various stress factors increases. It is noted that after the application of potassium sulfate, fruits collected from plants growing in fertilized soil rarely suffer from gray rot. The composition of this fertilizer consists of two substances - potassium chloride and sylvinite. By the way, potassium salt is obtained by banal mixing of these two components. Potassium in this fertilizer is about 42%. There is another type of potassium salt on the market - it is mixed with potassium chloride kainite and its potassium content is low (by 10%. In terms of high wear, potassium salt is more negative than potassium chloride and its use under plants is not recommended, especially they if sensitive to chlorine. Potassium salt is most suitable for fertilizing sandy soils, sandy loams, peat soils, as these soils are more likely than others to be deficient in potassium in their composition. Add specific potassium salt to the soil in the fall and it is recommended to use it as a basic fertilizer, but not as the best seasonal dressing. Typically, 35 to 45 g of potassium salt per square meter is applied per square meter of soil, depending on the availability of potassium. Swelling is not recommended. Properties of potassium carbonate. The more “popular” names for this fertilizer are potassium carbonate, or more simply, potassium. The chemical formula of potassium carbonate is K_2 CO_3 . This potassium fertilizer, as well as potassium sulfate, has no harmful ingredient like chlorine at all. Potassium is one of the newest potassium fertilizers. This fertilizer contains 56% potassium, very little magnesium and sulfur. Potassium carbonate is the most common fertilizer in the cultivation of potatoes. The dose of this potassium fertilizer in the soil varies depending on the season and the purpose of application. So, for example, in the form of top dressing you can add 14-16 to 19-21 g per square meter, when enriching the soil with potassium in the fall, you can add about 40-60 g per square meter of soil, in the spring when using a **dog,** you can significantly increase the rate and deliver up to 80-95 g per square meter. By fertilizing in late autumn, about 20 g of potassium can be added to the soil. Potassium carbonate is obtained by treatment of rock potassium salts. This fertilizer is actually a by-product of the processing of nepheline and aluminum. Many do not know, but can be obtained independently of potassium carbonate, for example, from ash or plants. About potassium crops. Dealing with the most common potassium fertilizers, let’s now look at crops that need to be dressed with more potassium than others. Let’s start with tomatoes, usually to get a ton of tomatoes you need to add half a quintal of potassium to the soil. The numbers seem big, but in reality it’s not much. Given that tomatoes have a very negative effect on new organic fertilizers and damage the vegetative mass of the crop, it is the most sensible way out of this situation. Potassium is ash as a mineral fertilizer. Subsequent flowering crops: these plants have a slow development with a lack of potassium, partial or complete shedding of the leaf blades, a decrease in the size of the buds, and the flowering period

itself. With the abundance of potassium fertilizers in the soil is observed the development of shoots, the formation of different and generally plant-specific buds. Generally, it is recommended to make fertilizers that contain potassium in the composition of plants, both during planting and during flowering. The best dressing of perennial flowering plants is usually done in both autumn and spring. Only potassium sulfate and fertilizers containing potassium, but no chlorine are used. Potassium fertilizers containing chlorine - potassium salt, potassium chloride - can be applied only to the soil planned for planting in autumn and spring; then in the winter the chlorine can be neutralized in the soil, and in the spring such fertilizer will not harm the plants. Chlorine-containing fertilizers are good because they contain large amounts of potassium, which means the ability to save fertilizers and enrich the soil with large amounts of potassium. Of course, the amount of any fertilizer should be strictly controlled depending on the level of supply of the soil with this or that element. For example, if the soil is deficient in potassium, it is better not to apply fertilizer several times higher than recommended immediately, it is better to enrich the soil with potassium throughout the season, introduce it in small doses and dissolve in water. Alternatives to water-soluble and dry potassium fertilizers are allowed and may even be encouraged. For example, at the beginning of the season, when the soil is rich in moisture, you can add 12–16 g of potassium sulfate per square meter, and the next application to complete the same dose after a month, but it is soluble in water; It is more effective than a single meal at a dose of 20-30 g.

Conclusion

So it is impossible to dissolve potassium, it is a very important element, so it is also very important to feed them. With a lack of potassium in the soil is impossible to get high yields and delicious fruits and berries. Try to use potassium fertilizers correctly: apply chlorine-containing potassium fertilizers only in the fall; it is important to understand this chemical element enough and use it properly.

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EQUATION, IDENTITIES, EQUIVALENT EQUATION, EQUATION WITH ONE UNKNOWN OF THE FIRST ORDER, FRACTIONAL RATIONAL EQUATIONS AND THEIR SOLUTION

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Annotation: This article is considered to be an article with full information about high-level equations and various equations. Article writing is carried out in accordance with the procedure and given the necessary examples.

Key words: system of differential equations, system is referred, Order differential equations

Introduction

If the question of finding not one unknown function, but several unknown functions in one lump, is put, then in general, the issue is limited terms-equations, too, it will be necessary to have several. If the equations of matter consist of differential equations, then we can talk about a system of differential equations.

If the order of the derivative in each equation of the system does not exceed 1, the system is referred to as a system of bi-rank differential equations. A system of two first order differential equations with two unknown functions, usually,

$$\varphi(x, y_1, y_2, dy_1/dx; dy_2/dx) = 0$$
$$\varphi(x, y_1, y_2, dy_1/dx; dy_2/dx) = 0 \quad (4)$$

The laying of the Koshi issue for an equation is naturally summarized for a system of differential equations. For example, (4) the issue of Koshi for system is a beginning

$$y_1(x_0) = y_1^0, y_2(x_0) = y_2^0$$

Any higher order differential equation or system of equations can be brought to the system of First Order differential equations.

Equation-a mathematical equation that indicates the interrelation of two or more expressions. From equations it is used in all theoretical and practical fields of mathematics, as well as in physics, biology and other social sciences.

This is the first time that the equality sign is used (14 xs+15=71). From Robert record's book" The Witte Lightning "("the Whetstone of Witte") (1557).

In the equation there will be one or more unknown values and they will be called variables or unknowns. Unknowns are usually denoted by letters or other signs.

Equations are named according to the number of variables in them. For example, one variable equation, two variable equation, etc.

Differential equations are equations in which unknown functions, their different ordinal derivatives and variables are involved. In these equations, the unknown function is defined by means of i, in the first two i is the relation of one masculine variable to t, and in the latter to X, t and x, u, z, respectively. The theory of differential equations began to develop simultaneously with the emergence of a differential and integral calculus at the end of the 17th century. The

differential equation is of great importance in mathematics, especially in its applications. Examination of various issues of Physics, Mechanics, economy, technique and other spheres leads to the solution of the differential equation. 2. A special derivative differential equation is an important feature of these equations that differs from a simple differential equation in that the sum of all their solutions, that is, the "total solution", depends not on the optional variables, but on the optional functions; in general, the number of these optional functions is equal to the order of the differential equation; and the number of their Solving an unknown 1-order private derivative Differential Equation leads to the solution of a simple differential equation system. In the theory of a private derivative differential equation in which the order is suddenly higher, various boundary issues in a cathode with the Koshi issue are checked.

In the vast majority of cases, several functions may be required to describe a single process or event. This results in multiple differential equations that form functions system. Such a system is called a system of differential equations. Depending on the order of the yield, this system can be a system of first, second and N - th order equations. T argument in solving many issues, unknown x1, x2, ..., X1=x1(t), x2=x2(t), which satisfies the system of differential equations containing xn functions and their derivatives ..., xn=xn (t) required to find functions.

Materials And Methods

If each equation of the system is a first-order differential equation and has a first-order (linear) relation to the product, then such a system of N-ta nominal, n-ta differential equations is called a normal system and is written as follows.

$$\begin{cases} \dfrac{dx_1}{dt} = F_1(t, x_1, x_2, \ldots, x_n), \\ \dfrac{dx_2}{dt} = F_2(t, x_1, x_2, \ldots, x_n), \\ \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \\ \dfrac{dx_n}{dt} = F_n(t, x_1, x_2, \ldots, x_n), \end{cases}$$

The first order can be attributed to a system of N-ta differential equations, to a single differential equation with N-order. To do this, we support the method of eliminating the unknowns in a row. This method is carried out with a combination of differentiation and reduced series of unknowns. In fact, we distinguish one equation of N by x, for example, the first one.

$$\frac{d^2y_1}{dx^2} = \frac{\partial f_1}{\partial x} + \frac{\partial f_1}{\partial y_1}\cdot\frac{dy_1}{dx} + \frac{\partial f_1}{\partial y_2}\cdot\frac{dy_2}{dx} + \ldots + \frac{\partial f_1}{\partial y_n}\cdot\frac{dy_n}{dx},$$

or

$$\frac{d^2y_1}{dx^2} = \frac{\partial f_1}{\partial x} + \frac{\partial f_1}{\partial y_1}\cdot f_1 + \frac{\partial f_1}{\partial y_2}\cdot f_2 + \ldots + \frac{\partial f_1}{\partial y_n}\cdot f_n,$$

Rational equation is an equation made up of rational expressions. If f(x) and g(x) are rational expressions,

The equation is called a rational equation. The equation is called the whole equation, if f(x) and g(x) are whole expressions. If f(x), g(x) is a fractional expression of at least one of the expressions, then f(x)=g(x) is called a rational equation or a fractional equation. Linear, quadratic equations are whole equations.

e equation

which has four terms, and right-hand side , consisting of just one term. The names of the variables suggest that *x* and *y* are unknowns, and that *A*, *B*, and *C* are parameters, but this is normally fixed by the context (in some contexts, *y* may be a parameter, or *A*, *B*, and *C* may be ordinary variables).

Results And Discussions

An equation is analogous to a scale into which weights are placed. When equal weights of something (e.g., grain) are placed into the two pans, the two weights cause the scale to be in balance and are said to be equal. If a quantity of grain is removed from one pan of the balance, an equal amount of grain must be removed from the other pan to keep the scale in balance. More generally, an equation remains in balance if the same operation is performed on its both sides.

In Cartesian geometry, equations are used to describe geometric figures. As the equations that are considered, such as implicit equations or parametric equations, have infinitely many solutions, the objective is now different: instead of giving the solutions explicitly or counting them, which is impossible, one uses equations for studying properties of figures. This is the starting idea of algebraic geometry, an important area of mathematics.

Algebra studies two main families of equations: polynomial equations and, among them, the special case of linear equations. When there is only one variable, polynomial equations have

the form $P(x) = 0$, where P is a polynomial, and linear equations have the form $ax + b=0$, where a and b are parameters. To solve equations from either family, one uses algorithmic or geometric techniques that originate from linear algebra or mathematical analysis. Algebra also studies Diophantine equations where the coefficients and solutions are integers. The techniques used are different and come from number theory. These equations are difficult in general; one often searches just to find the existence or absence of a solution, and, if they exist, to count the number of solutions.

Differential equations are equations that involve one or more functions and their derivatives. They are *solved* by finding an expression for the function that does not involve derivatives. Differential equations are used to model processes that involve the rates of change of the variable, and are used in areas such as physics, chemistry, biology, and economics.

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STUDYING THE EFFECT OF BENTONITES AVAILABLE IN UZBEKISTAN TO IMPROVE PHYSICAL, CHEMICAL AND PRODUCTIVE PROPERTIES

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Annotation: This article provides basic guidelines for studying the effects of bentonites available in Uzbekistan to improve the physicochemical and product properties of ammonium nitrate, as well as various updated data and experiments.

Keywords: Ammonium nitrate, Nitrate root in nitrate ion, Physicochemical properties of nitrate

AMMIAKLI SELITRANING FIZIK-KIMYOVIY VA MAHSULOT XOSSALARINI YAXSHILASH UCHUN ÕZBEKISTONDA MAVJUD BÕLGAN BENTONITLARNING TA'SIRINI ÕRGANISH

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Annotatsiya: Ushbu maqola ammiakli selitraning fizik-kimyoviy va mahsulot xossalarini yaxshilash uchun õzbekistonda mavjud bõlgan bentonitlarning ta'sirini õrganish bo'yicha asosiy ko'rsatmalar va turli xil yangilangan malumotlar va tajribalar keltirilib o'tilgan.

Kalit so`zlar: Ammiakli selitra, Nitrat ionidagi azot ildiz, nitratning fizik-kimyoviy xususiyatlari

Kirish:

Ammiakli selitra ko'plab bog'bonlar va agronomlar faol o'sishi davrida o'simliklar uchun azotning asosiy manbai sifatida tanlangan. Bu uning ko'p qirraliligi bilan bog'liq: u deyarli barcha ekinlarni boqish uchun teng ravishda tatbiq etilishi mumkin va u ko'plab tuproq turlariga ham javob beradi. Ammoniy nitrat formulasining o'ziga xos xususiyati azotning ikki shaklda mavjudligi - nitrat va amid - $NH_4Yo'q_3$. Shuning uchun o'simliklar tomonidan tuproqdan assimilyatsiya davri biroz uzaytiriladi. Nitrat ionidagi azot ildiz kiritilgandan so'ng darhol so'riladi, lekin amit ovqatlanishdan keyin bir hafta oldin emas.

Ushbu go'ngni olishning texnologik jarayoni juda murakkab va bir necha bosqichlarni o'z ichiga oladi:

1. Dastlab nitratning fizik-kimyoviy xususiyatlarini yaxshilaydigan magnezium nitrat (magneziya qo'shimchalari) eritmasi oling:
Bu jarayon taxminan 80 ° S haroratda va atmosfera bosimida 4 soat davomida amalga oshiriladi.
2. Nitrik kislotani neytrallash ammiak bilan eritma shaklida ammoniy nitrat hosil bo'lishiga olib keladi. Bu jarayon atmosfera bosimida va 148-165 ° S haroratda amalga oshiriladi.
3. Ammoniy nitrat eritmasi neytralizatorga kiradi, bu erda nitrat kislota ortiqcha gazli ammiak bilan neytrallanadi. Ishqoriy muhitni saqlash uchun magneziya qo'shimchalari eritma ichiga kiritiladi va bug'lanish va granulyatsiya bosqichiga yuboriladi

Ammiakli selitra pembemsi, sariq yoki kul rangli oq granüller shaklida mavjud. Diametri 3,5 mm ga etadi.

Qishloq xo'jaligida ammiakli selitra ishlatiladi. Buning sababi shundaki, o'g'it darhol ishlay boshlaydi va sovuq havoda ham samarali ta'sir ko'rsatadi.

Erga borib, ammiakli selitra ajralib chiqadi va o'simlik hayoti uchun juda muhim bo'lgan azotni chiqaradi. Fidanning to'liq rivojlanishi va yashil massani ko'paytirish uchun azot talab qilinadi. Ushbu moddaning etishmasligi tufayli o'simliklar zaiflashadi. Azot etishmasligi ammiakli selitra bilan tezda to'ldirilishi mumkin.

Ushbu agrokimyoviy paketlar yoki ommaviy ravishda sotib olish mumkin. Bu arzon - 1 kg uchun 25-30 rubl. Agar eritgichni qabul qilish darajasi 1 kvadrat metr uchun 10 g ni hisoblasak. m., unda tuproq usti tuprog'i 1 kg gacha bo'ladi.

Tarkibi quyidagi moddalarni o'z ichiga oladi:

Elementlarning ulushi o'g'itning o'ziga bog'liq. Bunday yuksak oltingugurt miqdori, u holda, o'simliklar azotni assimilyatsiya qila olmaydi.

Tarkibi boshqa iz elementlarini (magniy, kaltsiy, kaliy) o'z ichiga olishi mumkin. Ular qo'shimcha ravishda tuproqni oziqlantiradi. Ammiakli selitra universaldir, unda azotning yarmi amid shaklida, ikkinchisi nitrat shaklida ifodalanadi. O'simliklar zudlik bilan nitratlarni absorbe qiladi, amidlar bir hafta o'tgach ishlashga kirishadi va shu bilan uzoq vaqt davomida ovqatlanish samarasini beradi.

Ammiakli selitratlarning xususiyatlari quyidagilardan iborat bo'lishi mumkin:

1. Granulalar higroskopik, ya'ni suvda tezda eriydi.
2. Go'ngni siqilgan. Bunga yo'l qo'ymaslik uchun, ohak bilan bo'g'oshi qo'shimcha elementlar manbai bo'lgan selitra qo'shiladi.
3. Saltpeter portlovchi moddalardir, lekin bu xususiyat balast moddalari (tebranish bilan bir xil limon) bilan neytrallanadi.
4. Granulalarning sirtlari sirt faol moddalar bilan qoplangan. Bu ularning hidrofobikligini ta'minlaydi.
5. Deyarli har doim bu agrokimyoviy turli elementlarning qo'shilishi bilan hosil qilinadi. Bu turli xil iqlim zonalarida ammiak selitrasi ishlatilishi mumkin bo'lgan katta assortimentni ta'minlaydi.

Quyidagi turdagi o'g'itlar ajratiladi:

1. Oddiy ammiak. Bunday kiyinishni karbamid kabi tinchgina almashtirish mumkin. Azotli kontsentratsiyali ovqatlanishni ta'minlaydi. O'rta kengliklarda etishtirilgan ekinlar uchun mos keladi.
2. "B" belgisi. Yopiq o'simliklar va o'sayotgan ko'chatlar uchun ishlatiladi.
3. Kaliy nitrat. Azotga qo'shimcha ravishda kaliy ham o'z ichiga oladi. Gullash ekinlari va meva hosil qilishda foydalaning.

4. Magniy nitrat. Sabzavot va loviya uchun qo'shimcha magniy manbai bo'lib xizmat qiladi. Qumli va g'ishtli tuproqlarga mos keladi.
5. Kaltsiy nitrat. U tuproqni kaltsiy bilan to'yingan, ko'pincha sodali tuproqlarda ishlatiladi. Yuqori rentabellikga ega va mahsulotning saqlash muddatini oshiradi.
6. Limy. Yuqoridagi minerallarning uchtasini o'z ichiga oladi. Granulalar yuqori quvvatga ega va tuproqning kislotaliligini oshirmaydi.
7. Natriy nitrat. Kartoshka va lavlagi uchun ideal.

Bundan tashqari, bariy va gözenekli nitrat mavjud. Fermada ular foydali emas, chunki ular portlovchi hisoblanadi. Ular portlovchi moddalar va pirotexnika vositalari uchun ishlatiladi.

Har qanday o'g'it o'simlik turlarini, tuproq turini, iqlimini va agrokimyoviy xususiyatlarini hisobga olgan holda ishlatilishi kerak. Agar siz bu fikrlarni hisobga olmaganda, unib-o'sishi mumkin.

Ammiakli selitra ko'plab turlarga ega, shuning uchun har qanday tuproqlarga mos keladi. Agar tuproq normal tarkibga ega bo'lsa, unda o'g'itni qo'llashdan keyin u o'zgarmaydi. Podzolik tuproqda engil kislotalovchi ta'sirga erishish mumkin.

Barcha turlar suvda eruvchan kristall shaklida bo'ladi. Ular qishloq xo'jaligida ishlatiladigan mineral azotli o'g'itlarning 20 dan ortiq turlarini yaratish uchun asosiy tarkibiy qism bo'lib xizmat qiladi. **Saltpeter quyidagi xususiyatlarga ega:**

1. Eshishga yaroqli. Issiqlashganda, tarkibini o'zgartiradi va nitritlar va kislorodga aylanadi.
2. Antibakterial, saqlovchi va dezinfektsiya qiluvchi xususiyatlar mavjud.
3. Mahsulotlar shu kabi ko'rinishga ega. Odatda oqartiradi. Qo'shimchalar biroz sarxushlik keltiradi. Ko'zdan kechirish qiyin.
4. Odatda hidsiz. Kichik miqdordagi suv bilan iste'mol qilingan vaqtda mahsulot muayyan miqdordagi miyazlarni ajralib chiqadi va chiqaradi.

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INVESTIGATION OF THE CRYSTALLIZATION PROCESS IN THE PRODUCTION OF INORGANIC SUBSTANCES

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Abstract

Crystallization is the process by which a solid forms, where the atoms or molecules are highly organized into a structure known as a crystal. Some of the ways by which crystals form are precipitating from a solution, freezing, or more rarely deposition directly from a gas. The following article looks into the process of crystallization.

Key words: Crystallization, gas, freezing, precipitation, cooling, molecule, atom.

Crystallization is the process of arranging atoms and molecules into a rigid crystal lattice with a well-defined energetically stable structure. The smallest structural element of the crystal lattice is a cell. It is capable of accepting atoms and molecules, and due to this property, a macroscopic crystal is formed. During crystallization, atoms and molecules are joined together at specific angles, forming a characteristic crystal shape with smooth surfaces and faces. Although crystallization occurs naturally, it also has wide industrial applications. It is used in the separation and purification phase in the production of pharmaceutical and chemical products.

Crystallization and precipitation

The conditions of the crystallization process directly affect the size and shape of the crystals and the purity of the crystalline product. It is important to understand the essence of the crystallization process and correctly select its parameters. This will allow you to obtain uniform crystals of the desired size, shape and clarity, as well as prevent problems in subsequent stages, such as too long filtration time or insufficient drying.

Application

Crystallization is widely used to produce a variety of products we need, from food and medicine to fuel. Most products from the agrochemical and pharmaceutical industries undergo several crystallization stages during development and production. This process produces key food ingredients such as lactose and lysine. However, unwanted crystallization can be dangerous - for example, crystallization of gas hydrates in deep water pipelines.

Basic concepts of crystallization

Crystallization is the process of the formation of a solid phase in the form of crystals from solutions or melts.

Crystal— a body whose particles (atoms, ions or molecules) are located in a three-dimensional periodic structure that takes the natural form of a polyhedron.

Sedimentation - a synonym for crystallization, however this term is most often used in relation to crystallization, which occurs very quickly as a result of a chemical reaction.

Solubility - property of a substance, its amount that can dissolve in a given solvent at a given temperature.

Saturated solution - a solution containing the maximum amount of a substance that can dissolve in a given solvent at a given temperature. Crystallization takes place in a saturated solution. The amount of a substance dissolved at that time is determined by its solubility.
Supersaturation - the difference between the real and equilibrium concentration of the solute at a given temperature.
Crystallization types
Crystallization occurs when the solubility of a substance in solution decreases in some way. Standard methods for reducing solubility:
a) cooling;
b) adding an anti-solvent;
c) evaporation;
d) reaction (precipitation).
The choice of crystallization method depends on the equipment available, the objectives of the crystallization process, the solubility and stability of the solute in the selected solvent.
Difficulties in crystallization
Typical Crystallization Difficulties
Crystallization occurs due to several interrelated processes, the course of which is influenced by the selected parameters. Main steps:
the formation of active centers (nucleation);
height;
the formation of a new liquid phase;
agglomeration;
disintegration of agglomerates;
the formation of polymorphic modifications.
These processes, which often take place in a latent form, have a key influence on the result of crystallization. LBy raising the temperature, completely dissolve the product in the solvent. Undissolved impurities can be removed from the hot solution by filtration. To reduce solubility, use refrigeration, addition of an anti-solvent, evaporation, or a precipitation reaction. The solution will become oversaturated. Crystallize the product. When the solubility decreases to a certain point, nucleation and crystal growth begins. During this process, crystals of a high purity product are formed. Impurities will remain in the solution. Allow the system to reach equilibrium after cooling (or using another crystallization method). Filter and dry the finished product.

Recrystallization

Basic parameters and transformations during crystallization. Crystals have many characteristics, but perhaps the most important of them is the crystal size distribution. The quality of the final product and the efficiency of the process of obtaining it largely depend on this parameter. The size and shape of crystals directly affects the main technological stages following crystallization - filtration and drying. The final crystal size also determines the quality of the crystalline product. For example, the smaller the crystals obtained, the higher the bioavailability and effectiveness of pharmaceutical compositions, since they dissolve better.
The dispersion of crystals can be optimized by careful selection of conditions and parameters of the crystallization process. In order for a crystalline product to acquire the desired properties, it is important to understand how the process parameters affect the main transformations during crystallization - the formation of nuclei (nucleation), growth and decay of crystals.

