CENTER FOR TECH AND MEDIA RESEARCH

ISSN: 2582-4686
ResearchBib Impact Factor: 8.848 / 2023

THE MULTIDISCIPLINARY JOURNAL OF SCIENCE AND TECHNOLOGY

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VOLUME 3 ISSUE 2

http://mjstjournal.com

MULTIDISCIPLINARY JOURNAL OF SCIENCE AND TECHNOLOGY

VOLUME-3, ISSUE-2

Scientific approaches to pedagogical competence in developed countries.

Shukurova Yulduz Ilhomjonovna

Annotation.

Over the following decades, the higher education system began to be radically reformed in a number of European countries, the USA, Russia and in our country. At the same time, the main attention is paid to the formation and improvement of students' competence in the specialty they acquire. Nowadays, society needs a specialist in a completely new guise. He should grow up to be an active creative thinker, researcher, specialist, independently seeking scientific information and applying it in his practical activities.

Keywords: pedagogy, education, upbringing, competence, cooperation, technology, professional competence, innovation, national pedagogy, scientific research.

On the issue of approach from the point of view of pedagogical professional competence, scientific discussion and debate continues among scientists and specialists from all over the world. In relation to pedagogical scientists from the United States and European countries, it is clear that Russian scientists have left mukkasi for issues of professional competence. V.Slastenin, I.Chapter 3 of the teaching manual “pedagogy”, written by Isaev and others, is dedicated to the “professional competence of the educator”[1], giving ideas about this concept and skill. The authors note that the profession of a pedagogical competence system, practical and theoretical training, professional competence of an educator has a managerial and formative character. Management of personality formation requires competence. This in itself demonstrates the professional skills of the teacher, concentrating on his theoretical and practical training. In the direction of one profession or another, they write that the qualification classification of a teacher is measured by the norms of the model of pedagogical competence. V.A.Bolotov and V.V.According to the Serikov, from the point of view of competence, the approach shows not the student's erudition, but the ability to solve problems and assesses it as a necessary ability at the very first level.[2] Ye.V.Bondorevskaya and S.V.Kulnevich believes that the elements of competence that students collect in their scientific work should be directed or necessary only to the main goal, to conduct pedagogical activities.

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The main goal of education forms in the student socially necessary qualities and competence, self-awareness as a person, constant improvement of their knowledge, self-control

and activation. Of course, we can see the degree of study of this topic in scientific research carried out by many foreign and higher and specialists in our country. If we want to take a look at the activities of the US higher pedagogical education system, B.D.Woolfson, T.N.Kurilova, Z.A.If we want to know the scientific work of Malkova and others about the goals of us pedagogical education, N.D.Nikandorova, V.Ya.Pilipovsky, G. on professional pedagogical education of future teachers.G.Agapova, O.O.Borovikova, V.S.About the work of Budenko and others, and about the system of professional development of us teachers V.B.Gargay, N.I.When we look at the work of Kustinova and others, it is desirable. From the scientific work of the scientists mentioned above, we can imagine that the educational system of Russia and the United States is enriched by complementing each other. It is noticeable that a continuous system of pedagogical training has been created in the USA, Canada, Australia and a number of European countries, and they are widely studying this problem in a certain system. On the issue of the philosophical foundations of competency approach in the United States, the authors who reflected their global goals and objectives, organizational system, essence, standards of education, quality control of education, the activities of higher pedagogical schools M.Apple, D.Armstrong, D.L.Ball, D.Barnes, F.Baumgartner, M.Cochran-Smith, D.K.Cochan, L.Darling-Hammond, S.Feiman-Nemser, A.D.Glenn et al.[4]

The implementation of the tasks set out in the national program of Personnel Training in our country puts new requirements on a modern teacher. The question of what a modern teacher should look like comes to the first level. In terms of competence, the issue of approach is not approached as blindly as in foreign countries. Instead of professional competence, the concept of professional competence is given by creative teams and pedagogical scientists, aimed at developing methods and techniques for teaching a particular field and Sciences in basic scientific work, but it is precisely the approach to the issue of a competency teacher that is just being implemented. The organization and implementation of the educational process at the level of professional development of the system of continuous education of our country is not able to use the current requirements of the perspective of the current period as well as effectively as practical teachers. The main reasons for this lie in the fact that the problems of professional development are not sufficiently researched, only a small number of scientists focus on the approach in terms of competence. B. in issues of professional development problems and professional competence in our republic.Adizov, A.A.Ahmadov, A.X.Aminov, T.L.Khurvalieva, N.A.Muslimov, Sh.Scientists such as saidkulov are conducting scientific research. These studies mainly study organizational pedagogical issues and pedagogical diagnostic issues of improving the system of professional development. While scientists from the Institute of retraining pedagogical personnel named after Abdullah Avlani reflect on the concept of competence and its types using the secular experiments we mentioned above, T.L.Khurvalieva proposes to study professional competence in types. It is recommended to study it by dividing professional competence, professional competence into stages of formation, personal competence, universal competence and specific types of competence. More from the materials of Russian pedagogical scientists, especially A.V.Khutorsky attempts to apply them directly to the Uzbek pedagogical system, citing the classification of seven competencies of the teacher in education. In this regard, on April 10, 2013, an international conference called “pedagogical-psychological problems of the secondary specialized vocational education system” was held.

T. At this conference.Abdullaev, Z.Ismailova" pedagogical-psychological problems of changing the thinking of pedagogical personnel", N.Abdullaeva "development of creative thinking

potential of students", N.A.Muslimov, O.A.Putsinov" formation of professional-creative competence in the process of Professional Education Teachers 'Professional Development", F.Mirzaeva "features of professional training of an pedagogical person", Q.Olimov, K.All articles other than his scientific articles "Razvitie professionalnoy kompetentnos ti sostavlyayushaya pedagoga" Umatalieva teaching methods and methods, the dedication of various disciplines and specialties to the traditional scientific theories of teaching technologies and pedagogy is visible. Hence, in terms of competence and competence, a system of separate studies of approach issues is being implemented very slowly. Taking this into account, it is worth noting the need for in-depth study of the issue of improving the competence of the teacher of Higher Education based on the requirements of the National Program of Personnel Training of the Respublika of Uzbekistan, and a lot of scientific work should be carried out.

Aspects of the formation of teacher professional competence

The goal of the National Training Program is to radically reform the educational sphere, to fully resolve it from the ideologies and upheavals left over, to create a national system of highly qualified training of personnel that meets high spiritual and moral requirements at the level of developed democratic states.

The educator is responsible to the Society for educational and educational work in his specialty. He must have the right to teach, teacher, teacher, teacher, educator, educator, educator, or, more precisely, the owner of professional competence, in conjunction with the improvement of his professional training on a regular basis. Now there is little for the teacher to master the practical and theoretical knowledge of the profession, science, specialty of his choice. He should be able to apply new methods and techniques of education in any situation in his activities, in a word, be the owner of competence.

The concept of" competence", an approach in terms of competence, the owner of competence, to dwell on the content of these Terms, first of all, we will focus on the national traditions and values in this regard, which have been formed over the centuries. If in our country any professional owner began to master his profession and teach it to his students, then they began to add the term of this profession to his name. Mosh healer, Omon healer, Obogul Potter, Latif Barber, Murodjan hofiz, Mamatoy blacksmith or Mamatoy aka knives etc. This recognition testifies not only to the fact that this person has a certain profession, but also to the fact that the inhabitants of a higher territory are engaged in any profession, having achieved such recognition through their high success. Chust knives, Chust doppelgänger, Rishton Potters, Urgut Potters, Samarkand bakers, breads, etc. It is certainly not difficult to notice that this is competence, to say with the recognition, authority, trust – amanational and scientific language that has been given to a person or professional owner or team who has been serving abroad for many years without interruption. The same can be said about folk art, but the rise of the profession to a higher level is a higher qualification – skill than competence. Abdurahim Dorboz, Tursunboy polwon, Mamat the teacher, Mamat domla, etc. As we comment on the concept of "competence", we focus on the meaning and essence of the term. Competency is a Latin word meaning "worthy", "proper" or "appropriate" in Uzbek. One can understand that one is a person worthy of overcoming simple and complex issues by applying his knowledge, skills and practical experiences. In many cases, the term "professional competence" is used. It can be understood as the ability to successfully apply their practical experience, knowledge and skills in the implementation of their professional duties. Competence is the term of jurisprudence. It is the rights and duties that fall under the authority of a specific body or person and determine the place of this person in the state and public system. In

terms of the content of jurisprudence, competence includes the following elements: promoted objects (territories, phenomena, actions, are held within a certain framework), the sum of the rights and duties, powers that a particular body and individual can apply for their activities. Competence (social law). This is precisely the authority of a subject, which is established by law for management processes, and a certain social task will be assigned to this authority. Competence management authority. This is considered a personal vocalization of a specialist (employee)in solving certain professional tasks. Cross-cultural competence. The ability to successfully find a language with other culture nomoyanda lari. The main competence of the organization. Being a factor in ensuring the competitive tolerance of the organization, it is considered the main support tool in the competitive struggle. Competence area. Consisting of the sum of knowledge and skills of an individual or team, they carry out their task within a higher and more competitive framework.

In the Russian-Uzbek dictionary published by the Academy of Sciences of Uzbekistan in 1983, “kompetentnost” was translated into Uzbek as “possession of deep knowledge”, “foundation of deep knowledge”, “awareness”, “omilkor lik”. "Kompetentny" - a competent, well-educated person with sufficient education, a competent person with competence, has the right to consider the issue, is translated in meaning. "Competence" is given in concepts such as area or Matter, law, or discretion in which any person is aware[5]. Academy of Sciences of Uzbekistan A.S.The concept of “competence”is not entirely included in the two-Tom “Explanatory Dictionary of the Uzbek language”, published in 1981 by the Pushkin Institute of language and literature. In general, in our country, the approach to any field, in particular, pedagogical activity in terms of competence, began to be applied for the next five years. Approached in terms of specific morphological and semantic features of the Uzbek language, it is desirable that the terms and concepts of “competence” are used in a close sense to the Latin words “competere” – “worthy”, “competo”– “worthy” or “I will achieve”. According to the Uzbek Alphabet, which is based on the Latin script, we want to express the opinion that the use of the word “competence” in all meaningful cases avoids many confusion. It follows from this that from the point of view of competence, it is advisable to apply the approach, that the team or person in question is the owner of such competence, and finally, the owner of pedagogical professional competence. Thus, in any case, competence determines the place of a particular person or community in society. Strengthens it with both legal and moral attitudes. Any group, community or individual in a society is formed as the owner of competence in its field with high qualifications and knowledge in a particular field, and regularly improves this competence. This issue is approached in the interests of society. The individual, on the other hand, fulfills his or her life interests above all by perfecting his or her competence while achieving the level of demands society puts on the individual. We have proposed combining the concepts of “competence” and “competence” that scientists around the world recommend above. Analyzing scientific work on the approach from the point of view of competence, we clearly notice that different opinions are being expressed about these two concepts. A.G.In Bermuda's view, “competence unites all the senses, knowledge, experience, in general, the whole being of an improving individual into a single system”. "Competence is not only the fact that an individual is knowledgeable, but also constantly updates his knowledge," says M.A.Choshanov. M.In Aronov's opinion, competence indicates that the specialist is ready for a certain activity. The ability to function in uncertain situations is competence, says O. Ye.Lebedev.[6]

Competence is based on the intellectual personal, social professional life activity of a person, writes I.A.Zimnyaya. A.V.Khutorsky believes that the concepts of” competence “and”

competence " can be distinguished as follows. Competence is a qualitative and effective activity in the attitude of an individual towards something and processes within a certain framework, being considered a continuum of personal qualities (knowledge, qualifications, experience, methods of activity). Competency, on the other hand, means that a person has the sum of competencies that are in demand, expressing his personal attitude towards the types of activities. As can be seen from the above, a number of controversies continue over the issue of competence over its place in society. In the field of education, the awareness of the main elements of universal competence is one of the most fundamental problems of modern pedagogy. In the case of basic competence, there is a wide variety of opinions on the application of the experience of Educators of the world or on the setting of competence criteria based on the norms of traditional Uzbek pedagogy, only those issues that have not yet been solved. A.Pedagogical scientist of the Avloni Institute for teacher training L.T.Khurvalieva describes:" competence – knowledge, skills, competence, views, value and personal qualities of the individual, the manifestation or ability to influence Qualification " [7]. Education is the main condition and pledge of human perfection and prosperity of the nation. Educational processes are a nationwide issue of state control. In our country, education, that is, teaching, is carried out in harmony with upbringing. While the National Training Program requires a radical improvement in the educational process, it is conspicuous that the training of competent educators is also approached based on these requirements. Competence or extreme skillfulness, the training of highly qualified educators has become the most pressing issue of our time, and, it is permissible to say, the most fundamental task of the state and society. As we noted above, pedagogical activity is close to the side of artists and scientists in terms of their functions in society and depending on the characteristics of professional quality, and on their psychological principles. The features of pedagogical labor are designed to educate and educate a person. The formation of human qualities in young people, the human calculation of the subject of Labor and its influence on the person who controls society require self-competence. The ancient Greek philosopher Plato said that " if the poor man is a bad master, then the state will not lose anything much from this, but only the people will dress worse. If the youth educator does his job badly, then a category of ignorant, ignorant, ignorant and stupid will arise in the country." President Of The Republic Of Uzbekistan I.A.Karimov said that" the training of mature, qualified personnel in all respects should be the main condition of our program". Higher education institutions in the decision of the Cabinet of Ministers of the Republic of Uzbekistan on measures to further improve the system of training and training of pedagogical personnel, the higher education system sets the task of organizing the main scientific methodological Center for the retraining of pedagogical and managerial personnel and their professional development. The main scientific methodological center is tasked with the development of general educational programs, educational and regulatory materials for retraining and improving pedagogical personnel of higher educational institutions using modern methodologies based on the study of the results of work on ensuring the level of professional training of professors and teachers, the required level of training and training of highly qualified personnel. In the same decision, the assessment of the activities of teachers in accordance with modern requirements, the development of educational and methodological materials and effective methodologies for teaching foreign languages and information and communication technologies are established. It also organizes seminars and trainings in regional centers and network centers on these directions; the following are: enterprises of our country equipped with advanced, modern equipment and technologies in various sectors of the economy in order to ensure the improvement of the content of educational programs in the relevant educational disciplines, integration of

education with production; priorities for the development of educators in modern science achievements, related specialties; in order to familiarize them with the effective methods of conducting scientific research, the scientific expert develops programs for cooperation with research institutions (scientific institutions of the Academy of Sciences, Network scientific research institutes, centers, laboratories, etc.) and their use as base facilities for retraining educators and improving their skills; coordinates the activities of regional and network centers; organizes and conducts training courses of In accordance with this decision, proposals to re-train pedagogical personnel and improve their skills will be satisfied with the creation of 5 regional centers, the establishment of 10 network centers, professional development under higher education institutions and the completion of educational institutions and faculties. So, from the decision of the Cabinet of ministers, state sponsorship of improving the professional competence of the teacher of the school of higher education is visible. At this point, we found it necessary to express our suggestions and comments on the implementation of this decision. The main scientific methodological center regional and network centers is a legal entity. A certain amount of fees are being introduced for qualification services. This can of course create economic difficulties for some skilled teachers. Summarizing all organizational issues, we would propose as follows:

• the teacher of Higher Education, who has successfully graduated from regional and network centers, should be involved in training on the basis of a state grant to the main scientific methodological Center.

• for a certificate of pedagogical professional competence, it should be stipulated that the exam test will be passed.

* for certified teachers, benefits should be provided on scientific research, pedagogical activity.

• four areas specific to professional competence for testing and evaluation exams are taken as the basis of darkor: a) theoretical and practical knowledge of the specialty; B) pedagogical skills; g) personal qualities; d) worldview. Thus, having a pedagogical professional competence and obtaining a certificate confirming this competence will create opportunities for the teacher to grow further, improve his knowledge, work on shi, inspire confidence and confidence in his profession. As we have noted above, competence, especially since professional competence are signs of the place of the individual in society, Society will also be interested in training professionals with highly qualified professional competence. Abdullah Avloni, one of the founders of national pedagogy, in his work “Turkic Gulistan yohud ethics” of moral-didactic content, divides the hulks into good and evil, making modernity the main criterion, proving his reasoning with the thoughts of Hippocrates, Pluto, Aristotle, Saadi Sheroziy and Beatil[8]. Adib considers the love of the motherland, to fight for it, from the best human hulks. "The homeland is the city and country where everyone was born and raised, it is necessary to appreciate, Love, Live,” he says. In his writings, Abdullah Avlani touched on education and said,” Education is either a matter of life, or of momot, or of salvation, or of destruction, or of happiness, or of disaster for us". Education is the main condition and guarantee of human perfection and prosperity of the nation, a nationwide issue under the control of the state and society, the purpose and function of which is perfect human education, education is indiscernible harmony.

Summarizing the above points, we see that an equal half of the essence of pedagogical professional competence is formed by educational relations. The most important duty of an educator to society, the result of his activities is the perfect human education.

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PROCESSES OF MODERNIZATION OF THE EDUCATION SYSTEM IN UZBEKISTAN AND LEGAL AND REGULATORY BASIS.

Doctor of philosophy Nasimova Zarina Isomiddin qizi

Abstract

From the first years of independence, the development of the education system in our country has been raised to the level of state policy, ensuring that our children acquire modern knowledge and skills in conditions corresponding to world standards, and grow up to be physically and spiritually mature people. Great work is being done to realize the abilities and talents, intellectual potential, to develop the feelings of loyalty and self-sacrifice in the hearts of our youth.

Key words: education, upbringing, value, "Law on Education", continuous education, person, state, society

President of the Republic of Uzbekistan Sh.M. Mirziyoyev's Decision of April 20, 2017 - on measures to further develop the higher education system is significant as it is a logical continuation of the ongoing work on reforming the education system in our country and is aimed at raising it to a new level. One of the most important aspects of the decision is that special attention is paid to the observance of the criteria of international standards in the training of highly qualified specialists, the creation of conditions at its level, and the training of personnel with modern knowledge and skills in accordance with the spirit and requirements.

Therefore, pedagogues working in educational institutions should know how to organize training forms at an optimal level, to enrich the theory of formation of a well-rounded person with various new ideas. Implementing the ideas of the "National Personnel Training Program", ensuring the success of reforms in the education system of our country, depends in many ways on the moral image and professional skills of the teachers working in the education system. .

In the social policy of the Republic of Uzbekistan, the realization of national identity, the creation of harmony between the individual and the society through the assimilation of national and universal values, the satisfaction of the growth of needs from the private to the general are all the abilities and desires of the young people who are coming of age. It requires research and development of tastes, internal capabilities, unique individual-psychological characteristics. It is impossible to increase the effectiveness of secondary special and higher education without determining the level of formation, mental development, and education of the young generation as a person and subject.

The establishment of the principles of democracy in the infrastructures of the society, in group interpersonal relations, the criteria of equality, subjectivity, cooperation, sympathy (empathy) among citizens becoming a way of life is a vivid expression of the global social-historical victory of the individual world.

In the current era, putting an end to the robotization of the individual, establishing a material and spiritual basis for his manifestation as an independent human (subject), personal worldview (both scientific and religious), stable faith, strong position, firm iy will made it possible to acquire a sharp and inflexible idea. Such a social reality, event, social imagination and need of universal significance means that the recognition of the individual as a central figure and evaluation as a driver of development in our country means that pedagogical knowledge has become a necessity.

In the science of anthropology, it is permissible to establish both the first and the second relationship in the form of human-society and society-human interaction. As Abdulla Awlani predicted in his time: "If pedagogy wants to educate a person in all aspects, then it is necessary to study a person in all aspects."

For the same reason, it is necessary to form a well-rounded person in the process of education, and through its result and product, it is permissible to develop an independent thinker, a creative seeker, a strong-willed, hard-working, ideologically-confident, high-spirited person with a pure conscience.

Because we will not be able to determine the level of upbringing without actually deciding the "subject-subject" relationship. In this place, pedagogy is of great importance.

The President of the Republic of Uzbekistan, Islam Karimov, said: "If we can educate intelligent, highly moral people, we will be able to achieve our goals, prosperity and development will be decided in our country." It shows that bringing up the new generation who will realize the dream is one of the most important tasks of our state.

In order to fulfill these noble tasks, the Law "On Education" and "National Program of Personnel Training" were adopted at the 9th session of the Oliy Majlis of the Republic on August 29, 1997.

A number of factors led to the adoption of the "Law on Education" of the Republic of Uzbekistan: firstly, there was a change in the social system in the environment we live in, and secondly, the attitude towards social production and property changed. , thirdly, the old ideological views did not respond to the new conditions, fourthly, the activities conducted in educational institutions should be organized in accordance with world standards, instilling in students the feelings of national and universal values, and making them well-rounded, deep required training as a knowledgeable specialist.

It is known that the Law "On Education" consists of 5 sections and 34 articles. In the main principles of the state policy in the field of education: education is declared a priority in the field of social development of the Republic of Uzbekistan, so education is one of the main principles of the state policy.

The main principles of the state policy in the field of education:

- that education and training have a humane democratic character;
- continuity and consistency of education;
- compulsory general secondary, as well as secondary special, vocational education;
- the discretion of choosing the direction of secondary special, vocational education;
- that the education system is secular;

accessibility of education within the framework of state educational standards;

unified and differentiated approach to the selection of educational programs;

- to be educated and encourage talent;
- harmonization of state and public management in the educational system.

The goal of the reforms implemented in the field of education is to bring up a mature generation.

"First of all, it is necessary to fundamentally change our attitude to the education system. It is necessary that the educational reform be an internal force that will boldly lead us on the path of democratic changes, building a new society, and move all of us. "Let it be clear to each of us like five fingers, or, as the old saying goes, like nine coins, without changing the education system, it is impossible to change people's minds and, therefore, their way of life."

In his many speeches, the president of the country has mentioned the necessity and importance of educational reform.

In the speech of our president at the IX session of the Oliy Majlis of the Republic of Uzbekistan on August 29, 1997, it was stated that the activities carried out so far do not meet the requirements, that we have not been able to completely get rid of the ideological views and distortions typical of the education system from the time of the old Soviets, and secondly , the changes were superficial and did not solve the problems of organically connecting the content and stages of educational and educational processes, i.e. organizing a continuous educational system, thirdly, our the fact that our current educational system cannot meet the requirements of today's modern, developed democratic countries... also showed the need for this reform. In this regard, in his speech on the topic "A perfect generation - the foundation of Uzbekistan's development", the president justified the necessity and factors of reforms in the education system.

The purpose of the Law on Education is to determine the legal basis of education, training, and vocational training for citizens, and to ensure the constitutional right of everyone to receive education.

Section 1 of the Law is called "General Provisions". It expresses the main principles of the state policy in the field of education, the rights to acquire knowledge, to engage in pedagogical activities, the legal status of the educational institution, DTS, the language of education.

Section 2 of the Law "On Education" describes the essence of the education system and its types.

The education system in our republic: state and non-state educational institutions that implement educational programs in accordance with state education standards; Is it a scientific-pedagogical institution that carries out research work necessary to ensure the development of the education system; includes state management bodies in the field of education, as well as enterprises, institutions and organizations belonging to them.

Article 10 of this law states that education is carried out in the following ways.

Section 2, Articles 11-17 of the Law briefly explains the essence of each educational night. As stated in it, pre-school education aims to form a healthy and mature personality of a child, prepared for studying at school. Pre-school education is carried out in state and non-state preschool institutions and families until the child reaches the age of six or seven.

