

## THE USE OF CASE-STUDY TECHNOLOGY IN THE FORMATION OF STUDENTS' KNOWLEDGE OF COMPUTER HARDWARE

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### ABSTRACT:

**One of the main tasks of modern education is to discuss the role and effectiveness of the use of new innovative technologies for the effective organization of education.**

**The purpose of this article is to develop students' critical thinking and independent work skills through the use of interactive methods in the study of computer hardware in higher education. materials are given.**

**Keywords: interactive methods, case-stage technology, application methodology.**

### INTRODUCTION:

In the context of a competent approach to education, it is important to develop a system of skills and abilities to work independently, to cultivate a culture of independent activity of students.

In the modern educational process, the lesson is considered as a form of organization on the basis of pedagogical technologies. , allows you to develop the qualities of curiosity. [1].

Nowadays, teachers realize that knowledge, skills and abilities alone are not enough for this, it is necessary to study the technological processes of education, to change the content of lessons. In this regard, the most important thing in the educational process is, first of all, the need to form teaching technologies that guarantee and update the formation of each student's personality and his activities.

It is necessary to create such a learning environment for the student to try to get new

results of their activities and then successfully apply them in practice.

Therefore, interactive educational technologies are the most realistic way to provide students with a positive motivation to learn computer hardware, the formation of pedagogical conditions for increasing students 'sustainable cognitive interest in science, improving the quality of knowledge and developing students' abilities. creating conditions and applying them. [3]

Obtaining the necessary information not in a ready-made form, but in the process of research and creative thinking, the search for ways to solve this problem has led to an expansion of the use of case technology in higher education.

There are many different methods and technologies of teaching today, but learning using case studies directly has a special place in education. This method consists of various elements that contribute to the improvement of the educational process. In today's rapidly changing information and communication technology, the teacher must be able to know their subject professionally and present information to students correctly, as well as the ability to use modern innovative technologies in teaching. must have. It must engage students using the available educational opportunities.

The case technology method describes a specific variant of research technology, or in other words, combines analytical procedures and activities of the research process. This technology is a method of collective learning that incorporates the technologies used in

developmental education, forming unique personal qualities in students. Keys technologies can be described as a composite system that includes methodologically simpler methods. It incorporates approaches such as description, game method, mental, problem, system analysis, modeling, which help to perform certain roles in the case technology method.

The case study method, the plan of work on each problem or topic, the details of their implementation, the sum of the results and conclusions form a separate case. This method is aimed at using real-life situations in the educational process. This is one of the most pressing issues in education today. The fact that it is possible to solve this problem shows the importance of this method.

The application of the Keys-stage teaching method in the study of various situations - from the educational process aimed at organizing the study of typical real-life situations or requiring learners to look for appropriate solutions to relevant problems based on artificially created situations consists of.

This method allows learners to diagnose relevant life situations, express hypotheses, identify problems, gather additional information, clarify hypotheses, and model practical activities to design problems and specific steps to implement them.

The use of case studies in real-life situations connects the learning process with real life. When reviewing a case, learners create a learning process. In the process, they interact in a real way. Keys gives learners the freedom to analyze, compare, and solve problems.

#### **THE ESSENTIAL FEATURES OF THE CASE-STUDY ARE AS FOLLOWS:**

1. The existence of a model of the institutional system, presented in the form of a situation that

restores the real state of affairs at a certain discrete time on the main parameters;

2. The problematic nature of a given situation;

3. The situation is not fully schematic and, as a result, has an ambiguity that requires independent, non-standard solutions;

4. The fact that the solutions have many alternatives, each participant offers his own option based on his knowledge, experience and intuition;

5. The optimal solution of the problem situation is developed individually, then as a team and presented in public (it is also allowed to work with the case absolutely individually and present the results individually);

6. Problem situation analysis and the sole purpose of developing its solution;

7. Group performance appraisal system;

8. Presence of controlled emotional tension in learners;

9. The teacher and the listener are both responsible and free in the learning process:

- The teacher is responsible for the preparation of the case and its teaching and methodological support, as well as its effective use;

- The listener is responsible for the preparation for the lesson and the effective completion of case studies, while at the same time being free to develop solutions and conclusions based on the analysis of the problem situation;

- The listener may make mistakes in analyzing and solving the problem situation in the learning environment, but he / she should feel responsible for the wrong decision made in real life;

10. Combining transparency and persistence in education in planning and achieving learning outcomes. [2]

As a result of the widespread penetration of modern information and communication technologies in all areas of the education system, the level of use of personal computers and

laptops, as well as other types of computer technology in various fields is growing. and the existence of some of the negative consequences that lead to it, and ways to correct and eliminate them. We will explain the ways to do it in the case-stage method.

We know that computers consist of the following set of peripherals, such as a printer, scanner, plotter, and projector, and that all of these devices need to be fully functional in order for it to work effectively. Here are some common problems and situations that can occur when working with computers.

Keys statement. A personal computer consists of two organizational parts. These are hardware and software.

Hardware — is primarily the basic hardware and peripherals of a computer.

Case in point: Devices connected to the computer (printer, scanner, projector) do not work, what do you do?

The student must:

| Problem                                | Solution | The result   |
|--|----------|--|
| Devices connected to the computer fail |          | If these solutions are followed, the device will work. |

Teacher's recommendation:

| Problem                                | Solution  | The result   |
|--|---|--|
| Devices connected to the computer fail | <ol style="list-style-type: none"> <li>1. Check that the device cable does not touch the network connection point;</li> <li>2. Check if there is a program that starts the device;</li> <li>3. Check if the program is corrupted or infected by a virus;</li> <li>4. Reinstall the program in case of corruption or non-existence;</li> <li>5. If the supply unit is connected incorrectly, it must be reconnected;</li> <li>6. The system unit is not working, ie one of the loops or ports connecting the devices may be out of order;</li> <li>7. The monitor screen indicates a problem with the system unit;</li> <li>8. The printer does not receive electricity;</li> <li>9. The computer does not transmit any data to the printer (driver installation);</li> <li>10. The computer software may be damaged or broken. Periodically update the system software from the Internet. By cleaning, scanning and defragmenting local disks.</li> </ol> | If these solutions are followed, the device will work. |

The study concludes that the use of basic requirements, technological features and conditions for the formation of situations allows the formation of analytical, creative, practical, communicative, social skills. [5]

Almost every modern teacher can apply the case technology method at a high level after studying the required literature and undergoing training if they wish. Keys method technology is implemented taking into account the curricula, goals, objectives, and technical equipment of a particular subject. It is important to take into account the interests and needs of students, their level of knowledge, as well as other factors that contribute to the preparation, implementation and effective implementation of case technology in the educational process.

The student's acquisition of the highest level of goal-setting competencies is fully consistent with the logic of analytical work on complex situations in the assessment of the structure of the situation, the identification of cause-and-effect relationships, solutions. During this question case, the student will gain knowledge and skills in the operation of all major and peripheral devices and software of the computer.

This means that case technology is not a goal in the teaching profession, but a key tool for the formation of competencies that go beyond the educational space.

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