

PROBLEMATIC EDUCATIONAL ROLE IN CONDUCTING EXPERIMENTAL TRAINING

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ABSTRACT: The article describes the tasks of organizing the educational process based on the method of problem-based learning. Also in this research describes community development and the education system pay particular attention to the issue of increasing attention to the level of knowledge of general secondary school students and professional training of graduates of higher education as well.

KEY WORDS: Pedagogical technology, education, problematic situation, problematic education, educational method, experimental work.

INTRODUCTION

Ensuring the future development of the state and society requires our independent Republic to take a place among the developed countries, to prepare the young generation as a well-rounded person and qualified specialist. Wide implementation of modern pedagogical and information technologies, arming graduates with an integrative knowledge system, and instilling in the minds of graduates that forming a scientific worldview in them is one of the main tasks before the higher education system.

Community development and the education system pay particular attention to the issue of increasing attention to the level of knowledge of general secondary school students and professional training of graduates of higher education. The development of society is inextricably linked with the development of education, and its main problem is not only the search for ways to learn the constantly

growing amount of knowledge or to find the right way in the ever-increasing flow of information, but also to be able to use the space of collected information wisely, related to everyday life, one's profession it is important to sort out, analytically master, improve and develop the most necessary knowledge.

LITERATURE REVIEW

At the plenary meeting of the President of the Republic of Uzbekistan on "Reforms in the field of education" on March 28, 2022, the President of our country spoke about measures to update the material and technical base of schools, increase the number of teachers armed with advanced innovative methods and ideas, use innovative methods in the classroom, and further improve general secondary education. At this meeting, the President defined the priorities to be implemented in the future. First of all, a nationwide project on retraining school teachers based on a new methodology has been launched. Within the framework of this new system, in the next 3-4 years, all classroom teachers in schools will be trained on the basis of the new methodology. For this:

- Until June 1, national training centers for training pedagogues in new methods will be established in each regional training center;
- These centers attract the most qualified experts from abroad in exact and natural sciences such as mathematics, physics, chemistry, biology, IT;
- With the help of foreign specialists, "teams of trainers" are formed in each region, consisting of teachers of universities, national educational centers and mobile groups;
- These trainers directly improve the qualifications of school teachers. Bonuses of up to 100% of their monthly salary are paid [2].

In total, an additional \$100 million will be allocated to implement the above new systems.

Taking into account the current demand, the introduction of new innovative technologies into the field of education is an important process. Innovative technologies are showing their reflection in all fields. In particular, with the development of humanity, innovative ideas and innovations are developing step by step.

Our experience of using modern pedagogical technologies in mastering the content of our updated education system in our republic has shown that it is appropriate to study the best practices in the traditional methodology and modernize it. Problem-based learning is problematic under the leadership of the teacher the situation is created, and this problem is active among students creative knowledge, skills and abilities as a result of independent activities education that allows for the development of mastery and mental activity organization of the process is envisaged. Also problematic The essence of teaching is the teaching of pupils-students by the teacher creating a problematic situation in their work and educational tasks, new knowledge by solving problems and questions management of their cognitive activities on mastering. This creates a scientific-research method of acquiring knowledge brings [12] .

There are always two approaches to the problem. A problem in science is a theoretical or practical question that does not yet have an answer and requires study, that is, research. A problem in education is an answer that is not yet known to the learner, but is available in information sources, educational materials or information given by the teacher, to the knowledge of the learner. The challenger is told an important question about education. For example, when constructing an algorithm, the reader may get two different results. This example will be problematic if the order of performing the actions is not known to the reader beforehand. If the student knows how to perform actions, this will be an informational question.

Pedagogical definition of a problematic situation is a specific type of interaction between the studied object (theoretical practical material or problem of

knowledge) and the teaching subject (learner) is called a problematic situation. Psychological definition of a problem situation - the process of mental difficulties arising in a problem and searching for ways to solve it is called a problem situation. Methodological definition of the problem situation - in education, setting a problem is called a problem situation in the process of understanding the purpose and essence of a problem question, separating the known and unknown in it, connecting them, planning to find the unknown based on the known [10].

RESEARCH METHODOLOGY

Let's clarify the problem, the form of problem education, the forms of problem situations, the method of problem education, its characteristic features. First of all, problem-based education is not a method of education, but a form of special education. The method of problem-based learning is a heuristic method.

The following conditions must be met for problem-based education:

1. Creation of a problematic situation.
2. Formulate a learning problem from a given problem in a problematic situation and express it.
3. Traceability of the educational process.
4. The learner should have sufficient knowledge, be ready for the problem and be interested in solving the problem.
5. The learner should be active.
6. Learner can work independently.

The lesson will be problematic only if the stated conditions are met.

Definition of problem-based learning: a learning process created on the basis of solving problem situations is called problem-based learning.