General secondary education is compulsory, and it is carried out at the following levels: primary education (grades I-IV); general secondary education (grades I-IX). Students of general secondary education should receive regular knowledge of the basics of science, the need to acquire knowledge in them, basic educational and scientific and general cultural knowledge, spiritual and moral virtues based on national and universal values. forms skills, creative thinking and conscious attitude to the environment and career choice. "After the completion of general secondary education, a certificate of the type approved by the state is issued, indicating the subjects of education and the grades obtained in them."

The law states that everyone has the right to voluntarily choose the direction of study at an academic lyceum or a vocational college based on general secondary education in order to receive secondary special and vocational education. "Academic lyceums and vocational colleges provide secondary special Vocational education that gives the right to work in the acquired profession and serves as a basis for continuing such work or education at the next level."

In academic lyceums, students have the opportunity to improve their knowledge in the field of study they have chosen and to develop special professional skills aimed at in-depth study of

science. They can continue their studies in certain higher education institutions or realize this skill in their work. Vocational college provides secondary special vocational education within the framework of relevant state educational standards; it allows deep development of students' professional inclination, knowledge and skills, and acquisition of one or more specializations in the chosen profession.

Higher education prepares highly qualified specialists and is carried out in two stages: bachelor's and master's.

The third section of the law is devoted to social protection of the participants of the educational process, which includes issues of social protection of learners and employees of educational institutions, education of orphans and children with physical and mental disabilities. legally expressed.

It is known that the "National Program of Personnel Training" consists of five sections, which include the factors of reforming the personnel training system, the purpose of the program, tasks and stages of its implementation, the main directions of the development of the personnel training system, the program implementation measures are defined. The essence of the national model of personnel training is explained in the 3rd section of the program. The main components of the national model of personnel training are as follows.

"Person" is the main subject and object of personnel training system, consumer of educational services and their implementer. The state policy in the field of personnel training envisages the formation of a well-rounded person-citizen through the continuous education system, which is inextricably linked with the intellectual, spiritual and moral education of a person. In this way, one of the most basic constitutional rights of a citizen, the right to acquire knowledge, to show creative ability, to develop intellectually, and to work according to his profession, is realized.

As a consumer of educational services, a person is guaranteed education and vocational training by the state. In the course of education, a person must fulfill the requirements expressed in the state educational standards. As a provider of educational services, a person, after receiving a suitable level of qualification, engages in teaching the young generation, material production, science, culture and household services in the educational process with knowledge and experience.

Every person is formed as a person only through the system of education, social upbringing and spiritual maturity, vocational training.

As a result, a person's social development occurs - he performs useful functions for society, carefully and creatively understands his tasks and duties, and enters into equal and independent relations with others.

In the personnel training system, the role and role of the individual, rights and obligations are constitutionally strengthened, legally protected and detailed in relevant documents.

"State and society" is the guarantor of personnel training and recruitment, which regulates and controls the activities of the education and personnel training system, and coordinates the activities of educational institutions for the training of highly qualified competitive specialists. .

The state and society shall, for example:

- citizens' right to education, their career choice and professional development opportunities;

to receive compulsory general secondary and secondary special, vocational education, which gives the right to choose the direction of study at an academic lyceum or vocational college;

- the right to receive information at higher and higher levels on the basis of state grants or on the basis of a paid contract;

financial support of state educational institutions;

- development of public management in order to solve the issues of providing students with study, living and recreation conditions;

social support of the participants of the educational process;

- guarantees the active implementation of regulatory and legal documents in relation to increasing the responsibilities of educational staff, parents for raising children and protecting their lives. Thus, quality professional training, social incentives and protection, assistance in emergency situations are guaranteed by the state.

"Continuing education" is the basis of training of qualified and competitive personnel, including all types of education: preschool education, general secondary education, secondary special education, vocational education, higher education includes education, post-higher education, personnel qualification improvement and their retraining, extracurricular education, DTS, the structure of the personnel training system and its operating environment".

The continuing education system is capable of meeting the various educational needs of people and society, creating wide opportunities for raising the value and status of knowledge, as well as in the conditions of the changing needs of the economy on a general educational, general cultural, professional and scientific basis. specialists should provide basic knowledge and provide social protection of the individual through training.

As directions of continuous education reform, fundamental improvement of the personnel potential of the education system, development of various types of state and non-state educational institutions, from compulsory general secondary education to secondary special, vocational education to ensure its passage, to improve the education management system, to create a system of impartial assessment of the quality of the education process and personnel training, and to expand cooperation with foreign and international organizations related to education and science.

In the radical renewal of the content of science and education, in the preparation of educational standards, educational programs, textbooks and manuals, scientific-methodical. directly participates in the implementation of supply. In addition, science, as a customer in personnel training, achieves a direct balance between scientific research and the educational process.

"Production" is the main customer who determines the need for personnel, as well as the requirements for the quality and level of their training, a participant in the process of providing the personnel training system in terms of finance and material and technical aspects. Performs the functions of customer and consumer in the production personnel training system, actively participates in the process of training, retraining and upgrading of personnel at the required high levels and in the relevant fields.

The needs of production form a social order for personnel training, determine the purpose, task and content of vocational training, promote qualification requirements, determine the conditions for selecting new technologies and forms of training. Production ultimately determines the quality and competitiveness of personnel.

The state and society ensure that the system of continuous education and personnel training is open to all and adapts to life changes. Taking into account the world's advanced experience in the field of personnel training affects all aspects of the continuous education and personnel training system and is one of the factors of its development.

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CURRENT VALUE OF CLINICAL AND PATHOLOGICAL CHANGES OF THE HEART IN HYPERTENSION DISEASE

Asadullaev Asliddin Alisher o'g'li
asadullayevasliddin2025@gmail.com
Urokova Vazira Xamidovna
vazira.urokova@mail.ru
Urokova Kamola Xamidovna
@kamolaurakova4488@gmail.com
Ortiqova Nargiza Sodiq qizi
ortiqovanargiza91@gmail.com
Abdullayev Akobur Eshmamat o'g'li
abdullayevakobir64@gmail.com
Termez branch of Tashkent Medical Academy

Annotation: The heart plays the main role In hypertension (high blood pressure), the heart plays the main role. In these days, this disease is on the rise, and it affects not only the elderly, but also young children. This article of ours teaches how to prevent hypertension, explain it to people, and carry out treatment measures.

Keywords: Heart, Hypertension, Clinical signs, Pathological signs, Preventive measures, Symptoms.

Hypertension is a disease caused by a violation of the nervous-functional activity of blood vessels. It occurs mainly in people over 40 years of age, but in recent years, it has been observed more often in young people. Both men and women suffer from hypertension. If the disease is diagnosed in 20-30% of adults, after the age of 65, this indicator can be 50-65%. High blood pressure is one of the leading causes of death among patients with diseases of the cardiovascular system.

According to many experts, hypertension often occurs as a result of blood circulation disorders. Heart failure is also included in the list of its causes. This disease can trigger the development of secondary diseases in patients, including stroke and heart attack.

Scientists have been studying this disease for several decades. According to research, hypertension is one of the main causes of disability in our planet. According to statistics, if first aid is provided late when blood pressure increases, the condition of patients may worsen, and even death may occur.

The main symptom of hypertension is headache due to spasm and narrowing of cerebral vessels. Also, noise in the ears, decreased visual acuity, weakness, sleep disturbance, dizziness, heaviness in the head, increased heart rate are often

manifested. These symptoms are noticeable in the early stages of the disease. Later, heart failure occurs due to long-term straining of the heart.

Heart failure is also one of the reasons for this. This disease can trigger the development of secondary diseases in patients, for example, we can cite diseases such as stroke and heart attack. High arterial blood pressure has a negative effect on blood vessels, because they can suddenly narrow for a short time. At very strong pressure, some blood vessels can burst and internal bleeding is observed. Hemorrhagic infarction occurs in areas where the vessels have lost their elasticity and are prone to fragility. It is a disease caused by the disruption of the nervous functional activity of blood vessels in a patient with hypertension. These diseases are more likely to occur in people over 40 years of age, but this disease is also observed in young people in these years. Hypertension affects women and men equally. This disease is a cardiovascular disease.

According to research, hypertonia is one of the main causes of disability in our planet. According to statistics, if first aid is provided late when blood pressure increases, the condition of patients may worsen and even death may occur. The main symptoms of high blood pressure are headaches due to spasm and narrowing of cerebral vessels. Noise in the ears, decreased visual acuity, weakness, sleep disturbance, dizziness, headache, and increased heart rate are also often manifested. These symptoms are felt in the human body in the middle stage of the disease. Later, due to the long-term strain of the heart, heart failure occurs, and the following diseases are easy nosebleeds, vomiting, insomnia, memory impairment, redness of the skin surface after some physical activity, strong pressure in the eyes, pain appears in the eyes that the patient looks around, so they like to lie down in a quiet and peaceful place with their eyes closed, rapid heartbeat, work in the tissues fever, fatigue occurs. In the current case, the causes of hypertension are related to the external environment, and the reason for the development of the disease is long-term stress and depression, frequent psychological stress. Often these are caused by work that requires constant emotional tension. In addition, concussion patients have a high risk of developing the disease. Hereditary predisposition is also among the reasons: if a person's generation has this disease, then the risk of developing this disease increases several times. The main factor influencing the development of the disease is a sedentary lifestyle. As people age, atherosclerosis may develop, and the increase in blood pressure against the background of this change makes the situation even more serious. This is considered very dangerous for life, because narrowed blood vessels can be harmful. If there are clots and cholesterol in the walls of the blood vessels, they separate during strong pressure and get stuck in the capillary blood vessels. In this case, a myocardial infarction or

stroke occurs. The cause of high blood pressure in women may be hormonal during menopause. Salt, or more precisely, the sodium contained in it, as well as smoking, alcohol abuse, and obesity put pressure on the cardiovascular system.

Conclusion

Malnutrition is also a factor that causes hypertension. If a person consumes fatty meat, fried foods, smoked products and pickles more than the norm, it causes such a disease. It would be appropriate for everyone to include in their daily diet more products that help fight disease. For example, we can take vegetables, fruits, berries, greens, lean meat, beans, rice, buckwheat as an example. It is recommended that patients avoid any stress or emotional strain during treatment. Patients are recommended to walk in the open air: around the pond, in the garden, in the forest.

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Specific features of solving the housing problem in our country in the context of economic reforms

Termez Institute of Economy and Service
Phd. Norqobilov N
student Abdullayev J

Abstract

The article examines the problems of providing housing to the population in the regions of our country and analyzes the existing housing funds, their condition and living conditions. market mechanisms are effective in solving the problem by applying conclusions, recommendations and suggestions for solving this problem are given.

Аннотация

Мақолада мамлакатимиз ҳудудларида аҳолини уй-жой билан таъминлаш муаммоларини ўрганишб, мавжуд уй-жой фондлари, уларнинг ҳолати ҳамда яшаш шарт-шароитлари таҳлил қилинган.Шунингдек, ҳудудларда аҳолини уй-жой билан таъминлаш таҳлили асосида мавжуд муаммони ечишда, бозор механизмларини самарали қўллаш йўли билан бу муаммони ечиш бўйича хулоса, тавсия ва таклифлар берилган.

Аннотация

В статье изучены проблемы обеспечения жильем населения в регионах нашей страны, проанализированы существующие жилищные фонды, их состояние и условия проживания.Также при решении существующей проблемы на основе анализа обеспеченности жильем населения в регионах даны выводы, рекомендации и предложения по решению этой проблемы путем эффективного применения рыночных механизмов.

Key words: Population, enterprise, budget, pension, salary, construction

Ключевые слова: Население, предприятие, бюджет, пенсия, заработная плата, строительство.

Калит сўзлар: Аҳоли, корхона, бюджет, пенсия, иш ҳақи, қурилиш.

Introduction

The issue of providing housing to the population of the Republic of Uzbekistan is important in the current period of reforming society and forming socially oriented market relations. It is known that providing housing to the population is one of the necessary means of ensuring the well-being of human life, and it performs a very important task of providing the basic link of society - the family with favorable conditions for building and strengthening it.

The main part

The study of the problems of providing housing to the population requires the analysis of housing construction based on a systematic approach, taking into account the existing housing stock, their condition, and the growth of the requirements for living conditions.

It should be noted that the needs of the population are formed not only by the objective growth of the general requirements of living comforts and the growth of sanitary and hygienic conditions, but also by the significant expansion of the scope of consumption requirements in the context of the social stratification of the population.

Currently, sufficient attention is being paid to the problems of housing and housing use in our republic. Here we present many decrees of the President of the Republic and decisions of the

Cabinet of Ministers (the Cabinet of Ministers of the Republic of Uzbekistan dated September 17, 2021 No. 576 "Measures to ensure the preparation of social sector objects of economic sectors and multi-apartment housing stock for stable operation in the autumn-winter period of 2021/2022 on the activities of the President of the Republic of Uzbekistan of April 24, 2017 PQ-2922 - con " On the capital and current repair of the common areas of the multi-apartment housing fund in 2017-2021 " The decision of the Cabinet of Ministers of the Republic of Uzbekistan dated June 22, 2017 "On amending the regulation on the privatization of the state housing fund in the Republic of Uzbekistan"...) .

The main purpose of these documents is to provide state support and social protection to the needy sections of the population in solving the housing problem, and additional incentives for the future development of housing construction carried out at the expense of the enterprise, association organizations and the population.

In general, they reflect the influence of state bodies in solving the main problems of ensuring strong social protection of the population based on the requirements of the market economy.

The demographic features of the population in Uzbekistan have a growing tendency, the total population is 0.9 million annually on average. making up a person, and the share of adolescents under the age of 18 is more than 40% of the total population. Three quarters of the population live in rural areas.

The mentioned statistical data testify to the relevance of issues related to the development of housing construction, and this in turn leads to the provision of the housing fund in different regions, regions, cities and rural areas due to the growth of different rates .

The construction industry of Uzbekistan is defined as a priority sector of the economy. The modern construction industry is one of the most prominent national sectors of the economy of the Republic of Uzbekistan, showing steady annual growth rates. The number of enterprises and organizations operating in the field of construction can be seen in the section of the following areas of this field; - buildings and constructions construction direction made up 56.8% of the share, and the growth rate increased by 106.7% compared to the corresponding period of 2021; - the direction of construction of civil objects made up 10.8% of the share, and the growth rate increased by 117.4% compared to the corresponding period of 2021; - specialized construction works made 32.4% share and 104.1% growth rate. In 2022, the total volume of construction works amounted to 130,790.9 billion soums [1]. At present, the need for housing in the regions of the country is met mainly through individual construction.

According to the results of the analysis of the demographic and housing fund situation in our country and its growth rate, the amount of housing construction in Uzbekistan is insufficient. It is necessary to implement the necessary measures in order to reach the level of developed countries in this field.

Currently, the comfort level of the existing housing fund does not meet the requirements of the time. This is reflected in the fact that the costs of their use cannot be reached to the optimal level due to the inconveniences in the beauty of this fund, the ease of its constructive solution, the volume-design structure and, most importantly, the design structure.

[1] Statistics Committee of Uzbekistan data. 2022 www. lex.uz

Solving the problem of providing housing is related to the need to significantly increase the volume of construction and develop all elements of the infrastructure of cities and settlements of Uzbekistan, in which progressive approaches are used.

Also, the unique demographic situation in our republic has a certain effect on the growth of social indicators of providing housing to the population under the conditions of ongoing economic reforms. The following factors need to be taken into account when solving this problem:

- the limitation of land areas allocated for construction and the need for priority development of mass multi-storey housing construction;
- the need to take into account the process of social stratification of the society and the expansion of the requirements for living conditions along with it;
- due to population growth in rural areas. This leads to the enlargement of the existing rural settlements and the change of their position;
- the level of comfort of the existing housing stock is not high;
- the objective increase of requirements for modern and comfortable housing as a result of scientific and technical development in the country.

In conclusion, it should be noted that in solving this problem, there are positive results and achievements achieved through the effective use of market mechanisms. However, to solve this problem on a large scale, it requires marketing research aimed at a deeper analysis of the state of housing construction and the formed housing market.

List of used literature:

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THE ROLE OF SOCIAL PROTECTION IN IMPROVING THE LIVING WELL-BEING OF THE POPULATION.

Termez Institute of Economy and Service
Phd. Norqobilov N
student Rasulov F

Abstract

In this scientific article, the role of social protection in improving the well-being of the population, the reforms implemented in our country, the state's management of social processes and ensuring the social rights of citizens, suggestions for increasing the well-being of the population in the regions have been developed.

Аннотация

В данной научной статье рассмотрены роль социальной защиты в повышении благосостояния населения, проводимые в нашей стране реформы, государственное управление социальными процессами и обеспечение социальных прав граждан, предложения по повышению благосостояния населения. население в регионах развито.

Аннотация

Ушбу илмий мақолада аҳолининг фаровонлигини оширишда ижтимоий ҳимоянинг ўрни, мамлакатимизда амалга оширилаётган ислоҳатлар, давлатнинг ижтимоий жараёнларини бошқаришдаги ва фуқароларни ижтимоий ҳуқуқларини таъминлаши, ҳудудларда аҳоли фаровонлигини ошириш бўйича таклифлар ишлаб чиқилган.

Key words: Population, enterprise, budget, pension, salary.

Ключевые слова: Население, предприятие, бюджет, пенсия, заработная плата.

Калит сўзлар: Аҳоли, корхона, бюджет, пенсия, иш ҳақи.

Introduction

The transition to a socially oriented market economy and changes in the state's social policy increase the need to pay more attention to the problem of social protection.

During this period, while the state gives its property rights to other economic entities, it also imposes part of its social obligations on them. In the current situation, it is manifested in the involvement of the labor force in commodity-money problems, the freedom to choose the type and form of one's labor activity, and the motivation of individuals from a passive subject to an activity that serves to increase the standard of living of their family.

As a result, the social sphere is adapting to the market economy, and the state is taking the main place in the management of social processes and ensuring the social rights of citizens.

The main part

The social protection policy implemented in Uzbekistan shows that it has moved away from social protection of the entire population to targeted social protection and only helps the vulnerable part of the population in need of social protection within the framework of social programs.

The diversity of sources of funding of social programs has been strengthened, and the following have been identified as their main ones:

- State budget;
- Non-budget funds;
- Enterprise funds ;
- Population funds;

An important feature of the financing of the social protection of the population is that the organization of the use of state funds is not only for the mobilization of a large part of the state funds, but also the elements related to the composition of income and expenses should be taken into account.

During the years of independence, the state's expenditures for the social sphere constantly change in harmony with the national production and the main issues being resolved in the economy. Creating all opportunities for the development of small business and private entrepreneurship and increasing the income of the population on this basis was considered as an important task.

In the social protection of the population, the state gives priority to maintaining the amount of real wages, pensions and scholarships and preventing the worsening of income inequality among the population.

In particular, in accordance with the Decree No. PF-45 of the President of the Republic of Uzbekistan dated March 28, 2023 "On increasing the amount of wages, pensions and allowances", from May 1, 2023, the amount of wages, pensions, scholarships and allowances of employees of budget organizations should be increased by 7 % [1].

Starting from May 1, 2023 in the territory of the Republic of Uzbekistan: the minimum amount of payment for labor - the minimum amount is 980,000 soums per month;

the base calculation amount should be set at 330,000 soums per month.

Add the amount of allowance given to the legal representative of disabled children under 18 who needs care of others - 535,000 soums per month and 198,000 soums for each family member who is unable to work.

Summary

Today, in social protection of the population and mitigating social problems, taking into account the structural changes in the economy, it is appropriate to implement the following socio-economic measures:

- should ensure continuous growth of investment in human resources;
- in the field of employment, it is necessary to increase the competitiveness of the labor force, to improve the quality of the labor force, to create new jobs in progressive fields;
- regularly expand the measures to get rid of the feeling of poverty in social protection;

it is necessary to create a system that studies the causes of the need for social protection and, on this basis, apply measures aimed at reducing it.

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IMPORTANT ISSUES TO CONSIDER WHEN CONDUCTING RESEARCH IN LABORATORY DIAGNOSTICS

Ergasheva Sofiya
Samarkand State Medical University of student grade 4th
sofiya18022002@gmail.com
Rajabboyeva Robiya
Samarkand State Medical University of student grade 4th
uktamovnarobiya6972@icloud.com
Khakimova Asilabonu
Samarkand State Medical University of student grade 3th
hakimovaasilabonu@gmail.com
Davranova Malika
Samarkand State Medical University of student grade 3th
davranovamalika886@gmail.com
Dustmurodova Xosiyatxon
Samarkand State Medical University of student grade 3th
dusmurodovaxosiyatxon@gmail.com

Abstract. This article provides information and conclusions about laboratory-related diagnostic tests and important issues to consider when conducting research in laboratory diagnostics.

Key words: Laboratory, clinical, test, diagnosis, marker, diagnosis, standard, symptom, gold standard.

ВАЖНЫЕ ВОПРОСЫ ПРИ ПРОВЕДЕНИИ ИССЛЕДОВАНИЙ В ЛАБОРАТОРНОЙ ДИАГНОСТИКЕ

Аннотация. В этой статье представлены информация и выводы о лабораторных диагностических тестах, важных вопросах, которые следует учитывать при проведении исследований в области лабораторной диагностики.

Ключевые слова: Лаборатория, клиника, тест, диагностика, маркер, диагностика, стандарт, симптом, золотой стандарт.

Relevance of the problem: Compared with the diagnostic test reports published in the main foreign academic journals of laboratory medicine, the articles published in domestic journals have more or less flaws, mainly due to experimental design flaws, non-standardized writing of articles.

Purpose of studies: In our purpose of studies, we integrate reporting standards for diagnostic accuracy (STARD) and quality assessment of diagnostic accuracy studies (QUADAS) instruments. Today, studying the importance of laboratory diagnostics, as well as turning the scientific research results into clinical practice.

Test methods and materials.

Overview of QUADAS standards and STARD reporting specifications

In the era of evidence-based medicine, clinicians place great emphasis on using the best available "evidence" as a basis for clinical decision-making. The so-called "evidence" mainly comes from the conclusions of existing clinical studies. In clinical research practice, many different clinical trials are often conducted on the same clinical problem, and the conclusions drawn are also different. One of the tasks of evidence-based medicine is to conduct systematic reviews (SR), combine the results of many clinical studies with scientific statistical methods, and

provide the best evidence for clinical decision-making. At the same time, SR can identify the reasons for the differences between the results of different clinical studies and provide a reference for further similar studies. Assessing the quality of existing clinical studies is essential in the SR process. The conclusions of high-quality clinical studies are more reliable, so they have a higher weight in SR. In this context, the QUADAS standard was born. The QUADAS standard includes a total of 14 items for system reviewers to assess the research quality of diagnostic trials from 14 trial design details. For each item in the QUADAS standard, the experts gave detailed evaluation principles in the explanation: if the study meets the design points specified in the standard, you can get 1 point; otherwise you get -1 point; If the content cannot be evaluated, it is recorded as 0 points. The higher the sum of the QUADAS scores, the higher the research quality of the diagnostic test and the stronger the reliable conclusion.

The START Reporting Protocol is a checklist developed by the STARD Group (a research group consisting primarily of statisticians and laboratory medicine scientists) to standardize the writing of diagnostic test research reports. This checklist contains a total of 25 entries, detailing what to describe in each section of the diagnostic test paper, and its purpose is to alert readers to potential research bias (internal validity) and to help analyze the applicability (external validity) of the findings). Since the development of the STARD reporting specification in 2003, it has been rapidly recognized by academic journal editors and clinical research scientists.

