METHODS OF INCREASING STUDENTS' ACTIVITY IN TEACHING INFORMATICS

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ABSTRACT

To implement computer technology in the educational process, the teacher must not only know his subject well, be a highly qualified methodologist, have the skills of rational use of information technology, but also know what means of computer support high results of training are reached.

Keywords: New opportunities, learning process, method of learning, methodological activities.

INTRODUCTION, LITERATURE REVIEW AND DISCUSSION

The use of modern information technology in teaching, of course, will strengthen the ideological orientation of educational material, Polytechnic orientation (consideration of processes instead of States, demonstration of models of real processes and phenomena, the study of these processes in dynamics with varying different parameters of the model, etc.). Thus, the possibility of strengthening the applied orientation of University courses will be realized.

Recently, the University has made numerous attempts to implement the idea of problem-based learning. The main obstacle to the introduction of this form of education was the lack of study time, as well as the inability to combine the individual efforts of each student.

When using a computer, new opportunities arise in the successful application of the method of active learning, which is based on the use of specific sensory perceptions of the student. The method of active learning, also called the method of learning on models, suggests that students are invited to conduct various experiments on specific didactic material and discover in the course of the experience of a particular pattern. In the real environment of the student there is often no sufficient amount of such material, so the illustrative function of the computer is extremely effective (the connection of static and dynamics, the impact of colors, the availability of tools for graphical display of the results of modeling and simulation), the use of a computer in this method of teaching is very promising.

Moreover, the computer allows you to raise the method of research models as a method of learning to a qualitatively different level. Using models defined as sets of qualitative relations or quantitative equations, training programs can present training material in ways not available to traditional teaching methods.

Finally, the greatest incentive to development with the introduction of the computer receive such forms of learning as individual learning and self-education, which are implemented through the interactive study of the material and permanent adaptive management of the learning process. Feedback makes it possible to organize operational control and additional assistance in the right place and at the right time, taking into account the characteristics of memory, perception and thinking of each student. The possibility of dialogue increases the

activity of students themselves in the process of their independent learning, creating a greater interest in learning and confidence in success. Many students are positively affected by the lack of formal and poorly differentiated assessment of their knowledge, since most training programs only provide an indication of inaccuracies and errors, helping them to be immediately eliminated. In addition, the computer is "patient", not "irritated", helps to concentrate.

One of the most important conditions for increasing the level of the learning process is to improve the content, forms and methods of teaching based on the activation of cognitive activity of students.

The problem of activation of cognitive activity is associated, on the one hand, with the development of mental abilities of students, on the other - with the formation of active life positions of the individual.

In solving the problem of development of cognitive activity of students has developed many approaches. However, in the context of the introduction of information technologies in education, it is necessary to optimize it. Therefore, in the new conditions, the role of the development of cognitive activity of students increases significantly.

The concept of activity of cognitive activity of students in training and professional self-determination is the main direction of psychological and pedagogical researches of problems of the higher school. For pedagogy it is especially important to find out the essence, types of activation of the personality. Therefore, as the main pedagogy highlights the problem of development of cognitive activity of the individual. This problem is related to the research of cognitive activity at different stages of education in universities. The study of the pedagogical aspect of cognitive activity is especially important because it is associated with the identification of the most effective methods and means and active forms of training.

Psychology, studying the problem of activity of the individual, highlights such a category as activity. Educational and cognitive activity consists of interrelated structural components. In this regard, in the methods of educational work it is important to consider the basic psychological features of educational activity: its specific needs, motives, tasks, actions and operations; the stages of its formation and further development; the dynamics of its components, when the training goal can be motivating, the learning will turn into mental operation; its relationship with other activities; the origin of its internal, individual forms.

In the practical implementation of activization of informative activity of students there are different approaches: some of them originate from a number of methods to present the material fully, accessible and clearly (it is assumed that the student must memorize this material, then repeat it in the process of independent work and apply when carrying out training exercises, practical and laboratory classes); others offer classes to highlight key issues on the topic (all other students are expected to learn independently); third-to activate the cognitive activity of students by organizing their mental activity.

For the dominance of the first approach can lead to a narrowing of the possibilities of the educational process in the development of individual abilities of students; the second approach does not sufficiently take into account the psychological and physiological capabilities of the student in the assimilation of complex material; the third approach is mainly focused on problem-based learning, which, along with the positive aspects has negative, primarily associated with the limit of training time.

The solution of the question of psychological and pedagogical bases of cognitive activity is connected with understanding of educational cognition as the leading activity of the student. Cognitive activity of the student becomes leading because it is connected with his future profession, a specific specialty. In connection with the aspiration to a specific future in the activities of the student learning acquires a personal meaning on a more fundamental basis than in school.

The importance of the problem of computer support of organizational and methodological activities of the University is quite obvious, since the adoption of optimal, science-based decisions in the field of education requires a significant strengthening of the intellectual capabilities of the subjects of pedagogical management. The successful solution of this problem can improve the quality of training by improving the management of the administration, deans, departments of educational, methodical, research activities of the University on the basis of operational, aggregated, reliable and comprehensive information; improvement activities all departments of the Institute through the introduction of scientific organization of labor, the optimum use of human and material resources of the Institute for automating the development of training plans and programs, scheduling classes, examinations and consultations; increase of efficiency of management departments at all levels due to timely and fully ensure the control on operational information for optimal decision making.

The modern computer science teacher needs not only the means of presenting interesting lessons, but also powerful means of compiling such lessons, as well as means of monitoring students ' knowledge, tracking progress and problem areas in learning. In the process of learning computer science with the application of innovative technologies, the computer acts not only as a source of information, but also as a learning tool and a powerful tool that allows to intensify the process of cognitive activity, contributing to the development of resilience and building skills to navigate and adapt in their work. Therefore, a computer science teacher should set a goal-to provide a positive motivation for learning, to enhance the cognitive activity of students, and to achieve this goal, in addition to the development of knowledge, it is equally important to master the techniques with which you can receive, process and use new information.

For a more complete disclosure of the above provisions indicate those sections of computer science, which should go to the training of specialists. the concept of information, methods of storage, processing and transmission; problems of artificial intelligence, ways to represent knowledge and manipulate them; the role of computer science in the Humanities; the structure, principles and basic concepts of computer capabilities; the main types of algorithms; programming languages and standard software professional activities; fundamentals of functioning, hardware and software computers. The student must be able to: work with the operating system; prepare a text document using a text editor; conduct tabular calculations using a spreadsheet; use a database management system to solve problems; to set an economic task and be able to bring it to the solution algorithm and, if necessary, to develop a program for its solution in algorithmic language: to use databases of global computer networks (for example, the Internet) to obtain current information necessary for solving problems in the field of international economic activity.

Conclusion: Classes using interactive technologies, including multimedia presentations allow students to visually assimilate educational material. Multimedia presentations in teaching computer science provide: intensification of training activity of students, individualization of learning, development of independence, motivation, etc. 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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