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METHODS OF USING EDUCATIONAL TECHNOLOGIES IN TEACHING ENGINEERING SUBJECTS

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Abstract
In general, the teaching profession is, by its very nature, highly individual. An important life role of each teacher is to be a master of his work, that is, to conduct advanced research in all aspects of science for the student. A teacher is described as very advanced, knowledgeable, or skillful in his work. The skill of a teacher is manifested in his work. First of all, a teacher must have a good grasp of the laws and mechanisms of the pedagogical process, including the generalized skills of a teacher. The technologies of his pedagogical techniques are of great importance.

Keywords Educational technologies, highways, transport, technology, science, development, educational principles.

Introduction

Today, modern teaching methods are widely used in the educational process. The use of modern teaching methods leads to high efficiency in the educational process. When choosing teaching methods, it is advisable to choose them based on the task of each lesson. Today, while preserving the traditional form of the lesson, enriching it with methods that activate the activities of various learners leads to an increase in the level of mastery of learners [1].

MATERIALS AND METHODS

It also requires that the lesson process be organized rationally, that the teacher increase the interest of learners and constantly encourage their activity in the learning process, that the educational materials be divided into small parts, that methods such as brainstorming, working in small groups, discussion, problem-oriented text, projects, role-playing games be used to explain their content, and that learners be encouraged to complete practical exercises independently. (1-figure)

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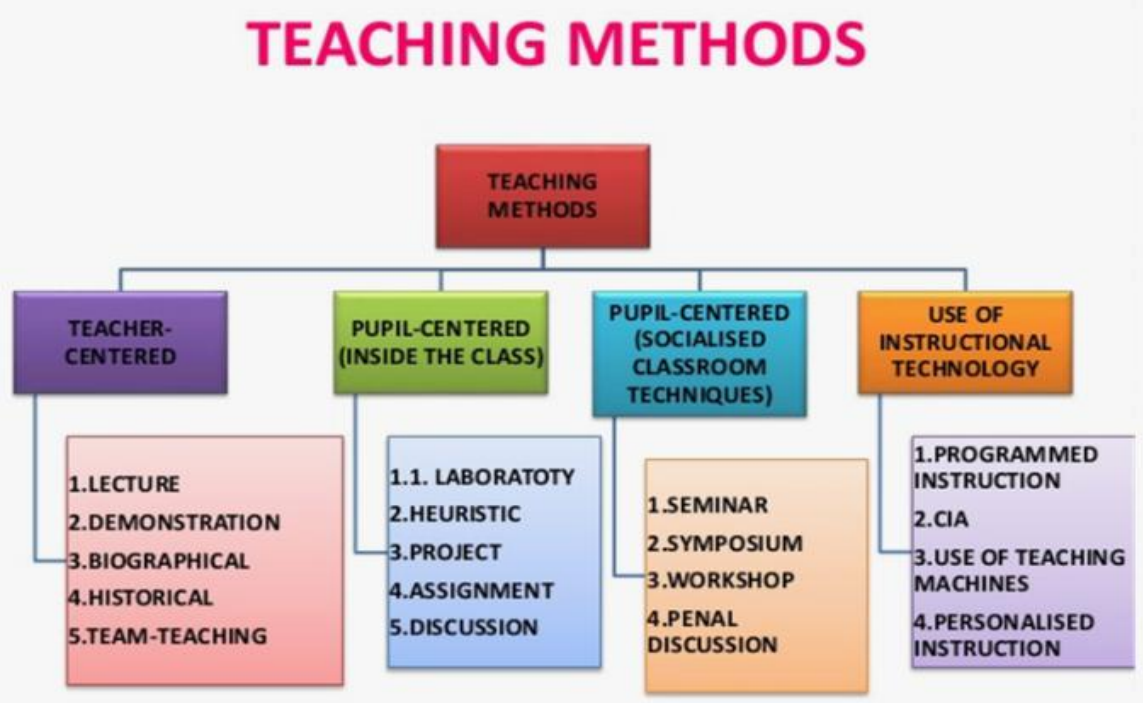

1-figure. Educational technology method

Interactive methods are methods and technologies that activate learners and encourage independent thinking, and that place the learner at the center of the learning process. When these methods are used, the educator encourages the learner to actively participate and provides sufficient guidance. (2-figure)
The learner is involved throughout the process [2].

