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DESIGNING THE STRATEGY OF STUDENT INDIVIDUALITY IN INDEPENDENT RESEARCH ACTIVITY

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Abstract
This article describes the essence of scientific research on the problem of organizing students' independent research activities. In it, special attention is paid to the theoretical foundations of organizing students' independent research activities, the forms, methods and means of organizing this process. Pedagogical and psychological aspects of organizing students' independent research activities and criteria for determining the level of formation of students' independent work skills and qualifications are discussed.

Keywords: research, individual education, method, information technology, independent activity.

Introduction

In all areas there is always a need for independent research and training in a certain direction. The value of self-study, especially in the field of technical sciences, is increasing every day. In the developed world, independent learning is widely promoted, and this method of learning leads to regular improvement in the work process and professional skills. In general, self-study is very important, it is one of the main factors of economic development and serves to increase the country's competitiveness in the world market.

The content of the subject or subject is in the first place in the development of students' creative abilities. Also of great importance is the structure of the educational material and the way it is presented. If we want to acquaint students only with new information, it is enough to give ready-made theoretical conclusions [1]. Not only to inform them, but also to develop the creative abilities of students in the learning process, it is necessary to explain to them what factors the studied processes are based on and how the correctness of the theory is confirmed by observations and experiments. be

It is known that the training of specialists who meet the requirements of modernity is one of the urgent problems facing higher educational institutions. Solving the complex problems of teaching and educating young people depends on the worldview, professional skills, talent and culture of teachers, the use of modern pedagogical and information technologies, and the involvement of students in joint activities.

Independent research activity plays a key role in student learning. In his independent research activity, the student consolidates, expands, deepens the knowledge gained in lectures and practical (laboratory)

classes, generalizes or privatizes concepts or their properties, applies the acquired knowledge in practice - when solving questions or problems, independently seeks solutions and chooses the most suitable and effective solutions, prepares for future lectures, practical and laboratory classes [2].

It is necessary to form the basis for the independent research activity of the teacher, create the necessary conditions and opportunities that encourage and encourage the student to conduct independent research activities, and ensure the active participation of the student in this activity.

In general, regardless of what type of educational material the independent research activity of students is aimed at, independent work tasks (and developments) are recommended for it. Such tasks should be constructed in such a way that they serve as the basis for the full and high-quality performance of the student's activities.

Independent works differ from each other depending on the didactic goal, task, level of complexity and who they are intended for. It is very important that the chosen topics are scientific, systematic, interesting, related to practice, interdisciplinary, as well as the creative nature of this independent work and assignments [2].

When preparing independent work and assignments, it is necessary to take into account the state of the audience, that is, the area of training of students, the set of knowledge they have, the average performance of students.

The set of existing knowledge of students should be sufficient to complete tasks created for independent research activities, that is, the teacher must provide students with the sources of information necessary to complete tasks in the types of lessons. Independent work and assignments must meet the following requirements:

- fully include all the information (concepts and ideas) given in the report about the goals and objectives of the subject and indicate in it the application of methods;
- be devoted to the basic concepts of the theoretical and practical part of the subject and the use of properties and methods that serve to reveal the main idea;
- to ensure the connection of concepts, ideas, methods and results of the subject with the concepts, ideas, methods and results of previously studied subjects (in previous educational systems);
- enough tasks for students with different abilities according to the level.

The goal of training is to achieve 100% mastery of the students in the group. Students who scored 56% -100% of the maximum possible points on the total result of the types of control carried out in certain sections or topics of science are entitled to use [2].

Accounting for the availability of these various opportunities for students when creating independent work and assignments is an important factor in the effective formation of independent research activities of students. That is why it is desirable to compose tasks on topics of several levels of complexity. Below are recommendations for creating independent tasks of three different levels of complexity in general electrical engineering:

Tasks of the 1st type should be performed directly using the definitions and properties given in the lessons. Such tasks require performing simple, elementary tasks based on samples.

Type 2 tasks should be based on the ability to use the ideas and methods needed to cover a particular topic. Such tasks require their practical use in solving a problem or task.

When performing tasks of the 3rd type, the student independently looks for ways to solve the problem. When solving such problems, the student uses additional literature and the Internet.

The student must be completely free in independent research activities. He chooses the time, form, method, means and types of tasks for independent work based on his interests, capabilities and desires. For example, type 1 assignments must be completed by all students in the group. It is not necessary for everyone to complete tasks of the 3rd type, the students who can complete the tasks of this stage will be the most capable and knowledgeable students in the group [3].

Such tasks are educational and evaluative, and their implementation makes it possible to assess the level of assimilation of educational materials by each student himself and the teacher:

A student who completes only tasks of type 1 will receive 55-70 points, deserving a grade of "satisfactory". Students who completed only tasks of the 1st and 2nd type receive 71-85 points, which deserves a “good” rating. Students who complete the tasks of all three stages will receive 86-100 points, worthy of an "excellent" grade.

In addition to all the tasks of the above type, students who are able to complete tasks of the 3rd type not only deserve an excellent mark, but are also considered talented students in the group, and the teacher will guide the abilities and talents of students. these students to the same goal in the future, to improve their knowledge, should develop deepening measures [3].

In addition, since tasks of varying complexity are instructive, each task is strictly ordered according to the level of complexity, that is, from simple to complex, that is, from simple to complex. The preparation of such tasks requires more time, diligence, patience, diligence, sufficient knowledge, experience, skills, in a word, high pedagogical skill from the teacher.

If knowledge is independently understood, felt, mastered, faced with difficulties, then this knowledge will be fully and deeply assimilated. All this will depend on responsibility for the subject being studied, learning skills, effective use of time when planning work activities, self-control, correcting mistakes, etc. Continuous mental activity of the student develops the need for mental activity and teaches students to rationally use time. At the same time, it will be possible to develop independent educational activities of future specialists, ensure the commonality of educational and scientific work, involve students in research work, and on the basis of this it will be possible to improve the quality of training of mature specialists [4].

It is known that in all educational institutions of our Republic a number of studies are being carried out on the use of modern pedagogical and information technologies in the conduct of the educational process, the organization of the educational process at the level of world standards.

The goal of the direction "Informatics and Information Technology" in all undergraduate educational programs is to improve the general ideas about the processing, storage, transmission and use of information using modern computer technologies. The tasks of science are: to establish the use of the computer as an assistant in everyday mental activity; to give knowledge about information culture and its importance; formation of modern concepts of telecommunications, virtual reality, multimedia; ability to use information technology; consists of getting acquainted with the security issues of using IT tools, legal aspects of using intellectual property and software, etc.

Conclusion

As a result of studying the science of computer science and information technology, the ability to use the laws and methods of collecting, transmitting, storing and processing information and using high-speed computers and other modern information technologies is formed.

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