The dispersion of ice crystals, for example, affects the taste and texture of ice cream: for example, crystals smaller than 50 microns are preferable to crystals larger than 100 microns. It also affects the technological properties of sprayed agrochemicals: their particles must be small enough not to clog the nozzles when spraying, but large enough so that they are not carried away to neighboring fields.

When scaling up, obtaining a crystalline product of the required size and shape at the lowest cost is possible only if all the nuances of crystallization are understood.

Crystallization equipment

Process analytical technology for the development of crystallization processes

The crystallization workstation allows scientists to get the most out of each experiment with a centralized software solution. Process Analytical Technology (PAT) Tools:

The automated EasyMax, OptiMax and RX-10 reactors and the RC1 reaction calorimeter provide continuous (24/7) and accurate control and recording of process parameters, including enthalpy of crystallization values, so scientists can accurately determine critical process parameters (CPP).

EasyViewer is a high resolution imaging probe and analysis tool. EasyViewer calculates the characteristics of dispersions of crystals, particles and droplets in the natural form in which they are in the process environment.

ParticleTrack is a particle size and number analyzer. The statistically reliable characterization of the properties of dispersed systems obtained with its help contributes to the successful scale-up of the process from laboratory to production in full compliance with ATEX requirements.

ReactRaman - in situ Raman spectroscopy provides information of a chemical and structural nature, which is necessary for a comprehensive study of polymorphic systems and the selection of process parameters that ensure the formation of crystals of the required shape.

ReactIR - Real-time IRFS spectroscopy provides important information about concentration and supersaturation level, metastability zone width, supersaturation release kinetics and crystallization endpoint. This data is necessary to ensure repeatability of the crystallization process and to ensure that the specified end point is reached.

IC Software - Provides interoperability between all PAT tools. All sensors and reactors can exchange information, and all analytical data (size, shape, supersaturation, etc.) can be used as process control parameters.

ON SOME PROBLEMS OF EXTREME PROPERTIES OF THE FUNCTION AND THE APPLICATION OF THE DERIVATIVE AND METHODS FOR THEIR SOLUTION

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Abstract: The education of mathematical abilities and curiosity in students and students gifted in mathematics is important for the assimilation of all subjects. At the same time, the ability to use existing knowledge to solve mathematical problems of varying degrees of complexity develops their creative potential. This article deals with some problems of various contents concerning applications of derivatives, including extreme problems (maximum and minimum problems), problems solved using extreme properties, convexity and other properties of functions, as well as questions of proving various inequalities, methods for solving them.

Keywords: derivative of a function, monotonicity of a function, convexity of a function, problem, equation, inequality, non-standard problem, root, integer value, largest value, solution.

FUNKSIYANING EKSTREMAL XOSSALARI VA HOSILANING TATBIQIGA OID BA'ZI MASALALAR VA ULARNI YECHISH USULLARI HAQIDA

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Annotatsiya: Matematikaga iqtidorli o'quvchi va talabalarda matematik qobiliyatlarni va izlanuvchanlikni tarbiyalash barcha fanlarni o'zlashtirishda muhimdir. Bunda turli mazmundagi qiyinlik darajasi yuqoriroq matematik masalalarni yechishda mavjud bilimlardan foydalana bilish ulardagi ijodkorlikni rivojlantiradi. Ushbu maqolada hosila tatbiqlariga oid turli mazmundagi ba'zi masalalar, jumladan ekstremal masalalar (maksimum va minimum masalalari), funksiyalarning ekstremal xossalaridan, qavariqligi va boshqa xossalaridan foydalanish orqali yechiladigan masalalar hamda turli xil tengsizliklarni isbotlash masalalari, ularni yechish usullari qaraladi.

Kalit so'zlar: Funksiya hosilasi, funksiya monotonligi, funksiya qavariqligi, masala, tenglama, tengsizlik, nostandart masala, ildiz, butun qiymat, eng katta qiymat, yechim.

О НЕКОТОРЫХ ЗАДАЧАХ ЭКСТРЕМАЛЬНЫХ СВОЙСТВ ФУНКЦИИ И ПРИЛОЖЕНИЯ ПРОИЗВОДНОЙ И МЕТОДАХ ИХ РЕШЕНИЯ.

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Аннотация: Воспитание математических способностей и любознательности у учащихся и студентов, одаренных математикой, имеет важное значение для усвоения всех предметов. При этом умение использовать имеющиеся знания для решения математических задач различной степени сложности развивает в них творческий потенциал. В данной статье рассматриваются некоторые задачи различного содержания, касающиеся приложений производных, в том числе экстремальные задачи (задачи максимума и минимума), задачи, решаемые с использованием экстремальных свойств, выпуклости и других свойств функций, а также вопросы доказательства различных неравенств, методы их решения.

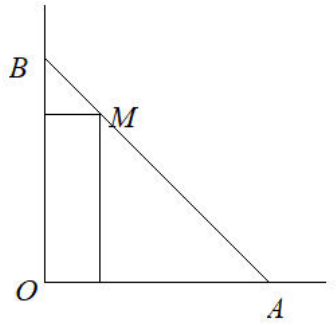
Ключевые слова: производная функции, монотонность функции, выпуклость функции, задача, уравнение, неравенство, нестандартная задача, корень, целое значение, наибольшее значение, решение.

Zamonaviy ta'limning eng muhim vazifalaridan biri shaxs tarbiyasida yangicha yondashuvni tashkil etishdir. Fikrlash va eng qulayi, eng yaxshisini izlash – bu insonning bebaho jihati bo'lib, bu jihat bolalikda va yoshlik davrida shakllanadi. Bu jarayonlarda o'quvchi va talabalarning ijodiy faollik, mustaqil fikrlash orqali bilimlarini turli masalalarni yechishga qo'llay olish ko'nikmalari rivojlanadi. Xususan, matematikaga iqtidorli o'quvchi va talabalarda matematik qobiliyatlarni va izlanuvchanlikni tarbiyalash barcha fanlarni o'zlashtirishda muhimdir. Bunda turli mazmundagi qiyinlik darajasi yuqoriroq matematik masalalarni yechishda mavjud bilimlardan foydalana bilish ulardagi ijodkorlikni rivojlantiradi. Shuningdek, hosila tushunchasi tatbiqlari yordamida turli mazmundagi ko'p masalalarni, jumladan murakkab masalarni yecha bilish - ta'lim oluvchilarning differensial hisob elementlaridan masalalarni yechishda keng foydalana olish ko'nikma va malakalarini shakllanganligini hamda matematik savodxonligini ko'rsatadi. Ushbu maqolada hosila tatbiqlariga oid ba'zi masalalar, jumladan ekstremal masalalar (maksimum va minimum masalalari), funksiyalarning ekstremal xossalaridan foydalanish orqali yechiladigan va turli xil tengsizliklarni isbotlash masalalari va ularni yechish metodlari qaraladi.

1.Ekstremal masalalarni yechishda hosilaning tatbiqlari.

1-masala. Uchlari to'g'ri burchak tamonlarida bo'lgan kesma shu burchak tamonlaridan *1* va *8* birlik masofalarda uzoqlashgan nuqtaga ega. Bunday kesmaning eng kichik uzunlikdagisini toping.

Yechish. Faraz qilaylik $OA=x$, $OB=y$ (1-rasm). x va y larning o'zaro bogliqligini mos uchburchaklar o'xshashligidan hosil qilish mumkin, shunungdek $S_{OBA}=S_{OMA}+S_{OMB}$ tenglikga ko'ra $xy = 8x+y$. Bundan $y=\frac{8x}{x-1}$ yoki Pifagor teoremasiga ko'ra $AB^2=x^2+y^2=x^2+\frac{64x^2}{(x-1)^2}$. Masalani yechish uchun



$f(x)=x^2+\frac{64x^2}{(x-1)^2}$ funksiyaning eng kichik qiymatini topishimiz kerak bo'ladi. Bu funksiya hosilasini topib, uni nolga tenglaymiz. Natijada $2x+\frac{128x(x-1)^2-128x^2(x-1)}{(x-1)^4}=0$ va uni ixchamlab $(x-1)^3=64$ yoki $x=5$ ga ega bo'lamiz. U holda $f(x)$ funksiyaning eng kichik qiymati AB^2 ga tengligidan $AB^2=(x^2+\frac{64x^2}{(x-1)^2})_{x=5}=25+\frac{64\cdot 25}{16}=125$. Bundan $AB=5\sqrt{5}$ eng kichik uzunlikdagi kesmani topamiz.

2-masala. *O* nuqtada kesishuvchi ikki perpendikulyar to'g'ri chiziq bo'ylab *O* nuqtaga qarab ikkita kema harakatlanmoqda. Vaqtning biror momentida ikkala kema ham *O* nuqtadan *65 km* masofada bo'lishadi, birinchi kema tezligi - *15 km/soat*, ikkinchisiniki - *20 km/soat*. Birinchi kemadan *25 km/soat* tezlikda motorli qayiq suzib chiqadi.

a) Motorli qayiq qanday eng qisqa vaqtda birinchi kemadan ikkinchi kemaga suzub boradi?
b) Motorli qayiq qanday eng qisqa vaqtda birinchi kemadan ikkinchi kemaga suzib boradi va orqaga birinchi kemaga qaytib suzib keladi?

Yechish. a) Faraz qilaylik motorli qayiq, ikkala kema ham *O* nuqtadan *65 km* masofada va yo'lda *T soat* bo'lgan momentdan *x soat* dan keyin, jo'nagan bo'lsin, ya'ni motorli qayiq jo'nagan vaqtda birinchi kema *O* nuqtadan *65-15x* masofada, motorli qayiq yetib kelgan momentda ikkinchi kema *O* nuqtadan
65-20(x+T) masofada bo'lib, motorli qayiqning bosib o'tgan yo'li esa *25T km* bo'lsin. U holda $(65-15x)^2+(65-20(x+T))^2=(25T)^2$ tenglamaga ega bo'lamiz. Yoki soddalashtirishdan keyin:

$$25x^2 + 32Tx - 9T^2 - 9T^2 - 182x - 104T + 338 = 0 \qquad (1)$$

ko'rinishga keladi.

Endi $T=T(x)$ deb hisoblab, (1) tenglamaning ikkala tamonini x bo'yicha differensiallaymiz va $T'=0$ deb faraz qilib (eng katta qiymatni izlaymiz) $25x+16T=91$ tenglamani hosil qilamiz. Natijada,

$$\begin{cases} 25x^2+32Tx-9T^2-182x-104T+338=0 \\ 25x+16T=91 \end{cases}$$

sistemani yechib, $x=3$, $T=1$ ni topamiz. Shunday qilib, $T=1$, T-ning eng kichik qiymatidan iborat, chunki $x=0$ da $T>1$ mos keladi.

Biroq masalani analiz metodlarisiz ham yechish mumkin. (1) munosabatni

x –ga nisbatan kvadrat tenglama deb qarash mumkin. Uning diskriminanti T ga bog'liq bo'lib, manfiy bo'lmasligi shart va T ga nisbatan,
$D=481T^2-312T-169\geq 0$ tengsizlikni hosil qilamiz, bundan $T\geq 1$. Kvadrat uchhad masalaning b) qismini yechishga ham yordam beradi.

Faraz qilaylik motorli qayiq x_1 momentda jo'naydi, ikkinchi kemaga y momentda yetib keladi va x_2 momentda qaytadi. Motorli qayiqning suzish vaqti x_2-x_1. U holda ushbu ikkita munosabatni hosil qilamiz:
$(65-15x_1)^2+(65-20y)^2=25^2(y-x_1)^2$
$(65-15x_2)^2+(65-20y)^2=25^2(y-x_2)^2$
Shunday qilib , x_1 va x_2 lar $(13-3x)^2+(13-4y)^2=25(y-x)^2$
yoki $16x^2-2(2y-39)x+9y^2+104y-338=0$ kvadrat tenglamaning ildizlari.

Bunda $x_2-x_1=\frac{\sqrt{D}}{16}$,

$D=4((25-39)^2-16(9y^2+104y-338))=4(481y^2-3614y+6929)=52(37y^2-278y+533)$

bo'lganligi uchun $y=\frac{139}{37}$, $D=52\cdot 400$ bo'lgan holda eng kichik qiymatga ega bo'ladi:

$x_2-x_1=\frac{\sqrt{52\cdot 400}}{16}=\frac{5}{4}\sqrt{52}$ *soat*.

Javob: a). *1 soat*da; b). $\frac{5}{4}\sqrt{52}$ *soat*da.

2. a)Funksiyalarning ekstremal xossalaridan foydalanishga oid masalalar.

Ba'zi masalalarni yechishda qaralayotgan funksiyalarning ekstremal xossalaridan foydalanish qulay.

3-masala. Tenglamani yeching: $x\sqrt{1+x}+\sqrt{3-x}=2\sqrt{1+x^2}$.

Yechish. Ushbu tenglamani yechish uchun $a_1a_2+b_1b_2\leq\sqrt{a_1^2+b_1^2}\sqrt{a_2^2+b_2^2}$ tengsizlikdan foydalanamiz. Bu tengsizlikning geometrik ma`nosi quyidagicha: ikki $\vec{c}(a_1,b_1)$ va $\vec{d}(a_2,b_2)$ vektorlar skalyar ko'paytmasi ular modullari (uzunliklari) ko'paytmasidan oshmaydi. U umumiy holdagi Koshi-Bunyakovskiy tengsizli-gining $n=2$ dagi xususiy holi hisoblanadi. Tengsizlikdagi tenglik $\vec{c}(a_1,b_1)$ va $\vec{d}(a_2,b_2)$ vektorlar kollinear bo'lgan holda bajariladi.

Mazkur tengsizlikka ko'ra, $x\sqrt{1+x}+1\sqrt{3-x}\leq\sqrt{1+x^2}\cdot\sqrt{(1+x)+(3-x)}=2\sqrt{1+x^2}$ ga ega bo'lamiz. Demak, $\vec{n}(x;1)$ va $\vec{m}\left(\sqrt{1+x};\sqrt{3-x}\right)$ vektorlar kollinear, yani $\frac{x}{\sqrt{1+x}}=\frac{1}{\sqrt{3-x}}$.
Bundan,

$x\sqrt{3-x}=\sqrt{x+1}$, $x^3-3x+x+1=0$ yoki

$(x-1)\left(x^2-2x-1\right)=0$, $x_1=1$, $x_2=1+\sqrt{2}$, $x_3=1-\sqrt{2}$ (oxirgi ildiz chet ildiz).

4-masala. Tenglamani yeching: $\log_{6-x}\log_2 x=\log_{7-x}\log_2(2x)$.

Yechish. Berilgan tenglamani shakl almashtiramiz: $\frac{\lg\log_2 x}{\lg(6-x)}=\frac{\lg(\log_2 x+1)}{\lg(7-x)}$ yoki

$\frac{\lg(7-x)}{\lg(6-x)}=\frac{\lg(\log_2 x+1)}{\lg\log_2 x}$ yoki $\log_{(6-x)}(7-x)=\log_{\log_2 x}(\log_2 x+1)$.

$f(t)=\log_t(t+1)$ funksiyani qaraymiz. Bu funksiyaning $t>1$ da monoton kamayuv-chi ekanligini ko'rsatamiz. Buni quyidagi usulda bajarish mumkin: $f(t)-1=\log_t(t+1)-1=\log_t\left(1+\frac{1}{t}\right)$. Natijada hosil bo'lgan $\log_t(1+\frac{1}{t})$ funksiya kamayuvchi funksiyadan iborat (ya'ni asos o'sadi, logarifm belgisi ostidagi funksiya kamayadi).

Qaralayotgan tenglamamiz $f(6-x)=f(\log_2 x)$ ko'rinishga ega va demak $\log_2 x=6-x$ tenglikdan chapda o'suvchi, o'ngda kamayuvchi funksiya turganligi uchun yechim yagona: $x=4$.

Xulosa. Funksiya hosilasi, funksiyaning ekstremal xossalarini va ulaning tatbiqlariga oid tushunchalarni yaxshi o'zlashtirgan iqtidorli o'quvchi va talabalar doimiy va muntazam ravishda ushbu maqolada o'rganilgan ba'zi qiyinroq masalalarni yechish bilan shug'ullanib, o'z bilimlarini mustahkamlab borishlari orqali mavzu doirasidagi ko'plab konkurs masalalarini yecha olish ko'nikma va malakalariga ega bo'lishadi.

Foydalanilgan adabiyotlar.

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ORTHONORMAL WAVELETS IN THE HAAR TRANSFORM

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The third and last method used in image processing, which is related to multiple-scale theory, is the Haar transform. In the context of this Chapter, the significance of this transformation is due to the fact that its basic functions (defined below) form the first and simplest known system of orthonormal wavelets. These wavelets will be used in a number of examples later.

The Haar transform is separable and symmetric and according to the discussion is written in matrix form as follows:

$$T = HFH^T \qquad (1.3.1)$$

where F is the image matrix, H is the transformation matrix, and T is the result of the transformation (each with dimensions N×N). The Superscript T indicates a matrix transposition operation; transposition is necessary because the matrix H is not symmetric.

a,b,c,d

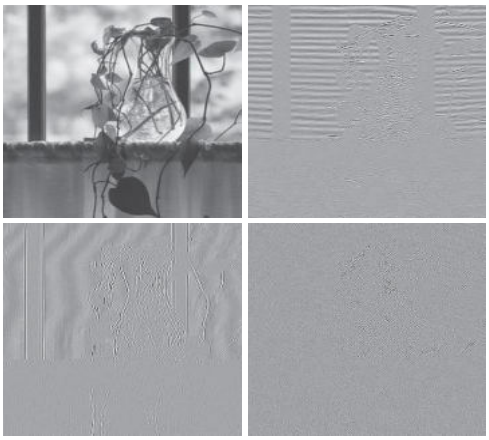

Fig.1. Decomposing the image with the vase in figure 6 using the sub-band encoding system (in figure 6) into four sub-bands: (a) approximations, (b) horizontal details, (C) vertical details, (d) diagonal details

The Haar transformation matrix H consists of Haar basis functions hk(z). These functions are defined on a continuous closed interval z ∈ [0,1] for k = 0, 1, 2,..., N-1, where N = 2n. To get H, we set an integer k such that k = 2p + q-1, where $0 \le p \le n-1$, q = 0 or 1 for p = 0 and $1 \le q \le 2p$ when $p \ne 0$. then the Haar basis functions will be

$$h_0(z) = h_{00}(z) = \frac{1}{\sqrt{N}}, \quad z \in [0,1] \qquad (1.3\text{-}2)$$

$$h_k(z) = h_{pq}(z) = \frac{2^{p/2}}{\sqrt{N}} \begin{cases} 1 & by\ (q-1)/2^p \le z < (q-0{,}5)/2^p; \\ -1 & by\ (q-0{,}5)/2^p \le z < (q)/2^p; \\ 0 & in\ other\ cases,\ z \in [0,1] \end{cases} \qquad (1.3\text{-}3)$$

The row with the number i of the Haar transformation matrix H with dimensions N×N consists of the values of the function hi (z) taken at the points z = 0/N, 1/N, 2/N,..., (N-1)/N. For

N = 2, for example, the first row of the 2×2 Haar matrix is calculated as h0(z) for z = 0/2, 1/2. According to equation (7.1-16), h0(z) is equal to 1/2 regardless of z, so that the first row of H2 contains two identical elements 1/2. The second line is obtained by calculating h1(z) for z = 0/2, 1/2. Since k = 2p + q-1, for k = 1 we have: p = 0 and q = 1. Thus, from equation (7.1-17) we get: h1(0) = 20/ 2= 1/ 2 and h1(1/2) = -20/ 2= -1/ 2. Thus, the 2×2 matrix of the Haar transformation is equal to:

If N = 4, the indexes k, q, and p take values

k	**p**	**q**
0	0	0
1	0	1
2	1	1
3	1	2

and the 4×4 transformation matrix H4 has the form

$$H_4 = \frac{1}{\sqrt{4}}\begin{bmatrix} 1 & 1 & 1 & 1 \\ 1 & 1 & -1 & -1 \\ \sqrt{2} & \sqrt{2} & 0 & 0 \\ 0 & 0 & \sqrt{2} & \sqrt{2} \end{bmatrix} \qquad (1.3\text{- }4)$$

The Haar transform is of interest mainly because the rows of the H2 matrix can be used to form the analysis filters h0(n) and h1(n) of the two-element Bank of exact recovery filters (see the previous section), as well as refinement sequences for the scaling function and wavelets of the simplest and oldest wavelet transform.

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ADVANTAGES OF CREDIT SYSTEM IN HIGHER EDUCATION

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Annotation

The institutions of higher education are in need of the infusion of a new model of education in order to keep the curriculum in pace with changing environment which includes technology adoption, changing industry requirement, changing aspiration of students and changing expectations of society. It is expected that two models and two systems of higher education are going to get importance in this changing environment. The two models of higher education which are going to be relevant in future days are Conventional classroom-based education model and Technology supported online ubiquitous education model. The two higher education systems which are expected to be attractive

Key words: Academic credit system, converted to credits, credit points

Higher education system is considered to be the most challenging in terms of access, equity and relevance, reorientation of programmes by laying emphasis on quality, values and ethics together with the assessment of institutions for their accreditation. In service sector it is the third largest in the world. The institutions of higher education are in need of infusion of new models in order to keep the curriculum in pace with changing environment which include technology adoption, changing industry requirement, changing aspiration of students and changing expectations of society. To improve the quality of education, its acceptability to youngsters, its ability to cultivate research and innovation, and keeping the pace of its contribution to the development of industry and the society, changes & innovations in higher education are essential. It is expected that two models and two systems of higher education are going to get importance in this changing environment. Higher education innovations include academic freedom to develop new curricula, design relevant courses, frame new syllabi and introduce new evaluation methods and flexibility for the students to have a greater choice of courses appropriate to their interests, needs and long-term goals higher education system is considered to be the most challenging in terms of access, equity and relevance, reorientation of programmes by laying emphasis on quality, values and ethics together with the assessment of institutions for their accreditation. In service sector it is the third largest in the world. The institutions of higher education are in need of infusion of new models in order to keep the curriculum in pace with changing environment which include technology adoption, changing industry requirement, changing aspiration of students and changing expectations of society. To improve the quality of education, its acceptability to youngsters, its ability to cultivate research and innovation, and keeping the pace of its contribution to the development of industry and the society, changes & innovations in higher education are essential. It is expected that two models and two systems of higher education are going to get importance in this changing environment. Higher education innovations include academic freedom to develop new curricula, design relevant courses, frame

new syllabi and introduce new evaluation methods and flexibility for the students to have a greater choice of courses appropriate to their interests, needs and long-term goals

An academic credit system is a standard used by universities to measure and assess students' work and effort during their Bachelor's, Master's or PhD programmer. It's important to understand how credits work and how credit points from one academic system are converted to credits from other credit systems (if possible). Sometimes students need to take preparation courses in order to meet starting credit requirements needed for university admission.

Once you officially become a student, you enter a whole new world of learning activities, teaching styles, and assessment methods.

Academic credits or university credits are also an important part of international education you will need to know more about; as it will help you better understand how your progress is evaluated during your studies or how you can transfer credits points to study at a university abroad.

When you apply to a university in the Uzbekistan, you choose your course, and some mandatory general education papers. For each paper, you earn credit hours, which are the number of classrooms hours put into that particular subject or paper.

The numbers of credits that are to be assigned to each course are decided by the professor or the university depending on the workload the course entails. While some ask for 110, some ask for 140. The number varies across universities.

For instance, let's say you take up a 3-credit hour class. This means that you have to complete 3 hours of classroom training compulsorily. Besides that, depending on the university, each credit hour will also include 2-4 extra hours of homework, projects, lab work etc. So, to be able to do well in that class and earn the credits, you will have to have to study the extra amount of time for each credit hour.