RESULTS AND DISCUSSION

The importance and relevance of innovative pedagogical technologies in engineering education are analyzed. Innovative pedagogical technologies, such as interactive lessons, virtual reality, and online platforms, play an important role in making the educational process effective and interesting. They provide students with the opportunity to apply theoretical knowledge in practice, help develop practical skills, and increase their motivation. These technologies also improve preparation for the modern labor market and allow for individualization of the educational process. The article shows the importance of improving the quality of education and preparing students as successful future professionals through the implementation of innovative approaches in engineering education.
The benefits of a learner-centered approach include:
- higher educational effectiveness of learning;
- The learner should be highly motivated;
- taking into account previously acquired knowledge;
- Adapting the intensity of learning to the needs of the learner;
- Support for learner initiative and responsibility;
- must be learned through practice;
- Conditions for two-way feedback should be created.

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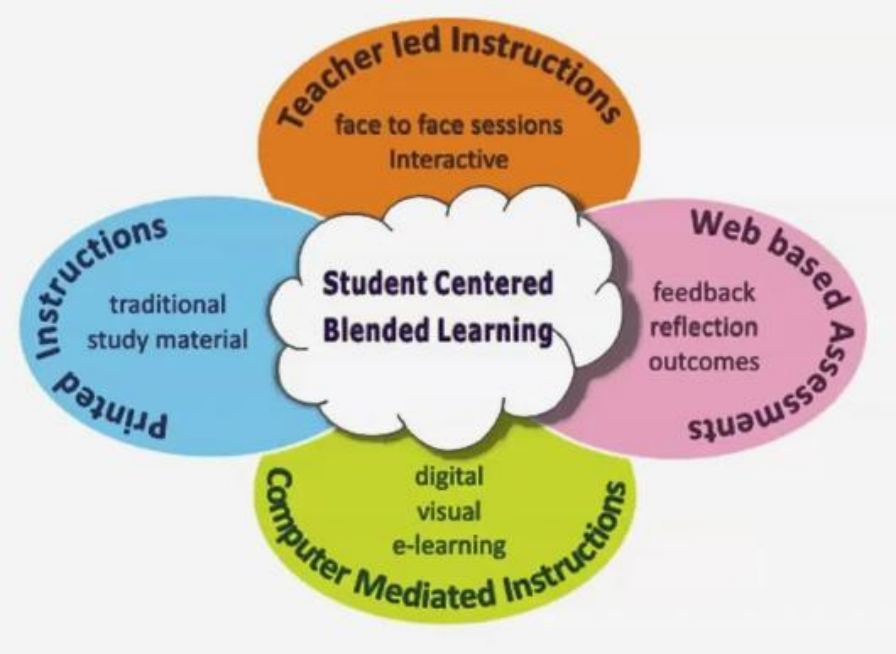


2-figure. Educational technology

This educational technology is a creative work in the lesson, aimed at activating students by dividing them into small groups to study the educational material or complete the assigned task [3]. When using this method, students work in small groups, have the right to actively participate in the lesson, act as leaders, learn from each other and appreciate different points of view. When using the “working in small groups” method, the teacher has the opportunity to save time compared to other interactive methods. Because the teacher can simultaneously involve and evaluate all students in the topic [4].

Below is the structure of the “Working in Small Groups” method.

The steps of the "Work in Small Groups" method are as follows:

1 The direction of activity is determined. Related issues on the topic are identified.

2 Small groups are established. Learners can be divided into groups of 3-6 people.

3 Small groups begin to complete the task.

4 The instructor provides clear instructions and guidance.

5 Small groups make presentations.

6 Completed tasks are discussed and analyzed.

7 Small groups are evaluated.

The advantages of the "working in small groups" method are as follows:

• leads to better mastery of the learning content;

• leads to improved communication skills;

• saves time;

