CURRENT ISSUES IN MATHEMATICS TEACHING METHODOLOGY

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Abstract. Mathematics education is one of the most important factors determining the level of economic and socio-political development of a country. The article examines current problems in teaching mathematics and provides recommendations for solving them. A brief summary of the essence of pedagogical technologies and their role in the process of teaching mathematics is given. The fundamental difference between a modern lesson and a traditional one, as well as the requirements of mathematics teachers, are given. The methodology of teaching mathematics in universities is analyzed.

Keywords: new pedagogical technologies, intellectual thinking, didactics, methodology, cognitive activity.

INTRODUCTION

Currently, secondary and higher education in Uzbekistan is in a state of active change, which is accompanied by the introduction of new educational and information technologies in teaching both mathematics and other disciplines and its comparative analysis with foreign experience.

Thus, the national education program of the Republic of Uzbekistan is aimed at updating the content of education in order to improve its quality and efficiency. Today, government decisions on large-scale reforms in the field and improvement of the content of education require improving lifelong learning, increasing the effectiveness of education and developing a comprehensively developed generation for society.

In this regard, the problems of teaching mathematics in a modern university lie in the revision of the vast experience associated with enhancing the learning of schoolchildren and students.

MATERIALS AND METHODS

In addition, the science of "mathematics" is so serious that it is important to make it interesting, if possible, said B. Pascal. Based on this, the teacher must be able to instill in students a sense of creativity in mathematics, as well as motivate and formulate in the student the thought: "I need mathematics, I must be able to apply it."

At one time, the introduction and use of new pedagogical technologies in the learning process is associated with the given requirements of the time.

New pedagogical technology is a product of a specific target form of teaching, methods and tools. Observations show that in most cases the teacher works only in the classroom, and the students remain observers. This form of teaching does not stimulate students' intellectual thinking, does not increase their efficiency, and impairs creativity in the learning process.

RESULTS AND DISCUSSION

The fundamental difference between a modern lesson and a traditional one is that results mean not only subject knowledge, but also the ability to master it through active cognitive and communicative operations, and to apply this knowledge in non-standard life situations. Moving away from the traditional lesson through the use of new technologies in the learning process eliminates the monotony of the educational environment and the monotony of the educational process, creates conditions for changing the types of activities of students, and makes it possible to implement the principles of health conservation.

It is known that when teaching mathematics, choosing a suitable teaching method is important. The teacher should use interactive methods from simple to complex. Thus, teaching mathematics is

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one of the main parts of pedagogical science and is an independent study that studies the laws of teaching mathematics that correspond to the educational goals of society.

Let us note that the methodology of teaching mathematics is carried out in the third and fourth years of universities and pedagogical institutes. It is divided into three parts according to its structure [4]:

- general method of teaching mathematics: this section explains the purpose, content, form, methods of mathematics, its methodological system, pedagogy, laws of psychology and didactic principles;

- special methodology for teaching mathematics: this section describes how to apply the laws and rules of the general methodology of mathematics education to a specific subject;

- exact method of teaching mathematics: this section is divided into two parts: a) specific issues of general methodology;

b) special issues of special methodology.

For example, in the sixth grade of secondary school, the methodology of planning and conducting a mathematics lesson is a matter of general methodology. This shows that the structure of mathematics teaching methods should be improved.

We know that in a mathematics lesson, students learn to draw their own conclusions regardless of the first days of school. They draw conclusions first through observation and then logically. It is here that the task of a mathematics teacher should be to: - deeply study new pedagogical technologies and choose the appropriate teaching method, which are important in teaching; - actively use ICT in theoretical and practical classes; - teach students the ability to develop independent logical thinking skills and interest in learning mathematics; - to intensify the cognitive activity of students. Modern information technologies contribute to the activation of cognitive interest (the use of computer technologies requires the presence of multimedia equipment. The problem of equipping them with it is especially relevant for rural schools); - to form mathematical thinking and mathematical culture among students; - develop skills in using technical means and visual aids in teaching mathematics; - train schoolchildren to acquire mathematical knowledge independently (first of all, to develop in schoolchildren independent learning skills from textbooks and popular science textbooks on mathematics).

In our opinion, students should be able to easily carry out all mathematical calculations of subjects. However, learning a higher level of knowledge must include a basic level. Today this basic level is provided by minimal educational content.

Teachers should pay attention to the fact that students are attracted to tasks designated by various synonymous terms: problematic, creative, exploratory, heuristic, entertaining. Exercises in solving compound text problems for comparing expressions, requiring the use of patterns and connections in new conditions, should be used for children to pose problem situations.

Practical experience shows that the use of new pedagogical technologies outlined in [1] when teaching special subjects has given good positive results. Thus, several students, together with their supervisors, published scientific articles [2], and also distinguished themselves during pedagogical workshops in secondary schools.

CONCLUSION

In conclusion, we note that effectively organized educational activities are the most important means of developing a mathematical culture and such qualities of mathematical thinking as flexibility, criticality, rationality, and logic; their organic combination is manifested in the special abilities of a person, giving him the opportunity to successfully carry out creative activities.

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