Every degree has a mandatory number of credit hours that need to be completed. The number of credit hours accumulated in under graduation courses is one of the requirements of Graduate Schools.[1]

Each grade has a numerical value attached to it. So, for an 'A' grade, you could earn, say, 4 points. For a 'B' grade, you could earn 3 points and so on. Now let us say you take a 3-credit class in English and you end up getting an 'A' grade. So, now you will have 3 credit units and 4 points which brings it to a total of 12 (3*4) grade points for that paper. Now, if you take another 3-credit class and get an 'A', you get another 12 grade points. So, you have garnered 24 grade points and 6 credit units. Now, to calculate your GPA, you simply divide your total grade points by your credit units. Here, you will get 4.0(24/6) or an 'A' grade.

However, this is not a definitive way of measuring grades for international students because different systems award grades very differently. So, if you're an international student moving to USA for your bachelors, you needn't worry. Most college staff is trained to understand credential systems of other countries and will not judge your score on the basis of the US equivalent.

Also, credits are transferable. The credits you earn while completing an associate degree are generally recognized by universities as part of their bachelor's degree requirement.

Since the associate degree only lasts two years, it usually focuses on completing the general education requirements for the bachelor's degree and emphasizes broad subjects like the

[1] https://spravochnick.ru/informacionnye_tehnologii/informacionnye_tehnologii

arts. After the completion of an associate degree, you can simply transfer your credits to a different university and continue your education there, with a greater specialization.

There are many advantages to a credit based education system – students can choose specializations, they can manage workloads better, and take control of how to pace their degree. There are some disadvantages too – if you do not have a foundation credit, you will not be allowed to take related subjects.

What do you think of the credit based education system? Would it work for you? Let us know in the comments below.

But without the latest information technology, his work would not be so effective, and therefore in the modern world, a practical psychologist cannot do without the information systems that have entered human life in the 20th century of our century. The process of informing modern society is changing traditional views on the list of skills and abilities of specialists in various fields of human activity, including practical psychologists. To date, there is no single view on how to conduct information and communication work in psychology and what strategic and tactical approaches are acceptable in the development of new and changing methods of information and communication technologies at the current level of psychological development.

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BASICS OF THRESHOLD CONVERSION OF BRIGHTNESS IN COLOR IMAGES

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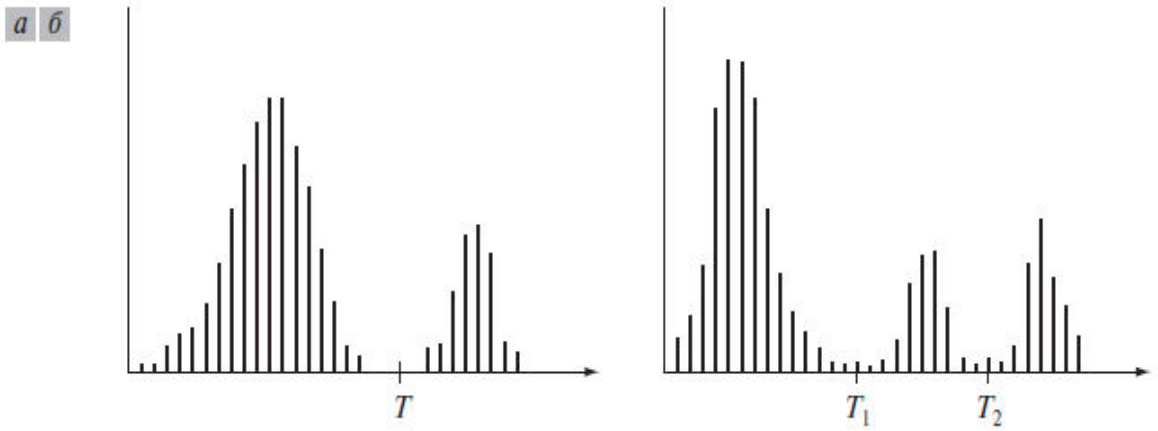
Threshold transformations occupy a central place in applied problems of image segmentation due to intuitive properties, ease of implementation, and computational speed. In this section, a more formal definition of the threshold transformation is given and on its basis much more general methods of threshold processing are constructed than are described so far.

Suppose that shown in fig. 2.3.1. (a) the histogram corresponds to some image $f(x,y)$, containing bright objects against a dark background, so that the brightness of the pixels of the object and background are concentrated near the two prevailing values. The obvious way to distinguish objects from the surrounding background is to select a threshold value T, delimiting brightness distribution modes. Then any point (x,y), wherein $f(x,y) > T$, called the point of the object, otherwise, the point of the background. In other words, a segmented image $g(x,y)$ is defined by the relation

$$g(x,y) = \begin{cases} 1, & \text{если } f(x,y) > T \\ 0, & \text{если } f(x,y) \le T \end{cases} \qquad (2.3\text{-}1)$$

If the value T since there is a constant applied to the entire image, this formula describes the so-called global threshold transformation. If the threshold value is not constant in the image, one speaks of a transformation with a variable threshold. Speaking of a threshold transformation, the terms "local" or "in the neighborhood" are sometimes used to indicate that a variable threshold T anywhere in the image (x,y) depends on the properties of the neighborhood (x,y) (for example, from the average brightness of the pixels in this neighborhood). If the threshold T depends on the characteristics of the processed image and changes with spatial coordinates x and y, then this variable threshold transformation is often called dynamic or adaptive. The use of these terms is not generally accepted, and in the literature on digital image processing they can be found in a different sense.

Fig. 1. (B) shows a more complicated case of choosing a threshold when the histogram of the image is characterized by the presence of three distribution modes (for example, if there are two types of bright objects against a dark background of the image). Here, using a multi-level threshold transformation, the point (x,y) classified as belonging to the background if $f(x,y) \le T_1$, object of one



a b

Fig. 1. Luminance histograms that allow separation by (a) a single threshold; (b) two thresholds

class if $T_1 < f(x,y) \leq T_2$, and an object of another class if $f(x,y) > T_2$. That is, a segmented image is defined by the ratio

$$g(x,y) = \begin{cases} a, & \text{если } f(x,y) > T_2 \\ b, & \text{если } T_1 < f(x,y) \leq T_2 \\ c, & \text{если } f(x,y) \leq T_1 , \end{cases} \qquad (2.3\text{-}2)$$

where a, b, c — any three different brightness values. Segmentation tasks that require more than two thresholds are difficult to solve (and are often not solved at all), and other methods, such as variable threshold processing or growing areas, usually lead to better results.

Based on the discussion above, it is possible to draw an intuitive conclusion that the success of the threshold transformation directly related to the width and depth of the depressions between the brightness distribution modes. In turn, the main factors affecting the characteristics of the depressions are: (1) the distance between the peaks in the histogram (the larger it is, the more likely it is to separate the modes); (2) the noise level in the image (as the noise increases, the distribution modes become wider); (3) aspect ratio of objects and background area; (4) uniformity of illumination; and (5) uniformity of reflection coefficient of objects and background.

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INTERNET NEWS MODELS AND MECHANISMS OF MEDIA PRODUCTS

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Abstract: As a key element of commercialization, the news segment of the Internet OAU is very complex in nature: the article is technical, the form is legal, the purpose is socio-economic. Each of its components requires the provision of serious information (information-technological, information-analytical), which is the basis of the process of commercialization of media systems.

ИНТЕРНЕТ ОАВ АХБОРОТ МОДЕЛЛАРИ ВА МЕДИА МАҲСУЛОТЛАРИНИ ТИЖОРАТЛАШТИРИШ МЕҲАНИЗМЛАРИ

Бекназаров Камолиддин Турсунпўлатович
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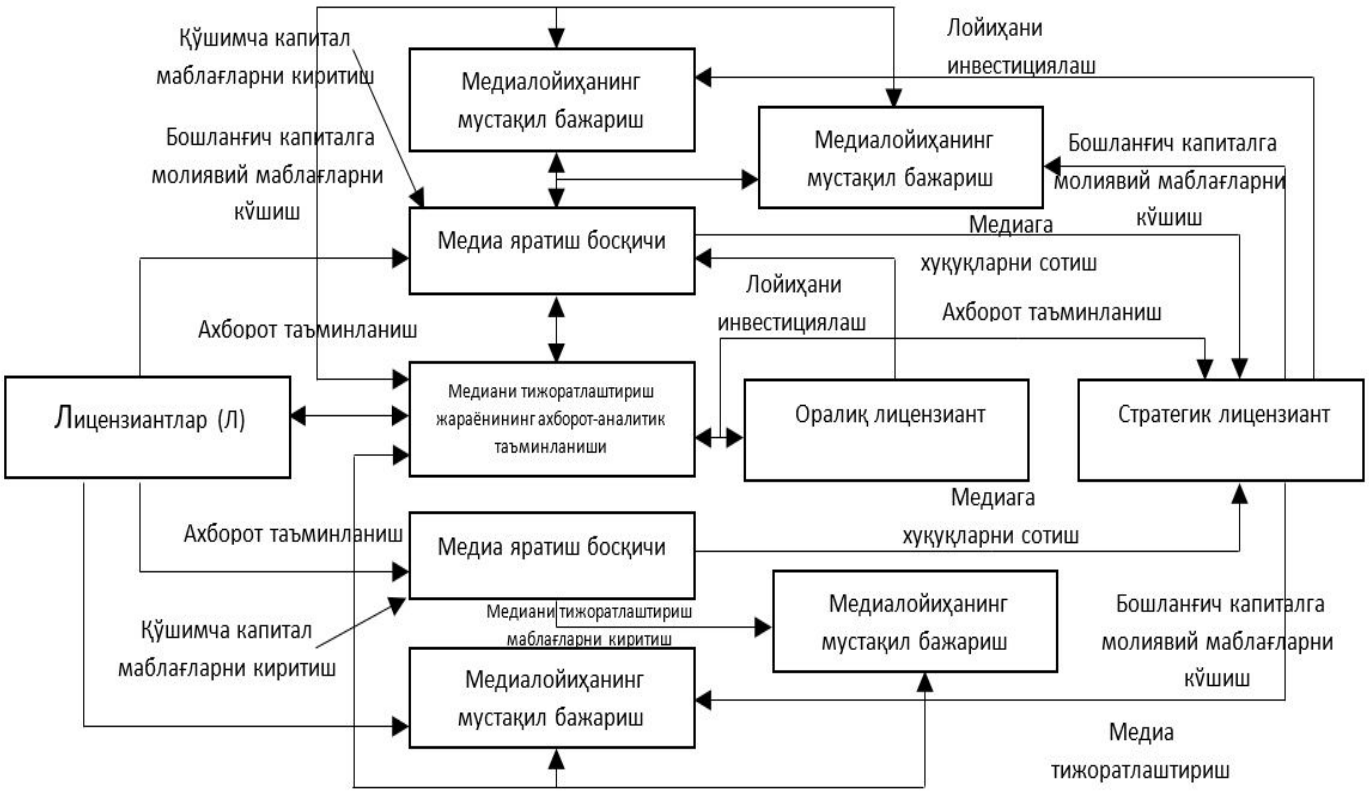
Тижоратлаштиришнинг асосий элементи сифатида Интернет-Оавнинг янгиликлар сегменти табиатан жуда мураккаб: модда техник, шакли қонуний, мақсади ижтимоий-иқтисодий жихатдан. Унинг ҳар бир таркибий қисми ОАВ тизимларини тижоратлаштириш жараёнининг асоси бўлган жиддий ахборот (ахборот-технологик, ахборот-таҳлилий) таъминотини талаб етади.

Тижоратлаштириш нуқтаи назаридан турли жараёнлар ишлаб чиқариш талабига жавоб берадиган янгиликларни яратувчи ва медиа истеъмолчиларини хохиш-истакларини қондирувчи, тижоратлаштириш учун шароит яратувчи ягона ахборот ва инновация жараёнига бирлаштирилади (1-расм). Интернет-медиа тизимларини тижоратлаштириш жараёнининга хборот-ташкилий модели тижоратлаштириш (лицензиат(Л), оралиқ(ПЛ) ва стратегик лицензиат (СЛ) субъектлари иштирокида уларни амалга ошириш вариантларини қидириш тартиби ва усулларини белгилайди.

Модель тўлиқ бўлмаган босқичлари "фикр", "медиа маҳсулот устида ишлаш жараёни", "тайёр медиа маҳсулот", шунингдек интеллектуал мулк шаклида асосий натижаларини ҳимоя қилиш бўйича хомаки ҳужжатлар билан, шу жумладан, бир медиа маҳсулот ҳаёт цикли барча босқичларида ишлатилади.

Модель медиа маҳсулотни амалга ошириш учун икки босқичга бўлинади:

1-босқич-медиа маҳсулотни якунлаш ("ғоя", "медиа маҳсулот устида ишлаш", "тайёр медиа маҳсулот" босқичларини якунлашда ва медиа фаолиятининг асосий натижаларини ҳуқуқий ҳимоя қилиш ҳужжатларини тайёрлашда иштирок етиш)



Расм 2. Медиа тижоратлаштириш жараёнининг ахборот таъминоти механизми

Ахборот ва медиа фаолиятини тижоратлаштиришни ташкилий функционал тизимининг мураккаб кўп компонентли вазифадир [Трусов А.В.]. Оммавий ахборот воситалари фаолиятини тижоратлаштириш жараёнида холатлар маконини ахборот S ва ташкилий жиҳатдан қўллаб-қувватлашни бошқариш ҳолати ихтиёрий вақт оралиғида t асосий бешта таркибий қисмни ўз ичига олади:

S_1 – бажариш учун белгиланган ва мувофиқ кутиб вазифалари (буюртмалар) мажмуи (у ташкил етилган бўлса); S_2–махсус ускуналар, дастурий таъминот фойдаланиш, иш ўринлари, ρ^A бир тўпламдаги жалб ходимлари; A; S_3 – жалб ходимлари ρ^V тўпламдан V; S_4 – кўриб чиқилаётган даврда олинган маблағлар ҳажми (жорий ой); $C_{\text{пр}}(t_y)$; S_5 – тўпланган жорий харажатлар ҳажми $C_T(t_y)$.

S_1 компонентаси S холатлар маконида кирувчи хизмат сўровлари оқимини ижро учун олинмаган буюртмалар тўпламини чеклаш учун мўлжалланган, маълум узунликдаги буюртма қилинган бит майдони деб таърифлайди. $S_2 \in S$ компонета учун бундай ёндашув биз учун номақбул яъни бошқа буйруқларга нисбатан якуний характердаги воқеалардан кейин бу тартибни қондириш жараёнида бажарилган хизматнинг сонини ўзгартириш қийинчилик тўғдиради. $S_3 \in S$ компонентасига бажарилган буйруқларнинг элементар функцияларини тақсимланишини бошқариш вазифаси юклатилади.

Бундай компонентани матрица шаклида лойиҳалаш таклиф етилади $M = |V|x|A|$, сатрлари шахсан ходимларга, устунлари - ахборотни қўллаб-қувватлаш билан шуғулланувчи ускуналарга берилади. Компонентлар S_4, $S_5 \in S$ мос равишда мустаҳкамлаш мақсадга мувофиқ $C_{\text{пр}}$ ва жорий харажатлар C_T, ахборот дастурий таъминот билан боғлиқ.

Компонентлар $S^{n_1 l n_2}$ маълумоти билан ахборот қўллаб-қувватлаш учун ариза асосий воқеалар тузатиш n_2 ёки рақам n_1 вақтида.

Тасвирлаш ва хотирада сақламаслик учун кўплаб юзлаб функцияларни ўзгартириш γ_1 и γ_2, улар келиши билан уларни автоматик шакллантириш тартиби таклиф этилади. Бунинг учун ёрдамчи маълумотларнинг айрим маълумотлар базасини яратиш керак.

Функционал кўриниш билан таклиф этилган ахборот ва ташкилий модели асосида, ахборот қўллаб-қувватлаш механизмларини ишлаб чиқилган (расм. 2) медиани тижоратлаштириш жараёнини бошқариш имконини берувчи, тижоратлаштириш объектининг ташқи ва ички омиллари хусусиятлари ҳақидаги билимлардан фойдаланиб, ўзига хос муаммолар ечимидир.

Медиа ривожлантириш ва амалга ошириш имконияти тадқиқот ахборот қўллаб-қувватлаш илмий ва муҳандислик салоҳияти, илмий-техник ва бозор ахборот қидирув, илмий ва муҳандислик-техник ишчилар фикрини полл ва корхонанинг мавжуд салоҳияти доирасида инновацион лойиҳа амалга ошириш имконияти тадқиқот таърифини ўз ичига олади.

Ишлаб чиқарилган инновацион маҳсулотни бозорда мустақил амалга ошириш истиқболларини баҳолашга имкон берувчи механизмлар, биринчи навбатда, медиаривожланиши натижалари тўғрисидаги маълумотларни тўплаш ва таҳлил қилишни ўз ичига олиши керак.

Ушбу механизм медиа тижоратлаштириш ва ривожлантиришни таҳлил қилишга қаратилган ва учта асосий турдаги вазифалар билан белгиланади: минтақавий муаммоларни ахборот мониторинги, тегишли бошқарув органлари учун мукобил бошқарув ечимларини тайёрлаш (вазият ҳисоботлари, муаммоларни кўриб чиқиш ва

уларни ҳал қилиш ёндашувлари, прогнозлар ва бошқалар.); юқори органлар учун таҳлилий материалларни тайёрлаш; ахборот-таҳлилий маҳсулот ва хизматларни шакллантириш.

Медиа фаолиятинг натижаларини тижоратлаштириш самарадорлигини баҳолаш учун қуйидаги кўрсаткичлар гуруҳлари таклиф этилади.

Қиймати кўрсаткичлари: минтақа корхоналари ишлаб чиқариш тадқиқот интенсивлиги ўлчовини тавсифловчи, минтақа медиа бюджети бирлиги қиймати; лицензия, ноу-хау қиймати; медиа компониялар яратиш учун харажатлар; минтақавий маблағларнинг мавжудлиги, тадқиқот ташаббусларини ривожлантириш ва минтақавий илмий-техник дастурлар ва лойиҳаларни амалга ошириш қўллаб-қувватлаш минтақавий мақсадли дастурлар.

Медиа корхоналарида инновацион жараён динамикасини тавсифловчи кўрсаткичлар: инновация; медиа (медиа технология) ишлаб чиқиш жараёни давомийлиги, янги маҳсулот ишлаб чиқаришни режалаштириш ва янги маҳсулот ишлаб чиқариш сикли.

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MATHEMATICAL REPRESENTATION OF IMAGE PROCESSING USING DATA SEGMENTATION

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Segmentation divides an image into its constituent areas or objects. The degree of detail to which this division brought depends on the task being to solve. In other words, segmentation should be stop when objects or areas of interest detected. For example, in the task of automated control of Assembly of electronic equipment components, it is of interest to analyze images of manufactured products in order to identify certain defects, such as the absence of components or the rupture of contact tracks on the Board. Therefore, it does not make sense to perform segmentation smaller than the level of detail that is necessary to detect such defects.

Segmenting images that are not trivial is one of the most difficult image processing tasks. The ultimate success of computer image analysis procedures is largely determined by the accuracy of segmentation, for this reason, considerable attention should paid to improving its reliability. In some situations, for example, in technical control tasks, it is possible to control the shooting conditions at least to some extent. An experienced image processing system designer always pays attention to such features. In other applications, such as Autonomous target guidance systems, the developer cannot control the surrounding conditions, so the usual approach is to focus on selecting sensors of the kind that are most likely to amplify the signal from the objects of interest and at the same time reduce the influence of non-essential image details. A good example of this approach is infrared photography, which used for military purposes to detect objects with powerful thermal radiation, such as military equipment or moving troops.

Most of the image segmentation algorithms discussed in this Chapter based on one of the two basic properties of the brightness signal: discontinuity and homogeneity. In the first case, the approach is to split the image based on sharp changes in the signal, such as brightness differences in the image. The second category of methods uses splitting the image into areas that are homogeneous in the sense of pre-selected criteria. Examples of these methods include threshold processing, growing regions, merging, and splitting regions. In this Chapter, we will review and illustrate some of these approaches and show that segmentation quality improvements can achieved by combining methods from different categories, such as connecting contour selection with threshold transformation. We will also look at the morphological approach to segmentation, which is particularly attractive because it combines the positive properties of several segmentation methods described in the first part of this Chapter. In conclusion, we will consider the use of some key features that characterize the movement of objects for image segmentation.

Let denote R the entire spatial area occupied by the image. Image segmentation can considered as a process that splits R into n subdomains $R_1, R_2, \dots, R_n$ so that

(a) $\bigcup_{i=1}^{n} \boldsymbol{R_i} = \boldsymbol{R}$,

(b) Plenty R_i is connected, $i = 1, 2, \dots, n$,

(v) $\boldsymbol{R_i \cap R_j = \emptyset}$ For anyone i and j, $i \neq j$,

(g) $\boldsymbol{Q(R_i) = TRUE}$ For $i = 1, 2, ..., n$,

(d) $\boldsymbol{Q(R_i \cup R_j) = FALSE}$ For anyone *related area* R_i and R_j.

Here $Q(R_k)$ is a logical predicate defined on points of the set R_k and taking a true (TRUE) or false (FALSE) value, and $\emptyset$ is an empty set. The signs $\cup$ and $\cap$ denote the operations of combining and intersecting sets, respectively. Two regions R_i and R_j are called contiguous if their Union forms a connected set. Condition (a) specifies that the segmentation must be complete, i.e. each pixel must fall into some area. Condition (b) requires that the points in the area are connected in some pre- defined sense. According to the condition (b), the regions must be disjoint. Condition (d) refers to properties that pixels in a segmented area must satisfy, for example, $Q(R_i) = TRUE$ if all R_i pixels have the same brightness. Finally, the condition (d) indicates that the two adjacent regions R_i and R_j must differ in the sense of the predicate$Q$.[1]

We see that the fundamental problem with segmentation is to divide the image into areas that meet the above conditions. Segmentation algorithms for monochrome images usually fall into one of two main categories, based on the properties of brightness values —the presence of gaps and the proximity of values. In the first category, it assumed that the edges of the regions are quite different from both the image background and from each other, which allows you to detect the border based on local brightness gaps. The prevailing approach in this category is contour — based segmentation. The second category includes area-based segmentation methods that divide an image into areas that have internal similarity according to a set of pre-defined criteria. Fig.1 illustrates the concepts introduced. For fig. 1 (a) shows an image of an area with a constant brightness on a dark background that also has a constant brightness. Together, both of these areas cover the entire image. For fig. 1 (b) the result of calculating the boundary of the inner region based on the brightness gaps is presented. Points inside and outside the border have zero values (black) because there are no brightness gaps inside the areas. To segment an image, we mark all pixels inside the border and on the border itself in one way (say, white), and all points outside the border in another way (say, black).

For fig. 1 (c) shows the result of this procedure. As you can see, it meets the conditions (a)—(b) listed at the beginning of this section. The predicate in condition (d) is as follows: if the pixel is inside or on the border, it is marked with white, otherwise it is marked with black. You can see that this predicate takes the value TRUE for the points marked in Fig. 1 (b) both black and white.

The two selected areas (object and background) also satisfy the condition (d). The following three images illustrate the segmentation based on regions. Fig. 1 (d) similar to Fig. 1 (a), but the brightness of the inner area is not constant, but forms a texture. For fig. 1 (e) shows the result of highlighting contour differences in such an image. It is clear that numerous uninformative brightness changes make it difficult to single out the border on the original image because many points with a non-zero brightness difference are connected to the true border. Therefore, the contour-based segmentation method is not suitable for this case. Note, however, that the outer region has a constant brightness, so to solve this simple segmentation problem, it is sufficient to construct a predicate that would distinguish areas with texture from areas with

[1] In General, Q can be set by a composite expression, for example, $Q(R_i) = TRUE$ if the average brightness of pixels in R_i is less than m_i, And if the standard deviation of the brightness of these pixels is greater than σ_i, where m_i and $\sigma_i$are the specified constants.

constant brightness. For this purpose, the standard deviation of the brightness values is used as a measure, since it is different from zero in the area with the texture and equal to zero in the background area. For fig. 1 (e) presents the result of splitting the original image into non-overlapping subdomains of 4×4 pixels. Each subdomain is then marked white if the standard deviation of its pixel brightness values is greater than zero (i.e., if the predicate takes a true value), or black in the opposite case. A step is visible at the border of the area, because all pixels in a 4×4 square are assigned the same brightness value. In conclusion, this result also satisfies the five conditions stated at the beginning of this section.

