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APPLICATION OF INFORMATION TECHNOLOGIES AT THE SCIENTIFIC WORLD AND INTELLECTUAL LEVEL OF STUDENTS

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ABSTRACT:

This article discusses the importance of studying and analyzing the achievements of modern science, technology, the use of information technology in expanding the scientific horizons and creative activity of future specialists, preparing information support and using information technology to increase the intellectual potential of students.

KEY WORDS: education, scientific worldview, information technology, intellectual level, database, programs, distance learning.

INTRODUCTION:

In the field of education, many positive changes are taking place in accordance with the development of our society, there are opportunities to explore new aspects of our material and spiritual values. Today, a thorough study of national and universal values, the study and analysis of achievements in modern science, engineering and technology is a solid scientific basis for the use of information technology in the scientific views and creative activities of future specialists.

In our country, significant work is being done in this area, that is, in informing the public. That is, a number of decisions, laws, decrees, instructions and other normative documents on informatization and improvement of all sectors of the republic are adopted and implemented. In particular, on the basis of a number of decrees of the Government of Uzbekistan "On Informatization", "Legal Protection of Computer Programs and Databases", "Communication", "Internet", "Distance Learning", "On the Further Development of Computerization and the Implementation of Information and Communication Technologies". A program for the implementation of strategic priorities in the field of informatization of the republic is being implemented.

It is known that, taking into account advanced methods, forms, and means of forming the scientific worldview of students studying in the field of technology based on information technology, the preparation of information to increase the intellectual potential of students, especially the computerization of this process, is more relevant than ever.

Today, the opportunities created in our country open up promising areas for mastering the use of new methods and technologies in the educational process by expanding the worldview of students and increasing their intellectual potential.

This is one of the foundations of didactic and information and communication technologies for the formation of a harmoniously developed generation with a broad scientific horizons using information and communication technologies.

Development in accordance with the development of time, that is, the fast and dynamic steps of the current period, is constantly growing and poses critical tasks for us. In particular, the development of science and technology, the improvement of information and communication technologies in any field, of course, stimulates communication with modern computers.

Since the lack of the use of computer technology in business, modern changes in the world lagging behind development make us not aware of the flow of information in the development of society.

Indeed, the training of engineers in higher pedagogical educational institutions, as noted above, is a multifaceted problem requiring the efficient use of information and communication technologies, which in this process requires mastery of various scientific foundations. In particular, it requires students to have knowledge in all subjects related to the basics of computer literacy and the development of computer thinking.

This, in turn, shows that the modern education system should train a competitive engineer with high morale, high intellectual potential and broad scientific horizons.

It is known that in the so-called "XXI century - the intellectual age" and in this new area, the information industry is being formed, which is associated with the production of technologies, methods, technical tools for the development of modern knowledge (data, database, information, information bank, etc.) .). This requires that information technology and quality indicators keep pace with the times.

So, today we need to think in the system “sources → symbols → data → database → information → information bank → information technologies → new information technologies”. At the same time, this century is marked by modern technologies that strengthen the ability of mankind to produce information, the intellectual potential of the information society, and such processes are the scientific and technical basis for the sustainable development of the information industry.

Here the problem of converting information into information is solved by simplifying the use of data collected in the source under study, that is, the data used is called information.

It is known that higher technical educational institutions and their specialists train specialists in the social and humanitarian, natural sciences and other similar fields. It is advisable to conduct research in them in accordance with the requirements for the training of future engineers and the requirements of state educational standards.

In expressing this algorithmic sequence, instructive information from the Uzbek scientist G.A. Turakulova "Algorithmic stages of scientific research".

According to her, we will determine the tasks in the above areas.

So, the task of the first stage is as follows: Only information related to the intellectual potential of a person is collected, and their definitions. This creates a sequence that corresponds to a person’s mental maturity, that is, reason, consciousness, perception, science, knowledge, thinking, new thought, scientific thought, contemplation, creativity, the creative process, creative activity, talent, ability, talent and so on . Along with the definition of each, etc., the importance of the individual in expanding his scientific worldview is also being systematically prepared. The goal is to prepare a database that will facilitate the use in education in the process of expanding the scientific views of students.

The use of this database in the mental education of students is also taken into account.

The task of the second stage is to identify the problem associated with the direction, and to determine the mechanism for using the databases of the first stage in the direction of solving this problem. At this stage, work can be performed in the following sequence:

1. To sharpen the mind, that is, to be able to identify the most important qualities of the mind (depth, criticality, harmony, breadth, speed, freedom, independence, etc.) of the Mind, because thought is the proof of the mind. If we conduct intellectual training of our students on this basis, we will be able to expand their worldview.

