SCIENCE OF INFORMATICS AND INFORMATION TECHNOLOGIES SPECIFIC PRINCIPLES OF TEACHING

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ABSTRACT

The article talks about the content and uniqueness of teaching the science of informatics and information technology, the necessity of teaching this science today, and the problems in it. Recommendations on modern pedagogical technologies and methods used in teaching science are given.

Key words: Informatics and information technologies, teaching technologies, teaching, modern pedagogical technologies, knowledge, skills, competence, computer literacy, competence.

The need for teaching subjects in the field of "Informatics and information technologies" is due to the specific features of the current process, which is undergoing rapid and fundamental changes in the structure and spheres of activity. The roots of such changes in society go back to new ways and means of creating information, storing it, transmitting it and using it. We are in the information age. The number of members of society and professionals who are faced with the need to process the ever-increasing volume of information and use it effectively in their activities is increasing.

Based on the general goals of education and upbringing, the uniqueness of informatics and information technology as a science, its place and role in the system of modern sciences, and its importance in the current life of society, the goals of education can be defined as follows:

- formation of computer literacy among students;
- ensuring that students acquire the fundamentals of knowledge about the processes of processing, transmitting and using information firmly and consciously;
- to reveal to students the importance of information processes in the formation of a modern scientific view of the world, the role of information and communication technologies in the development of society;
- formation of the skills of conscious and rational use of computers in life.

Pedagogical functions of the subject of informatics and information technologies are determined by the unique story that they contribute to solving the main tasks of a person in general education:

1. Students acquire the basics of informatics and information technologies and develop their thinking. This task is the first task facing the teacher of informatics and information technologies.

2. Forming the foundations of a scientific outlook. In solving this important task, the entire pedagogical team participates in the process of teaching all subjects.

3. Education in the spirit of national ideology.

4. Preparing students for practical activities, work, and continuing education.

None of the above issues should be solved in isolation. They should be implemented as a whole and closely related to each other. It is possible to train students' thinking and create the foundations of a scientific worldview only on the basis of solid mastery of the basics of informatics by students. On the other hand, it is possible to achieve a deep understanding of computer science and information technology as a science by teaching students to think logically.

In addition, it is necessary to increase the scientific nature of the course in order to achieve the correct solution of the task of preparing for practical activities in the process of teaching informatics and information technologies. Only if they can make correct and deep conclusions, students can take a critical and creative approach to solving each problem, do not lose themselves in front of new problems, and can work effectively in different conditions. In addition, practical work increases students' worldview and enriches it with new facts, increases the level of knowledge of informatics and information technologies, ensures that it is deep, complete and solid.

Among the first, scientific research on the methodology of teaching informatics and information technologies was carried out by professors M. Ziyokhozhaev, A. Abduqadirov, T. Azlarov and others, and certain achievements were made in this field.

In other words, three traditional questions are put before the methodology of teaching informatics and information technologies:

1) Why is it necessary to study computer science and information technology (that is, to define goals and objectives)?

2) What should be learned (ie, content identification)?

3) How to teach informatics and information technologies (that is, to determine effective methods and tools of education within the selected form of education)?

The purpose of learning the methodology of teaching informatics and information technologies is to develop and form a personal methodological system for teachers. [1].

In order to get an answer to the question of what and how to teach in informatics and information technologies, first of all, it is necessary to clearly define the tasks of

teaching at the current stage of the development of this subject. These tasks are common to all general sciences. At the same time, it is necessary to analyze the specific aspects of these tasks in the teaching of informatics and information technologies based on the concept of teaching informatics and information technologies in the continuous education system and state educational standards.

In determining the content of education, it is necessary to proceed from the assumptions that informatics and information technologies are a science and, on the other hand, an educational subject. The science of informatics and information technologies and the educational subject differ from each other, first of all, in the size and depth of their content. The subject of computer science and information technologies provides students with information that will form a whole, integrated system of knowledge about computer science and will be necessary for their future practical activities. Informatics and information technologies as an educational subject are reflected in educational programs and textbooks.

One of the features of the methodology of teaching informatics and information technologies is to determine the methods and ways of acquiring the content of the subject and the methods of scientific research specific to it, practical knowledge and work skills. These include methods of studying educational material and forms of organizing educational activities based on modern pedagogical and psychological research. [2]

In order to conduct computer and information technology classes effectively, there should be a suitable material base, that is, a specially equipped computer room. the effectiveness of the configuration of technologies, taking into account modern requirements, combining these issues is another issue of the methodology of teaching informatics and information technologies.

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