2. Discussion of several issues worthy of attention when conducting diagnostic studies in light of QUADAS standards and STARD reporting specifications

Time of data collection

Based on the time of data collection, diagnostic tests can be divided into prospective studies and retrospective studies. The difference between them is that a prospective study first has a test plan, and then conducts a diagnostic test according to the test plan (while examining the "gold standard" and "evaluable test" for patients); and retrospective. no pre-designed study design A good trial design is a retrospective collection of studies by researchers. Prospective studies can control for case recruitment during implementation and potential confounding factors during the interpretation of results, so they usually have a high argument; retrospective studies cannot control for various confounding factors, so the strength of the argument is weak. Currently, almost all high-quality diagnostic tests in the world are prospective studies.

Article 6 of the STARD reporting specification clearly states that when writing diagnostic test studies, researchers must indicate in the Materials and Methods section whether the study is prospective or retrospective. But, unfortunately, some local scientific articles on diagnostic tests do not explain the nature of the research in the "Materials and Methods" column, but explain the sample size of the research subjects, the status of the diagnosis of the disease, and some basic clinical studies. Characteristics. This non-standard reporting method often leaves readers unable to judge the quality of the research and the strength of the argument, and also weakens the penetrating power of research findings in the field. In addition, an important task of conducting SR is to analyze whether the differences between the conclusions of different studies are due to the characteristics of the experimental design, thus providing a reference for peers to continue research in this area. If the timing of the study is not explained in the research paper, it often makes it difficult for systematic reviewers to analyze the sources of heterogeneity between different studies, and this weakens the impact of research in the field.

Selection of research subjects

Disease diagnosis is primarily based on simple and readily available clinical data (eg, medical history, symptoms, and demographic characteristics). But some diseases are very similar in terms of symptoms and signs, and it is often impossible to determine the presence of the disease. Based on the above information, the patient has a target disease, make a clear conclusion. For example, in patients with dyspnea as the chief complaint, it is not possible to determine that the cause of the dyspnea is heart failure based on symptoms and signs alone, because some patients with asthma, pneumonia, aortic dissection, and myocardial infarction may also have symptoms. possible from shortness of breath. Currently, clinicians must use available physical examination, visual examination, or laboratory testing methods (such as BNP determination) to make a definitive diagnosis of whether a patient is suffering from heart failure. It is clear that the research objects of diagnostic tests should be a group of people with similar symptoms and signs, and laboratory examination methods, imaging methods, etc. should be used to confirm the diagnosis. In some local diagnostic tests, healthy people were designated as a control group. Such a design is insufficient to reflect the ability of laboratory indicators in the differential diagnosis of diseases, and the inclusion of diagnostic tests often leads to erroneous conclusions. The first article of the QUADAS standard makes a clear statement about the disease spectrum of the research object of the diagnostic test, if the diagnostic test uses healthy individuals as controls, it is considered unqualified and the QUADAS score of this standard. - 1 point.

In addition, it should be noted that, unlike interventional studies, the test group (disease group) and control group (non-disease group) of the diagnostic test are formed naturally, so the proportionality (i.e., there) is There is no requirement for . there is no need to follow the rules of case-control and intervention studies).In sexual research, the "Principle of Balance"), the main thing is that the research object should be clinically representative and complete and can reflect the characteristics of the population. should be evaluated in a clinical workup to make a diagnosis. For example, the BE FAST study published in 2012 was a study to evaluate the diagnostic value of serum glial fibrillary acidic protein (GFAP) in hemorrhagic cerebrovascular disease and ischemic cerebrovascular disease. The subjects were 205 patients with symptoms of cerebrovascular disease and symptoms appeared. in 4.5 hours. Among them, only 39 patients with hemorrhagic cerebrovascular diseases and 166 patients with non-hemorrhagic cerebrovascular diseases were involved.

Inclusion, exclusion and recruitment of subjects

Determining the inclusion and exclusion criteria of research subjects is an important part of diagnostic test research, as it determines to a certain extent the scope of application of research findings. Inclusion criteria should generally include chief complaints, medical history, and symptoms of research subjects; exclusion criteria should usually be diseases that can be diagnosed without new diagnostic methods or excluded for special reasons. For example, Potocki evaluated the diagnostic value of MR-proANP and NT-proBNP for heart failure in patients with dyspnea. Inclusion criteria for the study were: patients presenting to the emergency department with a chief complaint of shortness of breath; exclusion criteria: age <18 years; dialysis patients and trauma patients. Inclusion and exclusion criteria better reflect the characteristics and clinical presentation of patients with clinically suspected heart failure. Article 2 of the QUADAS standard requires that researchers have clear case selection criteria when conducting a diagnostic test study; otherwise, the research score for that record is 0 or -1, resulting in skewed total QUADAS scores. overall quality of learning. In addition, when writing a research paper, you should follow the STARD

reporting specification rules 15 and 18 and detail the clinical characteristics of the subjects who finally entered the study so that readers can analyze the scope of application. research findings.

The method of recruitment of research subjects is an aspect that should be fully considered in the design of a diagnostic test study. Improper recruitment methods result in a lack of clinical representativeness of the ultimately recruited study subjects and affect the reliability of study conclusions. Using random recruitment and continuous recruitment to recruit people who come to the hospital for a certain period of time, meet the inclusion criteria, and do not meet the exclusion criteria without violating medical ethics should be the proper way of doing things. Only in this way can the integrity of the clinical representativeness of the research subjects be ensured, so "diagnostic research does not need to follow the principle of balance". Articles 4 and 5 of the STARD reporting specification require researchers to indicate in their research papers how they were involved in the work.

Determination of the gold standard

When evaluating clinical diagnostic tests, the first step is to establish a "gold standard," that is, a standard that can ultimately diagnose a disease. For example, the gold standard for the diagnosis of tumors is pathological examination, the gold standard for the diagnosis of sepsis is blood culture, and the gold standard for the diagnosis of ischemic heart disease is coronary angiography. It should be noted that although the gold standard is the final tool for disease diagnosis, this does not exclude the role and status of new tools in disease diagnosis. Although the gold standard is the final standard for disease diagnosis, it also has insurmountable disadvantages, such as: pathological examination is an invasive examination, and the test results depend on the experience of the pathologist; blood cultures are time-consuming and laborious, and may delay the diagnosis of patients. Coronary angiography requires advanced medical equipment and has certain side effects (contrast medium can cause acute kidney injury). Therefore, we need to study new diagnostic methods to overcome the shortcomings of the gold standard and enrich the diagnostic methods of diseases. The gold standard established during diagnostic studies should be a recognized diagnostic standard of disease and should be detailed in the reporting document. This is clearly defined in Article 7 of the STARD reporting specification and Articles 3 and 9 of the QUADAS standard. In addition, the role of the gold standard in the process of conducting diagnostic tests should not be limited to the diagnosis of diseases, but should also include the exclusion of diseases. That is, whether or not a final diagnosis of the target disease is established, all subjects should receive the gold standard examination. In articles 5 and 6 of the QUADAS standard, researchers are required to undergo the gold standard examination of all subjects during diagnostic studies.

It is important to note that when conducting a diagnostic study, the gold standard and the evaluated test should be independent of each other, that is, the diagnosis of the disease and the implementation of the evaluated test should be blinded to each other. : clinicians do not know the specificity of the test to be evaluated in making the diagnosis of the disease. As a result, to avoid potential diagnostic errors, the tests to be evaluated should be performed without knowing the final diagnosis of the patients. This is clearly defined in Articles 7, 10 and 11 of the QUADAS standard. Article 11 of the STARD reporting specification also requires the author to state whether blinding was used in the research process when writing the report paper. However, we can also see that the research quality of prospective studies is higher compared to retrospective studies, because in prospective studies, researchers can use blinded methods and avoid waiting for evaluation when setting gold standards.

Summary. Today, the idea of evidence-based medicine has permeated every corner of clinical medicine, and it has become the consensus of most clinicians to focus on the quality of "evidence" and the strength of arguments. Conducting high-quality diagnostic test studies and writing standardized diagnostic research papers will undoubtedly play a positive role in the development of evidence-based medicine. By following the principles of scientific design in conducting diagnostic tests and following standardized reporting methods in writing reports, research results can gain peer attention and have a place in shaping or updating future disease diagnostic guidelines. possible translation of scientific research results into clinical practice.

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DEVELOPMENT OF GENERAL SECONDARY SCHOOL STUDENTS' KNOWLEDGE ON THE SUBJECT OF THE FIRST LAW OF THERMODYNAMICS IN FAMILY CONDITIONS

Choriyeva Mahfuza Sadriddinovna

mahfuzachoriyeva@gmail.com

Abstract

This article examines the role of family involvement in enhancing general secondary school students' understanding of the topic of the first law of thermodynamics. It explores effective strategies for creating an enriched home learning environment for parents and other caregivers, and provides a deeper understanding of this fundamental scientific principle.

Keywords. Thermodynamics, first law, high school, student learning, family environment, science education, parent involvement.

Аннотация

В данной статье рассматривается роль участия семьи в расширении понимания учащимися средних школ темы первого закона термодинамики. В нем исследуются эффективные стратегии создания обогащенной среды домашнего обучения для родителей и других лиц, осуществляющих уход, а также обеспечивается более глубокое понимание этого фундаментального научного принципа.

Ключевые слова. Термодинамика, первое право, средняя школа, обучение учащихся, семейная среда, естественнонаучное образование, участие родителей.

INTRODUCTION

The first law of thermodynamics is a key concept in the study of conservation of energy and is crucial in teaching science to students. However, understanding this law can be difficult for the average high school student. This article aims to highlight the importance of family involvement in supporting students' understanding of the first law of thermodynamics.

LITERATURE ANALYSYS AND METHODOLOGY

Complexity of the First Law of Thermodynamics: The First Law of Thermodynamics is often perceived as abstract and difficult to understand due to its mathematical nature and theoretical aspects. Research shows that family involvement in a student's education can have a significant impact on their academic success. If parents are actively involved in their child's learning, it helps to better understand and remember difficult topics.

The following strategies can be used to develop children's knowledge of the first law of thermodynamics in a family setting:

- Interactive Discussions: Encourage open discussion, questions and problem solving on the First Law.

- Practical experiments: Carrying out simple experiments at home to demonstrate energy saving.

- Educational resources: Using textbooks, online materials and educational videos to help children better understand the subject.

- Problem Solving: Working together on thermodynamics problems to improve problem solving skills.

- Real-life examples: Relate the First Law to everyday events and emphasize its relevance.

RESULTS

Teaching the first law of thermodynamics through simple experiments at home is a fun and effective way to help general high school students understand this basic concept. A few simple experiments to develop knowledge of the first law of thermodynamics in a family setting (All experiments should be conducted with the participation of parents):

1. Insulation and Heat Transfer:

- Materials Needed: Two identical cups, one with a lid (or a piece of aluminum foil), a thermometer, hot water, and a timer.

- Procedure:

1. Fill both cups with hot water at the same temperature.

2. Cover one cup tightly with a lid or aluminum foil.

3. Use a thermometer to measure and record the temperature of both cups at regular intervals (e.g., every 5 minutes).

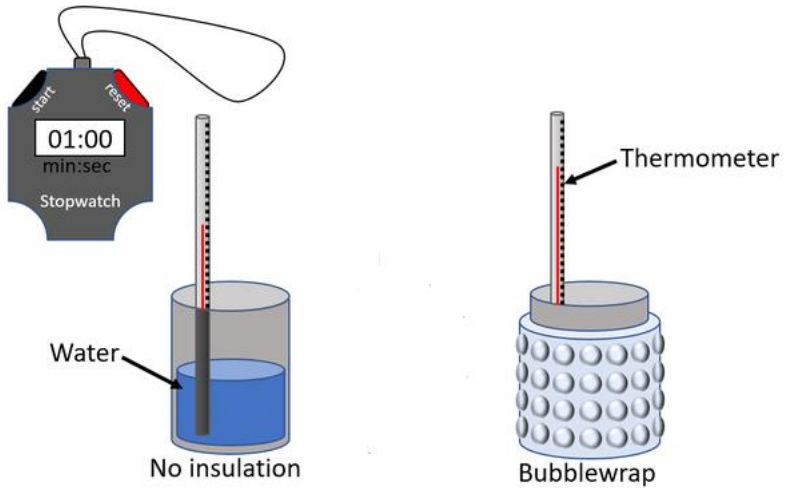

Figure 1. Insulation and Heat Transfer experience

- Observation: The covered cup retains its temperature longer than the uncovered one, demonstrating how insulation reduces heat transfer, in line with the First Law of Thermodynamics.

2. Boiling Water and the First Law:

- Materials Needed: A pot, water, a thermometer, a stove, and a timer.

- Procedure:

1. Fill the pot with water and place it on the stove.

2. Heat the water until it starts to boil.

3. Measure and record the temperature of the boiling water.

4. Allow the water to continue boiling while monitoring the timer.

Figure 2. Boiling Water and the First Law experience

- Observation: The temperature of the boiling water remains constant even as it boils, illustrating that the energy supplied (heat) causes a phase change (from liquid to gas) rather than a temperature increase, aligning with the First Law.

3. Thermal Expansion and Contraction:

- Materials Needed: A metal or glass container, hot water, cold water, a small hole punch, a paperclip, and a plastic bottle with a screw cap.

- Procedure:

1. Fill the container with hot water and the plastic bottle with cold water.

2. Submerge the paperclip in the hot water for a few minutes.

3. Use the hole punch to make a small hole in the cap of the plastic bottle.

4. Quickly screw the cap onto the bottle and place it in the hot water.

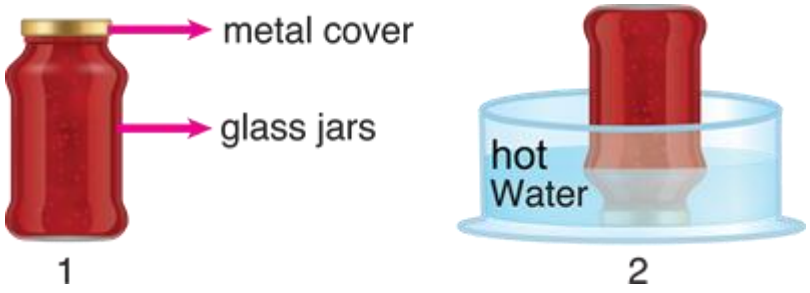

Figure 3. Thermal Expansion and Contraction experience

- Observation: The bottle's cap will tighten as the hot water heats the air inside the bottle, demonstrating how thermal expansion can do work (tighten the cap) in accordance with the First Law.

4. Adiabatic Compression and Expansion:

- Materials Needed: A balloon, a small plastic bottle with a screw cap, a syringe (without the needle), and a heat source (like a hairdryer).

- Procedure:

1. Partially inflate the balloon and attach it to the syringe's nozzle.

2. Seal the syringe with the balloon using the cap.

3. Heat the sealed syringe with the hairdryer for a few seconds.

- Observation: As the air inside the syringe heats up, the balloon inflates, demonstrating adiabatic expansion in line with the First Law.

These simple experiments help students visualize and understand the concepts of heat transfer, phase change, thermal expansion, and adiabatic processes that are the basis for the first law of thermodynamics.

Implementing these strategies in a family environment can have positive results. Children who receive active support from their families tend to develop a better understanding of the first law of thermodynamics, greater self-confidence, and better problem-solving skills.

CONCLUSION

The development of general secondary school students' understanding of the first law of thermodynamics is significantly enhanced by family involvement. Parents and other close relatives who are actively involved in their children's learning contribute to their academic success and help them understand difficult scientific concepts. Families play a crucial role in nurturing young scientists by supporting and enriching the home environment.

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MOISTURE MOVEMENT IN THE SOIL-SUBSOIL IRRIGATION (TOS) OF CULTIVATED LAND IN THE CONDITIONS OF THE BUKHARA REGION

Sh.J.Imamov professor, U.Y.Rajabov is a doctoral student, Y.J.Rajabov (Phd), J.J.Jumaev-student, R.Khudoydotov-student, N.Ya.Rajabova is a student.

Bukhara Institute of Natural Resource Management National Research University "TIIAME"

Annotation. The article gives a brief overview of water-saving technologies for irrigation of vegetation and the result of a study to establish the main (diameter and distance between moistening holes , water flow; moisture distribution zone) parameters of sub-irrigation.

Annotatsiya. Maqolada ekin eralarning tuproq ostidan sug'orib suv tejamkrligiga erishish borasida bir qator rivojlangan mamlakatlarda, jumladan O'zbekistonda mavjud er maydonlarining salmog'i va bu borada olib borilayotgan ilmiy tadqiqot ishlari,qo'llaniladigan texnika va texnologiyalar, yangi qurilma, uni qo'llashda olinadigan ijobiy natijalar, shuningdek bu muammo echimini topish borasida ilmiy tadqiqot ishlari to'g'risida ma'lumotlar keltirilgan.

Аннотация. В статье представлена информация о весе земельных участков, имеющихся в ряде развитых стран,в том числе в Узбекистане, и проводимых научно-исследовательских работах по достижению водосбережения за счет подземного орошения сельскохозяйственных угодий, применяемой технике и технологии, новом устройстве, положительных результатах, полученных при его применении, а также научно-исследовательских работах по поиску решения этой проблемы.

Keywords: irrigation from under the soil, sandy soil, saline soil, gravitational-capillary, sorbic, condensation, hydrostatic pressure.

By irrigation from the soil OS-this type of irrigation implies the supply of water directly to the root system of plants through special humidifiers located under the fertile layer or at a depth of about 10-50 CM in the fertile soil layer.

The effect of the suction forces of the pelvic soil is performed, therefore, based on the water physical property of the soil, it is possible to apply it on soils with good capillary properties. At the same time, it is not recommended to use in tos on sandy soils, saline, rocky soils.

According to the type of water supply, irrigation systems for the soil are divided into 3 groups]:

- vacuum, they are also known as adsorption with Capillary hydration. With this method, water is immediately absorbed by plants due to the suction power of the soil;

-gravitational-capillary low pressure humidification. In this case, the water in the network is distributed by the water gravity of the soil;

- capillary-gravity wetting pressure pumps. With this method, water is supplied to the soil by creating artificial pressure.

The main advantages of irrigation from within the soil [65; 25-28-b]:

- maintaining the moisture content of the soil layer at the capillary capacity level;
- absence of disturbance in the structure of the plowing horizon in irrigation;
- absence of shell formation;
- long-term storage of water reserves in the soil due to a decrease in evaporation from the soil surface;
- process automation;
- weed reduction.

Soil moisture reserves in the soil are formed by its interaction with plants and weather conditions. Quantitative indicators of the amount and movement of moisture in the soil are one of the most important factors that characterize the water regime in which the soil is formed.

Large-scale work has been carried out to study the laws of the distribution of moisture in the pelvis.G.Kornev, A.A.Bogushevski, V.P.Ostapchik, V.I.Bobchenko, V.R.Ridiger, L.E.Chernyshevskoy, A.A.Alesashenko and other researchers can be shown their work.

The movement of moisture from the humidifier under the soil occurs under the influence of various forces of Nature, This Is S.I.To classify soil moisture according to Dolgov's description, it divides moisture into three forms: sorption, free and steamy.

Sorption-acts by the soil mainly under the action of sorption forces, that is, it is associated with the surface of soil particles of water molecules and the forces of direct interaction with sorbed vapors. It is difficult for plants to get into this form of moisture. S.I.Dolgov divides sorption moisture into strong and loose ligaments. Maximum molecular humidity (MMN) is the upper limit of film moisture in the soil. The lower humidity than the MMN value leads to a decrease in the yield of agricultural crops.

Gravitational (or free) -water moves and is held in the soil under gravity or capillary forces, depending on the degree of porosity of the soil. It will be easy for plants to absorb this moisture, and when watered, it will easily turn into other forms of moisture, first of all, capillary moisture.

For most pelvic methods, the distribution of moisture in the upper soil layers with Capillary hydration from below in a relatively short period of time is of great importance. The rate of up-capillary dispersion of moisture is less than the rate of down-and side-dispersion. This creates certain difficulties in moistening the upper soil layer with the capillary action of moisture, without losing water to the lower layers. Sandy soils are able to retain capillary moisture no more than a certain volume of water. An increase in this amount leads to the fact that not only the extra volume of water flows out, but also most of the previously preserved water. Clay and clay soils, unlike Sands, can keep large volumes of capillary water hanging. Therefore, an increase in the rate of watering does not lead to a significant decrease in the moisture content of the upper layers of the soil. The rate of capillary action of moisture in the soil is also affected by moisture before watering. With high pre-irrigation humidity, the rate of movement of capillaries in the soil increases, but in moist soil, the specific water consumption for the movement of capillaries is less than in dry soil.

The value of gravitational moisture during the pelvis is very small, and often it negatively affects the distribution of watering speed, leading to an increase in water loss in the lower layers of the soil. With this method of irrigation, gravity water is allowed in such volumes when it easily passes into capillary water inside the active soil layer. The TOS technique can ensure the partial upward movement of gravitational moisture under the influence of hydrostatic control

created in the humidifier. This contributes to the proximity of the soil to the surface and the expansion of the moisture limit, which makes it possible to increase the distance between humidifiers and thereby reduce the cost of building pelvis systems.

Condensation (or vapour-like) - water diffusively moves in soil pores that are not filled with liquid water, mainly under the influence of differences in the elasticity of water vapor in different parts of the pores.

O.V.Shapovalova experiments have proven that vapor moisture, condensation, can be absorbed by plant roots.

Moisture has the greatest mobility that can prolong hydrostatic pressure and move in an interval of up to a minimum moisture capacity (EKNS) full of capillary pathway. When moisture is lower than the refractive moisture (EKNS) of the capillaries, the movement of moisture is not capillary, but mainly due to the action of sorption forces. When the soil moisture is below the EKNS, the movement of moisture in a liquid state stops.

For the pelvis, all the described forms of moisture are important, but their role is different. The basis of underground irrigation is Capillary moisture. Hence the absorption of irrigation (V.G.By Korenev) methods, soil moistening is carried out in a capillary method based on the suction power of the soil. With pressure irrigation methods, the distribution of moisture under the influence of hydrostatic gravity plays an important role.

B.B.Shumakov and A.A.Alexashenko believes that when long-term pressure irrigation is carried out, the water does not have time to be evenly distributed according to the capillary properties and is absorbed into the deep layers of the soil. The feature of the TOS is that in order to keep moisture close at the norm level at the boundaries of the given contour along the entire length of the humidifier, it is necessary to set the watering rate, for which it is necessary to study the laws of the formation of moisture contours and develop reliable and effective methods of determining the parameters of moisture transfer. In order to solve this problem, scientists from the Bukhara Institute of Natural Resources Management have conducted and are conducting research on the determination and establishment of the main indicator values of moistening irrigation from under the soil.

The purpose and function of the research work. Determination of the optimal size and values and area of application of nablab irrigation from under the soil.

Setting the depth of the installation of the soil humidifier pipe; setting the pressure of the water supplied for humidification; determining the diameter of the humidifier; determining the amount of water passing through the humidifier pipe, taking into account the natural moisture content of the soil; determining the humidification limit (combing diametric and rising height) of the moistened toilet.

To carry out research work , boorish took an area of size: 5 m tall and 5m wide from the territory of the institute and prepared to plant it. In the proposed method, the pressure of water is constant, with an average value of 1.4 m.s.u. makes up the. Water moves through this pressure.