The derivative of a discrete function defined by the differences in its values. There are various ways to approximate derivatives by differences, but we require that any approximation of the first derivative be: (1) equal to zero in areas with constant brightness; (2) non-zero at the beginning of a step-by-step or linear change in brightness, and (3) non-zero throughout the entire section of the linear change in brightness. Similarly, an approximation of the second derivative requires that it be: (1) zero in areas with constant brightness; (2) non-zero at the beginning and end of a stepwise or linear change in brightness; and (3) zero in a section of linear change in brightness. Since we consider quantities with discrete finite values, the maximum possible change in brightness is also finite, and the shortest distance at which a change can occur is between neighboring pixels.

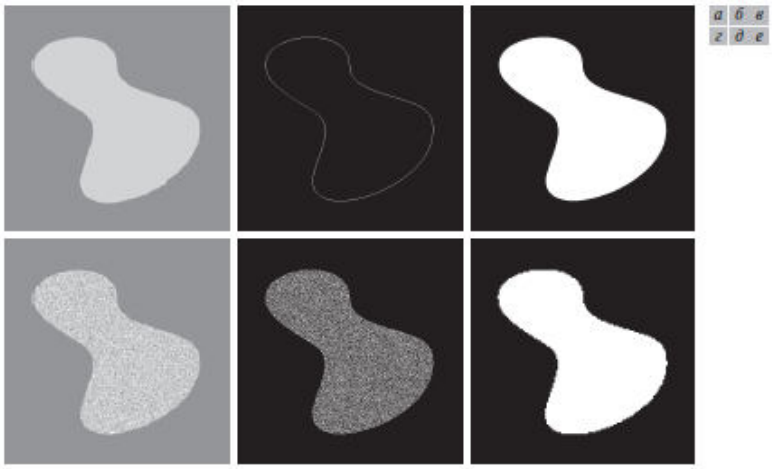

Fig. 1. (a) an Image containing an area of constant brightness. (b) the boundary of the inner region obtained from the brightness discontinuities. (c) The result of segmenting the image into two areas. (d) an Image containing an area with a texture. (e) The result of contour selection. Pay attention to the large number of contour drops within the area itself, and connected to the border of the area, which makes it difficult to single out its border only on the basis of information about the drops. (e) the Result of segmentation based on the region properties

We approximate the first-order derivative of a one-dimensional function $f(x)$ at point x by decomposing the function $f(x+\Delta x)$ into a Taylor series in the neighborhood of x, assuming $\Delta x = 1$ and leaving only linear terms. As a result, we get a discrete difference

$$\frac{\partial f}{\partial x} = f'(x) = f(x+1) - f(x) \qquad (2.1\text{-}1)$$

Here we use a partial derivative to preserve the unity of notation in the future, when we consider the image function $f(x,y)$, which depends on two variables. Then partial derivatives

along the spatial axes will be used, and in the case of a one-dimensional function f, it is clear that $\partial f/\partial x = df/dx$.

Differentiating the expression (2.1-1) by x, we get the expression for the second derivative's:

$$\frac{\partial^2 f}{\partial x^2} = \frac{\partial f^2(x)}{\partial x} = f'(x+1) - f'(x) = f(x+2) - f(x+1) - f(x+1) + f(x)$$
$$= f(x+2) - 2f(x+1) + f(x),$$

where the second line follows from (2.1-1). This series expansion corresponds to the neighborhood of point $x+1$, and since we are interested in the second derivative at point x, we should subtract 1 from the value of the argument everywhere; finally, we get

$$\frac{\partial^2 f}{\partial x^2} = f''(x) = f(x+1) + f(x-1) - 2f(x) \qquad (2.1\text{-}2)$$

Consider the properties of the first and second derivatives, moving along the profile from left to right. First of all, it is clear that the first derivative is nonzero at the beginning and throughout the entire oblique difference in brightness, while the second derivative takes nonzero values only at the beginning and end of the oblique difference. Since the differences in digital images often have this form, it can be concluded that the first derivative gives off “thick” differences, and the second derivative gives off much thinner ones. Then we meet an isolated noise point. At this point, the response of the second derivative is much larger than the first. This could expected, because the second-order derivative reacts much more strongly to sudden changes than the first derivative. Thus, the second derivative tends to amplify small parts (including noise) to a much greater extent than the first-order derivative. The line in this example is relatively thin and therefore also a “fine detail”, so we again see that the value of the second derivative on it is much higher.

In conclusion, we note that on both inclined and step differences the second derivative has two bursts of opposite signs (moving from negative to positive or from positive to negative at the beginning and at the end of the difference). This effect of “doubling the difference” is an important characteristic that can be used to find differences. The sign of the second derivative also allows you to determine whether the point is the beginning of the change from light to dark (negative second derivative) or from dark to light (positive second derivative), and the sign appears at the beginning (and end) of the edge.

w_1	w_2	w_3
w_4	w_5	w_6
w_7	w_8	w_9

Fig. 2 A general representation of a spatial filter mask with a size of 3×3 elements

As a result, we come to the following conclusions.

(1) First-order derivatives generally distinguish wider differences in the image.

(2) Second-order derivatives give a stronger response to small details such as thin lines, isolated dots, and noise.

(3) The second derivatives at oblique and stepwise differences in brightness give a response twice.

(4) The sign of the second derivative can be used to determine the direction of the difference in brightness (from light to dark or vice versa).

The method of calculating the first and second derivatives in each pixel of the image is to use spatial filters. For the one shown in fig. 2 filter masks with dimensions of 3 × 3 elements. This procedure consists in calculating a linear combination of mask coefficients with brightness values of image elements covered by the mask. When using this mask, the response at the image point coinciding with the center of the mask is given by

$$R = w_1 z_1 + w_2 z_2 + \ldots + w_9 z_9 = \sum_{k=1}^{9} w_k z_k \qquad (2.1\text{-}3)$$

where z_k— pixel brightness value corresponding to the coefficient w_k masks. Derivatives calculated by spatial filtering of the image using spatial masks, as mentioned in the sections above.

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TECHNOLOGY OF ORGANIZING TRAINING THROUGH AN ELECTRONIC EDUCATIONAL PLATFORM

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Abstract: The article describes the application of innovative web-quest technologies as online methodical component. It was advisable to apply the Web-quest for technology as a tool for innovation and the introduction of ICT. Consequently, all the methodological developments were developed in the pro-historical course "PCP PO" in the online mode, i.e. a special Internet resource was developed. The relevance of using Web-quest technology: provides users with complete, reliable and easy to read information resources; creates a convenient interface for accessing information resources; Formation of such key factors as specialists' ability to acquire new knowledge and skills, creative activity in decision making, initiative, professional competence; Improving the effectiveness of the educational process. Using innovative educational technology: the teacher provides detailed preliminary instruction for students in the direction of the service sector; preliminarily makes brief explanations, introduces students to the most important points of instruction; indicates downloaded electronic files (instruction on the implementation of assignments for lectures, practical exercises, guidelines, tables, presentations); students study additional literature, consistently complete assignments for practical and sightseeing classes through a Web-quest; the results of completed tasks on Web-quest are evaluated, the prospects for further cognitive activity are outlined.

Keywords: Innovation, information and communication technologies, pedagogical activity, teacher, student, "Vocational education", methodology, pedagogical technologies.

1. Introduction

In the Republic of Uzbekistan, the educational policy of the state is focused on achieving an important goal - increasing the efficiency of education and guaranteeing the level of training of specialists that meets the requirements of the domestic economy and international standards. In the process of professional training of pedagogical staff, active use is found by innovative technologies. The increase in the information resources of society, and the pace of their development are determined to a large extent by the rate of accumulation, processing of information resources. This process has created an urgent need to create new tools and technologies that allow you to systematize, transmit, receive, process information flows, creating a convenient interface for accessing information resources, and thereby providing users with complete, reliable and easy to read information resources. Thus, the Web-quest can be adequately applied in the study of the propaedeutic course “PCT VE” by students in the direction of professional education aimed at developing motivational processes for pedagogical activity, to further studying pedagogical disciplines.

In order to develop and improve pedagogical technologies, the Web-quest occupies a special place among the types of information resources used by teachers, the sources of which lie in the design methodology (A. S. Budilova, Y. S. Bykhovsky, G. A. Vorobyov, etc.) [1, 2].

A number of researchers consider Web-quest as a problematic task with elements of a role-playing game, which requires the use of Internet information resources. Others understand this concept as an organized type of independent research activity using the capabilities of the Internet. Still others are like a web page organized in a special way or developed independently on the basis of a didactic structure and proposed for performing on this topic an Internet resource, a web project in which all or part of the information that students work with is located on various websites. Fourth - as a didactic model of understanding, interpretation of rational work with a personal computer and information resources of the Internet, which serves as a way to enhance learning activities [3,4].

Taking into account the theoretical analysis, studying the practical experience of teachers, the search work, we come to the conclusion that Web-quest is a type of informational, problem-oriented tasks of individual or group training aimed at the formation and development of skills of independent activity, search and student research activities in preparation for teaching activities. The purpose of using Web-quest in training is to develop the skills of analysis, synthesis, and information assessment in the rational use of study time to obtain the necessary information on a specific issue, topic, problem, and its subsequent processing.

We have identified the most significant advantages of using Web-quest: the development of critical thinking, the definition of one's own position, the broadening of the world outlook, raising the student's intellectual level, and the formation of the future specialist's readiness for pedagogical activity.

The Web-quest technology is an innovative educational technology in which the teacher forms the interactive search activity of students, during which they are motivated to independently acquire knowledge, sets the parameters for this activity, controls it and determines the time limits. This technology allows you to work in groups, develops communication skills, leadership qualities of everyone, increases not only motivation for the process of obtaining knowledge, but also responsibility for the results of one's own activity [5].

2. Methodology

The technology of using Web-quest in the study of the propaedeutic course includes the following steps. At the first stage, the teacher conducts detailed preliminary instruction for students on the topics of the propaedeutic course "PKP ON" preliminarily makes brief explanations, acquaints students with the most important points of the instruction, points to the electronic files uploaded by him (instruction on the technologies for organizing and managing the pedagogical process, methodological recommendations, tables, presentations, etc.). At the second stage, students study additional literature, consistently complete assignments for practical and sightseeing classes through a Web-quest. At the third stage, the results of completed tasks on the Web-quest are evaluated, prospects for further cognitive activity are outlined. The learning process is implemented as follows, each student in the direction of vocational education is determined by the learning path of lectures, practical, excursion classes based on Web-quest, which they gradually study and perform, the transition to the next stage of the study of pedagogical tasks is impossible without the previous stage, the tasks are qualified, based on the

degree of complexity, determined on the basis of control questions, tests and pedagogical tasks at the end of the study of a certain topic in the propaedeutic course "PCT VE".

When using Web-quest in the process of preparing students for vocational education, cognitive activity of students is activated, creative thinking develops. The teacher organizes the effective work of students in the development of creative activity using problem situations; joint control (under the guidance of a teacher and student responsibility) of learning outcomes serves to increase motivation for further study of pedagogical disciplines.

Testing the model of preparing students for the propaedeutic course.

In the development of the site and web quests for the propaedeutic course "PKP ON", as a tool for creating an online resource, placing files, we used the wixsite.com site creation designer. Wix is a specialized website builder with a special online editor. After preparing the platform of the online resource, it was advisable to proceed to the creation of the Web-quest. To do this, in the constructor of Web-questzunal.com, we created an account, developed an online resource.

The role of the teacher in the learning process using the Web-quest is very different from its traditional functions. In the framework of the traditional teaching system, the teacher appears to be the main source of knowledge that he transfers to students. When teaching and interacting with the subjects of the pedagogical process using Web-quest, as a means of learning, the teacher, in a certain sense, ceases to be a “subject”, and becomes a pedagogue of a wide profile, he acts as a coordinator in working with practical and excursion lessons, and how scientific consultant, and as an adviser. Fulfillment of practical and excursion tasks using the Web-quest requires from the teacher not so much teaching as creating conditions for students to show interest in cognitive activity, self-education and putting the knowledge gained into practice. For this, he, as the coordinator of the pedagogical process, must have a high level of culture and organizational abilities.

Using a Web-quest as a means of studying the propaedeutic course "PKP ON" the main learning objectives can be achieved:

1. Formation of general educational and general cultural skills of working with information. This goal assumes that students using Web-quest as a source of information, develop the ability to competently use information sources and critical thinking skills, while they correlate the information received with the necessary knowledge for the proper organization of work on pedagogical tasks;

2. Mastering of information and communication technologies, as a necessary condition for the transition to a system of continuing education. The need for such training follows from the features of lifelong education: the implementation of individual educational “trajectories”, the differentiation of educational processes, and the strengthening of the role of teaching aids.

Since the duration of the Web-quest for studying the propaedeutic course “PCT VE” as a circle is designed for 10 hours of practical classes and 4 hours of excursion classes, the educational process boils down to interest students to work with the Web-quest on their own, relying on this on the design training methodology.

In groups where training using the Web-quest technology will be practiced, practical and excursion tasks can be performed by small subgroups of students or independently by an individual student. Training in subgroups contributes to the formation of skills for independent task solving, synthesizing a common opinion when discussing practical and excursion tasks.

Students learn to listen to each other, collaborate and communicate. Such training also helps build interpersonal skills. Learning in this vein helps accelerate thought processes.

Therefore, at the beginning of the training (at the first class lesson), the teacher needs to divide the students in the group into several small subgroups of 10-15 people, in each group a leader is appointed who will act as the organizer of the practical and excursion tasks. At the same time, each group is allocated specific computers for work, so that in the process of working on their projects they do not have to constantly transfer their files and there is no confusion about which group worked on which computer. After that, the teacher acquaints students with the tasks ahead for them when working with the Web-quest for the study of the propaedeutic course "PCP Software", they need:

- organize work in a subgroup, distribute the roles of members of the subgroup;
- familiarize yourself with the materials provided in the Web-quest;
- develop your own theme for the project, or use the task that is offered in the Web-quest.

Having familiarized themselves with the tasks that they have to complete, students begin to work directly with the Web-quest. Sitting down at computers and starting to carry out practical and excursion tasks, students first get acquainted with the introduction, which contains the task, or, using other terms, the statement of the problem that students should work on. The task involves an easily carried out and interesting type of activity, involving the analysis, synthesis and evaluation of materials in order to solve the problem.

While working with a Web-quest, students are provided with basic information that is used as a “reference point” for a deeper study of the subject. Typically, such information is on the Internet and in other literature. At the initial stage of working with a Web-quest, students are faced with the choice:

- or just start to study the theoretical material on the propaedeutic course "PKP ON";
- either study the minimum necessary techniques, in addition to which, by completing small related tasks, the student fills the so-called “Student Portfolio” with files and thereby increases his chances of receiving more positive assessments;
- or in addition to all of the above, the student can use the hyperlinks located on the Web pages of this Web-quest, and further use these opportunities in addition to the necessary requirements that are presented to the project, as well as the development of additional animation projects for obtaining additional assessments .

The teacher, during the independent work of students with Web-quest, acts as an independent expert or coordinator of student work. As mentioned above, students should keep a diary of their project work, this is necessary so that the teacher can at any time evaluate the degree of work they have completed, as well as mastering the knowledge of the propaedeutic course “PCT VE”. In this case, the teacher can, in the course of students' work, when their work slows down or difficulties arise, direct their work in the right direction.

Students are given about 4-5 extracurricular hours to work on practical implementation and project preparation, while the teacher warns students that students will allocate the necessary time so that they have one extracurricular hour to prepare for the defense of their project. They will need to present their project within a few minutes, while doing a brief analysis of how the project was conducted.

At the final stage, students demonstrate their created projects (assignments given to them), while giving a small report in defense of their project.

When using the Web-quest, a restructuring of the learning process is needed and, accordingly, the selection of the most common criteria for evaluating project results.

One of the difficult problematic issues is the objective assessment of student performance. Pedagogical control does not always meet the principles of objectivity, scientificness, comprehensiveness, and students are especially keen on the injustice of an assessment, remember it for a long time, often perceive it as an assessment of their own personality, and not as an assessment of the result of their work.

For a more effective assessment of completed tasks (project), how students worked on it, what roles were assigned to each of the group members, students collect a kind of "portfolio" that includes all the additional work that each group member performed, the diary of the whole group's work, as well as a plan for organizing project activities.

The training portfolio related to the results of practical and field trips should:

- firstly, include everything that can be evidence of the efforts, achievements and progress in the training of this student, be aimed at the cooperation of the teacher and student in achieving goals;

- secondly, organically integrate the three learning processes: teaching, learning and assessment;

- thirdly, to allow combining quantitative and qualitative assessment of the abilities of students through the analysis of various products of educational and cognitive activities;

- fourthly, to promote the promotion of not only assessment, but also self-esteem and mutual appreciation of students, as well as introspection and self-control of students.

The term "portfolio" in the broad sense means a collection of results achieved by a student in a variety of activities: educational, creative, social, communicative. The main purpose of the portfolio is to show everything the student is capable of.

The pedagogical philosophy of the portfolio involves:

- a shift in emphasis from the fact that the student does not know and does not know how to what he knows and knows about this topic, section of the subject;

- integration of quantitative and qualitative assessments;

- transfer of pedagogical stress from assessment to self-esteem.

Thus, the use of a portfolio - a portfolio of individual student achievement, is a new technique for assessing student achievement.

Portfolio is a form of authentic assessment of educational results on a product created by a student in the course of educational, creative, social and other activities. Thus, the portfolio corresponds to the goals, objectives and ideology of practice-oriented training.

When students are given the opportunity to direct the learning process themselves, its value in their eyes increases. Since the study of an additional course is deep and comprehensive, students acquire knowledge that goes beyond the scope of the curriculum. In addition, students master valuable research skills and abilities that are not formed in the course of traditional studies.

3. Realization of the concept

We have developed criteria and indicators for assessing the effectiveness of the process of preparing students for educational material at the propaedeutic course, which serve as a complex factor in the successful development of a specialty, both professionally and creatively. Each criterion as a system-forming one includes a group of indicators and indicators that qualitatively and quantitatively characterize it. The criterion is more stable, although it reflects

the essence of the development of the pedagogical process and its subjects. The indicators are characterized by dynamism, interconnectedness and interdependence. Therefore, the criteria for evaluating the effectiveness of the students' readiness process at the propaedeutic course require the selection of the necessary indicators.

The developed platform for online learning of the propaedeutic course "Pedagogical Competence of a Vocational Education Teacher", through a Web site with Web-quest, mobile applications for students in the field of professional education based on modern, corporate, technological, innovative, humanistic approaches, contributes to the formation of skills self-solving tasks. Students learn to listen to each other, collaborate and communicate. Such training also helps build interpersonal skills. Based on the selected object of study, i.e. the process of preparing for the pedagogical activity of students in the field of vocational education (for example, 5521900-Informatics and information technology), it was advisable to use the Web-quest technology as a tool for innovation and the implementation of information and communication technologies. Consequently, all the methodological developments on the propaedeutic course "PKP ON" in the online mode were completed, i.e. an online resource was developed.

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THE USE OF MODERN SOFTWARE PACKAGES IN THE TEACHING OF PHYSICS

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Annotation: The utilization of computer simulations is not a new subject, but its importance has increased in the industrial as well as in the educational field in the last years. The academic use of this tool in Physics is already much disseminated, although its educational use is still restricted. One of the major reasons for this is the restricted number of good computer applications tailored for the University level, especially in Portuguese and a lack of pedagogical plans to use them. In this scenario, the Physics Department of FEI (Faculdade de Engenharia Industrial) decided to begin a long-term research project to produce and to apply computer simulation in Physics teaching. We have already produced six computer applications and four of them (simple pendulum, friction force, ballistics and damped oscillations) have been used for the last two years by the entry level engineering students at FEI, as part of their Physics laboratory activities. The simulation sessions take place at the computer rooms and the students usually work alone in this activity. Although the programs developed do not have all the features of a commercial program, in some aspects they show advantages to those. Five out of the six programs developed are real time simulations. The main reason to implement this feature is that we have observed a higher attraction to programs that simulate an event in the same time scale that the real one. The real time programs also have animations to illustrate and to allow a better understanding of the phenomenon. Some preliminary qualitative results have shown that the students are more involved with the classes and that they are more interested in the subject when computer simulations are employed. These good results are driving us to create new simulations. We are planning to create versions of these applications using the Java language, in order to make them a powerful tool to help in distance learning projects. We are also planning to precede in the near future a quantitative analysis of the pedagogical results.

Key words: Interested in the subject, Development of Science and technology and Information

Introduction: Development of Science and technology and Information Technology achievements in the field of various standing before humanity the district allows you to solve new problems from scratch. Education quality of Organization of educational processes in the system raising the level of World amazes by indicators, modern pedagogy and information in the educational process up-to-date methods of wide application of technologies considered one of the stylistic issues; it has its strong impact hold.

Foreign and local subjects in the teaching of physics programs that companies are currently creating (computer software) Day by day. From the same programs are we getting a fertile? a reasonable question arises will be.

Taking note of the same above considerations, fireplace the experiences your employee has had for several years higher status of this methodical armband with the aim of fellowship to your attention. To emphasize that computer software that is listed as follows should be our DTS compatible.

Materials And Methods

Your employee Physics, Mathematics, Computer Science, Chemistry and information resources on the teaching of Biological Sciences they collected the base, some of them (related to the science of physics programs) elearning.zn.uz posted on the website.

Multipurpose crocodile - cli crocodile physics, crocodile
Chemistry, Crocodile ICT;

Apart from these, again every subject in physics and mathematics Macromedia Flash and Microsoft Office Power Point for a department.

The coming of information age brings the opportunity of reform and development to education.

The vigorous development of information-based teaching is constantly changing the traditional classroom teaching mode, teachers' teaching mode and students' learning mode, and promoting the continuous reform of education.

With the continuous development of modern education technology, teachers and education researchers pay more and more attention to the integration of information technology and university

Physics teaching Modern education technology is applied in university physics teaching, which is implemented in many teaching links such as lesson preparation, concept explanation, experiment exploration, teaching evaluation, etc., changing the traditional teaching mode.

From the perspective of implementation technology, virtual simulation software, which is based on the computer platform, carries out simulation experiments of the real system by virtual reality technology, then formes the corresponding mathematical model or mathematical-physical model.

The virtual simulation software shows the experimental simulation environment of the essential process, and it can be considered to make the experiment break through the limitation of time and space for university physics teaching. It can simulate the operation process of various physical experiments and present the experimental phenomena intuitively and vividly, and promote students' involvement in university physics learning.

The application of virtual simulation software in university physics teaching meets to the requirements of the university physics teaching in the new era. On the one hand, it can enrich the teaching methods of university physics and solve the difficulties of university physics teaching. On the other hand, it creates a relaxed, open and convenient learning environment for students and improves their enthusiasm and initiative for university physics learning. In the process of university physics teaching, we should give full play to the unique advantages of virtual simulation software, and promote the review of university physics concepts and laws, the establishment of physical models, and the analysis and solution of physical problems.

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ANEMIA IN CHILDREN

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Student Besharik Abu Ali Ibn Sino Community Health College

Abstract: According to the World Health Organization, there are 2 billion people living in poverty in the world today. According to statistics, it is worrying that currently 15% of the adult population in the country are adolescents, and 20% of pregnant women are suffering from various degrees of deprivation.

Keywords: Anemia, con, erythrocyte, hemoglobin, cell

БОЛАЛАРДА АНЕМИЯ

Бешарик Абу Али ибн Сино номли жамоат саломатлиги техникуми ўкитувчиси Рўзиматова Севарахон . талаба Абдурашидова Озода

Анататция Жахон Согликни Саклаш Ташкилоти маълумотларига караганда, хозирги дунёда салкам 2млрд одам камконликка учраган. Статистика маълумотларига караганда, хозирги кунда Республикамизда катта ёшли ахолининг 15% усмирлар, 20% хомиладор аёлларининг эса салкам 70% турли даражадаги камконликка чалинганлиги ташвишлидир.