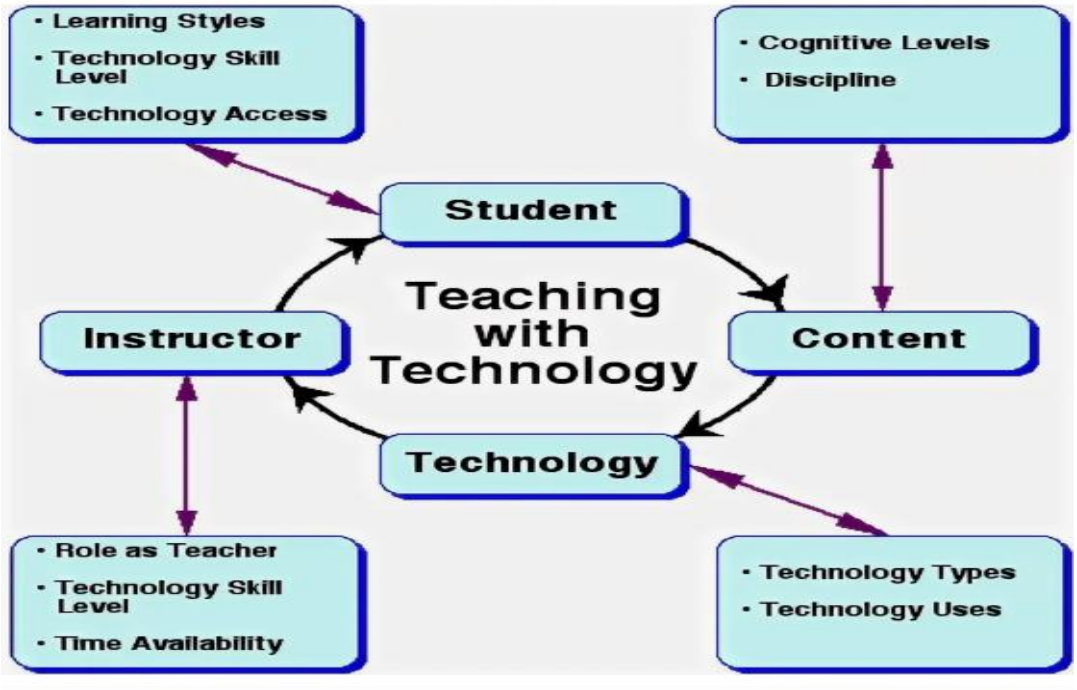
• involves all learners;

• allows for self- and peer-assessment.

The disadvantages of the "working in small groups" method are as follows:

• Since some small groups contain weak learners, there is a possibility that even strong learners will receive low marks;

• The possibility of monitoring all learners is low;
• Negative competition between groups may arise;
• Conflicts may arise within the group.(3-figure)



3-figure. Teaching with technology

Innovative pedagogical technologies used in engineering education The following innovative technologies are currently actively used in engineering education:
•Digital learning platforms – organizing classes through Moodle, Coursera and other distance learning platforms
•Individual learning programs based on artificial intelligence – Algorithms that recommend appropriate learning materials for each student.

Conclusion

In conclusion, today the role of educational technologies is gaining great importance. Educational technologies are being used in higher educational institutions. Based on the priority tasks of the country's socio-economic development, improving the content of personnel training and training specialists with higher education in line with international standards requires a technological approach to education.
In our republic, large-scale, clearly targeted measures are being implemented on a large scale to create the necessary conditions and opportunities for raising a healthy and harmonious generation, for young people to realize their creative and intellectual potential, and for our country's young men and women to grow up into well-developed individuals who fully meet the requirements of the 21st century.
- further strengthening the material and technical base in the field of education and upbringing of the growing younger generation, ensuring its rational and effective use, and improving state

educational standards, curricula, and educational and methodological literature, paying special attention to the existing demand for trained specialists in the real economy and engineering sectors;

- further strengthening the material and technical base in the field of education and upbringing of the growing younger generation, paying special attention to the existing demand in the field through the widespread introduction of new information and communication and pedagogical educational technologies, electronic textbooks, and multimedia tools into the educational process, ensuring its rational and effective use;
- further development of modern information and communication technologies, digital and wide-format telecommunications and the Internet system;
- it is planned and is being implemented to develop comprehensive measures to further develop science, widely involve talented and capable young people in scientific activities, and create conditions for them to realize their creative and intellectual potential.

In recent years, significant measures have been developed to create a unified education system. Greater emphasis has been placed on radically improving the efficiency of education and preparing young people for independent life.

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