In research work, it was determined that:

1. The depth of installation of the soil moisturizing pipe. The free-range areas of Bukhara region are saline , this area is washed 2-3 times a year using water. In this case, an average of 1500 m3 of water is spent on each wash. In the soil layer (30-50 cm from the surface of the earth)as a result of perennial saline washes a solid layer of 30-50 cm thick was formed. Given that taking, the depth of installation of the soil moisturizing pipe is 50 cm received.

2. The diameter of the humidifier. D=4 of the diameters of the humidifier study in cases where mm, d=5 mm, d=6 mm and d=7 mm work was carried out.

3. The limit of hydration in moistened soil. It defines a limit of. it was determined using a special device (Figure 1). Device composed of: triptych (Column) 1, water tank 3, water container fixing device 2, increase the amount of water or reducing (adjusting) device 4, water diverter tube 5, humidifier 6 and transverse of the moistened layer cut 7.

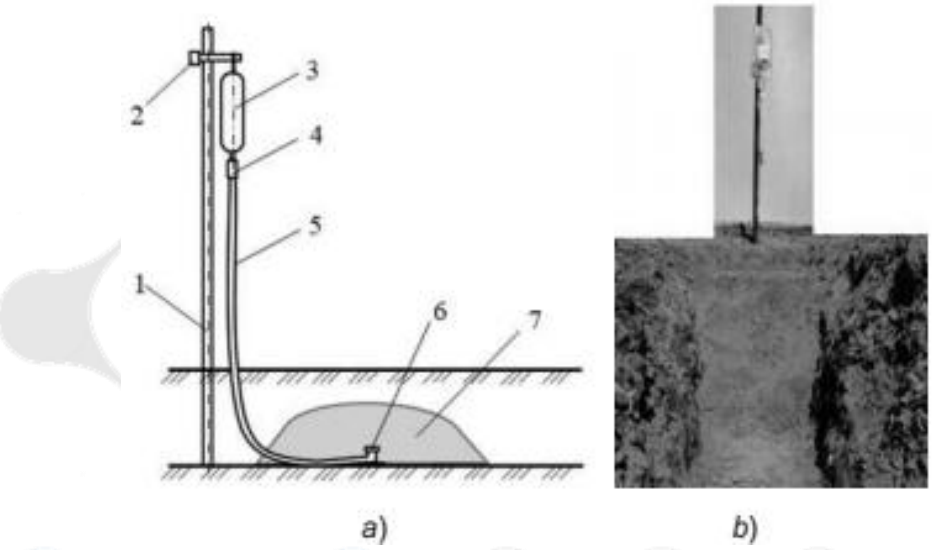

Figure – 1. Humidifier construction

a - general view of the structure, b - a picture of the setup

Size from the Institute space for field experience. A field of 10×10 dm was chosen, and this field has the soil was plowed.When the depth of the Handakni reaches 4 dm extremely hard saline soil (density average 2.5 t / m^3 it turned out a layer with a thickness of an average of 3.5 dm. Handak taking samples from the walls, its average density is 1.3 t / m^3 it turned out to be.This super hard by filling the handac with water water was observed passing through the layer. As a result of observation, this the layer practically did not pass water, while the walls of the handak absorb water gone. From this it can be concluded that the composition of the soil both the water used for washing and irrigation it does not pass through the layer. Taking into account that on top of the same layer special humidifier with a diameter of 0.4 dm having installed with the help of a tool, the handak was reburied with soil, which was compacted to the desired density the rubber water tank installed in the humidifier was choked and water was supplied from it to compact the soil. In this case, the soaking time was continued for 1 hour. After the expiration of the 1st period of time, the handak stem is moistened in order to determine the width and height of the spread of the soil opened. Pot in which the soil is soaked when the soil is opened it is shaped, and its height is equal to the radius of the bottom of 2 dm 3 dm found to be (transverse section of moistened soil

the surface is shown in Figure 2).

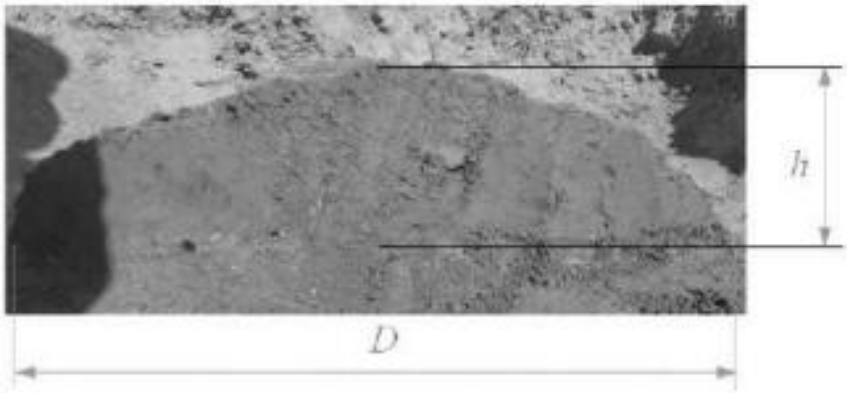

Figure – 2. Cross-sectional surface of moistened soil

In the same order, experiments were returned when the diameter of the humidifier was 0.4-0.5-0.6-0.7 dm. The values of the experiments obtained are presented in the table.

Table – 1.

Results of conducted field pilot studies

Diameter of the humidifier, d. dm	0,4	0,5	0,6	0,7
Radius of wetted soil, R. dm	3,0	3,5	4,0	4,5
Height of wet soil, h. dm	2,0	2,5	3,0	3,5
Time spent moistening the soil, hours	1			
The amount of water used to moisten the soil	3,76	6,41	10,0	14,83

From the table it can be seen that the depth of moistening the soil humidifier with a diameter of 0.6 dm is 1 dm. This is the standard size. In this, the wetting height is 3 dm and the radius at the base is 4 dm. We accept these pointers to acceptable values.

Using Figure 3, the surface of the moistened soil can be determined by the following integral:

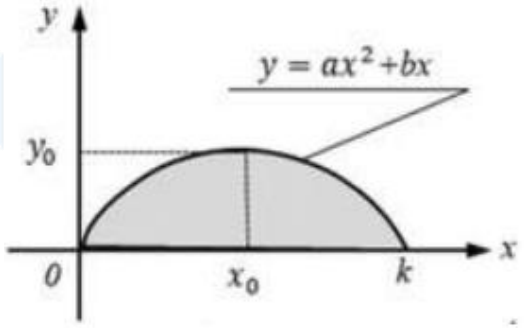

Figure – 3. Scheme for finding the surface of wet soil

Conclusion:

1. When wetting plants from under the soil, the techniques that allow plants to work are reduced to 2 times.

2. When wetting plants from under the soil, the water spent on watering is reduced by 2 times compared to traditional

3. The diameter of the humidifier is 0.6 dm between them the distance is 0.5 dm .

4. The diameter of the humidifier pipes and the distance between them it is selected depending on the conditions.

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POSTNATAL MORPHOGENESIS OF SHEEP THYROID GLANDS RAISED IN DIFFERENT NATURAL AREAS.

Allamuradov Oybek Mamasoliyevich

PhD student of the Samarkand State Veterinary Medicine, Animal Husbandry and Biotechnology University

Abstract: We studied the embryonal thyroid gland in 18 foetuses of sheep of Slovac merino breed by light microscopy in the period from 32nd to 36th day of evolution. We found that in the majority of sheep foetuses, the thyroid gland consists of two separate lobes and their structure was the same during the afore-mentioned period. Parenchyma, composed of solid cell networks or cell groups in the form of nests, was irregularly divided by septa, containing embryonal blood vessels. Almost all cases of this experiment showed slight asymmetry of lobes. In one case the asymmetry reached a considerable proportion - nearly the length of one lobe. Glandular isthmus was presented in only eight cases from 18 foetuses. We did not find fibrous isthmus in any case.

Key words: Growth, thyroid gland, sheep, morphogenesis, microelements.

The role of microelements in the development of cattle breeding is important, it leads to the activation of the physiological processes of the body. They act as biological catalysts that are part of hormones, enzymes, trace elements and some vitamins or activate them. Microelements have a positive effect on the animal's growth, development, productivity, reproductive capacity and endurance. One of the trace elements with high biological activity is potassium. It participates in the processes of enzyme formation, supports the body's defense reactions, accelerates the formation of new cells, positively affects the processes of fertilization and fetal development, and accelerates the growth of animals. The Republic of Uzbekistan dated March 16, 2017 No. PQ-2841 "On additional measures to deepen economic reforms in animal husbandry" and dated March 3, 2018 "Development and export of leather footwear and fur industries" The information in this article serves to a certain extent in the implementation of the tasks defined in the decisions of PQ-3693 on measures to further encourage capacity building and regulatory legal documents related to this activity. In the body, potassium cations moderate osmotic pressure, alkali-acid balance, and actively participate in the processes of metabolism and digestion. The peculiarity of potassium is that it has radioactive properties, it ensures the activity of the heart muscles, controls the heartbeat, internal organs dilate blood vessels. has been determined to have. In the conducted studies, there are signs of correlation between the amount of potassium in the blood and the characteristics of the Karakol sheep.

The amount of potassium in the blood is also related to the intensity of bleating of black sheep.It is important to determine the factors influencing these characteristics. Karakol in our experiments, the characteristics of re-bouncing of sheep during their fleeing season we determined depending on the intensity of coming to the tune. It can be seen from the information presented in the table because animals with different levels of potassium in their blood are biologically different they differ from each other according to their indicators, that is, according to the intensity of coming to tune.

Animals with a large amount of potassium in their blood come into heat much earlier and they fertilization is usually completed within one sexual cycle. Such a situation, to breeders animals with a high potassium content in their blood, making it possible to manage the breeding season groups of animals that allow to end the hunting season early and in short periods creation is a source of potential. Here, the amount of potassium in the blood is different it is of great interest to study the fertilization levels of ewes. The result ofexperiments showed that the fertilization of colds with different levels of potassium in the blood indicators were different. That is, the level of fertilization of the sovliks in the plus version is medium it was found to be 12.2% higher than the option, and 14.5% higher than the minus option. Many researchers have determined the intensity of fertilization of Karakol sheep depending on the amount of potassium determined that potassium in the blood of various animals during periods of sexual activity to have significant variability in the amount (in large horned animals) determined. In the research we conducted, the amount of potassium in the blood of black sheep the degree of correlation with rebound properties was studied. Age as sources of research and purebred Karakol sheep with the same skin productivity were obtained. In the blood as a criterion determining the amount of potassium, the animals were divided into three separate groups: "minus" variant - the amount of potassium is 730 μg/ml. to, "medium" option from 730 μg/ml to 850 up to mcg/ml, + the "plus" option - the amount of potassium is more than 850 mcg/ml. Rams Qualitative and quantitative indicators of sperm are presented in the table below.

As can be seen from the table data, potassium is one of the biological indicators in the blood. The intensity of coming to the tune from different numbers of sheep differs significantly. Potassium .A large number of ewes come into rut earlier and their fertilization is almost in one sexual cycle will be done. Such situations are at a high level among breeders allows to transfer. Sheep grazing in Karakol with a high level of potassium the season is carried out in short periods.

Evolutionary developmental biology (evo-devo) studies the developmental processes of different organisms to determine the ancestral relationships between

them and to discover how developmental processes evolved. It addresses the origin and evolution of embryonic development and the modifications of developmental process that produced novel features (Wikipedia, accessed August 2014). Evo-devo teaches us that some fundamental developmental processes are preserved by the evolution among species (1). The evo-devo approach is not only becoming crucial for the modern study of evolution but also it helps in the understanding of morphofunctional alterations in human psychiatric diseases. For instance, autism spectrum disorders (ASD) show abnormal function of cortical areas, such as the frontal or associative neocortices that are minimally present in rodents (2, 3). An approach to the etiologic factors of psychiatric diseases can be inferred by the study of homologous genetic pathways that lead to similar developmental processes in both humans and other mammals. A second issue is that several psychiatric diseases, including ASD, show a wide spectrum of different phenotypes, which are the result of both genetic (nature) and environmental (nurture) factors (4); including among the latter the interaction of comorbid disorders such as hypothyroidism and hypothyroxinemia (5). We begin this review with a summary of thyroid hormone synthesis, transport, and cell actions, which are regulated by a very complex assembly of transporters, deiodinases, receptors, and cofactors. As such, tissues have some control over thyroid hormone action, independent of circulating levels of thyroid hormones. We continue with the analysis of the role of thyroid hormones at different phases of brain development and maturation, focusing our attention on vulnerable periods. These periods occur during gestation and lactation when genetic and environmental factors, which include nutrients and chemical contaminants, interfere with maternal and offspring thyroid health. There is evidence that anatomical characteristics of autistic brains represent defects in processes that occur early in development, in the first half of gestation. Moreover, genomic studies have revealed a catalog of critical genes for these processes that are regulated by thyroid hormones. Finally, recent studies have reported that thyroid hormone deficiency might contribute to increase the number of autism phenotypes, and that disorders associated with hypothyroidism and hypothyroxinemia, such as intellectual impairment, seizures, and anxiety, are comorbid of ASD.

Thyroid Function during Brain Development

Thyroid hormones (T4, thyroxine; and T3, 3,5,3′-triiodo-L-thyronine) are synthesized in the thyroid gland and are transported to different tissues and organs where they regulate growth, maturation, and function in many organs and systems of vertebrates. In particular, the mammalian central nervous system (CNS) is an important target of thyroid hormones from fetus to adult. However, the maximal

vulnerability of the CNS to thyroid hormone imbalance occurs during the earliest stages of brain development.

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INTEGRATION OF WASTE RECYCLING, COMPOSTING AND REDUCTION STRATEGIES IN SURKHANDARYA

Musayeva Mehriniso Hamroyevna
Termiz Institute of Engineering and Technology, Master's student of the 1st stage

Abstract

This article explores the imperative need for an integrated waste management system in Surkhandarya, Uzbekistan, focusing on the integration of recycling, composting, and waste reduction strategies. The region's growing population and urbanization demand sustainable solutions to address waste management challenges. The three pillars of recycling, composting, and waste reduction are examined for their environmental, economic, and social benefits. By implementing these strategies, Surkhandarya can conserve natural resources, reduce landfill burdens, save costs, and promote responsible consumption. The article outlines specific strategies for integration, emphasizing the importance of public awareness and government support in achieving a cleaner and more sustainable future for the region.

Keywords: Waste management, Recycling, Composting, Waste reduction, Sustainability, Surkhandarya region, Environmental conservation, Economic savings, Landfill reduction, Public awareness.

Аннотация

В данном документе рассматривается необходимость создания интегрированной системы управления отходами в Сурхандарьинской области с упором на интеграцию стратегий переработки отходов, компостирования и сокращения отходов. Растущее население региона и урбанизация требуют устойчивых решений для решения проблем управления отходами. Три основных направления переработки, компостирования и сокращения отходов рассматриваются на предмет их экологических, экономических и социальных преимуществ. Реализуя эти стратегии, Сурхандарьинская область сэкономит природные ресурсы, уменьшит нагрузку на свалки, сэкономит затраты и разовьет ответственное потребление. В статье излагаются конкретные стратегии интеграции и подчеркивается важность информирования общественности и государственной поддержки в достижении более чистого и устойчивого будущего региона.

Ключевые слова: Управление отходами, переработка, компостирование, сокращение отходов, устойчивое развитие, Сурхандарьинская область, охрана окружающей среды, экономическая эффективность, сокращение свалок, информированность населения.

INTRODUCTION

Surkhandarya, a region of amazing natural beauty in the south of Uzbekistan, faces serious problems in waste management. As a result of population growth and urbanization, the need for effective waste management is becoming increasingly urgent. To address these issues, Surkhandarya must adopt a holistic approach that combines recycling, composting and waste reduction strategies. This paper explores the benefits and strategies of such an integrated waste management system.

LITERATURE ANALYSIS AND METHODOLOGY

The three pillars of sustainable waste management are:

1. Recycling: Recycling is the process of converting waste materials into reusable items. As a result of processing in Surkhandarya, the amount of waste sent to the landfill is significantly reduced. Common recyclables include paper, cardboard, glass, plastic, and metals.

2. Composting: Composting is the natural breakdown of organic waste into nutrient-rich soil. Surkhandarya's rich agricultural traditions make composting a valuable resource. Food scraps, yard waste, and other organic materials can be composted, reducing the need for chemical fertilizers and landfill space.

3. Waste reduction: Waste reduction aims to minimize the generation of waste at its source. This strategy includes initiatives to reduce packaging, promote reusable products and raise awareness of responsible consumption. By producing less waste, Surkhandarya can reduce disposal costs and environmental impact.

Advantages of integration:

Combining these three pillars of waste management offers several important advantages:

1. Environmental protection: Recycling reduces the need to extract raw materials, conserve natural resources and reduce energy consumption. Composting enriches the soil and reduces the need for chemical fertilizers, promoting healthy ecosystems. Reducing waste reduces the environmental impact of production and consumption.

2. Economic savings: Recycling and composting can generate income by selling recycled materials and compost. Reducing waste reduces disposal costs and the need for landfill expansion.

3. Reduced Landfill Load: By diverting recycled and organic materials from landfills, Surkhandarya can extend the life of existing landfill sites and delay the construction of new ones, which can be costly and environmentally damaging.

RESULTS

Integration strategy in Surkhandarya:

1. Establish recycling centers: Establish convenient recycling centers where residents can drop off recyclable materials such as paper, cardboard, plastic, and glass.

2. Promote separation at source: Encourage households and businesses to separate recyclable and organic waste from non-recyclable garbage.

3. Support Composting Initiatives: Provide training and resources to promote backyard composting and large-scale community composting programs.

4. Awareness campaigns: Launch public awareness campaigns to inform the population about the benefits of waste reduction and responsible consumption.

5. Regulations and Incentives: Implement policies that encourage waste reduction and recycling, such as mandatory recycling programs and incentives for businesses that reduce packaging.

CONCLUSION

Waste management problems in Surkhandarya require an integrated approach that combines recycling, composting and waste reduction strategies. By embracing these three pillars, Surkhandarya can reduce environmental impact, stimulate economic growth, and preserve its natural beauty for future generations. Such an integrated approach is not only environmentally responsible, but also economically beneficial, making it a win-win solution for the future of waste management in Surkhandarya. Thanks to the cooperation of the government, entrepreneurs and residents, Surkhandarya will move towards a clean and green future tomorrow.

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UDK 631.6; 626.8

THE IMPORTANCE OF SEEDLING CULTIVATION AND A DEVICE FOR MAKING POTS FROM BIOHUMUS FOR SEEDLING CULTIVATION

A.B.Babamuradov[1], Sh J.Imomov[1], A.A.Jurayev[1], S.S.Orziyev[1], U.F.Khusenov, D.U.Ruziqulova

[1]Bukhara Institute of Natural Resources Management of the National Research University of Tashkent Institute of Irrigation and Agricultural Mechanization Engineers

e-mail:

sorziyev891@gmail.com

shavkat-imomov@rembler.ru

ulmasbekstar@gmail.com

phone number:

Sardor S. Orziyev: +998906463981

Shavkat J.Imomov: +998914416931

Ulmasbek F. Khusenov: +998914160336

Abstract: Article provides information about the today's demand in the food industry in the world, the work and normative documents carried out for the development of the food industry in our Republic, the importance of growing through seedlings in increasing productivity in fruit and vegetable growing, the role of pots made from a mixture of biohumus and soil in the cultivation of seedlings, and a device for making pots from biohumus (organic fertilizer).

Key words: Greenhouses, fruit and vegetable crops, food products, biogas reactor, pneumatic cylinders, frames, pots, biohumus, organic fertilizer, bunker, pressed piston, soil composition, soil, hydrogeological conditions, nutrients.

Introduction: In today's age of advanced techniques and technologies, the demand for environmentally friendly products in the world market, especially for the export of the food industry, is also increasing. To meet the needs of the population of the region for food, the main focus is on increasing the productivity of food products grown on farms and greenhouses in providing light industry with raw materials for food products[1].

A young sprout intended for transplanting to a place of permanent growth, but which has not yet formed yielding organs, is called a seedling. The essence of growing plants through seedlings is that they are grown in a small feeding area with sufficient nutrients and moisture in the first period of their life, under artificial climatic conditions, then it transplanting and growing in open or protected ground structures [2].

Research materials: In fruit and vegetable growing, the growth and development of plants grown from seedlings is observed in comparison with the same plants grown without seedlings. This promotion leads to faster ripening of the plant, good prices of the product in the market and high economic efficiency. Therefore, many of our farmers are well aware of the advantages of growing fruit and vegetable crops from seedlings, growing early crops in open fields and greenhouses. But there is a lack of information and experience on the preparation of fruit and vegetable seedlings for some farmers and land owners [3].

Cultivation of plants through seedlings in protected land conditions extends the product release period and provides an opportunity to use artificial lighting sources economically. Despite the high cost, the seedling method is economically justified and it is widely used in vegetable growing, and in some cases it is impossible to grow vegetables without seedlings. The methods and techniques of seedling cultivation, intellectually correct selection of methods of cultivation with or without seedlings are important for the economy of vegetable growing [4].

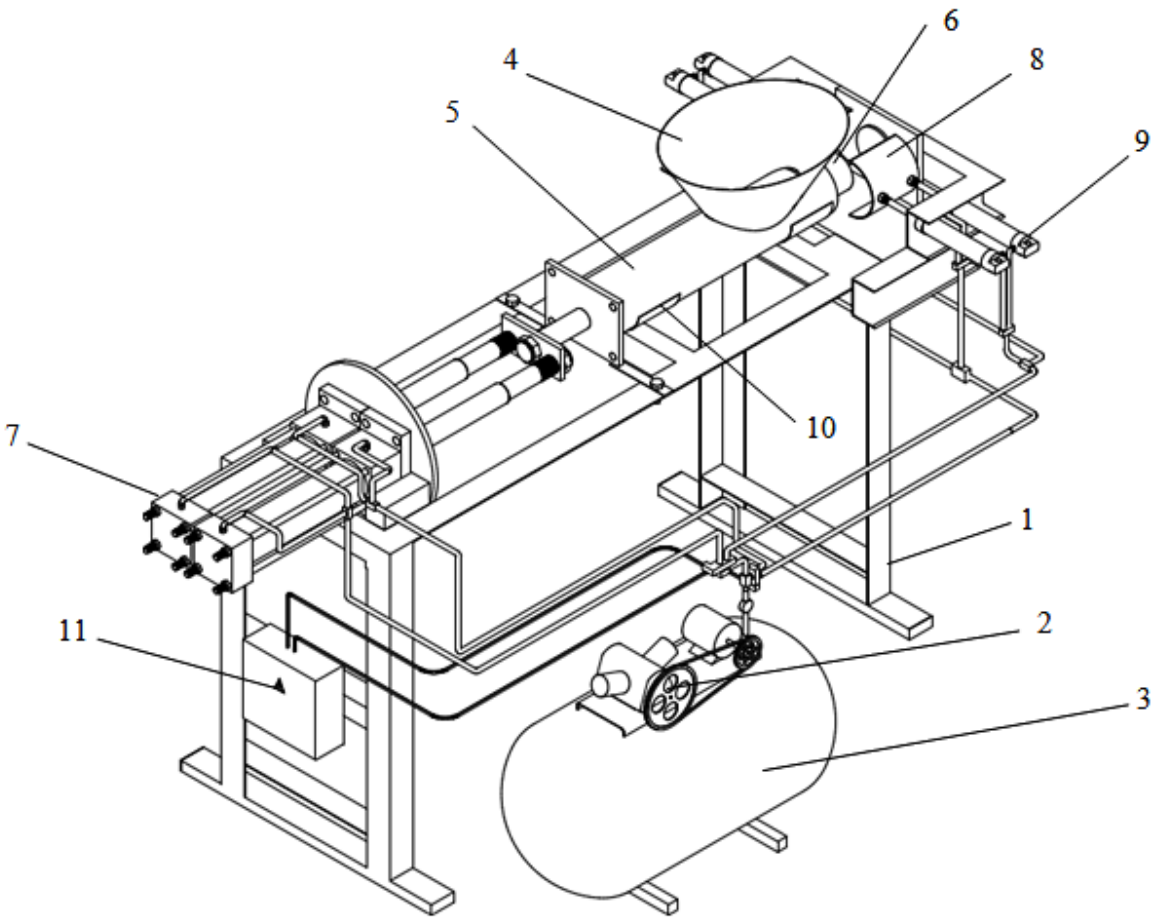
The importance of five natural factors (water, mineral nutrients, heat, light, air) in obtaining abundant harvest from crops is very important. These factors create favorable natural conditions for the growth of the plant, and as a result, an abundant harvest is obtained. Water needs of agricultural crops vary depending on climate, soil, hydrogeological conditions, biological properties of plants [5].