Калит сўз Анемия, кон, эритроцит, гемоглабин, хужайра

Маълумки, кон инсон организмида бетухтов харакатланувчи суюк тукимадир. У хужайраларга етиб бориб, уларнинг хаёт хамда физиологик фаолиятларининг бажарилишини таъминлайди. Кон хужайраларга кислород етказиб берадиган ва корбонат ангидрид чикаради. Овкат хазм килиш органларидан озик моддаларни бутун организмга таркатади. Моддалар алмашинувига махсулотни чикариш органларга (буйракка) олиб боради. Конорганизмни зарарли моддалар ва ёглардан химоя килади. У тана хароратини доимо бир меъёрда саклашда мухим ахамиятга эга. Бирок, хозирги замонга келиб экологик мухитнинг емонлашуви кундалтк истеъмол килаётган махсулотларга керакли дармон дориларнинг етишмаслиги натижасида бир канча касалликлар юзага келмокда. Бугун ана шу касалликлардан бири булган болаларда камконлик яъни, анемия хакида тухталмокчимиз.

Болаларда анемия (камконлик) куп учраши окибатида уларда бефарклик, укиш фаолиятида диккатни жамланмаслиги, чарчоклик каби холатлар юзага келиши мумкин. Болалардаги анемия турли сабабларга кура бошланади. Ота – онаси синчковлик билан ушбу касалликка нима туртки булишини аниклаши керак. Анемия – ташки ва ички наслий ва орттирилган хомиладорлик ва тугилгандан кейинги потологик ва асосий омиллар

асосида юзага келади. Аёлнинг хомиладорлик давридаги камконлиги болага уз таъсирини утказмасдан колмайди. Болалар учун анемия хафли касаллик сирасига киради.

Анемия - конда эритроцит (кизил кон таначалари) ва гемоглабин микдорининг камайиб кетиши билан юзага келадиган потологик холат. Анемия куйидаги холларда юзага келади:

1. Организм куп кон йукотаетгани (хайзнинг куп келиши, шикастланиш, баъзи касалликлар)
2. Организмда кизил кон хужайраларини ишлаб чикариш муаммоси мавжуд булса
3. Янги кизил кон хужайралари юзага келишидан олдин мавжуд кон хужайралари тез нобуд булса
4. Юкоридагилар бир вактнинг узида биргаликда булса.

Организмда гемоглабин даражасининг узок вакт паст булиши болада гипоксия, яъни кислород етишмовчилигига олиб келади. Натижада аъзолар ва тукималар зиен куради. Анемия туфайли болалар жисмоний ва интеллектуал ривожланишдан оркада колиши мумкин. Камконликнинг келиб чикишига яна кон яратилиши жараенининг бузилиши тусатдан еки сурункасига кон йукотиш кизил кон таначалари (эритроцитлар)нинг меъёридан ортик даражада парчаланиши сабаб булади. Анемия холати конда кизил хужайраларнинг нормадан камрок булиши еки кондаги кизил хужайралар керакли гемоглабин ишлаб чикара олмаслигига айтилади. Гемоглабин – протеин булиб, конга кизил ранг беради. Унинг асосий функцияси организмдаги барча аъзоларга кон оркали кислород етказиб беришдир. Тана аъзоларига кислород етишмаса улар уз фаолиятини яхши бажара олмайди. Шунинг билан бирга болаларда турли хил потологик холатлар юзага келади. Бундан ташкари анемия меъда-ичак, жигар касалликлари бирданига кон кетиб туриши еки оз-оздан булса хам яхши овкатланмаслик овкатларда витаминлар, яъни витамин В12 танкислиги турли юкумли касалликлар, гижжа касалликлари еки организмни холдан тойдиручи сурункали касалликлар баъзи дори моддалар, кузикоринлар, захарлар билан захарланиш камконликка сабаб булади.

Анемия Белгилари Анемия касаллиги инсон хаетининг барча даврларида нафакат турли касалликларда, балки айрим физиологик холатларда (хомиладорлик вактида, организмнинг усиши ва эмизикли даврларида) хам юзага келади. Айникса, ёш болалардаги анемия ута ижтимоий ахамият касб этади. Анемиянинг ривожланиши семизлик ва климакс даврлар билан гормонал бузилишлар, овкатланиш харакатери организмда сурилиш жараенининг бузилиши, аутоиммон холатлар ва бошка омиллар билан боглик. Анемия маълум давр ичида ривожланади. Унинг бошида аломатлар деярли сезилмайди. Лекин касаллик ривожланган сари куйидаги аломатлар юзага келади: бош огриши, бош айланиши, бушашиш, яъни доимий чарчоклик кунгил айниши, титрок, кул ва оекларнинг доимий музлаши, терининг оч рангли булиши юрак уришининг тез уриши еки номунтазам булиши, нафас олишнинг кискариши,- кукрак кафасдаги огрик, иш фаолиятининг бузилиши, тирнокларнинг муртлашиб колиши (синиши) лабларнинг куриб окариши,ковок тагииинг корайиб еки кукариб колиши пульс тезлашиши,товон ва бармок учу териларининг дагаллашиб колиши ерилиши кучаяда.лаб ерилиши билан юзага келади

Юкоридаги барча белгилар тана аъзоларига етарлича кислород етказиб бериши учун жуда тезрок кон юргизишдан вужудга келади. Анемия холати организмга хавф тугдириши мумкинлиги туфайли албатта даво муолажалари олиб борилиши зарур.

Анемия турини билмай туриб уни даволаш фойда келтирмаслиги мумкин. Масалан, темир танкислиги анемиясини белгилари бу умумий белгилари узаро турлича фарк килади. уйкусизлик, мудрок босиши хотиранинг пасайиши, аклий фаолиятнинг пасайиши сочдаги узгаришлар: эрта окариши, тукилиши,ингичкалаши,мурт булиб колиши яни синиши учиш кисмининг 2га ажралиши яъни «гуллаш» намоён булади. дисфогия, яъни ютинишнинг кийинлашиши куюк каттик овкатларни ютиш кийинлашуви. хид сезишнинг бузилиш, бензин, керосин, ацетон, буёклар, тамаки, зах хидларига ружу куйиши,

таъмнинг бузилиш, кесак, бур, кумир, когоз, тухум пучоги, хамир.ю чой шамаси, хом макарон, ош тузи, тиш пастаси ва шунга ухшаш махсулотларга ружу куйиш.

Анемияни даволаш. Канчадан канча аёллар болалар хар йили шу касалликдан азият чекади. Айникса, мактаб ешидаги болаларнинг кони туширилганда 90 фоиз бола шу касалликлардан азият чекади. Уйкусизлик, куп ухлаш, баджахиллик, иштахасизлик, иммунитет пастлиги хаммасининг бош омили хисобланади.

Камконликнинг олдини олиш, буйрак, дуккакли сабзавотлар, тофу (соя пишлоги) исмалок, кизил рангли гушт, яшил баргли сабзавотлар, балик, енгок, сабзи, курук мевалар (туршак, майиз ва олхури кокиси) шунингдек, С витаминига бой булган махсулотлар темир моддасини сингишига ёрдам беради (апелсин шарбати, брокколи, кулупнай, кизил ковок, калампир, булгор калампири).

Овкат махсулотларини истеъмол килаётганда чой, кофе ва сут махсулотларини истеъмол килмаслик керак. Чунки у танин моддасини тутганлиги сабабли, темир моддасини сингишига тускинлик килади. Бу махсулотларни 1соат утгач истеъмол килиш тавсия этилади. Кальций ва темирни бир вактда кабул килмаслик керак. Темир танкислиги касалликларида тартибли камдан-кам 5 – 6 махалгача овкатланиш тавсия этилади. Истеъмол килинаетганда уртача овкатланиш лозим. Яъни, туйиб овкатланмаслигимиз керак. Буни ибн Сино бобомиз хам айтиб утган. Тез-тез кам-камдан овкат истеъмол килиб турилса, темир моддаси сурилиши ортиб, камконлик холати камайиб боради. Нон, дон ермалари, картошка, ун махсулотлари, макарон, шермишел булар кундалик овкатланишнинг асосини ташкил килиши лозим. Инсоннинг 1 кунлик энергияси шу махсулотларга боглик.

Анемияни даволашда тугри овкатланиш рационига риоя килиш билан бирга дори воситаларини куллаш ва препаратлардан фойдаланиш хам самарали натижа беради. Препаратлар касалликнинг кайси боскичдалиги ва бемор холатига караб врач томонидан белгиланади ва назорат килиб борилади.

Анемия касалликларининг тарифи хает давомида узгариб туради. Чунки биз яшаётганимизда РБК еки гемоглабин нормал сони узгаради. Гудаклар юкори гемоглабинли РБК билан бошланади. Бу хаетнинг илк даврида бир мунча кискартирилади. Болада камконлик белгиларини сезган ота-она энг аввало, кон тушувларини амалга ошириши лозим. Кондаги эритроцитлар ва гемоглабин сонининг курсаткичлари оркали ташхис куйилади. Гемоглабин микдори 110 г/л дан эритроцитлар 3,5х10 г/л дан кам булса анемия ташхиси куйилади. Болада камконлик аникланганда, нафакат гемотолог балки, гастероэнторолог, нефролог ва педиатрларга хам мурожаат килиш холлари учрайди.

Анемия холатлари 3 даражада кечади:

1. Енгил биринчи даража анемия – нормадан паст 90г/л
2. Урта иккинчи даражали анемия – 90-70 г/л оралигида
3. Огир учунчи даражали анемия – 70 г/л дан паст

Бола дунёга келиб, усиб ривожланиб борган сари кон таркиби узгариб туради. Унинг кон тизими янги мухитга мослашиб боради. Гемоглабин ва эритроцитларнинг микдори доимо узгарувчан булади. Айникса, бир ёшгача булган болаларда. Бу даврда болалар асосан диета билан даволанади. Овкат рационида темир моддасини куп сакловчи махсулотлар бериш тавсия этилади.

Анемиянинг темир танкислиги анемияси Жахон Хамжамиятини ташвишга солмокда. Жахон Сокликни Саклаш Ташкилотларига кура, ер юзидаги 20-25% чакалоклар, 45% 4 ёшгача булган болалар, тугиш ёшидаги аёлларнинг 51% темир танкислиги камконлигига учраганлар. Темир танкислигини даволашдан кура, уни олдини олиш зарур.

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THE IMPORTANCE OF THE SYSTEM OF NATIONAL AND SPIRITUAL VALUES

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Summary: This article discusses issues of national values, its role in the education of the younger generation and children, his role in our lives.

Keywords: Upbringing, student, youth, national values, history, function, educational institution, future, factor

MILLIY-MA'NAVIY QADRIYATLAR TIZIMINING AHAMIYATI

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Rezyume: Ushbu maqolada yoshlarni har tomonlama rivojlantirishda va tarbiyalashda milliy qadriyatlarning ahamiyati, ularning hayotimizdagi o`rni xaqida so`z qilinadi.

Резюме: В данной статье рассматривается вопросы о национальных ценностях, его роль в воспитании подрастающего поколения и детей, его роль в нашей жизни.

**Tayanch so`zlar:** Tarbiya, o`quvchi, yoshlar, milliy qadriyatlar, tizim, tarix, vazifa, o`quv muassasalari, kelajak, omil

Ключевые слова: воспитание, ученик, молодежь, национальные ценности, история, функция, учебное заведение, будущее, фактор

Turli xalqlar va millatlar hayotiga islomiy qadriyatlar kirib borganida dastlab qarshilikka uchragan. Islom dini o`zining insonparvarlikka asoslangan qadriyatlari tizimini tavsiya qilar ekan, murosa va kelishuv yo`lidan borgan.

Har bir fanga o`z nomini bergan asosiy tushunchalar bo`lgani kabi «qadriyat» tushunchasi ham «qadriyatshunoslik» atamasi uchun shunday asos bo`la oladi. Farbda bu atama yunoncha «axio» (qadriyat) va «Logos» (fan, ta'limot) tushunchalaridan tashkil topgan. Qadriyat va qadriyatlar milliy g`oyaning muhim kategoriyalaridan biri, bo`lib, qadriyatlar axloqiy qoida va me'yorlar, ideallar va maqsadlardagi baholash mezoni va usullarini ham o`zida aks ettiradi. Ular halollik, poklik, o`zaro yordam, adolatlilik, haqiqatgo`ylik, ezgulik, tinchlik, shaxs erkinligi,

mehr-muhabbat, mehnatsevarlik, vatanparvarlik kabi fazilatlar, burch, vijdon, or-nomus, mas'uliyat kabi axloqiy tushunchalar shaklida namoyon bo`ladi. Qadriyat o`z tabiatiga ko`ra, ijtimoiy-tarixiy xarakterga ega. Ijtimoiy taraqqiyot jarayonida u o`zgaradi va takomillashadi. SHuning uchun qadriyat to`g`risidagi ta'limotlar ham takomillashib, rivojlanib boradi.

Oila — muqaddas. Oila qurish — o'ta mas'uliyatli ishdir. «Oila eskilik unsuri emas». U muqaddas, oilada millat kelajagi mujassam. Yoshlarni tarbiyalash, kamolotga yetkazish, ilmhunar berish, uylijoyli qilish — aksariyat oilalarning eng oliy maqsadidir. O'zbekning hayotdan ko'zlagan asl muddaosi — bolachaqali bo'lish, bularning to'yini, orzuhavasini ko'rish. Yosh avlodni hayotga yo'llantirish, bular uchun muayyan boshlanshch nuqta — start pozisiyasi yaratib berishga nisbatan munosabat turli millatlarda turlichadir. Ayrim xalqlar mentalitetida farzandlar voyaga yetgach, oilasi, otaonasini tashlab, faqat o'z kuchi bilan mustaqil oyoqqa turish uchun uyini tark etadi. O'zi ham oila qurib, farzand ko'rib, uni katta qilganda — u ham avlodlar vorisligiga chek qo'yib, oilasini tark etadi. Xalqning madaniy qadriyatlari, ma'naviy merosi ming yillar mobaynida Sharq xalqlari uchun qudratli ma'naviyat manbai bo`lib xizmat qilgan. Uzoq yillar davomida totalitar tuzumga qaramay o`zbek xalqining madaniy qadriyatlari, an'analari saqlanib qolindi.

Ma'naviy qadriyatlarning tiklanishi, milliy o`zlikni anglashi murakkab sharoitda - eski imperiya tuzumi barbod bo`lgan va yangi ijtimoiy munosabatlar qaror topayotgan bir sharoitda yuz berdi.

Jangari millatchilik, diniy murosasizlik va «o`zimniki» bo`lmagan hamma narsaga nafrat bilan qaraydi. SHu boisdan bularni har tomonlama hisobga olgan holda ma'naviy tiklanishning ijobiy, bunyodkorlik, bir - birini to`ldiradigan siyosiy, iqtisodiy va madaniy dasturlar ishlab chiqish, amalga oshirishni zarur qilib qo`ydi.

Hozirgi vaqtda xavfsizlikni ta'mishlashni texnologik va texnokratik uslubiyot asosida tashkil etish-davr talabidir. Yoshlarning axborot xavfsizligini ta'minlash vazifasi, o`z navbatida jarayonni tizimlashni, natijani avvaldan kafolatlashni, jarayonga istalgai paytda tuzatishlar kiritish imkoniyati bo`lishini taqozo etadi.

Milliy, madaniy-ma'naviy, axloqiy, tarixiy qadriyatlarga bo'lgan munosabat masalasida ham jiddiy xatoliklarga yo'l qo'yildi. O'zlarini ilmning hamma sohasini yakkayu yagona bilag'oni deb atagan kommunistik mafkura targ'ibotchilari o'z faoliyatlarida o'tmishdan qolgan barcha madaniy merosni butunlay inkor etish yo'liga o'tib oldilar. Navoiy, Bobur, Ulug'bek, Yassaviy, Mashrab, Nodirabegim singari ulug' insonlar feodalizm davri namoyondalari, deb e'lon qilinishi oqibatida, ularning meroslarini o'rganish , unga to'la, xolisanillo baho berish imkoniyati cheklandi. Milliy qadriyatlarimizga nisbatan bo'lgan bunday adolatsiz munosabat O'zbekiston davlat mustaqilligiga erishgunga qadar davom etdi. Erishilgan mustaqillik xalqimiz madaniy-ma'naviy taraqqiyotiga keng yo'l ochib berdi. O'zbekistonda hozir madaniy merosimizga alohida e'tibor bilan qaralmoqda, juda ko'plab ilmiy, badiiy, tarixiy, falsafiy asarlar, qadimiy qo'lyozmalar ketma-ket nashr qilinmoqda. Noyob tarixiy yodgorliklarni saqlash va ta'mirlash ishlari ilk mustaqillik yillaridanoq boshlangan. Xalqimiz dahosi bilan yaratilgan va g'ayriqonuniy ravishda respublikadan tashqariga olib ketilgan, milliy boylik bo'lgan san'at asarlarini, qimmatli qo'lyozmalarni izlab topish, O'zbekistonga qaytarish chora-tadbirlari ko'rilyapti. "Noyob tarixiy yodgorliklarni saqlash va ta'mirlash, o'zbek xalqi yaratgan va milliy boylik bo'lgan san'at asarlarini izlab topish, ularni O'zbekistonga qaytarish ma'naviyat dasturimizning muhim bo'lagini tashkil etadi. Bu milliy boylik bizga ota-bobolarimizdan meros bo'lib qolgan. Binobarin, biz ham uni ko'z qorachig'iday asrab-avaylashimiz va

farzandlarimizga meros qilib qoldirishimiz kerak. ... Butun dunyoda bunday noyob boyliklar birinchi galda davlat muzeylari tomonidan sotib olinadi va saqlanadi. Biz ham xuddi shu yo'ldan borishimiz, buning uchun kerakli mablag'ni aslo ayamasligimiz darkor. Tengsiz milliy boyliklarimizning shuncha talon-toroj qilingani yetar, endi biz bunga aslo yo'l qo'ymaymiz", deganda I.A.Karimov qanchalar haq edi. Respublikamizda ilm-fan, madaniyat, xalq ta'limi, maorif, adabiyot va san'atni rivojlantirish, tarixiy obidalarni ta'mirlash, asliga keltirish, qariyb unutilayozgan xalq hunarmandchiligini tiklash masalalari bo'yicha Prezident farmonlari e'lon qilindi, bir necha qarorlar qabul qilindi va ularning ijrosi ta'minlanmoqda.

Xulosa qilib aytganda xalqimizning ma'naviy merosi, an'analari, urf-odatlari, adabiyoti, san'ati bilan umuminsoniy qadriyatlarning milliy darajada namoyon bo`lish shakllari islomiy qadriyatlar bilan bog`lanib ketgan. Ular millatimizning tarixiy rivojlanish jarayonida avloddan avlodga o`tib kelayotgan madaniy xususiyatlar va jihatlarda o`z aksini topadi.

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PEOPLE'S PEDAGOGY - METHODS OF NATIONAL EDUCATION THROUGH TRADITIONS

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Summary: This article examines the origin and uniqueness of some traditions of the Karakalpak people, which have been formed over several centuries, which are also found in other peoples.

Key words: Customs, traditions, people, national rituals, future, factor

XALQ PEDAGOGIKASI - SALT-DASTUR ORQALI MILLIY TARBIYA BERISH USULLARI

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Rezyume:Ushbu maqolada qoraqalpoq xalqining bir necha asrlar davomida shakllangan, boshqa xalqlarda uchrashadigan, lekin o`ziga xos bo`lgan ayrim urf-odatlari, ularning kelib chiqishi haqida so`z yuritiladi.

Резюме:В данной статье рассматривается происхождения и уникальность некоторых обычай каракалпакского народа, складывающейся на протяжении нескольких веков, которые встречается и в других народов.

Tayanch so`zlar: urf-odatlar, dasturlar, xalq, milliy marosimlar, kelajak, omil

Ключевые слова: обычай, традиций, народ, национальные обряды, будущее, фактор

Ma'rifat orqali jamiyatni o'zgartirishga jazm qilgan xalqimizning buyuk merosi, qadriyatlari bir necha asrlar davomida shakllangan bo'lsa ham, ilm-fan va yangi texnologiyalar taraqqiy etgan, kishilar dunyoqarashi, tushuncha va tasavvurlari kengaygan, ta'lim-tarbiya tizimi yangi bosqichga kotarilgan bugungi davrda ham zarracha qimmatini yo'qotmagan. Chunki jamiyat texnologik jihatdan qanchalik taraqqiy etmasin, har bir tarixiy davr inson ma'naviy ma'rifiy kamoloti, yoshlar tarbiyasi borasida yangidan-yangi, murakkab masalalarni ko'ndalang qoyaveradi. Glaballashuv jarayoni ta'sirida mazkur masala yanada jiddiy tus olmoqda.

Oila jamiyatimizning boshlang'ich bug'ini, qoraqalpoq xalqining urf-odatlari va qadriyatlarini o'zida saqlovchi muqaddas maskan. Ezguliklar oiladan boshlanib, undan mahallaga ko'chadi, jamiyatga kirib boradi. Yashayotgan tuprog'imizdagi har qanday muammolar bizni befarq qoldirmaydı. Jamiyatimizda oilalarning mustaxkam bo'lishi uchun o'z hayotiy fikr-maslaxatimizni aytish yoshi kattalar vazifasi. Mahallalar qadim-qadimdan yaxshilik beshigi,

yaxshilik zotini taratuvchi tarbiya maskani. Yashash o'rni, milliy urf-odat, salt-dasturlar shakllanadigan, inson tug'ilib kamolga kelgancha uni ta'rbiyalovchi, qalbida Ona-vatan, yuksak muhit, xalqning milliy qadriyatlarini uygotadigan maskan bo'lib kelgan.

Odamlarning bir-biriga mehr-muruvvatli, sabrli bo'lishida va o'ziga xos jamoatni shakllantirishda mahallalar juda katta ahamiyatga ega bo'lgan. Sababi, ushbu yerda xalqimizning ongini, qalbiga teran singgan ming yillik ma'naviy qadriyatlarimiz, milliy salt-dasturlarimiz xozirgi kungacha saqlanib, avlodtan-avlodga bebaho xazina bo'lib yetib kelmoqda.

Respublikamızda turli millat vakillari mustahkam yakdillik va do'stlikta yashab kelmoqda. Ularning o'z ona tilida bilim olishi, milliy urf -odatlari bilan salt-dasturlarini rivojlantirishi uchun barcha sharoitlar yaratilgan.

Qoraqalpoq xalqining o‘ziga xos boy og‘zaki ijodi va adabiyoti bor. Xalq og‘zaki ijodi XX-asrgacha rivojlanib, yozma adabiyot deyarli rivojlanmadi. Buning sababi shuki, qoraqalpoqlar uzoq asrlar davomida yarim ko‘chmanchilik hayotini boshdan kechirdilar. Mehnatkash xalqning orzu-istaklari folklor asarlarida o‘z ifodasini topar edi. Xalq og‘zaki ijodining bizgacha yetib kelgan namunalari orasida ajoyib lirik mazmundagi she’riy asarlarni ham, salmoqdor qahramonlik dostonlarini ham uchratish mumkin. Qoraqalpoq dostonlarining deyarli hammasida vatanparvarlik g‘oyalari va demokratik motivlar yorqin ifodalangan. Qoraqalpoq va o‘zbek xalqlarining tarixi bir-biriga chambarchas bog‘liq bo‘lganiday, bu ikki qon-qarindosh xalqning adabiyoti o‘rtasida o‘zaro aloqa va ta’siri ham bir necha asrlik tarixga ega. O‘zbek xalq doston va ertaklari (masalan, “Alpomish”) ko‘pdan beri qoraqalpoq halqi orasida mashhur bo‘lganidek, qoraqalpoqlarning “Qirq qiz” dostoni ham o‘zbek kitobxonlari diqqatini o‘ziga jalb etib kelmoqda. Ayniqsa ikkinchi jahon urushidan so‘nggi yillarda o‘zbek-qoraqalpoq adabiyoti aloqalari mustahkamlandi. O‘zbek va qoraqalpoq adiblarining ijodiy hamkorligi amaliy tus oldi. Bir tildan ikkinchi tilga tarjima qilish ishi keng quloch yoydi.