The activity of the teacher in problem-based education: when necessary, he explains the content of the most complex concepts, regularly creates problematic situations between the studied topic and students, informs students of the facts.

Pupil's activity: draws conclusions based on the analysis of subjects independently, expresses concepts, rules, learns to apply them in new situations, forms skills of mental operation and practical application of knowledge.

Forms of problem situations:

1. Setting the problem clearly and succinctly by the teacher.
2. By creating a problem situation, the student himself understands, finds and describes the problem.
3. To solve problems that are not clearly stated, the student after the problem situation encounters new additional problems and solves them by creating new problem situations.
4. In the educational process, the student independently determines a new problem that was not intended by the teacher.
5. Solving problems that contain unknown elements, relationships, or properties by creating problem situations or performing goal-oriented tasks and assignments.

A problem task: a problem question with a clear condition, set by the teacher, with a limited range of answers.

Problem task: A problem question and a task in the form of a question (educational problem) that leads to a problem situation together.

General rules for activating students' cognitive activities and using their intellectual capabilities at a high level through problem-based learning:

1. Compilation of a system of problematic questions related to the taught subject materials.

2. To teach the material of the topic explained by the interview method based on the system of structured problem questions and to reveal its essence.
3. Setting educational tasks and tasks of a research nature based on problematic questions.

In education, it is always possible to pose and define a problem, but problem-based learning cannot be organized on the basis of any topic.

ANALYSIS AND RESULTS

The process of teaching informatics and information technologies to students can be conventionally divided into three types: lectures, practical training, experimental training. Let's look at some experiences of organizing practice sessions, keeping in mind the importance of other forms of lessons.

In order to increase the creative activity of students, a special method of group practice was developed. Students are divided into four groups of three at the beginning of the lesson. Each student is assigned a number from 1 to 12 in conditional admission. In advance, visual aids, textbooks, and a consistent protocol for conducting the experimental training for each student will be prepared for each group.

As an example, the minutes of the experimental training on the topic "Microsoft Word" are given. At the beginning of the experimental session, students sit at pre-prepared tables in the following order: at table 1, students with order numbers 1, 2, 3, 4 sit, at table 2, order numbers 5, 6, 7, 8, and at table 3, order numbers 9, Students who are 10, 11, 12 work. Under the guidance of the teacher, groups of students thoroughly familiarize themselves with the steps of performing an experimental exercise at the desk allocated for them.

Order No. 1 includes a complete tutorial on the Microsoft Word text editor on the desktop. The topic of this tutorial is "Using Tables in Microsoft Word" and the instructions are complete.

Order No. 2 contains a full tutorial on how to use Re-censoring operations in the Microsoft Word text editor.

Order No. 3 includes a complete tutorial on the Microsoft Word text editor. For example, below is the full text of Experiment 3 on the desktop. The topic of this tutorial is "Working with blocks in the text editor Microsoft Word", which can be summarized as follows:

3-Practice session:

PURPOSE OF THE WORK: To develop students' skills in working with fonts and colors.

EXPERIMENTAL TASKS:

1) text input; 2) editing; 3) separate phrases into blocks; 4) change text color; 5) change the text size.

METHODOLOGY GUIDE

Using special methods of processing information in the form of text, it is possible to separate the text in its entirety or its separate part, if necessary, a separate phrase, word or even a single symbol as a block. This can be done in two ways. In the first method, using the mouse, the cursor is brought to the border of the phrase that needs to be blocked, and the mouse is moved by pressing the left button. In the second method, while pressing the Shift key, the cursor is moved with the -> key. We can see that the highlighted part of the text is painted in black. In this case, it is possible to perform the special actions specified in the Main or Retsenzirovanie menu on the selected part of the text. For example, after the block of text is taken, press the Home button, select the Size action, and select the number 48 in the active window and press the OK button. It is observed that the selected piece of text is dramatically enlarged. To edit the color of a selected text piece, an arbitrary color is selected by successively activating the Main - Font - Color text actions. For example, it is required to replace the word "Olma (Apple)" with the word "Pomegranate" throughout the text. Initially, the word "Ol-ma" is

separated like a block. Then we select actions from Glavnaya - Redaktirovanie group and enter the word "Pomegranate" in the active window and click OK. As a result, the word "Apple" is replaced by the word "Pomegranate" throughout the text.

CONCLUSION

The successful acquisition of new knowledge by students during practical training is related to the creative activity of each student participating in the practical training, which increases the sense of responsibility in each student. Practical testing of theoretical knowledge through practical training, strengthening of knowledge through independent study of theoretical materials. During the lessons, the teacher communicates with students individually, directly monitors their work, mastery of the subject. When students analyze the tasks and results obtained in this way, all students become an active group that is learning new knowledge as a team, and each student becomes an active participant, both listening and speaking. Students are on their own during practice sessions. understand, strengthen and expand existing knowledge, learn to apply this knowledge, which is necessary for professional development.

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