The system of measures aimed at reforming agriculture occupies a head position in the implementation of economic reforms implemented in our republic. No. 60 of the President of the Republic of Uzbekistan dated 28.01.2022 "On the development strategy of the new Uzbekistan for 2022-2026"

Objective 30 of the Decree: To increase and protect soil fertility. Through the intensive development of agriculture on a scientific basis, it is determined to increase the income of peasants and farmers by at least 2 times, to bring the annual growth of agriculture to at least 5%. [6].

In order to achieve these goals, a device for making pots from biohumus was developed in the research conducted by the scientists of the Bukhara Institute of Natural Resources Management of the National Research University of Tashkent Institute of Irrigation and Agricultural Mechanization Engineers. (Figure 1) [7,8].

Research methods: The working technology of the device for preparing pots from biohumus for growing seedlings is as follows. A mixture of biohumus (organic fertilizer) and soil from the biogas plant is loaded into the biohumus compression cylinder installed on the frame of the device through the loading bunker. The product falling into the compression cylinder is delivered and compacted by the forward movement of the pressed piston into arc-shaped molds that form the shape of biohumus pots [9]. In this case, the bottom and wall of the holes are formed from a mixture of biohumus (organic fertilizer) and soil in the space of 1 cm between the arc-shaped molds and the piston. During the return movement of the compacting piston, the water separated from the mixture of biohumus (organic fertilizer) and soil inside the compacting cylinder is discharged through special holes [10]. The movement of the compacting piston is provided by a pneumo cylinder installed on it, and the movement of arc-shaped molds forming the shape of biohumus trays is provided by a pneumo cylinder. Pneumatic cylinders 7 and 9 are supplied with compressed air using a compressor driven by an electric motor. The controller ensures simultaneous forward and return movement of the compacting piston and the arc-shaped molds forming the shape of the biohumus pots. The equipment is capable of making 6 pots of biohumus in one minute.



1 - frame, 2 - electric motor, 3 - compressor, 4 - biohumus (organic fertilizer) loading bunker, 5 - biohumus compression cylinder, 6 - pressed piston, 7 - pneumo cylinder that moves the pressed piston, 8 - arc-shaped molds, 9 - pneumo-cylinders that drive arc-shaped molds,

10 - special hole, 11 – controller.

1-rasm. The device for making pots from biohumus (organic fertilizer).

The analysis of available organic fertilizers shows that the necessary nutrients for growing seedlings are found in biohumus pots obtained as a result of processing in a biogas device. It was analyzed that the development of seedlings significantly changed due to the presence of nutrients necessary for root growth in the mixture of biohumus and soil. Complete decomposition of biohumus pots was observed in the soil [11, 12].

Figure 1. Pots made from biohumus (organic fertilizer) in a pot making device.

Conclusion: To grow seedlings in agriculture, to increase the amount of humus in the soil and the productivity by making pots that are completely decomposed in the soil from the biohumus (organic fertilizer) coming out of the biogas reactor for growing seedlings through the technological process described above and it can be used to reduce the consumption of cocktails by mechanizing the preparation of pots.

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THE IMPORTANCE OF SEEDLING CULTIVATION AND THE DEVICE FOR PREPARING POTS FROM BIOHUMUS IN SEEDLING CULTIVATION

A.B.Babamuradov[1], Sh J.Imomov[1], A.A.Jurayev[1], S.S.Orziyev[1], U.F.Khusenov, D.U.Ruziqulova

[1]Bukhara Institute of Natural Resources Management of the National Research University of Tashkent Institute of Irrigation and Agricultural Mechanization Engineers

e-mail:

sorziyev891@gmail.com

shavkat-imomov@rembler.ru

ulmasbekstar@gmail.com

phone number:

Sardor S. Orziyev: +998906463981

Shavkat J.Imomov: +998914416931

Ulmasbek F. Khusenov: +998914160336

Abstract: *In the article, today's demand in the food industry in the world, the work and normative documents carried out for the development of the food industry in our Republic, the importance of cultivation through seedlings in increasing the productivity of kaleyard crops and vegetables, the role of biohumus and peat pots in the cultivation of seedlings, and biohumus (organic fertilizer) is given information about the production line.*

Key words: *Soil fertility, machinery, electricity, root system, oxygen, greenhouses, vegetable and cash crops, homesteaders, wood shavings, food products, peat, organic fertilizer, ingredients, yield, decomposition, nutrients.*

Introduction. In the agriculture of Uzbekistan, about 60% of kaleyard crops and vegetable crops are grown from seedlings. In our sunny country, it is possible to harvest 2-3 times a year from fruits and vegetables. This is achieved due to cultivation from seedlings and effective use of protected land structures.

The decision of the President of the Republic of Uzbekistan "On measures for the further development of horticulture and greenhouses in the Republic of Uzbekistan" dated March 20, 2019 No. PD-4246 established the tasks of production of fruit and vegetable products in the off-season in our republic, increasing the volume of exports, and training high-level competitive personnel in the field. In order to provide the population with cheap, high-quality food products, and to increase production, it is urgent to use modern methods of growing kaleyard crops and vegetable seedlings in greenhouses in the Republic [1].

Materials and methods of research. Increase and protection of soil fertility. Improving the system of agroservices based on science and innovation. Supplying raw materials to agro-industrial enterprises and increasing production volume by 1.5 times. Development of agrologistics centers and increasing the number of modern laboratories. Implementation of the national program on seed and seedling cultivation.

Establishing an international agricultural university together with prestigious international scientific centers and higher education institutions. A number of issues such as deepening the integration of science and practice in the agricultural sector have been identified.

In kaleyard and vegetable farming, the growth and development of plants grown from seedlings is observed in comparison with the same plants grown without seedlings. This promotion leads to faster ripening of the plant, better prices of the product in the market and higher economic efficiency. For this reason, many of our farmers know the benefits of growing rice and vegetable crops from seedlings and growing early crops in open fields and greenhouses. But there is a lack of knowledge and experience in the preparation of rice and vegetable seedlings for some farmers and homesteaders [2].

Implementation of the process of growing seedlings in greenhouses with the help of fully scientifically based mechanisms is one of the urgent problems of the industry today [3, 4].

In the cultivation of seedlings, plastic and polyethylene bags are widely used to grow seedlings with fertilizers. The high price of polyethylene products increases the cost of planting seedlings, which in turn leads to an increase in the price of food products (Fig.1).

a) b)

a - A pot designed by a peat pot production line.

b - The process of growing seedlings in peat pots developed by the production line of peat pots

Fig.1 Peat pots in seedling cultivation

The equipment and structures for the preparation of seedlings used in the cultivation of seedlings carry out different technological processes depending on the shape and size of the preparation seedlings and the type of product used for the preparation of seedlings. Semi-mechanized and mechanized types of existing equipment for the preparation of seedlings are widespread [5, 6].

The sequence of operation of the main parts of the plant for mechanized seedling production is automated, powered by 2- or 3-phase electricity. Today, 80% of the seedlings of vegetables and pulse crops grown in agriculture are grown in different district greenhouses and delivered to pre-prepared fields and greenhouses. The size and shape of the pots formed by these devices are made depending on the type of seedling [7].

The line for the production of peat pots for planting seedlings manufactured by the Chinese enterprise "Liming Heavy Industry" (Fig.2).

Fig.2 Production line of peat pots

This equipment allows you to make pots of different shapes and sizes. This modern production line has a production capacity of 4,000 pieces of peat moss per hour. the line is automatically adapted to work with 380 V electric current, and 3 workers are needed to provide service and load raw materials into the hopper, as well as to control the quality of the manufactured product [8, 10].

Results and discussion. Peat beds are designed for growing various seedlings (tomatoes, cucumbers, etc.), as well as all types of flower crops. They are hollow products, the walls of which are made of a mixture of wood shavings or peat moss. Since the seedlings are planted directly in the soil, the cost of fertilization is significantly reduced (the walls themselves are fertilizer) and the yield increases [9].

Growing seedlings in peat beds has a number of advantages:

1. Due to the porous walls of the container, the root system is well supplied with oxygen and water.

2. Once planted in the ground, the roots grow freely through the flexible and soft walls of the pot without resistance.

3. The base of the pot is strong enough to support the load of soil and seedlings.

4. The peat moss falls to the ground and gradually decomposes and becomes a natural fertilizer for the plant, which provides its nutrition and improves the growth rate.

Peat mulches are made from completely natural ingredients, they do not harm the seedlings, the soil, and do not poison the crop [11].

Conclusion. Through the technological process described above, biohumus (organic fertilizer) for growing seedlings can be used to reduce the consumption of labor by preparing seedlings that completely decompose in the soil and mechanizing the preparation of seedlings.

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TDSHU master's student of Linguistics
Tojimurodova Surayyo Rashid qizi
E-mail: tojimurodovasurayyonurjah@.gmail
(+99899)0986124

ANALYSIS OF THEORETICAL APPROACHES ON PAIRS OF WORDS IN LINGUISTICS

ANNOTATION: In this article, the theoretical views on pairs of words in linguistics are thoroughly researched. Pairs of words appear not only in our daily life, but also in fiction. Pairs of words always attract the reader's attention regardless of space and time. A compound word is a component word represented by a single hyphen. Pairs of words are found in every language, and we use them in most of our daily lives.

KEY WORDS: pairs of words, lexeme, semantics, word formation, lexical meaning, hyphen, development, source, content, anatomical relations, hyponymic relations, partonymy, synonymy relations.

АННОТАЦИЯ: В статье подробно исследуются теоретические взгляды на пары слов в языкознании.Пары слов часто встречаются не только в нашей повседневной жизни, но и в литературе. Пары слов всегда привлекают внимание читателя независимо от пространства и времени. Составное слово — составное слово, представленное одним дефисом. Пары слов есть в каждом языке, и мы используем их в большей части нашей повседневной жизни.

ОСНОВНЫЕ СЛОВА: пары слов, лексема, семантика, словообразование, лексическое значение, дефис, форма, источник, содержание, анатомические отношения, отношения гипонимии, партонимия, отношения синонимии.

This article is devoted to the analysis of theoretical views on pairs of words in linguistics. The fact that pairs of words are not only used in our daily speech, but also in fiction, clearly shows that the pairs of words acquire special relevance in the language. As noted by the linguist Muller, "Pairs of words attract the reader's attention no matter where and in what context they are expressed."[1]

Pairs of words, which form a separate group according to the linguistic nature of the language and have a unique position in the system of word groups, are one of the topics that cause various debates among linguists of the world. A pair of words is defined in linguistics as follows, "two-component words expressing the same lexical meaning, written with a hyphen."[2]

As the following sources on double words in world linguistics, Agricola's "Worter und Wendungen", Brandsch's "Phraseologische Wendungen in der deutschen Sprache", Donalies' "Basiswissen Deutsche Phraseologie", Wolfgang Fleischer's "Phraseologie der deutchen Gegenwartssprache", Iskos A., Lenkova A.'s "Lesestoffe zur deutchen Lexikologie", Khojiev A. _ " Uzbek in the language kushma , couple and repeated suzlar " and Indian and Russian linguists VPBeskrovniy, K.Guru, ZMDimshist, OGUltsiferov, VIGoryunov, VVVinogradov, MIZadorojniy, at the same time, scientists such as EVFedorchik and GSLebedov, a representative of the Russian Orientalist school of the late 19th and early 20th centuries, We can see the theoretical research of pairs of words by KAKossavics and others in their scientific work.

[1]Yedlichko M. I., Rubinstein, Deutsche Redensarten. Phraseological expressions in the German language. Moscow. Uchpedgiz, 1953, p. 3.
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It can be observed that in this scientific study, the scientific and theoretical views specific to the pair of words were studied, and different opinions of scientists were given regarding the pair of words.

Pairs of words are words formed by joining two words together. Pairs of words exist in any language, and in some ways contribute significantly to the richness of that language. Many scholars have different interpretations of the formation of double words. For example, the German linguist Agricola says: "Pairs of words always consist of two (in some cases three) similar words. They are closely related words [3], Uzbek linguist A. According to Hajiyev, "a pair of words is a word that is formed on the basis of the equal connection of two parts that do not have a lexical meaning, and expresses such meanings as generalization, totality; the double form of the word, the pause (pause) between the two parts of the word is short; means happiness, brothers, day and night, long and short . [4]Another one of our leading linguists, Ganiyev.FA, gives the following definition to double words: "Double words belong to the second method of formation of new lexical units (formation of words). Double words "In the formation of words, the syntagmatic relationship of the parts is carried out with the help of an equal relationship. This feature serves to distinguish them from adverbs-compound words, whose syntagmatic relationship of their parts is characterized by a subordinate relationship."[5] A number of lexical-content (lexical-semantic) relationships between the parts of a pair of words also apply. They include: 1) the relationship of hyponymy (hand-foot, melon-watermelon, goat-capricorn, apple-apricot and hokozo); 2) the relation of synonymy (strength, fire, desire, desire, love, crooked, single, smart, alert, slowly, etc.); 3) relation of antonymy (young-old, boy-girl, white-black, good-bad, hot-soap, went-came, etc.); 4) partonomy relationship (moon-sun, mountain-stone, etc.). Pairs of words also belong to the grammatical (syntactic) process of joining words. The components of a pair of words also express a logically equal object-phenomenon relationship.[6] Pairs of words are called "Wortpaare" in German. "They are formed by pairing words that are close and opposite in meaning."[7] For example, bei Wasser und Brot- bread-water, in Wehr und Waffen-weapon-weapon, mit Strumpf und Stiel-tag with vein, kurz und gut-short.[8]

At the same time, there are pairs of words in the German language that are close to each other, but also words that have opposite meanings. For example, mit Recht und Unrecht-right and wrong, in Lust und Leid-lie-love, gross und klein-big-small, Rede und Antwort stehen-point-to-point.

It is worth noting that in Hindi, the pair of words "जोड़ी शब्द -joRi shabd" . Below we see a pair of Hindi words that are close in meaning to each other:

आदान-प्रदान - weapons

अगड़म-बगड़म - lies

आना-जाना -coming and going

कच्चे-बच्चे -child

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कहा-सुना - to say, examples of pairs of words that are semantically opposite to each other, we can cite the following,

आगर-मगर -if -but

अग़ल-बग़ल - 1) around , 2) on both sides

अफरा-तफरी - 1) up and down, commotion

आमद-ख़र्च - input-output (expenditure)

उत्तर-पूख -shim al-east[9]

In this case, double words are formed with the sign "hyphen" (-) in Uzbek, while in German, double words are formed with the conjunctions "und,oder", and in Russian, in some cases, "и"(and) and sometimes with a "hyphen" (-).

In conclusion, it can be said that each language has its own special place for pairs of words. A pair of words is a combination of words that are close and opposite in meaning.

In world linguistics, many opinions and opinions of linguists regarding double words were studied and researched.

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PHONOSTYLISTICS AND PHONOSEMANTICS

Kazimbetova Ziywar Maxsetbaevna
Doctor of Philosophy (PhD) in Philological Sciences
Republic of Karakalpakstan, Nukus city

ANNOTATION

The phonetic method of expressing expressiveness is the most versatile method used in speech more productively than other methods. Phonostylistics refers to methods of using the stylistic possibilities of speech sounds to increase the efficiency of speech, phonosemantics studies the relationship of sounds in speech with meaning. This article examines the phonostylistic and phonosemantic differences in the use of sounds in the woks of the poets.

Skillful and appropriate use of sounds in a word gives the wod additional meaning , making it effective and understable.

Key words: phoneme, phonosemantics, phonetic topes, positional change of sounds, combinatorial change of sounds, ancop, apocopy, fainting, haplology, aparesis, elysia, epethesia (austesia), anagram, verlan, logogryph, amphibolia, calambur.

Words consist of sounds, and sounds affect the meaning of words. Changing one sound in a word changes the meaning of the entire word. In the field of phonosemantics, the meaning of sounds in a word, in speech, their functions in the formation of additional values, dimensionality and rhythmicity of a series is studied. The article reveals the phonosemantic differences in the works of J. Izbaskanov.

The phonetic factors of artistic text need to be analyzed in relation to the semantic and compositional structure of the text, and not separately. Sounds become functionally significant only when they are used in a word that is a lexico-semantic unit.

Therefore, the position, offset, and positional changes of sounds go to the word. In the artistic text, words, combining into certain groups according to the structure of sounds, interact with each other. In some cases, connections based on a phonetic structure can be stronger than grammatical (syntactic) [1:27].

Changes in speech sounds occur in two ways:

1) positional change of sounds; 2) combinatorial change of sounds. In case of positional change of sounds - sounds in speech undergo changes depending on position (beginning of word, middle of word, end of word) [4:88]. Such changes were used in the poems of the poet J. Izbaskanov.

For example:

Сап ышқыға төзим дәркар, (True Love has Patience)

Ал, ашықтың қарары **йоқ.** (And to the person in love is not tolerated**)** [6: 80].

In these lines, the sound " ж " at the beginning of the word is positionally replaced by the sound " й ". This is due to stylistic requirements, and the poet uses this method to most strongly express the inner feelings of the lover.

Мен күтпейин неге буншама, (Why don't I wait)

Мийнетимниң мыңлап **мийўасын**! (Thousands of fruits of their labor)[6: 351]

In these lines, the sound "е" at the end of the word "мийўе" is replaced by the sound "а." The poet, with the help of this technique, forming an idea of the variety of words, gives them a paronymic character.

Combinatorial change in sounds refers to a change in a certain sound as a result of exposure to another sound during speech.

Сондай бол усар болсаң, (Be like that if you look like that)

Жулдызлар **шоғындайсыз** (To a cluster of stars) [6: 110].

In these lines, due to the attachment of a possessive affix to the word "шоқ" the sound "қ" becomes the sound "ғ."

With a positional change in sounds in poetic phonetics, based on aesthetic taste, various emotionally expressive meanings are formed.

Positional change of sounds includes such phenomena as ancopa, syncopa, apocopa, haplology, and combinatorial change of sounds - apharesis, elision. In the works of J. Izbaskanov, these phenomena were used from the point of view of poetry to ensure rhythmicity, and from the point of view of semantics they performed a stylistic function, expressing various feelings.

An ancopa is a sound drop out in the analaut position of a word [4:95].

Сырдың арғы жағында (On the same bank of the Syr Darya)

Сулыў көрдим бир **әсем**. (I saw one beauty like this) [6: 341]

In these lines, the sound of "ҳ" in the analaut position of the word "ҳәсем" falls out, here the poet expresses his feelings for the Kazakh girl on the other side of the Syr Darya River, mixing the word in the Kazakh language with Karakalpak words. As a result, the lines are both rhythmic and emotional.

Apocope - the change of a word as a result of a sound falling out or several sounds in the auslaut position [3:27].

- Жийенбай шайыр, **Ташкенге** (Jiyenbay poet, you are to Tashkent)

Пах, қыдырдың, ал, бардың!?... (Well, you went, so you went!?) [6: 510]

Қонса бундай **бақ** қусы, (A bird of happiness would sit on my head)

Мурадыма жетер-ем (I would have achieved my goal) [6: 487].

In these lines, the final sound "т" in the word "Ташкент," and the final sounds "ыт" in the word "бахыт" fall out, here the poet shows communication, conversation with a lyrical hero. As a result, he manages to establish a close relationship with the listener (reader?).

Syncopa is the occurrence of a syllable or sound in the inlaut position of a word [3:184].

Бийғам өстим нәр алып, (I grew up without sadness)

Бийхабар **ем** олардан (I did not know grief)[6: 405].

Кеткен менен «қырыңлап» ол (When she passed by)

Үмитлендим сонша **кеп**! (I did not lose hope)[6: 557]

In these lines, the inlaut sounds of "ди" in the word "едим" and the inlaut sounds of "ли" in the word "келип" fall out, and the poet with the help of this method seeks to communicate and get closer to the reader through spoken speech. And also a poetic rhythm is built here.

Haplology - falling out in the word of one of two identical or similar syllables that follow each other [4:96].

Сомса, шашлык, пиво да (And Somsa, and barbecue, and beer)

Әпер дейип қыйнайды! (Demand that they be taken)[6: 511]

Апарың да жақын жылғаға, (Take to a close ravine)

Ғарқыратып оны шалыңлар. (Cut down her throat until it snaps)[6: 571]

In these lines you can see the fall out of one of the sounds "п" and "б," which were supposed to go in parallel. Thus, in the poem, the protagonist speaks in his own words, creating a simplicity of lines. This makes the content easy to perceive.

Combinatorial sound changes also purposefully perform a stylistic function in oral and literary styles. Here are some examples;

Afaresis – in two consecutive syllables, a change or disappearance of the anlaut sound of the second syllable under the influence of the auslaut sound of the first[4:96].

Құрып берди шымылдық, (Installed a screen)

Әткөншекти шайқады. (Swings the swing)

Етеғойса қыңырлық (If it starts induging)

Ҳәтте ҳәййиў айтады (Even the lullaby will sing)[6: 465].

In these lines, under the influence of the word "ете," the sound "қ" in the word "қойса" was replaced by the sound "ғ," thereby the poet conveys intonations of children's speech. This is a children's poem, which reveals the importance of emotional attitude towards the child (caress, indulge the child).

Elision is the elimination of the final sound (s) in a word, at the junction with the initial vowel of the following word [4:99].

Пүтин ашылысып айырым **ўақлары, (**Sometimes the soul is plowed**)**

Желқомдай жеңилтек болыўың неден? (Why easy, like a sailboat)[6: 377]

Here you can notice the occurrence of sounds "ыт" in the word "ўақыт" when connecting a plural affix to it. These lines are taken from the poem "Шайырық" (Poetics), in it a lyrical hero, puzzled by the nature of poetics with the help of rhetorical questions establishes an oral dialogue with him and expresses his internal experiences.

In speech, changing the meaning of words is influenced not only by the dropout of sounds, but also by the addition of sound. One such phenomenon is epithesis (austesis). Epithesis (austesis) - a phonetic phenomenon, the addition of sound (sounds) at the end of a word [4: 99].

Перийлери бир-бир қыя баққанда, (When beauties throw a languid look)

Тарқап кетер шери қарақалпақтың. (All arrogance will go away fom Karakalpak)[6: 331]

Here at the end of the word «пери» the sound «й» is added, thus the poet gives the phrase additional meaning, demanding attention to this word.

