

## **Methods of increasing students ' activity in teaching Informatics**

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**Anotation:**The use of innovative technologies in the educational process has led to the emergence of new educational methods and forms of teaching computer science.. The article discusses the main methods of innovative technologies and their effective use in teaching students in computer science at the University. Key words: innovative technology, methods and forms of innovative technology, the effectiveness of the use of innovative technologies in the teaching of computer science.

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Due to the significant restructuring of the content of education now with the introduction of new innovative technologies, the approach to the organization of educational activities has changed, and the need to intensify the cognitive activity of the student has increased. The introduction of new innovative technologies allow more efficient organization of the educational process, provide students with new tools, methods and sources of educational material.

To improve the educational activity of students with the use of innovative technology requires basic knowledge of modern information technology, the technical capabilities of communication technologies, you need to be able to use information resources, be able to work independently with the help of modern computer technology, as well as actively act, make decisions, flexibly adapt to changing living conditions.

Introduction of innovative technologies into the educational environment, based on the dialectical unity of the methodology and means of their implementation, significantly increase the efficiency of educational activities by automating information processing and calculations, which form an understanding of the essence of the educational material [1].

Innovative technologies have an integrating property in relation to all other technologies that new technologies, methods and ways of learning are developed in order to ensure that the student can succeed in life, using all its capabilities. In

connection with scientific and technological progress and the development of information and communication technology, the problems of teaching Informatics are now receiving more attention. Because, technical Sciences, among which, are rapidly developing and have great practical importance, such as information technology, electronics, etc.

A modern computer science teacher needs not only means of presenting interesting classes, but also powerful means of compiling such classes, as well as means of controlling students' knowledge, tracking progress and problem areas in learning. In the process of studying computer science with the use of innovative technologies, the computer acts not only as a source of information, but also as a means of learning and a powerful tool that allows you to activate the process of cognitive activity, contributing to the development of flexibility of thinking and the formation of the ability to navigate and adapt to their activities.

Therefore, the teacher of Informatics should set a goal — to provide positive motivation for learning, to enhance the cognitive activity of students, and to achieve this goal in addition to the development of knowledge is no less important to master the techniques by which you can receive, process and use new information. At the moment, the teaching of computer science for the development of cognitive and creative activity of students using modern innovative technologies that improve the quality of education, effectively apply the study time and reduce the reproductive activity of students by reducing the time. Innovative technologies in the study of computer science are focused on individualization, distance and mobility of the educational process, despite the age of students and the level of knowledge, as well as a large number of methods of innovative technologies that can be applied in the classroom in the learning process.

The method of using innovative technologies in the study of computer science involves [2]:

- improving the system of learning management at various stages of educational activity;
- strengthening the motivation of teaching;
- improving the quality of education and upbringing, which will increase the information culture of students;  improving the level of training in the field of modern information technology;

□ mastering the skills to work with different types of information using a computer and other means of information technology, to organize their own information activities and plan its results;

□ development of cognitive interests, intellectual and creative abilities by means of information technology;

□ demonstration of the capabilities of modern means of information technology in the educational process. One of the methods of active learning of Informatics with the use of innovative technologies is problem learning, project method, interactive technologies, business games, integrated lessons, etc. [3].

In a business game, several players interact, making decisions in a situation that simulates the real, and the teacher directs the game, analyzes and evaluates the actions of the players. Each participant plays a role, makes decisions and can quickly see the result, thus gaining their own experience. Business games in the study of computer science provide directed activity of mental processes of students: stimulate thinking when using problem situations, provide memorization of the main thing in the classroom, arouse interest in the discipline and develop the need for independent acquisition of knowledge.

To increase the motivation of the educational process, the use of the project method is one of the most successful ways in teaching Informatics. The method of projects is a flexible model of the educational process, focused on the self-realization of students through the development of their intellectual and physical capabilities, creativity in the learning process. In the study of computer science students perform various projects, such as the creation of crossword puzzles, cartoons, educational and developmental games, etc. Classes using interactive technologies, including multimedia presentations allow students to visually assimilate educational material. Multimedia presentations in teaching Informatics provide: intensification of training, activity of students, individualization of training, development of independence, increase of motivation, etc.

It is necessary to build each lesson so that all students have a steady interest, to form educational activity and the desire to create and learn, experiment, formulate and test hypotheses — the task of the modern teacher. Without the use of effective pedagogical ideas, active forms and methods of teaching and computer technology in the preparation of such lessons can not do.

This is the relevance of the experience — "the Use of active forms and methods of teaching in computer science lessons." Active forms and methods of teaching are methods that encourage students to active mental and practical activities in the process of mastering the educational material. Active learning involves the use of such a system of methods, which is mainly aimed not at the presentation of ready-made knowledge by the teacher, their memorization and reproduction, and self-mastery of students ' knowledge and skills in the process of active thinking and practice.

As Plutarch wrote: "the child's Mind is not a vessel to be filled, but a torch to be lit", so active teaching methods are the "modern weapon" of the teacher.

Physical activity of students consists in spatial movement, changing the way of interaction partners, for example, in a business or role-playing game (students can change the workplace, change seats, make a presentation at the blackboard or in front of the audience, work in small groups, talk, write, listen, make drawings, etc.). Social activity of students is manifested in the fact that they initiate interaction with each other, use different methods and techniques of data exchange (ask questions and answer them, exchange views, remarks, comments, etc.).

Cognitive activity of students manifests itself in the need to formulate and put the problem, to determine ways to solve it, to offer recommendations, to make decisions. Experience shows that the use of active forms of learning provides opportunities to search for new forms and methods of work, to change yourself, to learn with students.

Thus, the organization of the teaching of Informatics on the basis of innovative technologies provides a higher quality of students ' knowledge through a clear lesson planning, increasing motivation in the study of the subject. In the process of studying computer science students form the ability to work with information to perform the task, master the software at a higher level, learn to explore, put forward their ideas, analyze educational material.

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