



## Digital Technologies in Mathematics Education Advantages

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### ABSTRACT

The following article provides information on the benefits of digital technologies in mathematics education. It talks about the benefits of ICT. Opinions were put forward that digital technologies make it easier for students to study mathematics, that calculations, examples and solutions performed in mathematics can be quickly, completely and legally concluded with the help of a computer.

### Keywords:

Skills, Mathematical, Engaging, Digital, ICT, feedback.

Digital technologies have transformed the field of mathematics education in recent years. They provide many advantages that traditional teaching methods cannot provide. Here are the benefits of digital technology in math education.

1. Engaging and Interactive Learning: Digital technology enables interactive and engaging learning experiences that make math lessons fun for students. Students can solve math problems, practice concepts, and access the materials they need online, anywhere and anytime. These interactive resources enhance students' knowledge and help increase students' interest in science.

2. Personalized learning: Digital technologies enable personalized and personalized learning experiences for each student. Using personalized digital tools, students can get instant feedback on their progress and work at their own pace, giving them the support they need to stay motivated and engaged.

3. Enriched learning resources: Digital technologies provide access to a wealth of resources for students, including videos, games, simulations, and other multimedia resources. These resources not only make learning fun and engaging, but also help students engage and

deepen their understanding of mathematical concepts.

4. Economy: Digital technology eliminates the need for traditional textbooks or other materials in the classroom, which reduces the financial burden on schools and students. This allows to allocate more resources to other areas of education, to improve the quality of education.

5. Collaborative learning: Digital technologies enable students to work collaboratively with each other and with teachers, improving the discussion and understanding of mathematical concepts in a free and interactive environment. Students can easily exchange ideas, discuss problems and even work together on group projects, fostering creativity and socialization.

6. Developing Skills: Digital technologies provide many opportunities to improve math-related skills such as problem solving, decision making and critical thinking. They help students develop these skills in a more practical and applicable way, preparing them for future education and professional pursuits.

When it comes to digital technologies in mathematics education, many students have previous misconceptions about this topic. But with society's orientation towards digital

modernity, these technologies also occupy an important place in mathematics. First and foremost, digital technologies make it easier for students to learn mathematics. Calculations, examples and solutions in mathematics are quickly, completely and legally completed with the help of a computer. These are tasks that are convenient for students and can be solved in a short time, which will increase their interest in mathematics. Second, digital technologies build motivation for students in mathematics and inspire them to create and act. Seeing or solving examples or processes using algorithms in the data, students become skilled and project-oriented people. Third, digital technologies use mathematics to enable students to use mathematics more widely in society. For example, we can use mathematics to facilitate computer-aided problem-solving practices between business and work. Others we can increase, for example, doctors, aero- and astro-designers, archivists and many other fields have to implement programs. Digital technologies are important for students in mathematics. These technologies make math easier to learn, inspire students to act and create, and empower them to use math more in society. Digital technologies increase interest in mathematics and inspire students.

The use of development programs for the development of preschool children's speech involves engaging the child in active activities in the preparatory part: competitions, observations, game environment, conversations to prepare for the computer game. The main part is directly aimed at independent work with the computer, and it is understood that the preschool child knows the purpose of each button, how to control the software product using an algorithm (card scheme). The final part is aimed at collecting the results of exercises (physical minutes, physical exercises, etc.) that relieve eye pain. The introduction of ICT in mathematics education did not begin immediately with the introduction of computers into our lives. In its early days, the computer was the property of programmers who could

not go beyond simple programming with a language focused on the world of numbers, so they were used to write numerical algorithms as very short programs in BASIC. At the beginning of the 21st century, there is a gap between economic development, where people work in teams using various technological tools, and education, on the other hand, which at first glance seems almost unchanged from the mid-20s. Although supportive technology has developed Multidisciplinary Scientific Journal, mathematics teaching in most countries around the world follows a traditional instructional approach, where teachers are at the center of information in classrooms full of students, and the role of technology is very limited

In conclusion, it can be said that digital technologies have brought great progress to mathematics education. Traditional teaching methods cannot provide the personalized, engaging and interactive learning experience that digital technology offers, as well as the many resources and opportunities it offers. Incorporating digital tools into math education can help students broaden their perspective on the subject and deepen their understanding of concepts, resulting in increased efficiency and achievement.<sup>1</sup>

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