In the poet's works, the use of double (doubled) consonants is also found. For example:

Сени деп, бул күнде қәдириң өткен қыз, (Because of you, oh my unattainable)

Он **сәккиз** жасыма қайтсам деп едим..? (I wish I could go back to my eighteen years?) [6: 286]

Here, the double consonant "k" is used in the word "сәккиз." If the use of the same sounds provides the musicality of poetic lines, then the replacement of sounds provides the expression of the poet's internal feelings in different ways. Thus, we can call these phenomena phonetic tropes.

Various artistic expressive means associated with the arrangement of phonemes (letters) in the text are phonetic tropes. [2:201].

Stylistic capabilities are strong in the variety of sounds reflected by phonemes. In other words, where there is a choice of speech sounds, there is a stylistic color. Those authors who fully understand the nature of this phenomenon strive to make the language of their works rich

and diverse [5:9]. The poet J. Izbaskanov is one of such poets, he thus tried to ensure the artistry of his works and effectively used phonetic tropes. One of them is an anagram.

An anagram is a word or phrase composed by permutation of letters in a word. [3:21]. For example:

Аҳ шегиўин – шуўылдыларды, (And oohi, and ahi, and surf noise)

Айтып берер еди **уқшатып** (He conveyed exactly-to-exactly**)**[6: 482].

In these lines, the sound "с" in the word "уқсатып" was replaced by the sound "ш." The poet writes about how a guy named Abuhayat tells the story of a guy whose name is Choral, using a kind of jargon. Thus, he was able to impress the reader, expressing his proximity to his hero.

Әрманда қалдырған **йүзлери** гүл-гүл, (I can only dream of your beautiful face)

Неттим? – гүлзарыңнан жолым өтпеди. (What can I do? - I did not have to pass through your flower garden …) [6: 339]

In these lines, the sound "ж" in the word "жүзлери" is replaced by the sound "й," and in this elegy about love, the poet's goal is to express the unearthly beauty of the girl most strongly.

Ижод үйи **йигиттиң,** (Creativity allowed gentleman**)**

Жемегенин жегизди. (Have whatever he wants)

Қорықтым жер деп десертке (I was afraid that he would eat for dessert)

Қасындағы семизди. (Fat man who is nearby)[6: 512]

In these lines, the sound "ж" in the word "жигиттиң" was replaced by the sound "й," which added irony and ridicule to this word.

Сәлем-әлик…Рет пенен (Greetings... Then, with its cherard)

Саўға-**салам** берилди. (Gifts were distributed) [6: 515]

In these lines the sounds "ә" and "е" in the word "саўға-сәлем" are replaced with a sound "а". The poet used this technique to present his condition to the reader when he went to a wedding in the city of Tashkent. With the help of this phenomenon, he speaks about the atmosphere of conversation, about the attention that was paid to him.

In poetry, another of the phonetic expressive means is used - **verlan**. This is a kind of phonetic phenomenon that is formed by rearranging syllables in a word, and is effectively used in youth slang. [2: 203].

Қуштарыңды **яқарсаң,** (You burn a loved one**)**

Ышқ отында кескилеп, (In the Flame of Love)

Бәлким, гина тақарсаң, (Maybe you'll blame me)

Теңеўлерим ески деп. (The fact that the comparisons are my old)[6: 396]

Қыз қыялын **яндырып, (**Inciting Girl's Thoughts**)**

Ышқы дәрти қыйнаған. (Torturing love intrigues)[6: 98]

The syllable "жа" in the words "якарсаң" and "яндырып" in these lines is replaced by the sound "я". This, firstly, ensured the soundness of these sounds, and secondly, the poet with the help of this phenomenon gives words an emotionally expressive color.

Another of the phonetic expressive means is the logogrif. **Logogriff** is a kind of verbal repetition associated with the repetition of sounds, in which the number of sounds in the source word or phrase gradually decreases. [2: 207].

«Пыр-р» еткен торы ала **ғаз екен** (The goose took off with noise)

Кеўилге унар бенде **аз екен.** (There are very few people close to the heart **)**[6: 232]

As can be seen from these lines, the repetition of almost identical words is used to create a parallel rhythm, but the repetition in the second line is reduced by one sound compared to the first line. This, in turn, ensured the artistry of the work.

Amphibolia is a phonetic phenomenon that generates ambiguity and lexically comes from omophones. In this case, almost the same words have two different meanings. [2: 208].

Ерир емес ондағы **бир сең**, (One ice girl does not melt there)

Жубанышым екенсең **билсем. (Turns out you're my welcome)**[6: 36]

Ҳәтте Орфей **болмаған сол, (Even Orpheus could not become him)**

Қолда тарың **болмаған соң, (Since he did not have strings)**

Өзиң болып қалған - жақсы! (It is better to be yourself)[6: 326]

Although the words "бирсең" and "билсем" and the phrases "болмаған сол" and "болмаған соң" in these lines are different in spelling, their pronunciation is noticeably the same sound, but these words, which sound the same, have different meanings. This, in turn, ensures the artistry of the work.

Amphibolia becomes an artistic expressive means only when it is based on a calambur. **Calamburs** used in ironic, satirical lines, giving them a humorous character. Calamburs a joke based on the comic use of words that sound similar, but different in meaning. [3: 106].

Ешкили болғанымыз бәле **болды, (We took a goat on our head)**

Таң азаннан: «турҳа-тур, қәне», - **болды**! (Get up in the morning, well, get up)[6: 246]

Кемпири жоқ кисиниң күни **қурысын**, (What a life a man without an old lady

Барының – сала қулаш тили **қурысын!**... (And who has her - with a long tongue)[6: 246]

In these lines, the word of the same design in the form of "болды," "қурысын" is repeated, but in two lines this one word has two different meanings, and thereby gives a humorous character to the whole poem.

In conclusion, any master of words, using phonetic tropes, gives colorfulness to the words in the work, as well as an additional emotional-expressive color. We will not be mistaken if we say that the main reason for the effectiveness of the works of J. Izbaskanov is the effective use of these stylistic means.

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Роль Максуда Шайхзады в узбекской литературе

Абдуллаева Нуржамал Хабибулловна

Ташкентский государственный

университет транспорта

Экономический факультет АТ-4

+998977698118

nurjamalabdullaeva003@gmail.com

Аннотация: Один из выдающихся деятелей узбекской литературы, драматург, литературный философ Максуд Масум оглы Шейхзаде, как он сам признавался, стремился изобразить в поэзии современную действительность, а в драматургии-историческое прошлое, а также выразить в своих произведениях, посвященных прошлому, болезненные проблемы народа и страны. Несомненно, что стихи и эпосы Шейхзады обогатили узбекскую поэзию не только тем, что они посвящены таким разнообразным темам, но и тем, что написаны в разных весовых категориях и жанрах.

Шейхзада обладает разносторонним талантом. Наряду со стихами и былинами он создавал драмы, обладавшие очень высокой художественной силой. Даже не считая драмы “Беруни”, которую Шейхзада начал писать в конце жизни, но не успел закончить, его драмы “Джалалиддин Мангуберди” и “Мирза Улугбек” уже стали достоянием нашего народа и входят в число произведений, занесенных в наши сердца.

Ключевые слова: драматург, поэт, переводчик произведение Джалалуддина Мангуберди.

Abstract: One of the outstanding figures of Uzbek literature, the playwright, the son of the literary philosopher Maksud Ma'sum Shaykhzadeh, sought to describe the modern reality in poetry and the historical past in dramaturgy, as he recognized himself, as well as to express the troubled issues of the people and the country in his works dedicated to the past. It is no wonder that sheikhzoda enriched Uzbek poetry not only with poems and epics devoted to such colorful themes, but also written in different weights and genres. Sheikhzade is a multi-talented person. He, along with poems and epics, also created dramas with a very high artistic capacity. Even without taking into account the drama “Beruni”, which began to write at the end of his life, but did not finish and grew up, his drama

“Jalaliddin Manguberdi” and “Mirzo Ulugbek” have already become the artistic property of our people and enter the palace of works that take place in our hearts.

Key words: Playwright, poet, translator, poem, work of Jalaliddin Manguberdi.

Один из выдающихся деятелей узбекской литературы, известный поэт, драматург, литературовед и переводчик Максуд Шейхзода родился в 1908 году в городе Акташ , Ажарбайжане

В 1928 году Шайхзада приехал в Ташкент, работал в редакциях различных газет и журналов, а в 1935-1938 годах-научным сотрудником Института языка и литературы при комитете наук. В годы Второй мировой войны поэт мобилизовал всю свою творческую энергию на победу над врагом. Примером может служить историческая драма поэта “Джалалиддин Мангуберди” 1944 года.

Драма, которая смогла воплотить в жизнь подвиги Джалалуддина Мангуберди, опоры Родины, который в прошлом мужественно сражался, смог противостоять такой могущественной силе, как Чингисхан. Оказал большую услугу боевым задачам в годы Второй мировой войны. Целью обращения Шейхзаде к прошлому узбекского народа было также изобразить события того времени как исторический урок, излить на язык людей, что высшая ценность в мире-свобода Родины. Именно поэтому идея, выдвинутая в драме ” Джалалиддин Мангуберди", имеет общечеловеческое значение. В этом произведении главный герой Джалалуддин погибает в неравной борьбе. Но он, в отличие от героев классической драмы вроде Отелло или Гамлета, жертвует своей жизнью на пути освобождения Родины. Написанное и поставленное на сцене с целью воспитания патриотических и мобилизационных чувств в народе в годы Второй мировой войны, это произведение обязательно должно было закончиться жизнерадостным духом. Будут такие творцы, которые и после смерти навсегда останутся в памяти народа не только своими произведениями, занявшими место в сокровищнице национальной литературы, но и своими замечательными человеческими качествами и яркими образами. Одним из таких творцов является Максуд Шейхзада. Он прибыл на узбекскую землю и провел здесь счастливые и трагические дни своей жизни. Здесь он сформировался как поэт, драматург, литературовед, переводчик и педагог, внес огромный вклад в развитие узбекской литературы, литературоведения и переводческой школы.[1]

В драме “Джалалуддин Мангуберди”, сына Хорезмского царя Аллауддина Мухаммеда, Шейхзада художественно воплотил образ этого отважного полководца, который самоотверженно боролся за свободу и независимость Родины. Джалал-ад-Дин Мангуберди-великая фигура, которая также была образцом для подражания Амиру Тимуру. Известно, что во времена Шура наша прошлая история была осуждена, потому что Шуры не одобряли такую патриотическую силу, не хотели, чтобы такие великие качества передавались новым поколениям, а написанная с большим патриотическим чувством драма Максуда Шайхзады “Джалалиддин Мангуберди” была с успехом поставлена узбекским государственным драматическим театром имени “ Хамзы ” в 1945 году. Несмотря на постановку, вскоре после этого его сняли со сцены. А на автора наклеили клеймо оправдания и защиты прошлого, чести, Беков, феодализма. Это обвинение повлияло на несправедливое заключение. Драма впервые вышла в печати на узбекском языке через 21 год после смерти драматурга (1988 год).

Указом Президента Республики Узбекистан (2000 год) учрежден орден “Джалалиддин Мангуберди”.

Сегодня в независимом Узбекистане Национальным агентством “Узбеккино” был представлен многосерийный сериал “Мендирман Джалалиддин”, посвященный памяти Джалалиддина Мангуберди. Этот сериал, над которым работают кинематографисты Узбекистана и Турции, послужит обогащению наших знаний и патриотическому воспитанию подрастающего поколения. Заслуги поэта-драматурга Максуда Шейхзаде не остались незамеченными. В 2001 году Шейхзаде был награжден орденом

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RESEARCH ON OBTAINING OF SUPERPLASTICATOR ADDITIVES WITH LOCAL RAW MATERIALS AND SECONDARY PRODUCTS

Ismailov F.S, Karimov M.U. Djalilov A.T.

[1]*Doctoral student of the Tashkent Research Institute of Chemistry and Technology.*

[2]*doctor of technical sciences, professor, Tashkent Research Institute of Chemistry and Technology,*

[3]*Chemical Science of Doctor, Academician of the Academy of Sciences of the Republic of Uzbekistan, Tashkent Research Institute of Chemical Technology*

Corresponding author: ismoilovferuz54@gmail.com

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Keywords: raw material, reological, pyrolysis oil, superplasticizer, diethanolamine.

Introduction

Water-reducing chemicals are additives used in concrete mixtures to reduce the amount of water required without compromising its workability[1]. These chemicals are frequently used in construction projects to increase the durability and efficiency of concrete structures. Once the water content is reduced in a cement mixture, the strength and durability of the produced concrete will increase [2]. Concrete plasticizing (i.e., improved concrete flowability) might also be achieved through the addition of water reducers to the cement mixture[3]. Despite the increase in the fluidity of concrete at a constant water-to-cement ratio with the addition of water reducers, its compressive strength remains not affected [4]. Plasticizers and superplasticizers are the main two types of water-reducing chemicals. Plasticizers, also defined as regular water reducers, are commonly used in low-strength concrete mixtures [5] and can decrease the water by 5–10%. Superplasticizers, on the other hand, are high-range water reducers that are suitable for use in high-strength concrete mixtures [6]. Superplasticizers can reduce the water content of a concrete mixture by approximately 30% while maintaining workability or enhancing it. They are frequently used in applications requiring high strength and durability, such as bridge and high-rise building construction [7].

This experimental study included determination of compressive strength of concrete containing processed and graded construction demolition waste and/or glass waste with or without additives. On addition of construction demolition waste aggregates obtained from stronger original concrete, 28-day compressive strength of concrete was at least equal to or better than that of control specimen. When fine aggregate was replaced with glass waste up to 30%, compressive strength improved[8]. The objective of this study was to investigate the effect of superplasticizer and mineral admixture contents on the properties of Self-Consolidating Concrete (SCC). Silica fume was used as a mineral admixture and polycarboxylate based third generation superplasticizer was used as a chemical admixture. In order to determine the optimum admixture dosages; trial mixes were prepared with varying admixture dosages. Nine concrete mixtures with different admixture dosages were prepared from trial mixes. Hardened concrete properties and self-compactability criteria of these series were determined and test results were compared between these SCC mixtures. It was observed that 10S1.3A (10% Silica Fume, 1.3% Superplasticizer) and 10S1.5A (10% Silica Fume, 1.5% Superplasticizer) mixtures show the best performance with regard to fresh and hardened concrete properties[9].

[10].

2. Experimental part

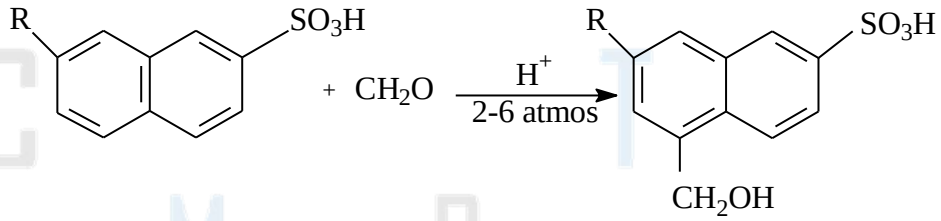
Table-1.

№	Ratios of mol	Time, hour	Yield, %	№	Ratios of mol	Time, hour	Yield, %
1	1:1:1	1	26,2	11	1:1:1	3	49,4
2	1:0,5:2,74		37,3	12	1:0,5:2,74		65,8
3	1:0,5:1		47,4	13	1:0,5:1		72,5
4	1:1,5:2,74		54,3	14	1:1,5:2,74		78,7
5	1:1:2,74		56,5	**15**	**1:1:2,74**		**79.8**
6	1:1:1	2	35,5	16	1:1:1	4	49,5
7	1:0,5:2,74		60,5	17	1:0,5:2,74		65,9
8	1:0,5:1		70,5	18	1:0,5:1		72,6
9	1:1,5:2,74		72,4	19	1:1,5:2,74		78,7
10	1:1:2,74		75,5	20	1:1:2,74		78,9

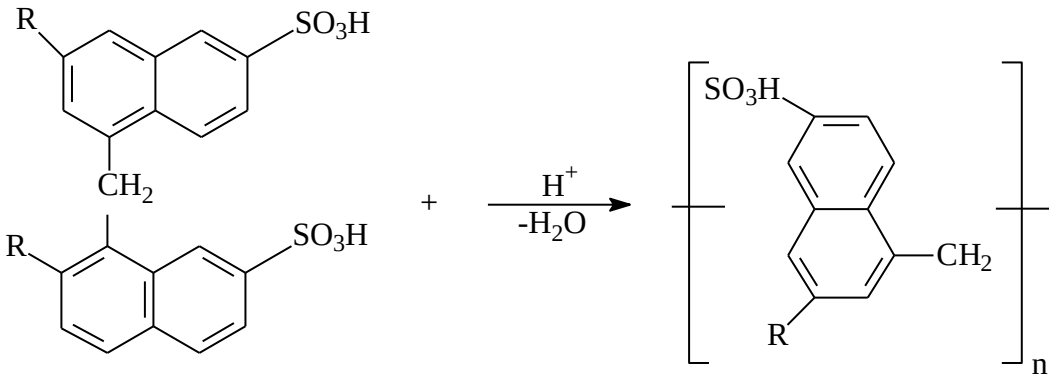
Based on the results presented in Table 1, it represents the influence of various factors: time and the mole ratio of the initially obtained substances on the yield of the superplasticizer.

3.Results and Discussion

At the 2nd stage of the reaction, methylol-ß-naphthalene sulfonic acid is formed due to the equimolar addition of formaldehyde to the α-C atom of the non-sulfonated naphthalene sulfonic acid ring. This methylation is mainly carried out at 160°C to speed up the reaction. In practice, they mainly work with a small amount of formaldehyde (the ratio of naphthalene: formaldehyde moles ≈ 1: 1.2).



Then, when heated to 140-160 °C, methylol-naphthalene sulfonic acid first condenses into a dimer in an acidic environment, which then turns into an oligomeric resin by dewatering (condensation).



The condensate resin obtained in acid form was then neutralized with NaOH and it was observed that the process was optimal [3]. The technology for obtaining naphthalene sulfonic formaldehyde superplasticizer based on pyrolysis oil was developed. As a result of superplasticizer synthesis, optimal conditions for superplasticizer production were studied. The synthesized superplasticizer meets the requirements of GOST according to technical parameters. In order to prevent the increase of sodium ions in the superplasticizer, the method of neutralization with diethanolamine was chosen, which improves the expansion properties of the superplasticizer. As a result of studying the synthesis of superplasticizer, the optimal modes of superplasticizer production were selected.

4. Conclusion

The compressive strength of concrete samples with added superplasticizer was studied. The synthesized superplasticizer classifies the following classes of chemical additives to concrete: plasticizing, water-retaining, ensuring water resistance of concrete and others. The main advantage of superplasticizers is that they do not reduce the strength of concrete, despite the strong liquefaction effect.

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Decision support procedures for decision making in a COVID condition

Boboyorov Sardor Uchqun o'g'li[1], Kuzomin Oleksandr[2], Lyashenko Vyacheslav[3]

sardorboboyorov020@gmail.com

lyashenko.vyacheslav@gmail.com

[1]Tashkent Medical Academy Termiz branch, Uzbekistan

[2]Department of Informatics, Kharkiv National University of Radio Electronics, Ukraine

[3]Department of Media Systems and Technology, Kharkiv National University of Radio Electronics, Ukraine

Abstract:

Any negative situation requires an immediate response to its occurrence and further development. This is especially true in the presence of epidemiological factors in order to minimize various risks. Based on data on COVID-19, the work discusses general approaches to building a procedure to support relevant decision-making. The main generalizations and formalization in the form of mathematical relationships are presented. Attention is also paid to the key features of the solution procedures under consideration.

Key words: COVID-19, Risks, Pandemic, Methods, Models, Decision making, Support procedures

Introduction

The emergence and development of unforeseen situations necessitate the adoption of operational decisions [1]-[3]. Such decisions should ensure the minimization of possible risks and help overcome emerging negative situations and their consequences. This fully applies to situations that are determined by epidemiological characteristics and characterize a certain disease that spreads rapidly and causes the development of negative consequences. As an example of the development of a negative situation, we should point out the COVID-19 pandemic, which has claimed many lives and had a negative impact on people's livelihoods and global economic development [4]-[6].

In order to overcome the consequences of the COVID-19 pandemic and predict the occurrence of new outbreaks, various mathematical models have been developed [7], [8]. This contributed to reducing relevant risks and developing decision-making procedures in the current situation. At the same time, for such purposes it is possible to use various non-standard models and approaches that have proven themselves in other areas of research [9]-[15]. It should also be noted that the decision support system should take into account the development of negative situations in various spheres of life. This will ultimately determine the feasibility of using various methods and approaches to implement decision support as an integral system.

Thus, the main goal of this work is to summarize the main approaches to developing a decision support procedure in the context of COVID.

Related work

Like the basics of COVID modeling, there are many articles covering decision-making issues.

For example, work [16] pays attention to decision making at the political level. The study analyzes the various factors that were most prominent during such a crisis. It also takes into account the variability of the environment in which the COVID pandemic is unfolding. This imposes its own formal limitations and creates uncertainty. Therefore, the authors emphasize that

decision-making theory creates all the prerequisites and conditions for the formation of the most adequate political conclusions.

In the study [17], attention is paid to the procedures for making multi-criteria decisions related to the COVID-19 pandemic. The article provides an in-depth theoretical analysis. The authors emphasize the importance of such procedures during the initial stages of a pandemic outbreak. In this case, decisions must be applied taking into account many criteria and influencing factors. Various information can be used for these purposes. Overall, this work is a good reference for review and development for decision making in various areas against COVID.

O. F. Norheim and co-authors consider possible compromise solutions in response to the challenges of the COVID-19 pandemic [18]. In this case, priority is given to inclusive decision-making. The authors emphasize the importance of deliberative decision making. The work notes that deliberative processes are capable of taking into account many opinions and finding the most compromise solutions. The study argues for such open and inclusive decision-making.

A. Belhadi, S. S. Kamble, S. A. R. Khan, F. E. Touriki and M. D. Kumar explore the issues of infectious waste management [19], which is also an important and relevant point. For these purposes, the work considers an integrated decision-making system for selecting sustainable technologies. The authors offer a comprehensive assessment for such decisions. An integrated approach to the disposal of relevant waste is also taken into account. The advantages and disadvantages of the solutions under consideration are noted.

The article by P. Ferrinho and his co-authors draws attention to the key principles of decision-making in healthcare in the context of COVID [20]. The authors emphasize that fundamental principles must be followed to make decisions during a pandemic, even in the absence of reliable evidence. However, such principles need to be implemented comprehensively, using a holistic systems approach to health policy, adapted to the specifics of the local context [20].

R. Gupta, B. Rathore, A. Srivastava and B. Biswas discuss a decision-making framework for identifying regions vulnerable to transmission of the COVID-19 pandemic [21]. For these purposes, the authors consider a hybrid fuzzy decision-making framework for COVID-19 analysis. This is based on identifying the main factors for classifying vulnerable regions. In this way, separate clusters are formed in terms of their criticality for the transmission of COVID-19. This research contributes to the development of decision analysis and risk management methods in healthcare [21].

The paper [22] discusses the issues of pediatric decision-making during surgical interventions in the context of COVID-19. This is necessary to effectively use hospital resources, as well as to weigh the risks of surgery. Examples include selected cases such as oncology, trauma, minimally invasive procedures and extracorporeal membrane oxygenation [22].

X. Li, H. Liao and Z. Wen propose a model for managing the behavior of people faced with decision-making problems during the COVID-19 outbreak [23]. Particular attention is paid to group decision making. As a result, a consensus model was proposed to control the non-cooperative behavior of experts in large-scale group decision-making problems [23]. This model implements a dynamic weighting mechanism to increase the level of consensus in the group when making decisions.