Til — millatning ma'naviy boyligi ekan, u millatning madaniyatini, turmush tarzi, tarixi ham hisoblanadi. Tillarga e'tibor va unga hurmat bajo etish — dunyo tinchligining ham yagona kafolati.

Bizning ona tilimizga bo'lgan e'tiborimiz, hurmatimiz hali ham yuqori bo'lishi zarur. Madaniy meros — ota-bobolarimizning umıtılmas salt-dastur, urf-odatlari, oila qurishdagi tajribalari, ularning bebaho pand-nasihatları yoshlarning bilimini, ongini boyıtadı.

1977-yildan 1990-yillarga qadar qoraqalpoq folklorınıń 20 tomlıgi nashrdan chiqdi. Bu tomlarda 31 doston, qoraqalpoq xalq ertaklari, maqol-matallari, jumboqlari, aytıshuvları, xalq ashulalari va salt-dastur jırları berilgan.

Hech qachon bir yoki bir necha kishi yoki oilalar urf-odatlar, marosimlarni yarata olmaydi. Ta'kidlash joizki, an'analar ibtidoiy madaniyat davridan buyon davom etib kelayotgan ijtimoiy xodisa bo'lib, jamiyat taqdiriga bevosita ta'sir ko'rsatadi. Bugungi kunda mahallalar olib borayotgan tadbirlar orasida qizlarimiz – bo'lg'usi onalar tarbiyasida ustivor ahamiyat kasb etib bormoqda. E'tibor berganmisiz, axil, namunali mahallalarda hulqi yomon, tarbiyasi og'ir qizlar umuman uchramaydi. Chunki uni nafaqat ota-onasi, balki butun mahalla bo'lib tarbiyalaydi. Kelin qilmoqchi bo'lgan qizning uyiga kelishdan oldin, eng avvalo qushnilardan qiz haqida surishtiradi. Bu esa tarbiyaning to'g'ridan to'g'ri inson taqdiriga bog'liqligini ko'rsatadi. Agar farzandi biror yutuqqa erishsa ota-ona «boshimni baland ko'tarib yuraman», agarda farzand qandaydir huquqbuzarlik ish qilsa «mahallada yurolmay qoldim» deb afsus bilan aytgan gaplarini eshitamiz. Mahalla oqsoqolining ota-onaga «farzandingizning bu ishi chakki bo'libdi»,-

degan tanbexi hatto sudning eng yuqori jazosidan ham og'irroq botishi mumkin. Bu ham «mahalla-tarbiya maktabi» ekanligini yana bir bor isbotlaydi.

Ta'lim tarbiya muassasalari bilan aholi va mahalla idorasining o'zaro mustahkam aloqalari, o'zaro bog'liqlikdan to'g'ri va samarali foydalanish hamda o'zaro hamkorlikni yulga quyish, albatta mahallada sog'lom muxitni yaratishda ijobiy ta'sir ko'rsatadi. Ma'lumki milliy mentalitetimizda buva, buvi, ota-ona, o'g'il-qiz farzandlar axil, tinch yashayotgan oila mukammal oila xisoblanadi. Afsuski, kundalik turmushimizda nafaqat notuliq va notinch, yolg'iz onali, balki to'liq oilalarda ham yoshlarning qarovsizligi va xuquqbuzarligi ko'p uchraydi. Mahalla joylashgan xudud shart-sharoitlarini mazkur muammo nuqtai nazaridan aniq xisobga olish ham muximdir.

Xulosa qilib aytganda, biz uchun halq pedagogikasi - muqaddas. Bu halqimizning azaliy bebaxo ma'naviy tuyg'usi. Bu tuyg'u asrlar mobaynida halqimizning jon-joniga, qon-qoniga singib ketgan. Uni asrab avaylash xar birimizning burchimiz bulib, nafaqat bugungi kunning, balki kelajak masalasi hisoblanadi.

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CHARACTERISTICS OF ORE BODIES NORTH-WESTERN FLANGE OF THE URTALIK DEPOSIT (ZARMITAN ORE FIELD)

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Annotation: The article discusses the location of ore bodies of the Urtalik gold deposit

ХАРАКТЕРИСТИКА РУДНЫХ ТЕЛ СЕВЕРО-ЗАПАДНОГО ФЛАНГА МЕСТОРОЖДЕНИЯ УРТАЛИК (ЗАРМИТАНСКОЕ РУДНОЕ ПОЛЕ)

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Аннотация: В статье рассматривается расположение рудных тел золоторудного месторождения Урталик

По результатам проведенных Урталикской партией в период 2010-2019 гг. работ, на северо-западном фланге месторождения Урталик выделено 27 рудных тел №№ 58, 58а, 59, 59а, 60, 60а, 60б, 60в, 63, 63а, 63б, 63в, 64, 65, 65а,65б, 66, 66а, 66б, 66в, 67, 67а, 67б, 67г, 67д, 68, 68а, по которым произведен подсчет балансовых запасов по категориям C_1 и C_2 и оценены прогнозные ресурсы по категории P_1. Также на площади работы установлен ряд рудных тел и минерализованных зон с забалансовыми параметрами.

Рудные тела и зоны представлены маломощными сближенными субпараллельными линейно-вытянутыми зонами тектонической проработки и жильно-прожилкового окварцевания в граносиенитах основной фазы внедрения Кошрабадского интрузива. Расположены на расстоянии 10-40 м друг от друга. Ориентировка их северо-восточная до субширотной (50-70^o до 85-110^o), падение крутое (60-80^o), в северо-восточных румбах. Расположены рудные тела на расстоянии 120-40м друг от друга.

Рудные тела 64, 65, 66, 67, 67а работами Урталикской партии прослежены на горизонте +720м подземными горизонтальными выработками (штреками, квершлагами, рассечками) из штрека 1 шахты 1 месторождения Гужумсай (сопредельного с западным флангом площади работ) с обеспечением плотности шага 20-40 м. Для изучения непрерывности оруденения по восстанию в позиции рудного тела 66 были пройдены два восстающих с высотой стволов по 40 м (гор. +760м) и короткометражными рассечками из них. Также использовались предшествующих работ по шурфам 5, 7, 8 (горизонты соответственно +912,3м, +900м и +907,87м) и выработкам из уклона шахты 1 (Дусткулов Ш.Я., 2006-2012гг.) под рудные тела 58, 58а, 59, 59а, 60, 60а, 60б, 60в, 63а, 63б, 64, 65, 66, 66а, 67а, 67б, 67г, 67д.

Параллельно с проводимыми Урталикской партией геологоразведочными работами, ЮРУ НГМК проводись горно-подготовительные работы. Было пройдено из уклона шахты №1 восемь восстающих под рудное тело 66 и три восстающих под рудное тело 65 (гор.+840м); полевым штреком прослеживалось рудное тело 63. Результаты опробования ЮРУ показали положительные данные, сопоставимые с полученными Урталикской партией при опробовании горных выработок и скважин в характеризуемых рудных позициях.

Достигнутая в процессе изучения фактическая плотность буровой сети составила 10-40х20х40 – 40-80х40-80м до горизонта +660м (до глубины 270- 320м), 40-80х80 - 80-160м между горизонтами +660 - +470м (до глубины 460-510м) и 160х80м – между горизонтами +470-400м (до глубины 560м).

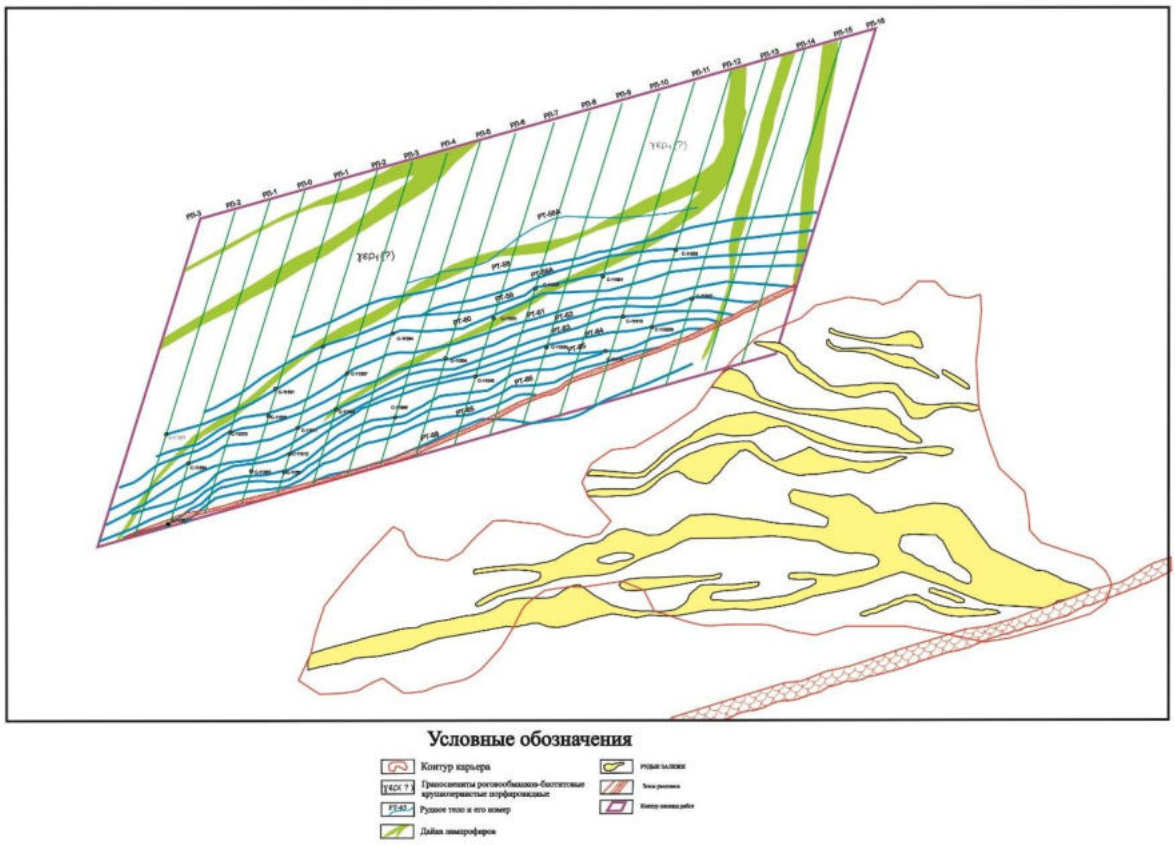
Прослеженная протяженность рудных тел по простиранию от 60-100 до 412-730м, по падению от 27-75 до 150-290м, мощность от 0,22 до 1,52, редко (в единичных раздувах до 4,90-9,25м), средняя в блоках 0,53-1,57м. Содержание золота от 1, 2 -4,6 до 30,6-79,2 г/т, среднее в блоках – 5,3 – 11,7г/т.

Руды убогосульфидные (до 2%). Сульфидная минерализация представлена в основном пиритом и арсенопиритом.

Морфология и условия залегания рудных тел изучены с полнотой, соответствующей стадии детальной оценки согласно «Методическим указаниям о проведении геологоразведочных работ по стадиям».

По выделенным рудным телам произведен подсчет запасов по категориям C_1 (до гор. +660м) и C_2 (до гор. +470м). Параметры рудных тел в пределах выделенных блоков запасов приводятся в таблице 2.1.

Геологическая карта севра-западного фланга месторождения Урталик
М 1:2000
Составил: Микиие С.Х. 2017г.



Основные черты геологического строения месторождения Урталик (Промежуточное)

Промежуточное месторождение является составной частью Зармитанской золоторудной зоны, положение которого в структуре региона обусловлено поперечным изгибом слоистой толщи нижнего палеозоя, возможно, под влиянием Зирабулак-Кошрабадского скрытого глубинного разлома субмеридиональной ориентировки.

К данному разлому приурочен Кошрабадский гранитоидный массив, в юго-восточном эндои экзоконтакте которого, наряду с месторождениями Чармитан и Промежуточное расположено и месторождение Гужумсай.

Восточной границей разведанного месторождения Промежуточное является р.л. 30, западной границей р.л. 0, северная граница объекта определяются условно от р.т. 58 , на юге Караулхана – Чармитанская зона разломов.

В геологическом строении северо-западного фланга месторождения Гужумсай принимают участие верхнепалеозойские гранитоиды Кошрабадского интрузива, которые являются основными рудовмещающими породами на участке работ.

Интрузивный комплекс Кошрабадского массива сложен на 80-85% граносиенитами основной фазы внедрения, которые связаны постепенными переходами с гранодиоритами

и гранитами, распространенными большей частью по периферии массива или слагающими апофизы в слоистых толщах. Достаточно широко, особенно в северной части площади, распространен дайковый комплекс заключительной фазы становления интрузива, по составу, в порядке последовательности образования, отвечающий лампрофирам, сиенито-диоритовым и гранитоидным разностям, часто со взаимопереходами состава в пределах одной дайки. Ориентация даек от северо-восточной до субмеридиональной, реже северо-западной. Мощность от первых до первых десятков метров, падение крутое на северо-восток.

В строении и структуре северо-западного фланга Гужумсайского месторождения, так же как на Чармитане и Урталикском, особая роль принадлежит разрывным нарушениям субширотного и северо-восточного направлений, имеющим решающее значение в распределении золотого оруденения на этих объектах. Такими нарушениями являются мощная Караулхана-Чармитанская зона разломов вдоль южного контакта Кошрабадского интрузива и его северо-восточная ветвь Центральный разлом.

Наиболее крупной и важной является Караулхана-Чармитанская зона разломов, субширотного до СВ (в восточной части Чармитанского рудного поля) простирания. Суммарная мощность зоны достигает многих сотен метров. Падение крутое, близкое к вертикальному. Состоит из серии субпараллельных и косопересекающихся разрывов мощностью от единиц до несколких десятков метров, которые фиксируются по интенсивной углефикации, лимонитизации, рассланецеванию, брекчированию, брекчированию. В северной ветви зоны отдельные разрывы залечены мощными до нескольких метров жилами безрудного кварца протяженностью до первых сотен метров.

Караулхана-Чармитанская зона разломов наиболее древняя, доинтрузивная, долгоживущая, по которой в разное время происходили разнонаправленные перемещения блоков пород. Геологоразведочными работами неоднократно в небольших интервалах отдельных составляющих зону разломов, многократно фиксировались повышенные и промышленные концентрации золота и серебра. Подобная картина прослеживается на всем протяжении зоны вдоль южного контакта Кошрабадского интрузива, что с полным достоверным основанием позволяет считать Караулхана-Чармитанскую зону разломов основным рудоконтролирующим началом.

Следующей по значению крупной системой разрывов являются разломы СВ направления. Общее падение крутое на ССЗ ($65\text{-}85^0$), суммарная мощность достигает первых сотен метров. Мощность составляющих зоны разрывов от первых метров до первых десятков метров. Взаимная ориентировка соответствует системе сколовых нарушений типа «конского хвоста», имеющими в западной и центральной частях рудного поля кардинальное северо-восточное направление, а в восточной (месторождение Чармитан, восточная часть Урталикского) северо-западное (граф. Прилож. 4)

Время заложения Центрального разлома (как и др. систем СВ и СЗ простирания) последайковое и одновременное (В.А. Хренов и др., 1985г.).

Центральный разлом и его системы в пределах Зармитанской золоторудной зоны являются рудолокализующими и вмещают практически все основные промышленные рудные тела на Урталикском месторождении.

Морфологические особенности и внутреннее строение минерализованных зон и рудоносных зон (рудных залежей).

На месторождении Урталик по морфологическим особенностям выделяется два основных типа золотого оруденения: жильный и линейные прожилково-вкрапленные минерализованные зоны.

В таблицах приведены параметры рудных тел и рудоносных зон по данным ТЭО кондиций (Л.М. Глейзер и др.).

Жильный тип представлен стержневыми кварцево-жильными образованиями мощностью от нескольких см до 1-1,5м, протяженностью по простиранию от 50-100 до 200-300м.

Линейные минерализованные зоны представлены зонами развития сближенных маломощных жил и прожилков мощностью по 0,1-5,0см, кварцевого, сульфидно-кварцевого и сульфидного состава. Контакты кварцевых прожилков и жил с вмещающими породами не четкие, не ровные.

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СТАДИЙНОСТЬ МИНЕРАЛООБРАЗОВАНИЯ И МИНЕРАЛЬНЫЙ СОСТАВ РУД СЕВЕРО-ЗАПОДНОГО ФЛАНГА МЕСТОРОЖДЕНИЯ УРТАЛИК (ЗАРМИТАНСКОЕ РУДНОЕ ПОЛЕ)

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(ТашГТУ)

Аннотация: В статье рассматривается расположение рудных тел золоторудного месторождения урталик

STAGES OF MINERAL FORMATION AND MINERAL COMPOSITION OF ORE NORTH-WEST FLANGE OF THE URTALIK DEPOSIT (ZARMITAN ORE FIELD)

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***Annotation*:** *The article discusses the locotion of ore bodies of the Urtalik gold deposit*

В последовательности от ранних к поздним выделяются следующие стадии гипогенного минералообразования:

Стадии гидротермального метасоматического замещения пород:

1. Дорудной площадной березитизации.
2. Синрудной березитизации и гумбеитизации.
3. Стадии гидротермального минерального выполнения трещин:
4. Золото-кварцевая прожилково-жильная.
5. Золото-пирит-арсенопирит-кварцевая жильно-прожилковая, прожилковая, вкраплено-прожилковая.
6. Пирит-карбонат-хлоритовая эксплозивно - гидротермальная, минеральные брекчии выполнения ветвящихся трещин, жилоподобные тела.
7. Золото-полисульфидно-сульфосольно-(карбонат)-кварцевая жильная, прожилковая.
8. Пирит-мельниковит-хлоритовая и кварц-карбонатная прожилковые.

На месторождении широко проявлена площадная дорудная березитизация граносиенитов, соответствующая по характеру новообразований внешней зоне березитов. Прожилковые образования золото-пирит-арсенопирит-кварцевой стадии повсеместно сопровождаются березитизацией граносиенитов промежуточной и внутренней зон метасоматической колонки. Гумбеитизация граносиенитов сопровождает образование кварцевых тел с золото-сульфидной минерализацией, развивается непосредственно в контактовой части кварцевых жил и прожилков.

Жилы и сопутствующие прожилки *золото-кварцевой стадии* распространены в северо-западной части месторождения (рудные тела 59-66) на продолжении минерализованных структур месторождения Гужумсай, которые представляют собой системы сближенных трещин в зонах шириной до 1-2 м. Минерализацию «Гужумсайского» типа сопровождают метасоматические изменения граносиенитов формации гумбеитов.

Минеральные образования золото-пирит-арсенопирит-кварцевой стадии (сульфидность в среднем 5-10 %) имеют широкое развитие на месторождении и являются главными золотопродуктивными (рис. 1). Основным минералом-концентратором золота является арсенопирит, а жильный кварц и пирит менее золотоносны. В эту стадию сформировались зоны линейных штокверковых кварц-сульфидных и сульфидных прожилков и редкие кварцевые жилы с гнездовидными выделениям арсенопирита. Наиболее густые вкрапления золотоносных сульфидов устанавливаются в зальбандовых частях жил или в маломощных прожилках. Золото данной ассоциации обнаруживается не только в сульфидах, но также микротрещинах в кварце.

Рис. 1 Арсенопирит-кварцевая жила

Пирит-карбонат-хлоритовая стадия. Представлена эксплозивно-гидротермальными минеральными брекчиями выполнения ветвящихся трещин, жилоподобными телами. Флюидно-эксплозивные брекчии сложены темной серовато-зеленой тонкозернистой массой (цемент), в которой беспорядочно распределены обломки

граносиенитов и породообразующих минералов размером от долей-1 мм до 2-3 см, составляющие не менее половины объема. Цемент состоит из тонко- и мелкозернистого агрегата карбоната и хлорита группы брунсвигита-рипидолита с переменным количеством кремнистого вещества и серицита, отмечаются редкие кристаллики ортита. Повсеместно встречается тонкая вкрапленность пирита, более редким является арсенопирит, появляющийся в рудных зонах.

Отложение минералов *золото-полисульфидно-сульфосольно-(карбонат)-кварцевой* стадии происходило в условиях внутрирудных подвижек ранних минеральных образований (рис. 2.7.4). Распространность продуктов этой стадии, представленных прожилками и редкими жилами, по масштабам резко уступает минеральным образованиям первой и второй золотопродуктивных стадий. Содержание золота в жилах золото-полисульфидно-сульфосольно-(карбонат)-кварцевой стадии составляет первые г/т при повышенном содержании серебра до десятков г/т, As, Pb, Zn, Cd, Bi, W, Sb.

Пирит-мельниковит-хлоритовая и кварц-карбонатная пострудная стадия минералообразования проявилась в виде прожилков и налетов минералов по поздним трещинам, развитым в зонах пострудных дислокаций.

В золотоносных зонах месторождения определено более 40 гипогенных минералов, в число которых входят породообразующие, акцессорные, метасоматические, гидротермальные. Главными рудообразующими на месторождения являются 11 минералов: золото самородное, арсенопирит, пирит, галенит, сфалерит, пирротин, кварц, карбонаты, серицит, хлорит, полевые шпаты.

Золото самородное. Все находки золота самородного приходятся на продуктивные минеральные ассоциации золото-кварцевой, золото-пирит-арсенопирит-кварцевой и золото-полисульфидно-(карбонат)-кварцевой стадий, в жильно-прожилковых образованиях которых оно образует как отдельные вкрапления, так и сгущения золотин, развивается по микротрещинам и в интерстициях зерен арсенопирита, кварца, реже пирита. Основная масса самородного золота в зонах тонкопрожилкового окварцевания присутствует в виде ультратонких и пылевидных зерен, образующих скопления по трещинам, микротрещинам в арсенопирите, а также в интерстициях и по зонам роста его зерен. Размеры отдельных золотин составляют от тысячных долей мм (преобладают до 0,05 мм) и обычно не превышают 0,5 мм, единичные зерна до 1,0 мм.

