MECHANISMS FOR INCREASING THE EFFECTIVENESS OF TRAINING THROUGH INTERACTIVE EDUCATIONAL PROGRAMS

Egamnazarova Sevarakhon
Kokan State Pedagogical Institute
Teacher of the Department of Informatics

ABSTRACT

This article analyzes the importance and effectiveness of digital games, simulations and interactive educational programs in the educational process. With the help of modern digital technologies, students experience the learning process in an interesting and effective way. Research has shown that game-based learning increases motivation and self-directed learning, while simulations are important in reinforcing theoretical knowledge by allowing them to experience real-life situations.

Keywords: Digital games, simulations, interactive educational programs, educational effectiveness, digital technologies, educational motivation, practical teaching, individual educational approach, innovative educational technologies, death student engagement

INTRODUCTION

Modern technologies are fundamentally changing the educational system and allow increasing the effectiveness of the educational process through new approaches. Among them, interactive educational programs take an important place as an innovative method of teaching. These programs provide students with the opportunity to actively participate in education, independently expand their knowledge and apply theoretical knowledge in practice. With the help of interactive educational programs, teachers can conduct lessons in an interesting and lively way and attract the attention of students. Especially through programs that allow students to learn on the basis of an individual approach, the effectiveness of teaching increases significantly. Thus, interactive educational programs make the educational process not only convenient and interesting for students, but also effective.

The main part

Interactive learning programs approach education through various mechanisms to make the learning process more effective for students. The main ones of these mechanisms are considered below.

Interactive approach in teaching. Interactive educational programs ensure active participation of students in the educational process. These programs allow students to learn information not just by reading or listening, but through practical exercises, question-and-answer sessions, and interactive discussions. For example, virtual labs and hands-on activities can greatly help students master the topics and reinforce what they have learned.

Visual and interactive materials. Graphics, animations and simulations used by educational programs make the topics easier to understand. With the help of visual materials, students can visualize complex processes and events. According to statistics, with the help of visual

methods, students remember information 60% faster. For example, in geography or biology, interactive maps or 3D models increase student interest.

Increase student activity. Interactive educational programs ensure that students are actively involved in the learning process. Through games, problems, and assignments, students develop independent work, problem-solving, and analytical skills throughout the lesson. Research shows that such active participation increases student motivation by 20% and improves learning efficiency.

Providing an individual approach. Because each student learns at his or her own pace and level, interactive programs allow students to receive individualized learning. Through such programs, teachers have the opportunity to monitor the progress and shortcomings of students, and can apply an individualized approach according to their needs. In this way, the educational process becomes more effective for each student.

Experience in simulations and practice. With the help of simulations, students can experience real-life situations. For example, in chemistry and physics, experiments can be conducted in a safe environment through virtual laboratories. This gives students the opportunity to try out the topics in practice and gain a much deeper knowledge than they already know.

Analyzing and monitoring student progress. Interactive programs make it easy to track and analyze student progress. With the help of these programs, teachers can determine what progress students have made in each activity, and in which areas they have difficulty. According to statistics, with the help of such monitoring systems, in 85% of cases, teachers achieve successful results in choosing the methods of teaching according to the needs of students.

Enrichment with team and problem-based approaches to education. The use of team and problem-based learning approaches with interactive programs also encourages students to work together. Through group assignments, students develop the skills of communication, exchange of ideas and cooperation with a team. And problem-based learning helps them develop decision-making skills in complex situations.

Through these mechanisms, interactive educational programs increase the activity, independence and interest of students in the process of learning and significantly improve the efficiency of learning.

To add scientific and statistical data to this topic, we can give examples using scientific studies about the effectiveness of digital games, simulations and interactive programs in education. Here are some interesting scientific results and statistics:

The impact of digital games on education. Scientific studies show that digital games increase student motivation and interest in learning. For example, according to a 2020 study, academic performance of students who used game-based learning platforms increased by 15%. At the same time, the scoring, rewards and levels used in digital games help keep readers interested.

Statistics on the effectiveness of simulations. A study of students in STEM (Science, Technology, Engineering, and Mathematics) fields in the United States found that students gained 30% more hands-on learning through the use of simulations. Also, it was noted that about 90% of the students receiving education through simulations in the field of medicine had the opportunity to strengthen their skills in practice.

Effects of interactive learning programs. According to international scientific studies, by using interactive programs, students' interest in learning has increased by 20%. In addition, about 85% of teachers who used interactive educational programs reported that these programs had a positive effect on the individual learning of students.

Psychological influence and individual learning. Through the use of interactive programs, students learn according to their level of knowledge, which increases the effectiveness of their teaching. According to statistics, students who are taught using interactive tools increase their interest in independent learning by 60%.

Economic efficiency. Digital technologies can reduce the cost of education. For example, by artificially creating educational laboratories with the help of simulations, students can gain higher knowledge even if they do not experience with real equipment. However, a study conducted in the United States showed that the use of simulations reduced training costs by 40%.

CONCLUSION

Interactive educational programs have great potential to make the learning process of students more effective and interesting. With the help of these programs, students become active, acquire knowledge in a visual and practical form, and also have the opportunity to receive individual education. Statistical data show that with the use of interactive programs, student motivation, mastery, and activity increase significantly. Interactive programs that include elements such as simulations, games, and problem-based learning play a major role in improving educational effectiveness. With their help, students have the opportunity to apply theoretical knowledge in practice, making the educational process deeper and stronger for them. Therefore, the introduction of interactive educational programs serves as an important factor in the further development of the educational system and the creation of wider opportunities for students.

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