

Possibilities of using Digital Technologies in Teaching Mathematics in Primary Schools

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Abstract: The article examines the possibilities of using digital technologies in primary mathematics education, as well as interactive platforms that primary school students can use to solve mathematical problems.

Keywords: Zoom, Google Meet, GeoGebra, Khan Academy, mathematics, PowerPoint, Canva, Socrative, Edmodo, Quizizz.

Introduction.

The potential of digital technologies in primary mathematics education is of great importance in the development of the education system today. These technologies can be used as interactive, effective and motivating tools in learning mathematics.

Students can use interactive platforms (e.g. GeoGebra, Khan Academy, Mathletics) to solve mathematical problems. These applications visually explain the solution to the problems, create opportunities for students to work independently and make the learning process interesting.

In the classroom or in distance learning, lessons can be held for students using virtual learning tools (Zoom, Google Meet), in which the teacher demonstrates various mathematical methods on the screen [1].

With the help of digital technologies, mathematical information can be presented visually using graphs, diagrams and drawings. This helps students better understand the concepts.

For example, using programs such as Geogebra, geometry, algebra and functions can be taught using interactive simulations [2].

Materials.

The famous psychologist R. Gottsdanker stated that “The goal of any experimental study is to ensure that the results based on a limited amount of data remain outside the experiment.”

As another scientist B. Ananев noted, based on the characteristics of the study, we used the following methods:

1. Organizational (comparison, generalization).
2. Empirical:
 - a) observational methods (observation and self-observation);
 - b) the method of educational experimentation;
 - c) psychoanalytic methods (standardized and designed tests, questionnaires, interviews and conversations);

- g) practical methods (description, work evaluation);
- d) modeling method (mathematical, etc.);
- e) biographical methods (analysis of pedagogical processes and evidence).

3. Quantitative (mathematical-statistical) and qualitative analysis methods.

4. The method of interpretation of the results obtained.

Research and methods.

In implementing the above, knowledge gained from mathematics will be of great importance. At the same time, the use of digital technologies in the study of mathematics will show high efficiency.

Students can test their knowledge through online tests as they learn mathematics. These tests allow students to process their knowledge in an interesting and effective way[3].

Students' mathematical skills can be developed through play. For example, mathematical games and applications can be used to teach them how to work with numbers.

Digital technologies can be used to organize lessons that meet the individual needs of students. If a student is struggling with a topic, the teacher can provide additional materials or exercises that are suitable for him.

Students' mathematical skills can be monitored and the effectiveness of working with them can be increased during the educational process.

Mathematica, Wolfram Alpha, and other programs make it easier to solve complex mathematical problems. These programs help students understand mathematical processes by showing them different solutions[4].

Digital platforms allow teachers to quickly and easily evaluate students' results. This helps to develop an individual approach.

Teachers can create their own interactive materials for mathematics lessons. For example, using PowerPoint, Canva and other graphic programs, mathematical content can be prepared.

With the help of digital tools, students can learn to work in groups. For example, online forums, discussion groups or online private groups can be used to solve problems and develop learning.

Digital technologies in mathematics education make it possible to conduct interesting, effective and interactive lessons for students. These opportunities help to consolidate students' knowledge of mathematics, deepen understanding and make learning more effective.

Interactive learning platforms are digital tools that allow students to increase their activity in learning knowledge, encourage independent work and establish effective communication with teachers. These platforms create many opportunities for learning mathematics and help to increase students' interest.

Results.

Here are some popular interactive learning platforms and what they offer:

GeoGebra is an interactive program used to learn mathematics, including geometry, algebra, statistics, calculators, and other mathematical tools. It allows students to create geometric shapes and diagrams, visualize algebraic expressions, and solve mathematical problems interactively.[5]

Khan Academy is a free online platform that offers a wide range of lessons, from mathematics to science and the arts.

The platform allows students to access video lessons and exercises on a variety of topics, test their knowledge through short quizzes, and provide personalized learning.

Discussion.

Mathletics is an online learning platform designed for learning mathematics from elementary to high school. This platform allows students to use interactive math games and exercises, solve various tests to assess and review their knowledge, track students' progress in real time, and work in groups, which promotes collaborative learning.

Desmos is an online math calculator and graphing platform that visualizes algebraic and functional calculations. The platform allows students to create and analyze functions and graphs, students to solve math problems, teachers to create interactive lessons and exercises, and students to experiment with graphs and geometry.

Conclusion.

Interactive learning platforms increase students' interest in learning mathematics, and allow teachers to conduct effective lessons, consolidate knowledge, and implement an individual approach. With the help of these platforms, students can independently solve mathematical problems and assess their knowledge in real time.

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