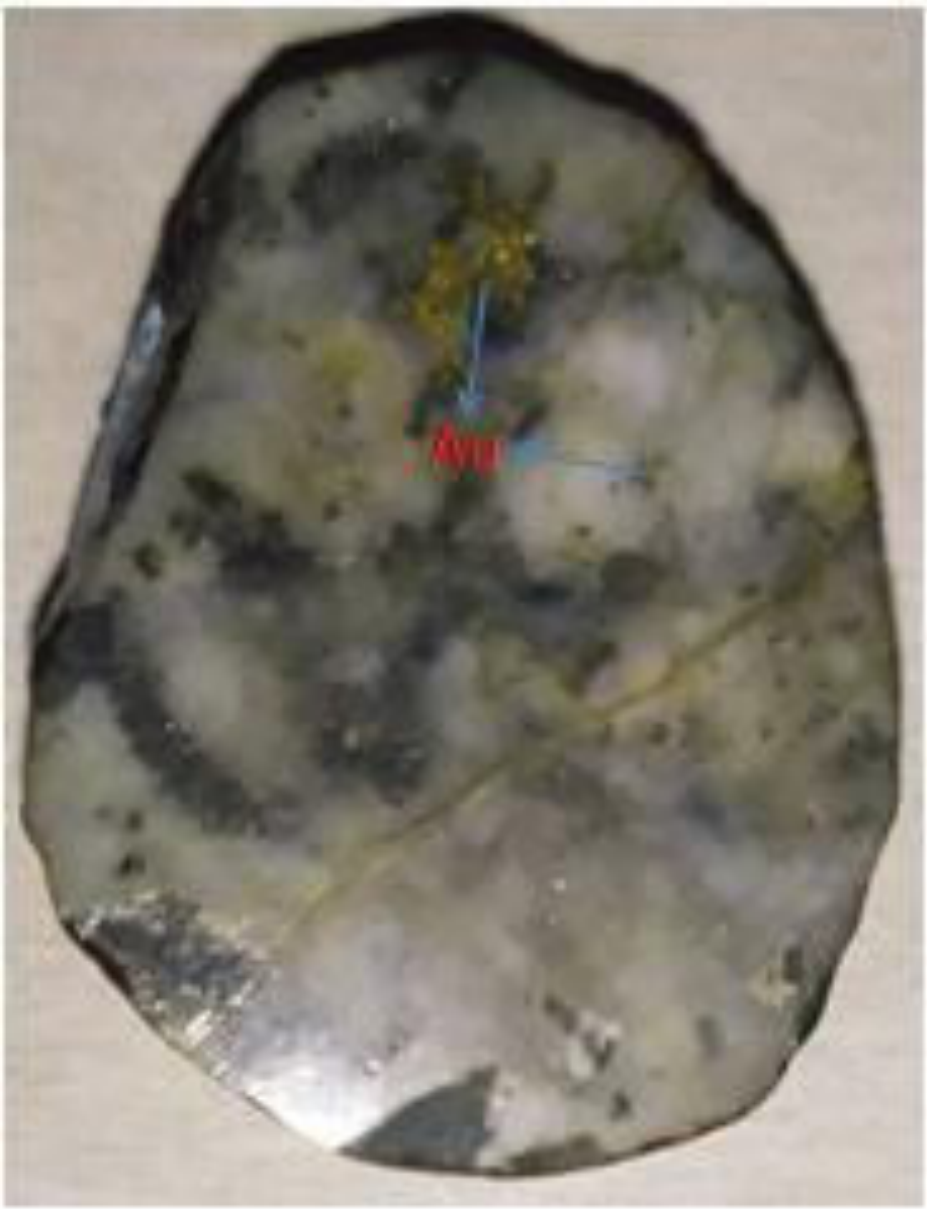

Рис.2 Аншилиф

Форма золотин из жил золото-кварцевой стадии ксеноморфная изометричная, вытянутая, угловатая, комковидная и др., цвет от ярко-желтого до желтого и светло-желтого, пробность колеблется в пределах 709-989 ‰, среднее по 23 анализам 823 %.

К главным рудным минералам относятся самородное золото, пирит, арсенопирит, халькопирит, сфалерит, штернбергит и блеклые руды.

Нерудные минералы представлены в основном кварцом, серицитом, хлоритом, полевые шпаты и др.

Самородное золото встречается в основном кварце контактирующий с арсенопирите и пирите (рис 2-3).

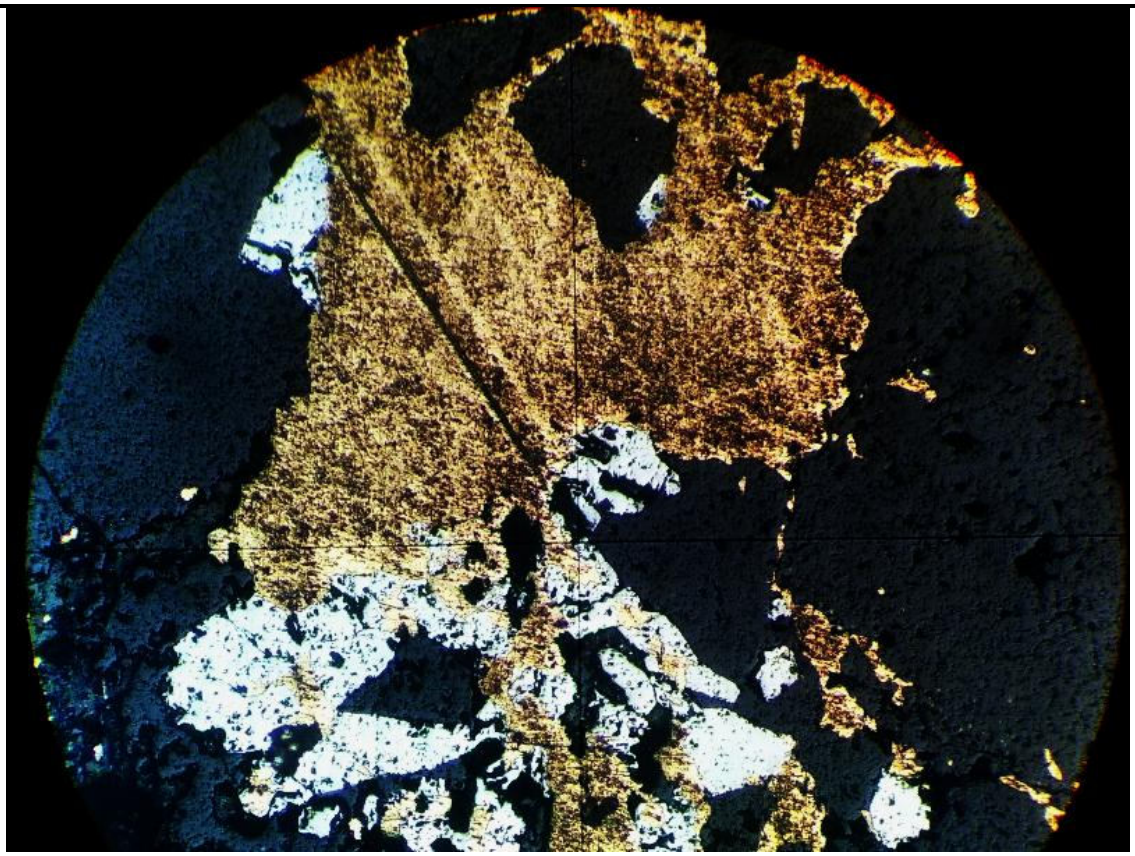

Рис 3. Самородное золото в арсенопирите. Увеличение 100^{x}

Концентрируясь в кварце, пирите и арсенопирите золото располагается в нем крайне неравномерно. Обычно образует кучные скопления, чешуйчатой, комковидной, жилковидной, неправильной форма. У крупных золоте морфология бывает усложнена за счет комбинаций нескольких форм. Поверхность золотин чаще всего неровная с отпечатками граней зерен вмещающего кварца. Крупность выделений золота от 0,03 до 0,6 мм, преобладающая вкрапленность – 0,08 – 0,3 мм.

К главным рудным минералам относятся самородное золото, пирит, арсенопирит, халькопирит, сфалерит, штернбергит и блеклые руды.

Нерудные минералы представлены в основном кварцом, серицитом, хлоритом, полевые шпаты и др.

Самородное золото встречается в основном кварце контактирующий с арсенопирите и пирите (рис 1-8).

Концентрируясь в кварце, пирите и арсенопирите золото располагается в нем крайне неравномерно. Обычно образует кучные скопления, чешуйчатой, комковидной, жилковидной, неправильной форма. У крупных золоте морфология бывает усложнена за счет комбинаций нескольких форм. Поверхность золотин чаще всего неровная с отпечатками граней зерен вмещающего кварца. Крупность выделений золота от 0,03 до 0,6 мм, преобладающая вкрапленность – 0,08 – 0,3 мм.

THE IMPORTANCE OF EXTRACURRICULAR ACTIVITIES IN PHYSICS FOR SCHOOL STUDENTS

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Abstract: Science clubs, harmoniously developed generation centers, sports schools, music schools, young technicians, young naturalists, young tourists 'clubs and other out-of-school institutions help to organize students' extracurricular activities.

Keywords: Extracurricular activities, school, physics, education, poetry, event, knowledge

MAKTAB O'QUVCHILARI UCHUN FIZIKADAN SINFDAN TASHQARI ISHLARNING AHAMIYATI

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Navoiy Davlat Pedagogika Instituti "Texnologik ta'lim" yo'nalishi talabasi

Annotatsiya: O'quvchilarning sinfdan tashqari ishlarini tashkil etishda fan to'garaklari, barkamol avlod markazi, sport maktabi, musiqa maktablarida, yosh texniklar, yosh tabiatshunoslar, yosh sayyohlar klubi va maktabdan tashqari boshqa muassasalar katta yordam beradi.

Kalit so'zlar: Sinfdan tashqari ishlar, maktab, fizika, tarbiya, she'r, tadbir, bilim

Sinfdan tashaqari ishlar - umumiy o'rta ta'lim maktabi o'quv tarbiyaviy ishining tarkibiy qismi, o'quvchilarning bo'sh vaqtini tashkil etish shakllaridan biri. Sinfdan tashqari ishlari. O'quvchilarni barkamol shaxs sifatida shakllantirish va ularni hayotga tayyorlashda keng imkoniyatlar yaratadi. Sinfdan tashqari ishlariga o'quvchilar bilan o'tkaziladigan va ularga tarbiya hamda bilim berishga qaratilgan turli xil mashg'ulotlar tizimi kiradi. Bunday mashg'ulotlar pedagogik jamoa, sinf rahbari, yoshlar tashkilotlari rahbarligi va bolalarning o'z-o'zini boshqarish tashkilotlari tomonidan darsdan tashqari vaqtda uyushtiriladi.

- Sinfdan tashqari ishlarining asosiy shakllari sifatida ommaviy ishlar:
- maktab klublaridagi tadbirlar, kecha, munozara va tanlovlar o'tkazish, viktorina va ko'rgazmalar uyushtirish, tabiat qo'yniga, maktab va muzeylarga ekskursiyalarga chiqish
- To'garak ishlari:
- o'quvchilarning turli fan to'garaklari, sport seksiyalari, ansambllardagi qatnashishlari
- Mustaqil ishlar:

 o‘quvchilarning sinfdan tashqari o‘qishi, kolleksiya to‘plashi, texnika, musiqa, tasviriy san’at, chizmachilik va sh.k. bilan mustaqil shug‘ullanishini ko‘rsatish mumkin.

Xususan fizik topishmoq va she’rlar yodlash orqali o’quvchi fizik jarayonning mohiyatini juda oson va tez anglaydi.

Darslarda xalq maqollari va hayotiy hikoyalardan foydalanish o’quvchilarda milliy madaniyatimizni shakllantirishi bilan bir qatorda fanga bo’lgan qiziqishini ham oshiradi.

1. Suv emas, simdan oqar,
O’t emas, chiroq yoqar. (elektr toki)

2. Oyog’i yo’q ammo u,
Uzoqlarga ketadi.
Gap aytib yuborsang,
Kimga desang eltadi,
Uchar deb o’ylasangiz.
Uchishga yo’q qanoti,
Qani o’ylab ko’ringchi.
Nimadir uning nomi? (radio)

3. Neki aytsang yozadi,
Qog’oz, qalamsiz chaqqon.
Xohlasang so’zlaringni,
Takrorlab berar shu on. (magnitafon)

4. Oppoq sandiq ochildi,
Olamga nur sochildi. (osmon, Quyosh)

5. Uzoq tog’da o’t yonar. (Quyosh)

6. Suvda yotar – suv ichmas,
Yurganini odam bilmas. (Quyosh)

7. Oltin kelganda, kumush ketar,
Kumush kelganda, oltin ketar. (Quyosh va Oy)

Fizika fanini topishmoqlar va hayotiy hikoyalar bilan o’qitish jarayonida o’quvchining fizikaga bo’lgan qiziqishi oshishi bilan bir qatorda xotirasi mustahkamlanadi va nutqi ravonlashadi.

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SIMULATION OF FLOW OF A LIQUID WITH FORMATION AND PROPAGATION OF WAVES

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Abstract: It has been established that the process of formation and movement of the breakthrough wave of Lake Sarez is of a sharply changing nature, the parameters of which depend on the accepted scenario of the initial wave (overflow and destruction of the blockage), and on the topology of the gorges along which the wave will move.

МОДЕЛИРОВАНИЕ ТЕЧЕНИЕ ЖИДКОСТИ С ОБРАЗОВАНИЕМ И РАСПРОСТРАНЕНИЕМ ВОЛН

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НИШОНОВ Ф.Х.,
ЖЎРАХОНОВА Ш,
МАДИЁРОВА М

Установлено, что процесс формирования и движения волны прорыва озера Сарез, носит резко изменяющейся характер, параметры которого зависят от принятого сценария возникновения начальной волны (перелив и разрушение завала), так и от топологии ущелий, по которым будет двигаться волна. Исследования модели показали, что волна прорыва имеет крутой фронт и распространяется с большой скоростью, т.е: $V = 20 - 60\frac{м}{сек}$. Это обусловлено, как высоко- напорностью плотин, так и большими уклонами местности. Были рассмотрены различные сценарии прорыва озера Сарез. В качестве примера можно привести результаты расчета, когда Усойский завал образует прорыв до контура не размываемых пород и изливается до 11,5 куб.км. воды. В этом случае в зону затопления попадают территории Сурхандарьинской, Бухарской, Хорезмской областей и Республика Каракалпакстан с населением 3,1 млн. человек. Высота прорывной волны по руслу р. Амударьи изменяется от 20 м. при выходе из р. Пяндж, до 6 м. в створе Туямуюна (расстояние от озера 1638 км.) и 3 м. при впадении реки Амударьи в Аральское море (расстояние от озера 2200 км.) [6].

В основе плотины лежит горный монолит, который трудно разбить водой, поэтому наибольшую опасность представляет не размыв плотины, а перелив волны, которая может быть вызвана в результате схода правобережного склона. От объема этого склона, от того, как он будет сползать или падать, зависит высота волны [5].

Переливающая волна имеет сложный состав горной массы, которой состоит из суглинка, примесей и других дисперсных смесей.

Математическую модель движение дисперсных смесей рассмотрим в модели взаимопроникающих и взаимодействующих смесей и моделируем задачу как истечения из трубы дисперсной смеси в затопленную область, т.е. в область поймы реки, которая

заполнена дисперсной смесью. Или как переливающая волны жидкой дисперсной смеси, которая может быть вызвана в результате схода право или левобережного склона.

При переливе волны жидкой дисперсной смеси или как в модели, при истечении из трубы струи дисперсной смеси в затопленное пространство наблюдается образование волн на поверхности раздела обоих потоков; нарушается устойчивость потока, образуются волны и что приводит к распаду на отдельные части, [1].

С целью теоретического исследования устойчивости, или учета потери устойчивости переливающихся волн дисперсной смеси применяем метод малых возмущений.

Рассмотрим задачу об истечении дисперсной смеси вязких жидкостей из полу бесконечной цилиндрической трубы радиуса R_0 в затопленное пространство, состоящие из других фаз дисперсной смеси. Вследствие взаимодействия обеих слоев и фаз смеси, на цилиндрической поверхности границы раздела потоков дисперсных смесей образуются возмущенные волновые движения, характерных для каждых слоев.[1,3].

Предполагается, что при малых возмущениях возникают малые изменения динамических характеристик потока дисперсной смеси и малые изменения в формах образующих:

$$L_0\left(r_c(t) = R_0 \pm h(x,t)\right), R_0 \succ\succ h(x,t).$$

Для моделирования задачи область взаимодействия двух дисперсных смесей разделим на части.

$$G_1\{0 \prec x \prec \infty, 0 < r < r_c(x,t)\},$$

и

$$G_2\{0 \prec x \prec \infty, ((R_0 - h(x,t)) \prec \hat{r} \prec (R_0 + h(x,t)))\},$$

Для задач о течении двухслойного потока дисперсной смеси в областях имеем соответствующие уравнения движения:

$$\left.\begin{aligned} \frac{\partial \hat{u}_n^{(m)}}{\partial t} + u_n^{(m)} \frac{\partial \hat{u}_n^{(m)}}{\partial x} &= -\frac{1}{\rho_{ni}^{(m)}} \frac{\partial p^{(m)}}{\partial x} + f_{no}^{(m)} \mu u_{n0}^{(m)} \nabla^2 \tilde{u}_n^{(m)} \\ \frac{\partial \tilde{v}_n^{(m)}}{\partial t} + u_n^{(m)} \frac{\partial \hat{u}_n^{(m)}}{\partial x} &= -\frac{1}{\rho_{ni}^{(m)}} \frac{\partial p^{(m)}}{\partial r} + f_{no}^{(m)} \mu u_{n0}^{(m)} \nabla^2 v_n^{(m)} \end{aligned}\right\}$$

и уравнение неразрывности в виде [2,3]:

$$\frac{\partial (u_n^{(m)} r)}{\partial x} + \frac{\partial \tilde{V}_n^{(mr)}}{\partial r} = 0 \qquad (1)$$

Объёмная концентрация дисперсной смеси 1 - ой и 2 - ой фазы m - слоя имеют равенства:

$$f_1^{(m)} + f_2^{(m)} = 1;$$

Приведенные плотности n-ой фазы написана через через истинной плотности и объёмной концентрации 1-ной фазы, m-ного слоя дисперсной смеси.

$$\rho_n^{(m)} = \rho_{ni}^{(m)} \cdot f_n^{(m)},$$

Приведенная плотность 1-ой фазы написана через через истинной плотности и объёмной концентрации n-ной фазы, 1-ного слоя дисперсной смеси [6].

$$\rho^{(1)} = \rho_{11}^{(1)} \cdot f_1^{(1)},$$

Приведенная плотность 2-ного слоя 1-ой фазы написана через истинной плотности и объёмной концентрации 2-ой фазы, 2-ого слоя дисперсной смеси.

$$\rho^{(11)} = \rho_{21}^{(11)} \cdot f_2^{(11)}$$

Далее везде n - номер фазы, m - номер слоев дисперсных смесей,

где $\rho_n^{(m)}, \rho_{ni}^{(m)}$ - приведенные и истинные плотности,

$\vec{V}_n^{(m)}$ - вектор скорости частиц,

$f_n^{(m)}$ объемные концентрации n-ной фазы дисперсной смеси в области G_m.

Рассматривается, что обе фазы дисперсной смеси в обеих слоях G_1 и G_2 несжимаемы, а также плотности постоянными

$$\rho_{ni}^{(1)} = const, \rho_{ni}^{(11)} = const,$$

И объемные концентрации постоянными:

$$f_n^{(1)} = const, f_n^{(11)} = const.$$

Когда происходит взаимодействия дисперсных смесей, скорости каждой фазы каждого слоя получают импульсивное давление и приобретают малых возмущений, т.е. скорости получают малых возмущений типа $\tilde{u}_n^{(m)}, \tilde{v}_n^{(m)}$,

Тогда скорости распределения дисперсных смесей имеет вид:

$$u_n^{(m)} = u_n^{(m)} + \tilde{u}_n^{(m)}, v_n^{(m)} = \tilde{v}_n^{(m)},$$

и соответствующие приращения плотности, т.е при взаимодействии дисперсных смесей, плотности фаз меняются за счет изменения кинематических вязкостей, которых моделируем как бы приобретающих малых приращений и имеем [2]:

$$\rho_{ni}^{(m)} = \dot{\rho}_{ni}^{(m)} + \tilde{\rho}_{ni}^{(m)}, \qquad (2).$$

И естественно меняется объемные концентрации фаз:

$$f_n^{(m)} = f_{n0}^{(m)} + \tilde{f}_n^{(m)}$$

Введем функции тока $\psi_n^{(m)}$ в виде удовлетворяющего уравнению неразрывности (1).

$$\hat{u}_n^{(m)} = \frac{1}{\hat{r}} \frac{\partial \psi_n}{\partial \hat{r}}, \hat{v}_n^{(m)} = -\frac{1}{\hat{r}} \frac{\partial \psi_n{}^{(m)}}{\partial \hat{x}} \qquad (3)$$

Проведем дифференцирование по $\hat{r}$ и $\hat{x}$ и другие преобразования

Уравнения (1) с учетом равенства (3) приводится к виду [3]:

$$\frac{\partial (D\psi_n{}^{(m)})}{\partial \tau} + u_{n0}{}^{(m)} \frac{\partial D\psi_n{}^{(m)}}{\partial \bar{x}} = \frac{\nu^{(m)}}{\mathrm{Re}_0} D(\partial \psi_n{}^{(m)}) \qquad (4)$$

$$x = R_o \hat{x}, r = R_o \hat{r}, \tilde{u}_n^{(m)} = u_0, v_n^{(m)} = V_o \hat{V}_n^{(m)}$$

где

$$u_0 = \max\left\{u_n^{(1)}; u_n^{(11)}\right\}; t = \frac{R_0}{V_0}\tau \quad ,$$

Истинные скорости n ной фазы m -ного слоя имеют вид

$$u_{no}^{(m)} = \frac{u_n^{(m)}}{u_0}; \qquad \hat{\nu}_n^{(m)} = \frac{\nu_n^{(m)}}{\nu_0};$$

здесь

$$\nu_0 = \max\left\{\nu_n^{(m)}\right\},$$

Число Рейнольса

$$\mathrm{Re} = \frac{\nu_0 R_0}{\gamma_0}.$$

Полученное уравнение эквивалентно уравнениям:

$$\frac{\partial \psi_n^{(m)}}{\partial \tau} + u_{n0}^{(m)} \frac{\partial \psi_n^{(m)}}{\partial \hat{x}} - \dot{\nu}_n^{(m)} D\psi_n^{(m)} = 0 \qquad (5)$$

$$D\psi_n^{(m)} = 0$$

$$\dot{\nu}_n^{(m)} = \frac{\nu^{(m)}}{\mathrm{Re}_0} \qquad (6)$$

С учетом равенства (6) вводим потенциал скорость и решения искомой задачи представим в виде [4,5]:

$$\left.\begin{aligned} \hat{u}_n^{(m)} &= \frac{\partial \varphi_n^{(m)}}{\partial \hat{x}} + \frac{1}{\hat{r}} \frac{\partial \hat{\psi}_n^{(m)}}{\partial \hat{r}} \\ \hat{v}_n^{(m)} &= \frac{\partial \varphi_n^{(m)}}{\partial \hat{r}} - \frac{1}{\hat{r}} \frac{\partial \hat{\psi}_n^{(m)}}{\partial \hat{x}} \end{aligned}\right\} \qquad (7)$$

Функцию потенциала скорости

$$\varphi_n^{(m)} = R_n^{(m)}(r) \cdot \exp\left[i(k_o \hat{x} - \omega_o \tau)\right]$$

и функцию тока находим в виде:

$$\psi_n^{(m)} = F_n^{(m)}(r) \cdot \exp\left[i(k_o \hat{x} - \omega_o \tau)\right]$$

Где

$$k_0 = kR_0, \omega_0 = \omega \cdot \frac{u_0}{R_0},$$

k – волновое число, ω – частота колебания. Распределение скоростей и давлений в обоих слоях каждой фазы дисперсной смеси определяется из ниже приведенных равенств. Распределение скорости дисперсной волны параллельной оси Ox

$$u_n^{(m)} = \left\{ik_o A_n^{(m)} I_0(k_o \hat{r}) + A_n^{(m)} K_0(k_o \hat{r}) - \lambda_n^{(m)}\left[C_n^{(m)} I_0(\lambda_n^{(m)} \hat{r}) - D^{(m)} \hat{K}_0(\lambda_n^{(m)} \hat{r})\right]\right\} \times$$
$$\times x \exp\left[(k_0 \hat{x} - \omega_0 \tau) i\right].$$

Распределение скорости дисперсной волны параллельной оси Oy

$$v_n^{(m)} = \left\{k_o[A_n^{(m)} I_1(k_o\hat{r}) - B_n^{(m)} K_1(k_o\hat{r}) + ik_0[C_n^{(m)} I_1(\lambda_n^{(m)}\hat{r}) + D^{(m)}\hat{K}_1(\lambda_n^{(m)}\hat{r})]\right\}\times$$
$$\times \exp[i(k_0\hat{x} - \omega_0\tau)]$$

Распределение силы давления дисперсной волны[5]

$$P^{(m)} = \left[\rho^{(m)} A_n^{(m)} I_0(k_o\hat{r}) + \rho^{(m)} C_0^{(m)} K_0(k_o\hat{r})][i\omega_0 - K_0 u^{(m)}\right]\exp[i(k_0\hat{x} - \omega_0\tau)] + const.$$

где

$$\rho^{(m)} A^{(m)} = \sum_{n=1}^{2} \rho_n^{(m)} A_n^{(m)} .$$

$$C^{(m)}\rho^{(m)} = \sum_{n=1}^{2} \rho_n^{(m)} C_n^{(m)}$$

Коэффициенты

$$A_n^{(m)}, B_n^{(m)}, C_n^{(m)}, D_n^{(m)}$$

определяются из граничных условий обеих слоев. Характеристические уравнения для волновых чисел имеет вид:

$$(\lambda_n^{(m)})^2 = k_0^2 - i\frac{\omega_0 - k_0 u_n^{(m)}}{\hat{\nu}_n^{(m)}} \qquad (8)$$

Вывод: При взаимодействии двух дисперсных смесей, в зависимости динамических и кинематических условий в потоке, во внешней среде возникают различные волновые движения двухслойного потока с разными характеристиками, которые определяются по характеристическому уравнению (8).

