

THEORETICAL ASPECTS OF TEACHING COMPUTER SCIENCE

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Abstract: This article describes the relevance of teaching computer science in general, and the problems of teaching students of higher educational institutions, describes the process of selecting a teaching method in groups by a teacher, describes methods of teaching computer science, performs a comparative analysis of methods in terms of the effectiveness of the application.

Key words: The era of advanced technologies, methods, perception, cooperation, forced activation, passive, active, interactive methods.

In the current era of advanced technology, humanity is not given the opportunity to be alienated from technology. If a few decades ago it was a matter of a person's financial situation, today there is not a single person who would never have to work on a computer, smartphone, etc. These technologies give humanity many new opportunities, simplifying human labor, minimizing time spent in many areas of life.

Computer science is one of the important subjects already from high school, schoolchildren receive the first skills in working with a computer, some programs: the Ms Office package, photo editors, etc. But the process of teaching computer science and information technology in higher educational institutions is much more complicated. Here we are already talking about difficult professional programs with advanced features, and the student's full attention to the information received from the teacher is very important. Which, in turn, depends on the teacher, so the teacher in the first lessons in the group analyzes the composition of the students, the contingent of knowledge available to the students, recognizes active and passive students, and by the next lesson must choose a method of teaching computer science that suits this group of students individually. When analyzing this process, the teacher must take into account many factors, such as raising the activity of passive students, attracting their attention, supporting an active audience, and many others.

Modern teaching methods include any methods, techniques, tools for developing, conducting and improving the process of learning something that meet the following requirements: Cooperation between students and teachers in planning and implementing all stages of the learning process. Active, creative, proactive participation of schoolchildren in the process of obtaining the learning outcome they need: Maximum approximation of learning outcomes to the field of practical activity. Hence the specificity of modern teaching methods, which distinguishes them from traditional teaching methods:

Ensuring "forced" activation of the student's activity, even regardless of his subjective desire to participate in the learning process; Providing an increased degree of motivation and emotionality; Providing direct and feedback links in the interaction of the student with the teacher. In the course of studying the methods, it became known that they can be divided into three groups:

1. Passive methods;
2. Active methods;
3. Interactive methods.

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