TEACHING THE DEPARTMENT OF VECTOR THEORY WITH THE HELP OF MODERN PEDAGOGICAL AND INFORMATION TECHNOLOGIES

Senior teacher Sh. Karimova
Student of the 25th MSSMSM-21 group, **Akbarov Saidullahon**
NamMQI

Abstract

Today, the need for mathematics is increasing. In the educational process, innovative pedagogical technologies and quality of education are considered as the most effective tools. In order to improve the quality of education, this article discusses the effective use of pedagogical and information technologies in solving problems related to vector theory and geometry, what to pay attention to, and how to apply them in practice.

Keywords: theory of vectors, problems related to vectors, problem solving processes and procedure, effectiveness of using pedagogical methods.

Introduction

After the independence of Uzbekistan, fundamental reforms are being carried out in the field of education as well as in all areas. The main goal of the reforms in this field is to update the content of continuous education, to raise it to the level of the world educational standard, to apply advanced pedagogical technologies to the educational system, and to train highly qualified scientific and pedagogical staff.

In the educational system, the final result directly goes back to how the work of the teacher who implements the educational process is organized. The enormous tasks assigned to education require changing the attitude and approach to education. A number of goals have been announced for new pedagogical technology that should embody this attitude and approach. However, the current pace of reforms requires that the existing theory be put into practice as soon as possible. For this reason, first of all, the idea of expanding and deepening the educational content and its structure, in particular, including not only knowledge, skills and competences, but also the experience of creative activity, relationships with the environment, which form the universal human culture, was put on the agenda.

In the context of the new education system, there is a need for a new approach and organization to the design of the educational process based on the curriculum and textbooks. Studying the experience of introducing pedagogical technology and a creative approach to it, humanizing the educational process, turning the student from a passive object into an active subject, is important in ensuring clear, goal-oriented cognitive activity and reproducibility of the educational process as a production process.

We cover a two-hour practical session on teaching the subject of vectors in the teaching of mathematics using new pedagogical technologies and modern information technologies.

Technological map of practical training

Stages and time of work Activity content	Activity content	
	Educator	**Learners**
Stage 1 **Enter** **(5 min.))**	1.1. The topic, its purpose, the results expected from the training session are known. (group attendance is taken and group journal, calendar plan is filled)	1.1. They listen and record. (the group leader introduces the attendance of the group)
Stage 2 Main 5 min 10 min 15 мин	The lesson starts with problem questioning and Blitz question and answer. 1. What formulas do you know for finding the face of a triangle? 2. Give the definition of a vector 3. How to find the angle between vectors? 1. The processing of one example on a new topic is shown on the projector and it is required to solve another similar example. Another example is shown on the board. 2. Examples of a new topic will be given before the evaluation. 3. A question-and-answer session in the form of a "Quick question-and-answer" game will be held to repeat what has been learned and to reinforce a new topic. 4. Students are given to fill in the table on the new topic.	1. Барча талабалар оғзаки ўз фикрларини билдирадилар. Учта кичик гуруҳ бўлиб ўтирадилар. 2. Кластерни гуруҳ бўлиб тўлдиришга ҳаракат қиладилар. 3. Ёзиб оладилар, 1. All students express their thoughts orally. They sit in three small groups. 2. They try to fill the cluster as a group. 3. They write down, solve the example and teach it to the group members. 4. They listen, record, ask questions. 5. They solve the examples and teach them to all members of their group.

			6. They try to answer the questions asked quickly. 7. discuss, fill in.
15 мин. 15 мин 10 мин.			
Stage 3 Final 5th min	Homework assignment will be displayed on the projector until the results of the completed table and the scores of the small groups are calculated during the lesson. According to the results, the winning group will be determined and the students who actively participated will be evaluated.		They write homework.

New pedagogical technologies used in this practical training lesson can be given to students about "Blitz-survey", working in small groups, clustering and filling. At the same time, information technologies can be used in a very broad sense during the coverage of a new topic. It is especially useful to use the concept of vector and complex multiplication in the drawing to illustrate its geometric meaning.

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