Использованная Литература

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«Dynamic (changes) education of waves at interaction dispersive of mixes» The distribution small disturbance is considered (examined) at the expiration dispersive of a mix from a floor of the limited pipe in the flooded space consisting another dispersive by a mix. The distributions of speeds and pressure in both flows dispersive of mixes are received.

.«Оқимда тўлқиннинг пайдо бўлиши ва тарқалишини моделлаштириш» Дисперс аралашманинг ярим чексиз цилиндрик кувурдан бошка дисперс аралашма ичида (кичик

кузгалишли) таркалиш масаласи қаралади. Хар иккала катламдаги дисперс аралашмалар тезликлари ва босимларининг таксимоти олинииб, ҳар бир қатламдаги ва фазадаги тўлқин сонини топиш учун аналитик ифода берилади.

«Моделирование течение жидкости с образованием и распространением волн» Рассматривается распределение малых возмущений при истечении дисперсной смеси из полуограниченной трубы в затопленное пространство, состоящей из дисперсной смеси. Получены формулы для распределения скоростей и давлений в обоих слоях и каждой фазы в этих слоях дисперсных смесей.

IMPROVING THE CHARACTERISTICS OF THE POWER CONVERTER FOR AIRCRAFT POWER SUPPLY SYSTEM

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The article reveals the prospects for using static electric power converters in aircraft autonomous systems, which use transformers with a rotating magnetic field, which reduce the level of electromagnetic interference and increase reliability indicators

СОВЕРШЕНСТВОВАНИЯ ХАРАКТЕРИСТИК ПРЕОБРАЗОВАТЕЛЯ ЭЛЕКТРОЭНЕРГИИ ДЛЯ АВИАЦИОННЫХ СИСТЕМ ЭЛЕКТРОСНАБЖЕНИЯ

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В статье раскрываются перспективы применения в авиационных автономных системах статических преобразователей электрической энергии, в составе которых используются трансформаторы с вращающимся магнитным полем, позволяющих снизить уровень электромагнитных помех и повысить показатели надежности.

Maqolada elektromagnit shovqin darajasini pasaytirish va ishonchlilik ko'rsatkichlarini oshirishga imkon beradigan aylanadigan magnit maydonga ega transformatorlarni o'z ichiga olgan statik elektr energiyasining aviatsiya avtonom tizimlarida foydalanish istiqbollari oshkor etiladi.

В настоящее время для согласования параметров источников электроэнергии и нагрузки применяются статические преобразователи электроэнергии (ПЭ), выполненные на силовых полупроводниковых приборах. Как известно, ПЭ не только преобразуют электроэнергию, но и способны стабилизировать напряжение, частоту тока, а при необходимости и регулировать их величину в зависимости от требований нагрузки.

Кроме того, силовые электронные приборы в настоящее время широко применяется в качестве коммутационных устройств в системах автоматического управления и защиты.

В общем случае силовые электронные приборы классифицируются по следующим признакам:

- преобразователи напряжения переменного тока (выпрямители, преобразователи частоты и преобразователи фаз);
- преобразователи напряжения постоянного тока (инверторы и конверторы);

- по количеству фаз входного и выходного напряжений (с однофазным, трёхфазным и многофазным входом или выходом);
- по уровню выходного напряжения (до 100 В – низковольтные; от 100 до 1000 В – с повышенным напряжением; свыше 1000 В – высоковольтные);
- по выходной мощности (до 100 Вт – микромощные; от 100 до 1000 Вт – малой мощности;
- от 1 до 20 кВт – средней мощности; от 20 до 100 кВт – повышенной мощности; свыше 100 кВт – большой мощности).

Широкое применение ПЭ нашли в регулируемом электроприводе переменного тока. Созданы высокоэффективные преобразователи, преобразующие ток промышленной частоты в переменный ток регулируемой частоты для управления частотой вращения электродвигателя.

Для различных областей техники разработаны ПЭ как с регулируемыми, так и стабилизированными выходными параметрами. Преимущества ПЭ определили их широкое применение в системах автономного, в том числе бесперебойного электроснабжения (СБЭ). Один из примеров – это бортовые системы электроснабжения. Кроме того, расширилась область применения силовых электронных приборов в области бытовой техники. Перспективным является направление применения непосредственных преобразователей частоты (НПЧ) для стабилизации напряжения и частоты автономных источников электроэнергии, в которых частота вращения привода генератора изменяется в широких пределах, к примеру частота вращения газотурбинного двигателя.

Целесообразно рассмотреть основные эксплуатационно-технические характеристики современных силовых электронных преобразователей электроэнергии и раскрыть перспективы их дальнейшего развития.

Анализ технической литературы показал, что для мощности, определяемой в пределах 3–12 кВт и частоте тока 50 Гц, КПД ПЭ находится в пределах 70–90 %. Кроме того, если определить общий объём и массу ПЭ и потребителей в составе автономных систем электроснабжения, то до 50 % объёма и массы приходится на долю ПЭ. При этом значительную часть объёма и массы ПЭ (до 80 %) занимают трансформаторы, дроссели и конденсаторы.

Один из недостатков статических ПЭ связан с принципом их действия. Поскольку они являются нелинейными элементами, то во время коммутации появляются электромагнитные помехи из-за скачкообразного изменения токов и напряжений в электрических цепях преобразователя. Передача электромагнитных помех происходит как по проводным связям преобразователя с другими устройствами автономной системы, так и непосредственно через окружающее пространство.

Для улучшения технических характеристик, и в особенности массогабаритных показателей (МГП) в настоящее время в составе ПЭ мощностью до 1 кВт применяются промежуточные ПЭ повышенной частоты. Промежуточная частота преобразования электроэнергии находится в пределах от 400 Гц до 20 кГц в зависимости от мощности ПЭ (в микромощных ПЭ может достигать несколько сот мГц). Промежуточная повышенная частота позволила уменьшить массу ПЭ в 4 – 15 раз (в микромощных – более чем в 50 раз), что важно для бортовых систем электроснабжения, в том числе космических аппаратов.

Одним из эффективных путей уменьшения массы и габаритов полупроводниковых преобразователей, повышения их КПД и надежности является создание силовых интегральных схем (СИС), в которых на одном кристалле технологическими приемами изготавливаются силовые ключевые элементы, схемы их защиты, устройства управления, регулирования и диагностики. СИС, смонтированные в едином корпусе, представляют законченную часть преобразовательного устройства (выпрямителя, инвертора, преобразователя частоты и т.д.).

Силовые интегральные схемы имеют низкий уровень потерь, малую мощность управления и в несколько раз уменьшают массу и габариты силового блока полупроводниковых приборов.

Компактность достигается за счет размещения на одном чипе силовых компонентов, что обеспечивает минимальное расстояние между ними. Наличием «встроенной» системы контроля параметров обеспечивается повышение надежности преобразователя, которая увеличивается также из-за уменьшения количества дискретных элементов и монтажных соединений. Допустимость работы от микро ЭВМ расширяет функциональные возможности преобразователей на базе силовых интегральных схем.

Технологические трудности совмещения на одном кристалле силового полупроводникового прибора с низковольтными интегральными схемами, которые возрастают по мере увеличения уровней рабочих токов и напряжений ключевых элементов, определили создание двух типов силовых интегральных схем: монолитных и гибридных.

Монолитные схемы на токи в десятки ампер и напряжения до 50 В могут использоваться в промышленной, автомобильной и бытовой силовой электронике. Диапазон мощностей – до единиц киловатт.

Одно из перспективных направлений, в решении задачи снижения уровня электромагнитных помех – за счет применения в составе ПЭ трансформаторов с вращающимся магнитным полем (ТВМП), что позволит уменьшить число силовых электронных приборов ПЭ, упростить систему управления и защиты и повысить показатели надежности преобразователей и автономной системы в комплексе.

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PILGRIMAGE SITE «KHUZHAI SAROB ATA»

Kenjayev Abdullaziz Erkin o'g'li

Pilgrimage site «Khuzhai Sarob Ata» At the crossroads near the village of Pishagar, Zaamin district, there is one of the outstanding pilgrimage sites. The locals call this locality «Khuzhai Sarob Ata» (translated from Persian as «master of the source of water»). This place of worship is shrouded in greenery, trees and a poly garden, and at the time of the guests' stay their souls will be filled with light and purity. Peace and the absence of adversity, as if they would recede from visitors to these places, and time will stop and be filled with light and grandeur. A little higher you can watch the tomb of the saint, and a mosque is spread out around Volizi, which gives these places extraordinary grandeur and hospitality.

Of course, you ask whose coffin is in these places, and the answer is very simple, the coffin serves as the local burial place of one of the most prominent thinkers of antiquity Mawlano Muhammad Peshagory. According to some sources, the thinker of antiquity was born in 1321. You can find information about the outstanding person in the annals of «Rashkhat-ul ainulkhayet», which belongs to the pen of Fakhriddin Ali ibn Voiz al Kosifiy. According to these data, the religious views of Mavlono Muhammad Peshagoriy originate from the Khojagon direction of the Naqshbandiya tarikat, he was a continuation of the Naqshbandiya tariqah and knew the secrets of Sufism. According to other sources, Mavlono Muhammad Peshagory was born in 700 according to the Christian calendar, while many knew him under the names «Khozhai Ser-ob» or «Khozhai Sar-ob».

It is said that Mavlono Muhammad Peshagory arrived in these places from distant lands and remained to live on this earth until the end of his life. It is surprising that this person did not choose this locality for nothing, since the presence of mountain springs, beautiful nature and good-natured people forced Mavlono Muhammad Peshagory to stay here and continue to carry the banner of thought among the local people. Among the local elders, legends are heard that Mavlono Muhammad Peshagory built a small house and began to work on this land, taking the name «Peshagory», that is, «From Peshagor», which gave him the opportunity to get closer to local customs and traditions.

Until the last days of his life, Khuzhai Sarob Ata lived in a small settlement where he was engaged in gardening, growing grapes, and was engaged in teaching young people craft and honest work.

Among the people they are famous for their charisma and have a beneficial effect on human health. If someone warms up water from a given stream, do not hesitate that the water flowing in these streams and springs will become life-giving moisture for those who suffer and will help cure clean mountain streams that are known to be an ailment.

Today, people from the villages of Pishagor and Kangli drink water from streams of this source, the total number of which reaches more than 3 thousand people.

Incredibly, the water flowing in the stream, like a mirror of the soul, makes it possible to enjoy the incredible taste of pure water and cool the fervor of even the most hated inhabitants. Sacred fish swimming in the springs play in the water, enjoying the gifts of nature and bread crumbs provided by the pilgrims.

This is what testifies to the purity and fragrance of these places with independence, the pilgrimage place Mavlono Muhammad Peshagoriy became the center of ecotourism, here you

can meet guests both from neighboring regions and from abroad. A huge contribution to the development of the infrastructure of the shrine was made by the residents of the village of Pishagor A. Ilashev, Y. Akhmedov and S. Karshiboev. With their help, from 1997 to 2001, the shrine was reconstructed and the gardens were re-reconstructed, and the shrine itself occupies more than 2 hectares of land.

Of course, independence has given us the opportunity to study our stories in more detail, to preserve the heritage of our fathers, to recognize and be proud of who our ancestors were, and today, when the people of our immense country believe in tomorrow, we with rich pride can declare the presence of a truly historical heritage of the Uzbek people.

"THE TECHNOLOGY OF USING THE CROCODILE_PHYSICS PROGRAM IN TEACHING PHYSICS"

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Annotation: This study examines pre-service physics teachers' perception on computer-based learning (CBL) experiences through a virtual physics program. An Algodoo program and smart board was used in this study in order to realize the virtual environment. We took one specific physics topic for the 10 th grade according to the physics curriculum in Turkey. Archimedes`Archimedes`principle is one of the most important and fundamental concepts needed in the study of fluid mechanics. We decided to design a simple virtual simulation in Algodoo in order to explain the Archimedes' principle easier and enjoyable. A smart board was used in order to make virtual demonstration in front the students without any real experiment. There were 37 participants in this study who are studying pedagogical proficiency at Kırıkkale University, Faculty of Education in Turkey. A case study method was used and the data was collected by the researchers. The questionnaire consists of 28 items and 2 open-ended questions that had been developed by Akbulut, Akdeniz and Dinçer (2008). The questionnaire was used to find out the teachers`teachers`perceptions toward Algodoo for explaining the Archimedes' principles. The result of this research recommends that using the simulation program in physics teaching has a positive impact and can improve the students' understanding.

Key words: Studying pedagogical proficiency, Physics of Everyday Life, interactive engagement in class.

Introduction

During the spring of 2019, several PhET simulations were incorporated into the curriculum for The Physics of Everyday Life - a distribution course for non-science majors. Out initial experience with incorporating the PhET simulations into the classroom curriculum was very positive. As the instructors, we found that the simulations helped tremendously with communicating visual models, fostering conceptual development, illustrating everyday life phenomena that are not visible to the eye, and providing opportunities for interactive engagement in class. We also received positive feedback from the students with regard to how helpful they found the PhET simulations. We found improved student performance on the final exam compared with the previous year.

The Physics Education Technology (PhET) Project is a suite of online tools for teaching and learning introductory physics at the high school and college levels. Elaborate Java- and Flash-based simulations. Support for educators and students with resources for both teaching and learning with these simulations. Research to formally assess their influence on student learning and attitudes in a variety of settings. A large number of physics-related simulations exist and are being used in introductory physics courses around the country. In our efforts, we employ a design philosophy that compliments the other simulations available.

The PhET Project - an on-going effort to create a suite of interactive simulations and related education resources that aid in the teaching and learning of physics. Our immediate

objectives are: Continue to develop new simulations and to refine existing ones. Accompany each simulation with a tutorial or series of tutorials that provide a means for self-guided discovery of the physics principles. Provide resources for educators that include: Examples of learning goals that are well addressed by using the simulations. Lecture versions of each simulation with larger fonts and instructor control over configuration. Examples of use as a lecturing tool including suggestions for interactive lecture demos and peer instruction activities. Examples of homework assignments created to work with the simulations.

The PhET Project includes a substantial research effort to assess the effectiveness of these interactive simulations in a variety of educational environments, particularly in introductory physics courses and as stand-alone / informal educational tools. Research areas include: The simulations effect on students' ability to solve conceptual and quantitative problems. Student attitudes and beliefs: about learning physics about their own learning and of the simulations themselves. Influences on the effectiveness of the simulations as a learning tool. Student's interaction with the simulation (e.g. guided tutorial vs game-like challenge). The educational setting (e.g. groups vs nongroups).

Emphasize the connection between physics and everyday life. If students perceive the relevance to their lives, they are more likely to invest time in understanding the physics. If you teach physics in the context of everyday life applications, students are more likely to recognize other applications where physics enters their daily lives. Facilitate the development of accurate visual and conceptual models of the underlying physical principles. Through simulations, educators can more effectively share the mental pictures scientists have developed for how things work. Interactive simulations of physical phenomena aid in developing accurate conceptual models of the physics. Serve as a bridge between conceptual physics and abstract concepts of mathematical models, or between different forms of representation. Interactive simulations providing multiple visual representations of the same physical phenomena can help students recognize these connections and strengthen their overall understanding of the physics. Engage students through interactive exploration of the physics and through the creation of fun, game-like challenges. How the student interacts of engages with the simulation can impact their learning and their attitudes towards physics. Open model environment promotes student-driven inquiry. Use quantitatively accurate physical models for simulation behavior. Make physics accessible to a broader population. Simulations provide an alternative to traditional modes of teaching and learning physics Free, web-based simulations and education resources are valuable to educators.

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OBJECTIVES FOR FORMING THE IDEOLOGICAL IMMUNITY IN THE PROCESS OF GLOBALIZATION

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Abstract: The article deals with the tasks of forming ideological immunity in the process of globalization. After analaysingtoday's ideological and information attacks can have a negative impact on the consciousness of the youth of our country, its spiritual and moral upbringing. Under the guise of "mass culture", phenomena of moral depravity, indifference to the future and moral indifference, the ideas of egocentrism and individualism can be attached to society.

Keywords: Features of ideological influence, ideological influence, information ideological influence, ideological polygons, influences and provision of information and other security threats, certain goals, threats to international security, ideological immunity, strengthening of information influence.

ЗАДАЧИ ФОРМИРОВАНИЯ ИДЕОЛОГИЧЕСКОГО ИММУНИТЕТА В ПРОЦЕССЕ ГЛОБАЛИЗАЦИИ

J.Dagarov
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В статье рассмотрено задачи формирования идеологического иммунитета в процессе глобализации. Анализировано сегодняшние идеологические и информационные атаки могут оказать негативное влияние на сознание молодежи нашей страны, ее духовно-нравственное воспитание. Под маской «массовой культуры» в общество могут приникнуть явления моральной испорченности, равнодушия к будущему и нравственного безразличия, идеи эгоцентризма и индивидуализма.

Ключевые слова: Особенности идеологического влияния, идеологическое влияние, информационного идеологического воздействия, идеологических полигонах, влияния и обеспечение информационной, и других угроз безопасности, определенные цели, угроз международной безопасности, идеологический иммунитет, усиление информационного влияния.

The emergence of the term "globalization" is associated with the name of Professor Theodore Levit. In his article "Globalization of Markets", published in1983 in the magazine "Harvard business review" outlined the phenomenon of combining different products produced by transnational corporations with this term. In giving the notion of "globalization" of academic

status and in its rapid spread the role of the American sociologist Roland Robertson, who explained the concept of globalization in 1985, and in 1992 in a separate book laid out the foundations of his concept. He perceives globalization as a "contraction" of the world and an increase in the interdependence of all its parts, which is accompanied by an increasingly widespread awareness of the integrity, unity of the world. In other words, in Robertson's concept, on the one hand, there is an objective process of expanding interaction between different regions of the world, and on the other hand, the reflection of this process in the minds of people. One of the researchers of the modern world, M. Castells, notes that globalization is primarily connected with the globalization of the economy. The concept of "global economy" in the interpretation of M. Castells means that the main types of economic activity (production, consumption and circulation of goods and services), as well as their components (capital, labor, raw materials, management, information, technology, markets) are organized in a global scale, directly or using a branched network linking economic agents. Globalization is a process conditioned by objective factors of intensive rapprochement and interaction of various parts of the whole world. In this context, special attention is paid to integration in various spheres of society. So, at present globalization covers all spheres of our life. Today, globalization as a phenomenon is viewed in several interrelated aspects, the main of which are political power, cultural relations and economic development.

The political side of globalization is the formations of international political and economic communities[1, p. 56]. In this process, some national hegemonies, starting with the decision, all entrust transnational and international institutions, i.e. powers in the economic, political, social, cultural and other spheres are given under the responsibility of the relevant institutions. The cultural and social side of globalization is the localization of universal social norms. In other words, liberal-democratic values are already becoming practices of nations. In cultural thinking, globalization is understood as the influence of Western consciousness, Western customs and traditions on cultural and social life, everyday life, culture, religion, faith, etc. The third and most important aspect of globalization is its manifestation in the economic sphere. Economic globalization is currently the most important form of globalization.

The commercialization of the media, especially television, the most influential of them, has a serious impact on young people, on the formation of their worldview, value orientations.All this undoubtedly influences the loss of their aspiration to creative activity, to search and creativity. And the youth is not only the future, it is a living present, and it is important to understand how the young generation today determines the content and character of the state's future, how much the spirit of the new time, morality and spirituality carry within it[3, p.18]. In this regard, the current process of globalization requires the protection of the people of Uzbekistan, in particular young people, from various forms and types of information attacks and threats that predetermine the negatives of ideological influences. This also provides for continuous improvement of educational processes and pedagogical programs that set themselves the task of achieving the goal of forming immunity against information attacks, which excludes the possibility of the appearance of factors that subsequently adversely affect the life of each person. That is why today the leadership of our country accentuates special attention to raising the level of social activity of our youth, the effective formation of their political, legal and ideological consciousness, allowing themselves to distinguish "white and black." Thus, the process of globalization, which has become more active in the last two decades, along with the positive, contains a lot of ambiguities and contradictions, becomes the subject of heated

discussions. Globalization and the processes it generates put the traditional patterns of behavior, way of life and ways of the worldview, as well as the values and traditions of all segments of the population, to test. Within the framework of ideological struggle, the main goal now is the struggle for the minds and hearts of people[2, p. 24]. The essence of this issue consists in the acute understanding that any idea (creative or destructive, progressive or reactionary) can become a real force, only having mastered the consciousness of people, or more precisely - having penetrated into their hearts. In this case, it becomes a force that calls for action, as well as a program of these actions, becomes an integral part of the spiritual and moral state of both the individual and society as a whole.

Manipulation by mass consciousness is a kind of psychological influence, the result of which is a latent excitation and the appearance of intentions at the addressee that do not coincide with his real desires. Manipulation is created by: using behavior stereotypes; substitution of concepts; creating metaphors; mythologization; distractions. The danger of manipulation of consciousness is in such factors as: loss of an adequate perception of reality on a world scale; leveling of the human person; the use of the masses in various "dirty" political processes. Thus, ideological immunity is a vital necessity [4, p.78]. It is important to protect our people from the corrupting influence of alien and harmful ideas in the education of children in the country morally, spiritually and physically healthy and perfect, in the implementation of these noble objectives [6, p. 35].To counter such dangers, for example, as Wahhabism and nationalism, it is expected that ideological immunity will be built in the hearts of our people, especially the younger generation. Under the immunity (from the Latin word "free", "get rid") is meant a system of protection that can maintain the stability of public and state systems, protecting them from external negative influences and ideological influences, "infections" from hostile "polygons". People deprived of sufficient immunity can not have a healthy belief and outlook. Such people can not distinguish good from evil, worthy of obscene. They are alien to the interests of the people and the Motherland. A person with healthy immunity warns against bad deeds, will wholeheartedly against evil and injustice, will express his protest. Therefore, hatred of evil, love and adherence to virtue are the main signs of healthy immunity. An important element of the nation's immunity and sometimes personality is vigilance, that is, life with a constant awareness of the world, about the changes taking place around. The people, who have turned their state of vigilance into a rule, can timely solve vital problems in the law of their life, can give a worthy rebuff to any ideological attacks of aggressive forces. Thus, ideological immunity is a vital necessity. It is of great importance in protecting our people from the corrupting influence of alien and harmful ideas, in educating the country's children morally, spiritually and physically healthy and perfect, in realizing the intended noble goals.

In a space where information is freely transported, various cultural codes also become widespread [5, p. 89]. The most revealing example is when mass media and transnational corporations, through mass advertising, show events and other types of pop culture, construct and translate patterns of behavior and styles of life actively cultivated by young people. For example, the slogan "Take everything from life!", The label "Generation of Pepsi" and so on. Much can be said about the influence of the Internet. The following manifestations are most obvious: an increase in the speed of information transfer; erasure of borders in communication, entertainment, acquaintances; increased intercultural exchange; unification of cultural units. All this affects to a greater or lesser extent the daily life of young people. This issue became

especially urgent with the spread of the mobile Internet, which destroyed the attachment of young people to stationary computers and transferred the "Internet life" to public spaces.

In conclusion, we note that globalization, no matter how we evaluate it, is a fact of modern existence. Globalization is an irreversible process, the natural course of world development with all its pluses and minuses. Globalization implies the formation of a single international economic, legal, cultural and information space. And the youth, of course, finds its place in it, acting as an active subject of emerging processes.

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