THE EFFECTIVENESS OF TEACHERS ' USE OF MODERN PEDAGOGICAL TECHNOLOGIES IN THE TEACHING OF COMPUTER SCIENCE

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ABSTRACT
In this article, the effects of pedagogical technologies in the formation of independent thinking cultures of teachers in the teaching of computer science are highlighted. Conditions for participation in almost all types of knowledge in the development of an independent culture of thinking are mentioned.

KEYWORDS: *modern pedagogical technologies, the development of cognition, independent thinking, pedagogical training of the teacher*

DISCUSSION

Today, Information Technology is one of the most important factors affecting the development of our society. Information technology has also been in existence at various stages of human development. A distinctive feature of modern information society is that information technology has a leading place among all existing technologies, in particular new technologies.

Extensive use of didactic materials, which determines the effectiveness of Information Technology and technical means, is one of the main signs of modern pedagogical technologies. Particular emphasis is placed on this important tool of managing the educational process in the national program. The level of use of information tools (computer, electronic communication, radio, television) is determined by two factors:

1. To develop didactic materials on topics that will yield informative tools for the learning process.

2. To check the preparation of teachers for the correct use of technical means and didactic materials in their practical activities.

It is possible to achieve the intended goal only when the process of information education is pre-pedagogical design. Computerization of pedagogical processes is one of the main directions and the sphere in which modern pedagogical technologies should be engaged.

Modern information technology includes information technology with a high level of user-friendly interface, which is carried out with the active participation of the user using computer equipment, software and telecommunications.

Therefore, modern information technology means that there is not only the use of computer equipment and its software, but also the possibility of direct interactive communication between the system and the user (friendly interface).

IT plays an important role in the educational process and helps to solve the following tasks:

– formation of the desire to open, maintain and develop individual abilities of students, knowledge skills in them, self-improvement;

– to ensure the interrelationships between events and phenomena Komplex study, exact, natural-scientific, technical, social, humanities and art;

– constant and dynamic updating of the content, forms and techniques of educational processes.

From the point of view of the educational system point of view, the following problems that arise along with the introduction of it are important:

1. Technical problems-the requirements for electronic computing and microprocessor techniques used in the educational system, the characteristics of their application in practice.

2. Programming problems-determines the structure and types of software for use in the educational system, the structure and characteristics of their application.

3. The problems of preparation are associated with the use of information and communication technologies by teachers (pedagogues) and students, including the use of computing techniques.

Thus, the introduction of modern it into the educational process leads to:

– help more individually, taking into account the educational process, the exact level of preparation of students, their abilities, the pace of mastering new material, their interests and inclinations;

– support and development of students ' cognitive activities, their self-improvement, education and professional interests and aspirations;

– teaching science in the process of communication, studying the phenomena of existence;

– constant and dynamic updating of the educational process on account of its flexibility, efficiency, improvement of forms and methods of organization;

– the problem of teaching in all educational institutions and the use of computer tools and virtual stands;

– improving the technological base of the educational process through the introduction of modern technical means.

Four important aspects characterize the process of learning modern computer science:

The first point: the teaching of computer science requires a higher philosophical and methodological culture than the teacher of Computer Science, due to the peculiarities of its content. This philosophy does not follow the rule that it should be taught in the computer science lesson, that is, the teacher himself must know and understand the meaning and significance of the general philosophical laws and laws on the development of knowledge. Deeply understand the meaning and meaning of both philosophical categories and informatics concepts. Have an understanding of the concept of a developing dynamic information object, a methodology and development in its activities, a method of forming concepts that are oriented towards the individual and that it is necessary to understand and use the principles of heuristic education. Therefore, in modern education, it is important not only to transfer information, but also to teach methods and methods of thinking and activity.

The second point: Computer Science as a practical application of all theories is a very large area of knowledge, which fall into a number of important theoretical sections and Information Technology. Unfortunately, it should be noted that Informatics is sometimes replaced by a programming course or an Information Technology course. The content of

Informatics is gradually becoming more and more, thereby embracing new concepts as well. Gradually," Object"," model"," System"," hierarchy " and other concepts entered the course of Computer Science and took a worthy place in it. In practice, the phenomenon of natural, spontaneous, evolutionary "expansion "of the content of school Informatics is widespread.

The third point: the formation of any course is subject to certain laws, which can be clearly observed for the formation and formation of Computer Science. A visual representation of this process as an example of the formation of concepts in any subject area. In the process of forming the field of science of Informatics, three stages of language development and, accordingly, the content of the course of informatics are observed: first, new words appear in the oral language, they are used everywhere in the subconscious, for example, words and phrases: "information", "information process", "information war". "Information crisis"," Information Protection"," Information Society"," political data"," economic data " and so on. That is, these words began to be actively used in everyday life and in the media. Twice media.