2. The search for effective means of mental education. At the same time, it is necessary to use the rich scientific heritage of the past to awaken the national pride of students, and on this basis their respect for the homeland will increase, and it will be explained that this is inherent in the development of the country.

3. The task of forming a worldview is also carried out directly using the database of the first stage. If we mention why it is called the Motherland, we will also pay attention to the patriotic education of our students. Based on this, important mental qualities are regularly introduced into the consciousness of students.

4. The development of a scientific worldview is based mainly on scientific values and their monitoring. In particular, there is no doubt that an explanation of the transformation of scientific values into material or spiritual values as a result of their widespread use will have positive pedagogical consequences in this area. In this process, the use of mental operations, such as new thinking, scientific thinking, problems and choosing the most optimal of their solutions, also gives positive results.

You can continue to name the problems in this direction. The purpose of this is to teach our students to set tasks for their students and to choose and distinguish the most suitable from their solutions. The goal is also to prepare databases related to the problem that the student wants to study, and divide them into systems corresponding to the problem statement, and teach them how to use them in the form of information.

The task of the third stage is a direct continuation of the second stage, in which the databases allocated for the systems are converted into information for studying relevant topics, and the use of information prepared using a specially developed algorithm is achieved. At the same time, the approach to solving the problem of expanding the scientific worldview of the future engineer will be scientifically and methodologically justified while maintaining the continuity and continuity of the acquisition of knowledge and concepts related to mental activity.

The task of the fourth stage is carried out by completing the task of the third stage, that is, it is decided which part of the database on the topic under study and how to use it.

The task of the fifth stage is to take into account the capabilities of the data bank created as a result of the systematization of aggregated databases in which the technology of access to information about the source being studied (topic, chapter, section, course, science or concept) is created using a specially developed control algorithm.

The task of the sixth stage is to justify the fact that the control algorithm can guarantee the possibility of introducing the information-educational environment of the task into the statement of the problem and the implementation of the corresponding tasks.

The task of the seventh stage is to study to what extent the regulations of the sixth stage can adapt to practical actions, and on their basis to determine the functional tasks of the control algorithm.

The task of the eighth stage is to achieve the selection of optimal that is, options for a positive pedagogical effect from the functional tasks of the control algorithm, as well as to scientifically and methodologically substantiate the mechanisms for their implementation.

The task of the ninth stage is to achieve the development of criteria for determining the degree of expansion of the scientific worldview formed by students on the basis of implemented mechanisms, taking into account the criteria for the formation of students' information culture.

The task of the tenth stage is to align the scientific worldview of students on the basis of the analysis of the state of expansion and create a system of recommendations to determine their role and place in the mental education of young people.

The task of the eleventh stage is to prepare guidelines and recommendations based on the results of all stages of the study, the constant involvement of students in creative activity, that is, curiosity for innovation, and their readiness in this direction.

The task of the twelfth stage is to prepare the future engineer as a technology guide that will help them teach students in their group to think creatively.

The steps in this listed algorithmic system are always interconnected. In this case, before solving the problem, based on a logical sequence, all twelve stages, in turn, perform their function, they themselves remain the main information and allow the next stage to perform its function. There is also feedback in this process, and only the reference stage, i.e. the desired stage, is involved.

In addition, when implementing this algorithmic system, the initial data (mind, consciousness, thought, conscious person, thoughtful person, new thought, creative thinking, worldview, scientific worldview, aspects and factors that make up mental education) are collected and divided into systems depending on the problem being studied. Information and the creation of an information bank based on them. This increased the vitality of the created educational technology and created wide opportunities for achieving positive pedagogical results, in particular, a consistent system was developed to develop the scientific views of the future engineer.

The widespread penetration of modern methods and technologies into the education system requires the training of all teachers, including engineers and technologists, as specialists who have in-depth knowledge and can put them into practice.

Solution of these tasks requires the creation of an information system in the system of continuing education and the development of methods, forms and tools for its effective use in the educational process. The research process has proved that modern relations between a teacher and a trainer are important for filling a process engineer with new ideas, scientific knowledge.

REFERENCE:

1) Mardonov Sh.V. The use of educational values in the system of teacher education // State Education. - Tashkent: 2005. - No. 6. - B. 24-27.
2) Tolipov OV Pedagogical technologies: theory and practice. - Tashkent: Fan, 2005 . - 23 p.
3) Turakulov X.A. Information systems and technologies in pedagogical research. - Tashkent: Fan, 2006 .-- 248 p.
4) Zebo Sh. Tukhtaeva. Content and Improving Higher Education by Solving Problem of Special Items Integration. Eastern European Scientific Journal. Ausgabe 1 - 2019. DOI 10.12851/EESJ201901. P. 291-294.