We note the diversity of work on decision making during the COVID-19 pandemic. This emphasizes the importance of the problem under consideration. At the same time, new research helps to better understand what is happening and optimize decision-making.

Basics of formalizing decision-making in COVID conditions

It is expedient to use connection of quantitative and qualitative data about condition of patient and environment, presented in generalized database and knowledge for creation of information space of control object in condition, which enables to increase reliability, speed of data processing, provide timely development prognosis and decision making concerning management in condition.

The state, design hardware and software solution for decision making under conditions of $\Pr = \langle A_p, K_p, Z_p, P, G \rangle$, т is also characterized by means of situations and concepts included in them. When designing, a developer finds himself in a certain situation, which is characterized by a group of interrelated notions that describe this situation. Each time he/she finds himself/herself in a pandemic situation that is already known and for which there is a group of rational solutions, it is possible to use the solutions associated with this situation.

The microsituation corresponds тройке controlling action in conditions - object (patients and resource for prevention and elimination of consequences), with which the human intellect operates)" [24] .The subject – LPR (health worker), is the central concept, the controlling action - context and the object is a secondary concept. In the general case, the sequences "subject - controlling action - subject - controlling action ... - object" [25], which corresponds to the case where the secondary concept is the central concept of another microsituation.

A generalized situation relatively comprises a set of concepts, each of which reflects its properties in some of its characteristic categories. The concepts are grouped into categories according to characteristic.

Context-dependent language is used in the tools for constructing the knowledge base of the specialized complex in the conditions. In particular, the language of fuzzy logic has been chosen. This approach has three main distinctive features:

1. Instead of or in addition to numerical quantitative variables, fuzzy values and so-called "linguistic" variables are used, which link the situation around – $S = \{s_i\}$ $(i = \overline{1,n})$, the goal Z и тройку «subject (LPR) - control action ($\Im$) – object (resource – Σ)» triplet. Microsituations, which are defined on a set of quantitative parameters characterizing the patient's condition in conditions – {X} 3 (after using Data Mining apparatus), are "connected" with qualitative or linguistic data.

2. Simple relations between variables of patient's condition and environment are described by means of fuzzy statements - predicates.

3. Complex relations are described by fuzzy algorithms using membership functions $\{\mu_i\}$ $i = \overline{1,k}$, because the classification of situations has ambiguous meaning and can take intermediate values between extreme values [25].

The main laboriousness of the process of knowledge extraction by analysts from the subject area experts is associated with the fact that the participants of the process operate with different concepts and they need a common language of communication [24].

Intellectual-verbal communication between people is based on linking object representations, concepts and words. Problems in intellectual-verbal communication arise when the wrong words are used. This occurs when there are different associations between a concept and a word.

An intellectual-verbal representation of a situation consists of many concepts. In addition, the situation can be resolved in a risk-based way. The elements of the specialized complex in the conditions are selected according to the analysis of situations from the sets of variants of management decisions, offered in the algorithmic complex and using the best, optimal in the sense of time costs for the realization of management decisions of suitable solutions.

This selection or "selection" of precedents is ensured by comparing the current, problematic micro-situation with a set of reference micro-situations. In the metric space similarity of precedent and problem situation can be estimated in the following sequence:

A metric in the space of all significant parameters is introduced.

In this space a point which corresponds to the problem microsituation can be defined.

Based on this metric, the closest point to it is found, substituting for reuse, tested, the best fit in the situation being analysed - the control action.

Accordingly, the selection methodology has the following sequence:

The set of situations $s_i = \langle e_i, K_e, X, \Im, \Sigma \rangle$ is divided into a finite number of classes Ω_ν, $\nu = \overline{1,m}$, a finite number φ_ν .of situations are found within the class Ω_ν. Situations are defined on the set of parameters $x_{\nu_1}, x_{\nu_2}, ..., x_{\nu_{1n}}$, where $\nu_1, \nu_{12}, ..., \nu_n \in \overline{1,n}$. The sets $x_{\nu_1}, x_{\nu_2}, ..., x_{\nu_{1n}}$ for different classes may not coincide.

The boundaries of the class are defined, for this purpose let us denote by $\chi^j_{\nu\varphi}$ ($j \in \overline{1,n}$, $\varphi \in \overline{1,\varphi_\nu}$, $\nu \in \overline{1,m}$) − the value of j parameter, φ − that situation of the class ν, then the boundaries of the class ν by the parameter j can be composed of pairs of $\left\{\min_k \left[\chi^j_{\nu\varphi}\right], \max_k \left[\chi^j_{\nu\varphi}\right]\right\}$. Geometrically the class can be represented as a multidimensional parallelepiped.

To evaluate a problem microsituation, which has been identified at the stage of preliminary regression analysis, classification and prediction (assignment to a class of situations in the conditions [24], [25]) it is necessary to investigate this problem microsituation in order to identify close microsituations (precedents) and corresponding solutions for U and Σ.

It is necessary to determine the relation to the class Ω_ν of the problem microsituation ω. ω is defined by the values of the parameters $x_{\omega_1}, x_{\omega_2}, ..., x_{\omega_n}$, where $\omega_1, \omega_2, ..., \omega_n \in \overline{1,n}$. On the parameter space, we compare the projections of the classes with the problem microsituation of the overmatching parameters $\left\{x_i\ (i = \overline{1,n})\right\}$. We will assume that the problem microsituation ω can be attributed to the class Ω_ν, $\nu = \overline{1,m}$, if for any parameter x_{ω_i} we have

$$\min_k \left[\chi^j_{\nu\varphi}\right] \le x_{\omega_i} \le \max_k \left[\chi^j_{\nu\varphi}\right].$$

We construct a differential series of situations and a domain in the subspace of the situation parameters for which the projections of the classes overlap. They can be represented on the set of pairs of $\max_{\nu_\omega}\min_k\left\lfloor\chi^j_{\nu\varphi}\right\rfloor$ $\min_{\nu_\omega}\max_k\left\lfloor\chi^j_{\nu\varphi}\right\rfloor$ for all parameters $\left\{x_i\ (i=\overline{1,n})\right\}$.

A precedent $\prod$ (represented by the values of parameters $x_{\prod_i},...,x_{\prod_n}$ $(\prod_1,...,\prod_n \in \overline{1,n})$) can be considered an analogue of a situation ω on classes ν_ω, if for each parameter $x_{\prod_i}$ there exists x_{ω_i} and the condition

$$\max_{\nu_\omega}\min_k\left\lfloor\chi^j_{\nu\varphi}\right\rfloor \le x_{\prod_i} \le \min_{\nu_\omega}\max_k\left\lfloor\chi^j_{\nu\varphi}\right\rfloor.$$

A problematic microsituation ω can be assigned to more than one class. If only one class is chosen, all microsituations of the class ν_ω will be analogous ω.

It is proposed to use the so-called "proximity measure" instead of a metric, specifying a selection rule by some form. In this case, topological space is used instead of metric space. it is proposed to use the so-called "local context-dependent metrics". The distance between the problem microsituation ω and the precedent $\prod$ is equal to the difference of the number of classes Ω_ω, where the problem microsituation "got" and the number of classes of this number $\Omega_\prod$, where the precedent is $\nabla = \Omega_\omega - \Omega_\prod$.

In the problem to be solved, the technical tools that are used for prevention and response can be regarded as a control object. Decision-making for such a control object should be provided by algorithmic and software complexes in conditions or information space.

Conclusion

Systems thinking go beyond individual actions to connections, causes and consequences. Systems approaches incorporate tools and frameworks to help us does that, and to act in a way that reflects the complex and interconnected characteristics of our world. Systems are not external. We are part of them and we influence them, as demonstrated in the 'butterfly effect' examples above. Linked to this, complexity is a field that seeks to understand and work with the uncertain, non-linear, adaptive, self-organizing nature of systems.

Coronavirus illustrates the need to bring systems thinking out of the clouds and into the mainstream. We must learn to think, act, and organize systemically, and develop processes, tools and technologies to help us. Based on this, the work examines the basics of formalizing decision-making in COVID conditions. This allows you to make the most effective decisions during a pandemic.

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PROSPECTIVE PLANS FOR THE FURTHER DEVELOPMENT OF THE TOURISM POTENTIAL IN ZOMIN DISTRICT, JIZZAKH REGION

Berdimurodov Bobur-Mirzo
Researcher

Abstract: The Zomin District in Uzbekistan's Jizzakh Region holds latent potential for tourism development. Key prospective plans include preserving and promoting cultural heritage, such as the ancient city of Nurata and traditional crafts. Developing eco-tourism and adventure tourism, leveraging the region's diverse natural environment, is another strategy. The importance of robust infrastructure, encompassing transportation, accommodations, and dining options, is also emphasized. Lastly, comprehensive marketing efforts are proposed to attract both local and international tourists. Implementing these plans can transform Zomin into a dynamic tourist destination, driving economic growth while preserving its unique cultural and natural assets.

Keywords: Zomin District, Jizzakh Region, Tourism Development, Cultural Heritage, Eco-Tourism, Adventure Tourism, Infrastructure Improvement

Introduction

The Zomin District, a jewel nestled within the Jizzakh Region of Uzbekistan, is renowned for its unique blend of historical, cultural, and natural attractions. As part of a country rich in history and natural beauty, Zomin has much to offer to the modern tourist. However, the district is yet to fully capitalize on its tourism potential. This article outlines several prospective plans that could be implemented to further develop the tourism potential of the Zomin District.

1. Preservation and Promotion of Historical and Cultural Heritage

Zomin is the home of many historical sites and cultural traditions. The preservation and promotion of this heritage will be a crucial element of Zomin's tourism development strategy. Local authorities can collaborate with national and international organizations to fund conservation efforts, ensuring that these cultural treasures are preserved for future generations.

For instance, the ancient city of Nurata, with its historic fortress and sacred fish pond, is a significant attraction that could benefit from such initiatives. The development of detailed, multilingual signage around such sites would provide tourists with a better understanding of their historical significance, enhancing their overall experience.

Additionally, by promoting traditional arts and crafts, including ceramics, silk weaving, and embroidery, Zomin can attract tourists interested in cultural exploration. This could be achieved through craft workshops and live demonstrations, which would not only entertain tourists but also provide employment opportunities for local artisans.

2. Development of Eco-Tourism and Adventure Tourism

The Zomin District is blessed with a diverse natural landscape, including the Nuratau-Kyzylkum Biosphere Reserve, which offers stunning mountain views, diverse flora and fauna, and opportunities for bird watching and hiking.

By developing eco-tourism initiatives, Zomin could attract environmentally conscious travelers looking for a unique experience. This could include guided nature tours, bird-watching expeditions, and the development of eco-lodges that offer comfortable accommodation with minimal environmental impact.

In addition, adventure tourism, which includes activities like hiking, rock climbing, and horse riding, could be promoted. The district's unique topography offers plenty of opportunity for these pursuits. The development of infrastructure for such activities, including the creation of

well-marked hiking paths and the provision of equipment rental services, could significantly boost tourism.

3. Enhancement of Tourism Infrastructure and Services

Tourism development also requires robust infrastructure and high-quality services. This includes good road networks, reliable public transportation, quality accommodations, and a variety of dining options.

A comprehensive infrastructural development plan could include the upgrade of roads leading to major tourist sites, improving accessibility. The expansion and improvement of local public transportation could also be part of this plan, ensuring that tourists can easily move around the district.

The establishment of a range of accommodations, from budget-friendly guesthouses to luxury resorts, can cater to a diverse group of tourists. These accommodations could incorporate local architectural styles and traditions, offering guests a unique and authentic experience.

Moreover, promoting local cuisine is another way to attract tourists. By encouraging the establishment of restaurants and cafes that serve traditional Uzbek dishes, Zomin can offer a culinary journey that complements its historical and natural attractions.

4. Strengthening of Marketing and Promotion Efforts

Even with the best infrastructure and attractions, successful tourism development requires effective marketing and promotion. This could involve the creation of a comprehensive marketing strategy that targets potential tourists both locally and internationally.

The Zomin District, located in the Jizzakh Region of Uzbekistan, holds significant untapped potential for the development of tourism. Several prospective plans are proposed to harness this potential. Firstly, the preservation and promotion of historical and cultural heritage sites, such as the ancient city of Nurata, can draw cultural tourists. This includes promoting traditional arts and crafts through workshops and demonstrations, providing an enriching experience for visitors while promoting local employment.

Secondly, leveraging the diverse natural environment, the region could develop eco-tourism and adventure tourism initiatives, such as guided nature tours and adventure activities like hiking and rock climbing. Infrastructure development is also crucial, with a focus on improving road networks, public transportation, accommodations, and dining options to cater to a range of tourists.

Finally, strengthening marketing and promotion efforts is key to attracting tourists. A comprehensive marketing strategy that targets potential tourists both locally and internationally can bring global attention to Zomin's unique offerings. By implementing these plans, Zomin can transform into a leading tourist destination, bringing economic benefits to the region while preserving its natural and cultural treasures.

The Zomin District in Uzbekistan's Jizzakh Region holds latent potential for tourism development. Key prospective plans include preserving and promoting cultural heritage, such as the ancient city of Nurata and traditional crafts. Developing eco-tourism and adventure tourism, leveraging the region's diverse natural environment, is another strategy. The importance of robust infrastructure, encompassing transportation, accommodations, and dining options, is also emphasized. Lastly, comprehensive marketing efforts are proposed to attract both local and international tourists. Implementing these plans can transform Zomin into a dynamic tourist destination, driving economic growth while preserving its unique cultural and natural assets.

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PEDAGOGICAL CONDITIONS OF DEVELOPMENT OF DITACTIC ABILITY TO STUDENTS.

Safarova Mavluda Sayfiddinovna

Abstract: the problem of professional adaptation and the formation of teachers is covered in the work. The specific of the training of future teachers in the university that is focused on the development of pedagogical abilities is described. On the basis of the personal and activity approach, the examples of assignments are presented in connection with various groups of pedagogical abilities.

Keywords: pedagogical abilities, personal approach, activity approach, didactic abilities, speech abilities, academic abilities, perceptual abilities, communicative abilities, organizational abilities

Main part: At the present stage of development of vocational education, it remains actual problem of systemic formation of pedagogical abilities future teachers. According to statistics, the number of graduates who have received a teaching diploma is second only to the number of lawyers and doctors . Despite to the fact that in recent years there has been an influx of young teachers (according to the Minister of Education and Science of Russia O.Yu. Vasilyeva, in the 2017 academic year year in 59 regions of Russia their influx amounted to 5–10%) the need of educational institutions for specialists remains quite high. It is important to emphasize also the difficulties of adaptation and professional development of young teachers, since the process of formation and professional development significant qualities is complex and depends on a combination of factors and conditions of the educational process. In our opinion, it is necessary to solve the identified problem by orienting students of a pedagogical university to understanding, accepting and exploring the beauty and multifunctionality of pedagogical activity. WITH on the one hand, presupposing scientific, methodological and psychological-pedagogical knowledge, focus on creative solutions to professional problems with another, readiness for self-knowledge, self-improvement, accumulation experience, painstaking, daily work requiring attention to detail, observation and detailed analysis. Understanding and acceptance of the teaching profession by future teachers, is largely determined by the purposeful work of university teachers to develop their teaching abilities throughout their education. Pedagogical abilities are classified as special abilities and are most often defined as a combination of such individual psychological characteristics and professionally significant qualities of a teacher, which ensure the achievement of high results in teaching activities. According to the classification of V.A. Krutetsky's group of pedagogical abilities includes: didactic, speech, academic, perceptual, communicative and organizational abilities.

While analysing intellectual component of RC of the future teacher we'd like to say that according to M. A. Kholodnaya - the author of the fundamental investigation of the intellect psychology (Kholodnaya, 2002) there is no general approach when defining the concept of "intellect", which is defined by the researchers as a general ability of an individual to consciously set his/her thinking in accordance with the appearing requirements, intellectual adaptation to the new conditions of life (V. Stern); as a combined and general ability of individuals to act adequately, think logically and interact with the life realia (D. Veksler); as an ability to process information under which one understands as the whole range of human perception (P. Gilford). Thus, we can base on the fact that the intellect is an ability of a person to perform cognitive processes and solve problematic tasks including setting previously unknown tasks. As we have already pointed out, an intellectual component of RC is a total of interconnected knowledge which in its turn can be

considered as a result of the mental and practical activity of a human which is represented by the system of empiric facts, theoretical concepts, scientific laws and theories. The purpose of the knowledge is the organisation of the cognitive process and explanation of the processes and events occurring in the surrounding world. While analysing an intellectual component of the RC it is necessary to define both the types of knowledge acquired by the future teacher while forming RC and methods of cognition applied for this. The scope of knowledge acquired by a human has a tendency to constantly increase, which depends on the activity of a human. Human intellect can be changed with the course of time. It is influenced both by the internal (e.g. good memory, creative activity) and external factors. The latter in their turn it can both accelerates and slows down. The factors which accelerate the intellectual development are stimulation, encouragement, ambition, recognition by the society, discretion etc.; the slowing once are punishment, accusation, conviction, absence or lack of ambition etc. The degree of RC formation depends directly on the intellectual level of a future teacher. Due to this fact it is necessary to take into account the above mentioned factors when stimulating a cognitive process. According to the data of M. F. Shklyar we can point out the following forms of cognition: empiric and creative. These forms of cognition do not oppose but mutually complete each other since the spheres of their use often meet. (Shklyar, 2012). The empiric form of cognition is primary, it is initially present in any practical human activity. Historically this form of cognition supplied a human with all the necessary sum of knowledge in different spheres of his/her activity up to the appearance of special ways of cognition. The specific nature of the empiric form of cognition is in the absence of the systematic nature and goal as well as in the unconscious use of empiric methods of research. In the case of empiric cognition the latter often occurs intuitively, partially with the support of the primary knowledge of the subject of research. Due to this fact one should include the presence of the intuitive knowledge of use of the empiric methods of research and primary knowledge in the sphere of research in the RC component.

Conclusion: In conclusion of the research we should note that students' RC is a component of the general professional pedagogical culture. The formation of RC should be based on the future teachers' performing of the scientific-investigative work. The process of the students' intellect development within the framework of RC gives the opportunity to define the most effective methods of solving today's contradictions between the changes in the society and the level of the future teacher's readiness for the professional activity; between the constant increase of the amount of information and abilities of its perception; between the state demand for the teachers with the formed RC and insufficient working out of this problem in theory and practice.

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TECHNOLOGIES OF PREPARING FUTURE TEACHERS FOR INNOVATIVE PEDAGOGICAL ACTIVITY.

Sadullayeva Zarnigor To'lqinjonovna

Abstract: The article describes the conditions for the formation of the readiness of the future teacher of technology for a creative educational environment, which is achieved by improving the pedagogical conditions and content of training, as well as the inclusion of innovative technologies in the lesson.

Keywords: Education, condition, educational environment, innovative technologies, future teachers of technology, teacher, creative process.

Main part: into a single educational space in Europe, caused the emergence of a new social order for a teacher capable of carrying out innovative professional activities. Among the factors that determine the need to revise national priorities in the system of professional teacher training, three groups can be distinguished. First of all, these are systemic changes in national education associated with introduction of a new educational paradigm, with a transition to new content and structure general secondary education, with the introduction of state educational standards, with the transition of high school to specialized education. The success of education reform initiated at the state level is largely determined by the teacher's personal attitude towards innovation, their theoretical, methodological and practical orientation. Another group of reasons for the modernization of education consists of socio-pedagogical changes in the general secondary education system that occur in the context of transformations caused by the new socio-technological revolution. Before modern education faces a number of challenges, one of which is that national educational systems must acquire an innovative character, and their students must be prepared for innovative lifestyle. In these conditions, the readiness of teachers to accept progressive innovative changes in culture, society and education are of particular importance. Only a teacher with high creative potential is able to develop a personality capable of successful and effective life in a dynamically developing society. The third group of factors reflects the most characteristic features of the processes of broad innovative transformations. Currently, many teaching staff of educational institutions institutions are actively testing domestic and foreign educational technologies, creating proprietary schools, developing and introducing proprietary ones into the educational process training programs, methods, technologies, etc. For this reason, an important component of a teacher's professionalism is the readiness to evaluate the effectiveness of new pedagogical technologies. A modern teacher must be able to determine the compliance of proposed new technologies with the needs and capabilities of a particular educational institution. Professional skills of the future pedagogue-educator are effective for school education of children allows preparation. Pedagogical activities of educators, psychological, organizational-methodical learning results of students personal qualities of the pedagogue-educator and his professional training is of great importance. Accordingly, a pedagogue is an educator having professional skills, knowledge and creativity is a conscious activity in students and is the main factor of independence. Pedagogical practice The work of the future pedagogue-educator in the school is in them is important in the formation of professional skills. Future pedagogues-educators to their profession during pedagogical practice inclination, creative approach to pedagogical activity, modern knowledge acquired by him application in practical experience, acquisition of leadership skills, student personality pedagogical-psychological study, analysis, cultural public events skills such as mastering organization methods are activated and is strengthened. All this prepares students for educational activities. In addition, future pedagogic

teachers during their professional activities they also need to master a number of rules that apply. **They are:**

- formation of conscious discipline in students;
- fair treatment of children;
- support and help active students in the group;
- appropriate stimulation of independent activities of students;

Conclusion: At the present stage of development of higher education, the problem of training future technology teachers who are proficient in computer technology is acquiring particular importance due to the high rates of development and improvement of science and technology, the need of society for people able to quickly navigate in an environment capable of thinking independently and free from stereotypes. The use of these technologies in the training of labor education is also explained by the need to solve the problem of finding ways and means of enhancing the cognitive interest of students, developing their creative abilities, and stimulating mental activity. A feature of the educational process with the use of computer tools is that the student becomes the center of activity, who, proceeding from his individual abilities and interests, builds up the process of knowledge. A "subject-subjective" relationship develops between the teacher and the student. The teacher often acts as an assistant, consultant, encouraging original finds, stimulating activity, initiative and independence.

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USING FOREIGN STUDENTS IN ENRICHING THE CONTENT OF COMPARATIVE PEDAGOGICAL SCIENCE.

Ibrohimova Sunbula Asilbek qizi

Abstract: Comparative pedagogy as a field of pedagogical science and the subject of study performs the important function of introducing students to education in different countries of the world and allows them to apply foreign experience in the development of domestic education. Despite the sociocultural differences that determine the specifics of education in the modern world, the trend of globalization affects everything aspects of education and training. For example, new educational Internet resources are forcing us to change the means of teaching in all countries of the world, taking into account widespread virtual self-education children and youth.

Key words: The concept of comparative pedagogy, Comparativism, the subject of comparative pedagogy, the main tasks of comparative pedagogy, the work performed by the science of comparative pedagogy.

The main part: The concept of comparative pedagogy. Comparative pedagogy or comparativistics was initially formed in the field of philosophical sciences and studied various issues, including the problems of education and upbringing of the growing young generation in the countries of the world. Even in ancient times, there was a lot of information about how children were educated in different nations and countries in the context of philosophical teachings. They summarized the educational methods and values, and analyzed the unique aspects of how life experience is passed on from the older generation to the younger generation.