The fourth point: the modern revolution still manifests itself in the installation of new pedagogical technologies that will help to introduce advanced tools and methods of teaching. First of all, this is due to technologies for the development of Education. To date, the most popular is the technology based on meaningful generalization (V.V. Davydav, DB Elkanin). This technology mainly affects the external characteristics of the child without the use of the rich inner world of man. a harvest student (Io Yakimanskaya) subjective experience that these problems were solved in person - technologies, oriented to the executive exposition of any theoretical material. Together with the teacher, the student is offered progressive approaches in the methodology of heuristic learning in the construction of their own educational path (A.V. Khutorskoy).

The choice of this or that technology depends, first of all, on the personality of the teacher, it is impossible to artificially load on a person any or another method of work, although they are much more advanced. This process is natural, without the necessary physical and psychological stress of telnosti allowed by means of any proposed technology for Dey (which was painted personally) to appear in the teacher's actions. However, there are still requirements to the activities of the computer science teacher, which can be expressed in printouts: organizational, active, in essence, etc. In our technical school, we work in the direction of personality-oriented education. Personality-oriented teaching is understood as a study that reveals the characteristics of the student - the subject, understands the specificity and purposefulness of the subjective experience of the child, and creates pedagogical effects based on the subjective

experience of the student. The basis of personality-based education is the principles of humanistic orientation in philosophy, psychology and pedagogy, developed by Karl Rogers:

- personality is at the center of the changing world: for each of us perceiving the reality around us, if we mean our world, then no one from the outside can fully understand this inner world,
- a person perceives the surrounding reality through the prism of his attitude and understanding,
- a person seeks to know himself and understand himself, has an inner ability to improve himself,
- mutual understanding necessary for development can only be achieved as a result of communication,
- self-improvement, development occurs on the basis of interaction with the environment, with other people. External evaluation is very important for a person, for his self-knowledge, which is achieved either as a result of direct or hidden contacts. The leading ideas of personality-oriented education (I.S. According to Yakimanskaya):
- personality-oriented educational goals: to develop the cognitive abilities of students, to maximally reveal the personality of the child;
- Education, as a certain knowledge standard, as an education, is re-emphasized as a process;
- the doctrine implies that the pure individual activity of an individual child aimed at changing the socially significant forms of assimilation given in the acquisition of education is understood;
- student clairvoyance is not perceived as a "crop" of the influence of teaching, but initially inherent in it;
- it is necessary to determine the sub-experience of each student in the design and implementation of the educational process and work on its socialization ("cultivation") ;
- The acquisition of knowledge from the goal becomes a means of development taking into account the ability and individual significant values of the student.

In this principle of pedagogical Technologies, a sequence of devices that control the cognitive activity of teachers is created. The educator creates initial trips to the mastering of the subject and, in the most complex cases necessary, provides them with assistance in an individual order, and compiles a program for mastering the subject with the help of a computer. Modern information technologies open up endless opportunities for teachers to penetrate into non-traditional sources of Information, increase the efficiency of independent work, provide absolutely new opportunities for creativity, creation and strengthening of different professional skills, allow the implementation of new forms and methods of teaching

using the means of constructing conceptual and mathematical models of events and processes.

Drawing up a training model helps to clearly visualize the object under study and increase interest in the teachers in relation to this form of teaching, as well as to assimilate the learning material more deeply.

It is necessary to develop the work of educational laboratories, to provide them with new, state-of-the-art devices, to apply virtual computer technologies in the formation of the necessary knowledge and sufficient skills, innovative methods used in improving the effectiveness of lessons from Informatics. Virtual stands enhance the capabilities of experimental devices and training laboratories. As the main difference from the traditions of these stands, it is possible to indicate the following:

the possibility of radical observation of processes-the ability to observe these processes in real conditions;

the popularity of teaching is the wide and effective use of distance learning technologies;

the low financial cost required in equipping educational institutions with research and experimental facilities.

Organization of Information Technology and distance learning centers in educational institutions, creation of working groups from qualified programmers, designers and experienced educators, setting the type and system of virtual laboratories, obtaining the necessary tools and software from foreign and developed educational institutions is the main factor of wide application of virtual stands.

In the formation of independent thinking, it is important that the digitized forms of information be presented not only visually, but also with pedagogical skills.

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