In modern language, comparative pedagogy is also called comparativistics. Comparativism (lat. comparatavis-comparative) means to compare and contrast, it embodies the identification of similar and different aspects of historical development trends, the separation of compatible aspects of similar phenomena. In English, ―to compare‖ also means ―to compare. As an independent philosophical concept, comparativism is used in various fields of science, as well as in literary studies, in the comparative historical analysis of the development of images and plots in the fiction literature of different nations. In the theory of education, the concept of "comparative studies" is synonymous with the concept of comparative pedagogy. Therefore, it is not a mistake to call this field of pedagogy "pedagogical comparativistics".

Researchers say that foreign sources use the term "comparative education" rather than "comparative pedagogy". After all, "education." The word ―education) is used in a broad sense compared to the word pedagogy (―pedagogie). According to the foreign pedagogical tradition, the word "education" means the unity of development, education and upbringing. In addition, pedagogy is used only as a concept related to the education and upbringing of children. That's why we note that in foreign definitions, the phrase "education compare" is used more often than "pedagogie comparative". We use the terms "comparative pedagogy", "pedagogical comparativistics", "comparative education" and "comparative studies" as synonyms. Because despite several different aspects, in modern pedagogical theory and practice, these concepts are often used to define exactly the same phenomena and processes. It should be noted that today the concept of "comparative pedagogy" is more widespread in Uzbekistan. In general, comparative pedagogy is considered an independent branch of pedagogy that studies the specific aspects of education, training and education in different countries. In a broad sense, comparative pedagogy is a field of science that studies the state, laws and development trends of education in different countries and regions of the world, and develops methods of mutual enrichment of the national education system through the use of foreign experience. .

If we give a more precise definition of comparative pedagogy, it is a science that, as an independent branch of pedagogy, studies the development trends, laws and conditions of pedagogy theory and practice in different states and countries of the world. It also distinguishes the corresponding and different aspects of the national and regional specificity of general trends and develops forms and methods of mutual enrichment of the national education system through foreign experience.

Each of these approaches to understanding comparative pedagogy reveals its own essence.

First, it is a specific field of pedagogy. Secondly, it is aimed at studying the development process of education, training, pedagogic theory and practice in different countries and regions of the world. Thirdly, the analysis at the level of comparative comparison is carried out to apply foreign experience to a certain extent. Fourthly, specific forms and methods of mutual enrichment of the national education system are highlighted.

The subject of comparative pedagogy is a comparative analysis of foreign and Uzbek pedagogical experience and the state, trends and development laws of modern national pedagogical culture.

The main tasks of comparative pedagogy:

- description and analysis of facts and evidence reflecting the processes of educational development in different countries;
- comparative analysis, classification and systematization of quantitative and qualitative changes in the development of education in different countries;
- reveal trends and laws of educational development in different countries;
- forecasting ways and opportunities of education development in different countries;
- comparison of educational achievements and shortcomings in foreign countries and to compare
- general analysis of the education system of foreign countries

The work of comparative pedagogy.

- coordination and regulation of terms and concepts in pedagogical documents of different countries so that it is convenient for experts to study foreign experience;
- comparison of theoretical ideas, educational policy, educational models of foreign and Uzbek pedagogues;
- forecasting the development prospects of education;
- development of education development strategy.

Comparative pedagogy studies a wide range of issues:

Not only the content and organizations of educational theory in different countries, but also educational methods, forms, tools, educational institutions, management, educational values, etc. Researches the development of education and upbringing system in different countries by comparing and comparing their similarities and differences. It compares and contrasts the educational system and its development dynamics, taking into account the cultural, historical and socio-political characteristics of a particular country.

The main categories and concepts of comparative pedagogy.

Comparative pedagogy uses general pedagogical and psychological categories and concepts: education, training, upbringing, development, socialization, etc. Specific concepts of comparative studies include comparative pedagogy, pedagogical comparativistics, world education system, national education system, globalization of education, social classes of education, strategy of education development, standardization of education, modern foreign

pedagogical experience, national education and training system, pedagogical culture, educational policy, educational trends, etc.

In this science, each nation should have its own unique national-educational culture in accordance with its way of life, historical and social level, and national culture, and should be able to use them in life. The place and importance of the science of comparative pedagogy in the process of the market economy, the formation of national ideological views of students and young people, the determination of the place and role of healthy faith as a force of the progressive authority of the society, the place and role in the process of becoming free-thinking, perfect people. Detailed information is given about the implementation and prospects of education in world pedagogy, especially in developed countries.

The French education system has a rich and ancient history. Here, the Law "On Education" was first adopted in 1955, and a number of amendments were made to it in 1975. On March 15, 2004, the new Law "On Education" was adopted

In France, the first stage of the education system is pre-school education. This stage is also known as "Mothers' School". The purpose of this is to bring children's conditions at school closer to their own conditions, to form a warm relationship with them as in a family.

In the French education system, it is very important to bring children ready for school from infancy.

The main problem in German education is to bring education in the former GDR to the same national standard. consists of casting.

But it also has its own problems. The first is the question of funds, and the second is the attitude of the participants of the educational process in the former GDR to this change.

The formation period of the Dutch education system corresponds to the period of the Bativ Republic, which emerged as a result of the French Revolution in 1789. 75 percent of the country's schools are established by private individuals, organizations and societies, including Christian or Catholic churches. The education system of this country is 7-3-2. Primary education is combined with preschool education.

In the Netherlands, about 4 mln. young people receive full-time education. Compulsory education in the country is free, large youth schools and universities are paid.

Salaries of teachers and educators are determined by the state. The Ministry of Education is the most expensive ministry in the Netherlands. State to him for one year It will spend 29.6 billion guilders. This is 17 percent of the state budget. Its advanced education is very useful for this country to take an influential place on the earth.

The high flight of Japanese educational systems did not happen by itself. He also had his own crises and problems. It is appropriate to look at the historical stages of the country's pedagogical principles and educational development in order to imagine them more fully.

The classic formation of the Japanese education system dates back to the reforms implemented by the country's ruler Meiji in 1867-1868. This was the first strict slogan of the ruler, one was "Fukkoki kyoxi" - to enrich, strengthen and militarize the country, and the other was "Syokusan kogio" - to develop the country's economy based on advanced western production technology. . Meiji believed that the main factor for the realization of the two goals was the radical change and renewal of the educational systems.

Japan is a country with high scientific power. It ranks second in the world in spending money on the development of education after the United States. When the country includes the private sector in scientific research, four-fifths of the funds allocated to the development of general

science are allocated. In the next 10-15 years, higher educational institutions in the field of natural sciences and technology were developed, for which about 60% of the funds intended for scientific research will be spent.

Technical development has increased the need for high-level specialists and workers.

In developed countries, general compulsory and free education of children up to 12-13 years old has been introduced. This factor led to an increase in the literacy rate of the population, and the network of privileged educational institutions expanded. However, the majority of people lived in poverty, poor housing conditions, and the need to earn money for a living from childhood forced many children to drop out of school before completing their education. At the same time, it was impossible not to see negative aspects in the field of education.

Conclusion: Comparative pedagogy today compares the different features of development laws and trends of educational theory and practice. Comparative pedagogy provides advice on ways to update and implement the selected school policy in the country, the conditions that affect the results of the decisions made, the ability to foresee the consequences of the selected policy and the correctness of its implementation. analyzes tasks such as.

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WAYS TO IMPROVE PROFESSIONAL ETHICS IN PEDAGOGICAL ACTIVITY.

Tosheva Zilola Kamolavna

Annotation: Formation of professional ethics of a preschool teacher educational institution begins with the formation of moral personality traits of the teacher himself, goes through a path of long-term development, as in the process of independent practical activity of the teacher, personal life experience and in the process of advanced training. Professional ethics of a preschool teacher to a large extent determined not only by the level of his pedagogical training, but also desire for self-improvement in a professional environment activities. The problem of ethical behavior of preschool teachers arises from from the real needs of updating the preschool education system. The task of professional ethics of teachers is the introduction of moral the fundamentals of forming a teacher's personality in everyday activities

Keywords: Professional ethics, pedagogical requirements, axiological skills, modern needs, harmoniously developed generation, profession, skill, pedagogue.

Main part: Ethics is a humanitarian doctrine of morality, its basis is

concept of good and evil. The goal of ethics is a model of humane and fair relationships that provide quality communication for more high level. The main question of ethics: identifying the reasons for right and wrong correct behavior of society. Morality and morality are that fine line of social ideas of an individual person about the concept of good and evil, about the correctness of the actions taken. Morals and ethics represent a set of norms, attitudes, values that filter human behavior and are the most important foundations of culture generally. Morality is not a theoretical system, but a practical ideal. Morality is what takes a person out of the animal state and raises to "divine" heights. The emergence of ethics occurred more than two and a half thousand years ago. Initially it was considered as an important part of philosophy. Ethics originally denoted the habitual place of living together. Subsequently, ethics began to mean custom, a person's disposition, and his character. One of the fragments of Heraclitus says that a person's "ethos" is his deity. In science, ethics is understood as a field of knowledge, and morality or morality is what it studies. In living language this distinction is not yet available. The term "ethics" is sometimes also used to designate a system of moral and ethical standards of a certain kind. social group.

Teaching plays an important role in the development of society. One of the key issues of today is the formation of pedagogical behavior in future teaching. It is a difficult process for a teacher to integrate into the student environment. However, her teaching activities are conducted directly among students. Strengthening relationships with feelings of trust and friendship requires serious psychological training from the teacher. In order to do so, the teacher should immediately respond to the changing pedagogical situations in the classroom, consisting of students of different character. In pedagogy, one of the most important traits of morality and ethics is defined as the desire of the individual to maintain a stable, close relationship with those around him. This aspiration ensures that the teacher is able to communicate quickly with students and those around them and achieve the stated goal. Psychologists argue that the teacher's sympathetic nature is characterized by two categories of people: First, extraverted persons: active, serious and restrained in all affairs, prone to calmness and external influence. The second is the introvert individuals: those who are exclusively focused on their own inner world, who do not interfere with their surroundings, who are prone to self-control, reflexion, and constant anxiety. Once de Balzac says, "courtesy and modesty are proof that a person is truly educated." English man John Libbock says that "through carelessness, people can achieve victories that cannot be achieved by force." YG Jacobson, author of several works on professional ethics, describes: "Professional ethics is a set of ethical norms, concepts, evaluations and ideals that are characteristic of a particular profession in a given society." Professional ethnocentrists point out in their writings that professional ethics is

inextricably linked to human ethics. Diversity in the level of development of the moral consciousness of different professions is maintained in the context of society. At present, there are ethical requirements for people of different professions. The problem of human formation is extremely complex and multifaceted. Some aspects of this problem are being investigated more effectively in modern pedagogical science: - researches on such problems as perspective model of education, directed to pedagogical process, relatively ideal condition of professional, moral formation. Because, to a certain extent, students' behavior is defined, their existing levels of personal qualities that are defined and their intended ideal level is improved; - Creation of effective systems, forms, methods of education; developing a system of knowledge selection and measures are necessary to achieve a specific goal; -Psycho-pedagogical study of the characteristics of the formation of the necessary qualities, qualities that are required for the formation of a fully developed personality; - Creation of an effective system of control over the educational process and monitoring of the educational process. The teaching profession is, in essence, moral, and therefore, the teacher himself must have a well-rounded outlook and an example of personal conduct. In the professional culture of future teachers, the following will play an important role: - pedagogical requirements; -axiological factors; -modern needs. Professional competence in pedagogical requirements, professional skills in axiological factors, and professional qualifications in the modern requirements are the primary basis. All of these constitute the requirements for the professional culture of future teachers. When it comes to the requirements for the professional culture of future teachers, it is worth mentioning the following requirements set by the thinker Alisher Navoi (1441 -1501) in the book “Mahbub ul – kulub”: “…the teacher knows the subject he is teaching and loves his students; …be demanding for himself and his pupil; …respect for society; Teaching learners what they already know; …should be free of social and spiritual defects.” Also, the formation of students' pedagogical ethics should be the basis of the educational process. Organization of professional and ethical education gives students the active life-style of the teacher, the ability to master good manners. For effective organization of professional and moral education: - accurately describe, justify the ideal of professional and moral formation; - Determine the current level of professional and moral formation in the morning; In our view, it is desirable to analyze the related concepts in two dimensions in forming the qualities of pedagogical ethics as part of moral education: the first is the attitude of the society towards the teacher; the second is the attitude of the teacher to the community. The relationship of a person to a person is part of the second group relationship. They will be partially covered in the course of professional education. The foregoing requires that the formation of pedagogical ethics be a separate area of education. This is especially important for the education system of pedagogical institutions, as the teaching profession is at the heart of the teaching profession. This, in turn, requires a clear definition of what the content of a professionoriented education should look like. Because the educational process should be aimed at developing future teachers' ethical behavior and the results of the learning process should be compared with the ideal.

Conclusion: In conclusion, it is worth noting that students and future teachers will be exploring ways to develop self-ethical and pedagogical behavior.

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THE TECHNOLOGY OF CREATING VALUABLE ATTITUDES IN INCLUSIVE EDUCATION

Aqiyeva Shaxlo Beshim Qizi

Abstract: There is increasing recognition of the value of inclusive education and the role of universal design for learning in supporting it. However, moves towards inclusion are taking place at differentrates in different countries. Technology has considerable, but largely unused potential to support inclusive education of disabled people and other minority groups. In particular it can provide multiple means of presenting, representing and expressing learning and through AT enable disabled learners to overcome barriers they would otherwise experience to participating in the curriculum. It also has the potential to increase enjoyment and motivation. There is increasing evidence of the value of ICT and AT in supporting and improving the education of disabled people. Distance education has potential to increase educational access, but should not be at the expense of making institutional education accessible. However, not all the initiatives consider the needs of disabled people. Differentiated learning supported by technology has considerable potential, but is rarely used, largely due to lack of appropriate teacher education and other resources. The lack of schools and other educational infrastructure and poverty raise particular challenges to the introduction of technology mediated UCL in the low (and medium) income countries. However, the barriers worldwide are similar and include lack of funding and other resources, lack of available technologies and specialists and lack of teacher education

Keywords: Inclusive culture, cultural components, typology inclusive culture, features of formation.

Main part: The practice of inclusive education for children with disabilities health opportunities (HIA) is marked by the intensive development of a culture of interaction with this contingent and declares the value, professional and personal attitude of teachers. Culture as a philosophical category reflects a certain historical stage in the development of society, identifies and describes target guidelines in forms of organization life and activity of people, their relationships, as well as in the material and spiritual values they create. Inclusive education is much broader than formal education. This is in education mostly works with children with learning disabilities. What are the qualities of an inclusive school teacher and educator in an inclusive kindergarten must have? Professional skills of the teacher are the main factor in inclusive education is considered First of all, the teacher must have an inclusive mindset and education teachers must take responsibility for the quality of inclusive education The main criteria of the quality of the teacher's work is that the students are of different categories protect and respect the rights of all children. Another quality - establish cooperation. Because it's collaboration and mutual thinking for teachers It is important to share. The teacher should systematically evaluate his activity, regularly improvement of skills, discipline and discipline of children with special educational needs leadership and management for institutions to work effectively with intergroups applying skills, solving problems together, comprehensive school it is necessary to have such qualities as establishing cooperation. It is known that in inclusive education, children with special educational needs are all children and are grouped according to different abilities for a specific purpose. If special education is carried out according to mental and physical appearance, inclusive education is determined according to the abilities and opportunities of the child. Special inclusive education when education is taught through special and alternative education programs child-centered and personalized, instructional, inclusive learning is taught on the basis of the program. The unique

and important aspect of inclusive education is that children and teachers learn from each other and solve problems together This education should not be one-sided.

Summary: Increasing self-confidence, developing skills and abilities in a child with disabilities, from a young age family involvement is important in promoting learning. It is also important to work with parents in the process of inclusive education. Highlight For parents with special needs, their children are a part of society to explain that they have the right to be, to convey this belief to their minds need Special attention is paid to this issue in the educational system of our country. 2020 year Our President, who was admitted in October, had special educational needs measures to further improve the system of education for children an example of this is the decision on in one school located in cities and districts of Tashkent city inclusive education will be introduced. Republic of Karakalpakstan, regions and Tashkent children with special educational needs in one school located in the city elementary basic classes will be opened for.

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СПОРТИВНАЯ ПОДГОТОВКА В ЛЕГКОЙ АТЛЕТИКЕ СТУДЕНТОВ-СПРИНТЕРОВ

Чирчикский государственный педагогический университет
Факультет «Спортивное и допризывное военное образование».
Студент 3 ступени МИД
Болтаева Сумбула — дочь Музаффара
болтаевасумбула03@gmail.com

Аннотация.

Влияние физической нагрузки на организм студентов, занимающихся легкой атлетикой, специализирующихся в спринтерском беге.

Ключевые слова: *легкая атлетика; спринтерский бег; подготовка; студенты.*

Annotation.

The influence of physical activity on the body of students involved in athletics, specializing in sprint.

Key words: *track and field; sprinting; training; students*.

Спортивные занятия в жизни студентов являются одним из ключевых средств воспитания молодежи. Систематические занятия спортом положительно влияют на степень физической подготовки, положительно воздействуют на все органы [1, с. 336].

Необходимо понимать, что студенческий спорт подразумевает не только организацию и проведение различных соревнований. Занятия должны быть систематизированы и сбалансированы. В организации учебно-тренировочного процесса у студентов занимающихся легкой атлетикой, необходимо разделить занятия по особенностям данной группы или студента с учетом индивидуальных особенностей, необходимо сделать акцент на более слабые стороны физической подготовки [3, с. 390].

Лёгкая атлетика — олимпийский вид спорта, включающий бег, ходьбу, прыжки и метания [4, с. 62].

Анализ динамики уровня физической подготовки студентов, занимающихся в секции легкой атлетики, спринтерский бег, в ходе эксперимента, стал целью данного этапа исследования.

Подготовка студентов занимающихся в свободное время в секциях легкой атлетики, специализирующихся в спринтерском беге, сильно отличается от подготовки спортсменов необходимое соотношение длины и частоты шагов во время бега, которые формируются в процессе совершенствования техники бега, что вызывает трудности у всех, кто начинает заниматься этим видом спорта, многие начинающие бегают на коротком шаге и низкой частоте.

Спринт — совокупность легкоатлетических дисциплин, где спортсмены соревнуются в беге на короткие (спринтерские) дистанции по стадиону. Спринтом считаются дистанции до 400 метров включительно [4, с. 62].

Эффективность бега снижают ошибки, которые возникают у большинства новичком, такие как: нога ставится на поверхность в основном с пятки или с носка, люди «натыкаются» на собственную ногу в каждом шаге из-за чего снижают скорость бега. Если частота шагов и средняя длина шага нога ставится больше «под себя», чем вперёд, то это повышает эффективность бега. Быстрота движений человека напрямую зависит от силы мышц, поэтому эти способности нужно развивать одновременно.

Таким образом, можно предположить, что улучшение спортивных результатов у студентов, занимающихся спринтерским бегом, возможно за счет коррекции техники бега и длины бегового шага.

Улучшение подготовленности студентов, занимающихся спринтерским бегом, представляет собой сложный процесс, связанный с тем, что студенты подготавливаются к соревнованиям в более меньший срок, чем многолетние тренировки спортсменов и необходимость студентов быть готовыми к выступлению в нескольких совершенно разных дисциплинах легкой атлетики на студенческих соревнованиях. Все это требует повышенных показателей мышечной массы, быстроты, выносливости, ловкости и других способностей в очень короткие сроки.

Достижение спортивных результатов студентов, занимающихся спринтерским бегом, зависит от физической и технической подготовленности на разных этапах тренировочной и соревновательной деятельности. Структура тренировочной подготовки студентов занимающихся спринтерским бегом, должна строиться с учетом особенностей занимающихся.

Основными задачами, стоящими перед тренировочной подготовкой людей занимающихся спринтерским бегом являются:

1. Обеспечивать разностороннее развитие личности;
2. Формирование потребностей в здоровом образе жизни;
3. Повышение уровня физической подготовки;
4. Рост спортивных результатов.

В ходе исследования было определены этапы тренировочной подготовки у студентов, занимающихся спринтерским бегом. Эти этапы были распределены на 3 года обучения в ВУЗе (Чирчикский государственный педагогический институт Ташкентской Области), так как многие начинают ходить в секцию не с 1 курса.

У студентов занимающихся спринтерским бегом свои особенности в построении процесса тренировки, важное значение имеет построение подхода к тренировкам с учетом быстрого достижения результата. Таким образом, подготовительный процесс студентов занимающихся спринтерским бегом имеет особенности, выполнение комплекса средств направленных на повышение физической подготовки студентов на каждом этапе тренировок, а так же сконцентрироваться на специальной физической подготовке.

Оптимальное построение процессов тренировок у студентов, занимающихся спринтерским бегом, связано с рациональным планированием тренировок и цикла с учетом режима тренировок.

Планирование обосновано на положениях:

1. Подготовка должна планироваться, чтобы получить результат к периоду официальных студенческих соревнований;
2. Учитывается реакция организма на физическую нагрузку;
3. Развитие спортивных форм является индивидуальным процессом.

В процессе подготовки студентов-спринтеров выделяют два цикла подготовки: осенне-зимний и весенне-летний. Циклы состоят из мотоциклов продолжительность которых от 5 до 30 недель, в процессе чего решаются определенные задачи подготовки. Также необходимо учитывать особенности тренировок с их нагрузкой на организм студента. Для примера служат осенне-зимний и весенне-летний цикл подготовки студентов 1 года занятий в секции легкой атлетики.

• 1 мезоцикл - Общефизическая подготовка (12 недель). Задачами, которого является повышение возможностей, физической подготовки, развитие выносливости занимающегося.

• 2 мезоцикл - Специальная физическая подготовка (10 недель). Развитие специальной выносливости, осуществляется контроль и коррекция тренировочных процессов.

• 3 мезоцикл - Техническая подготовка (10 недель). Изучение техник спринтерского бега, развитие скоростных возможностей.

• 4 мезоцикл - Соревновательная подготовка (5 недель). Достижение запланированных результатов, проверка возможностей с помощью соревнований.

При подготовке студентов-спринтеров важно не только планирование тренировок, но и также обязательное применение контроля за функциональным состоянием. В необходимости происходит коррекция тренировочных процессов у студента. В группе студентов занимающихся спринтерским бегом проводятся срезы в виде внутригрупповых соревнований.

Основными компонентами тренировочного процесса являются:

– Внешние факторы (место, где проводятся тренировки);

– Средства и методы (физическая подготовка);

– Средства контроля (контрольные тесты и соревнования);

– Коррекция процесса тренировки.

Подготовка студентов занимающихся спринтерским бегом планируется исходя из задач этапа тренировочных подготовок. Планированию подлежат физические нагрузки на организм, характер выполняемых нагрузок. В подготовке новичков делается акцент на соотношение средств, методов и параметров физической нагрузки. В процессе тренировок нужно учитывать индивидуальные особенности студента и концентрировать внимание на применение упражнений для освоения выбранного вида легкой атлетики.

При подготовке студентов в спринтерском беге используются физические упражнения, направленные на развитие и совершенствование физической подготовки:

1. Упражнения для общей физической подготовки;

2. Упражнения для изучения техники спринтерского бега;

3. Упражнения, развивающие специальную физическую подготовку. В данной методике делается акцент на развитие физической и технической подготовки, связанные с особенностями студентов, сроками их подготовки и трудностями освоения техники спринтерского бега и достижением новых результатов.

Использование специальных упражнений повышает двигательную активность, скоростные, выносливость и другие способности.

Результат проведенного тестирования по окончанию тренировочного процесса, выявил увеличение большинства показателей физической подготовки у студентов, занимающихся спринтерским бегом.

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OUTLINE
VOLUME-3, ISSUE-2