

**DIGITAL TECHNOLOGIY ISSUES AND SOLUTIONS IN TECHNOLOGIY LESSONS
IN GENERAL SECONDARY SCHOOLS**

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Annotation: This article discusses the importance of using digital technologies in technology classes in secondary schools for developing students' practical skills and creating opportunities for them to successfully operate in the modern labor market. However, the integration of digital technologies into the educational process poses a number of problems. The article examines the necessary conditions and opportunities for using digital technologies to their full potential in the educational system.

Keywords: Digital technologies, innovative approach, educational process, interactive learning, simulations, 3D modeling, practical skills, independent learning, cooperative work, development of technical skills.

Introduction

The modern education system is rapidly developing on a global scale. One of the key factors driving this development is the integration of digital technologies into the education process. This is particularly effective in technology subjects, where the process of acquiring new knowledge becomes much more efficient for students. With the help of digital technologies, important skills such as creativity, logical thinking, and problem-solving can be developed in students. However, the integration of technologies into the education process also brings about challenges, such as the need for teachers' qualifications, financial limitations, and infrastructure constraints.

The President of the Republic of Uzbekistan, Sh. Mirziyoyev, has issued a number of decrees and decisions regarding the digitization of education, which are creating new opportunities in this field. These include the "Action Strategy on Five Priority Areas for the Development of the Republic of Uzbekistan for 2017-2021" adopted on February 7, 2017, the "Digital Uzbekistan – 2030" strategy approved by Decree PF-6079 dated October 6, 2020, and the "Measures for the Development of Digital Technologies in the Education System" decision PQ-5117 adopted on May 19, 2021. These documents set out practical measures for the development of digital infrastructure in schools and the enhancement of ICT literacy among young teachers.

These normative documents provide the legal foundation for the widespread use of digital technologies in technology lessons in general secondary education schools. The use of tools such as virtual laboratories, 3D modeling, digital simulations, and online platforms plays a significant role in preparing students for real-world production processes.

Main Part

Through modern technologies, students can not only acquire theoretical knowledge but also practical skills, which is crucial in preparing them for the labor market. Digital technologies allow the development of essential skills in students, such as creativity, logical thinking, problem-solving, and many others. However, the integration of digital technologies into the

education process also presents a number of challenges. This article explores the main issues related to the use of digital technologies in technology education in schools and ways to address them.

The biggest challenge in using digital technologies in technology lessons in schools is, undoubtedly, the lack of resources and infrastructure. In some schools, although there is a need for technologies, the necessary resources are insufficient. This is especially a critical issue for schools in rural areas. Many students and teachers do not have full access to computers, tablets, internet connections, or other digital devices. This negatively impacts the quality of education because modern technological resources are necessary for effective technology lessons. A potential solution to this problem is to provide technological assistance to schools by the state or private sector, such as supplying new computers, tablets, and internet networks. Additionally, schools can overcome this issue by sharing resources and organizing distance learning. Schools should also create additional opportunities for students to use their mobile devices in education.

The second problem is related to the lack of digital competence among teachers. Many teachers are inexperienced in using digital technologies or only know the basics. Most of them are accustomed to traditional teaching methods and, as a result, face difficulties in effectively using digital tools. Continuous training programs and workshops are necessary to improve teachers' skills. These programs would allow teachers to learn digital technologies, apply new pedagogical methods, and help them provide more effective education to students. Teachers should also be trained in the new software and tools used in technology lessons. Online courses, seminars, and professional development programs will enhance the effectiveness of the education process by preparing teachers and providing them with additional knowledge.

Furthermore, there is an issue related to students' interest and motivation. While the use of digital technologies can increase students' interest, some students remain passive towards new methods or show a greater interest in traditional education. This, in turn, complicates the full integration of digital technologies into the educational process. To increase student motivation, education should be organized through interactive, innovative methods. For example, using virtual reality (VR) technologies, games, simulators, and other interactive programs can make learning more engaging and effective. In this way, students not only acquire theoretical knowledge but also develop practical skills. Making the educational process more interesting and useful with digital technologies will help motivate students.

Another problem in applying digital technologies is related to ensuring information security and privacy. Digital platforms, online courses, software, and other technologies used by students and teachers involve the exchange of information. This necessitates the protection of personal data and ensuring privacy. Otherwise, students' and teachers' personal information may be exposed to harmful effects. Educational institutions and digital platforms must develop an information security policy and ensure the protection of personal data. Regular training sessions on information security should be conducted for students and teachers to teach them the basic principles of digital safety.

Moreover, financial constraints are a significant barrier to the implementation of digital technologies. Many schools do not have the financial resources required to install new technologies, update them, and provide technical maintenance. To implement digital technologies in the educational process, there is a need to strengthen cooperation between the public and private sectors. Expanding financial support for schools and efficiently utilizing available resources will improve the integration of technologies into education.

In general, several solutions exist for the effective use of digital technologies in technology lessons in schools. These solutions include improving digital infrastructure, enhancing teachers' digital competence, increasing student motivation, ensuring information security, and effectively managing financial resources. These measures are crucial for modernizing the education process, providing high-quality education, and preparing students for the labor market. Therefore, the introduction of digital technologies into the educational process has become an integral part of the education system today.

Results and Discussion

The process of applying digital technologies in technology lessons in schools can lead to several positive results. Additionally, the problems that arise in this process and the solutions related to them play an important role in improving the quality of education. Below are the main results of applying digital technologies in the educational process and their analysis.

Improved Education Efficiency

Digital technologies make the learning process more efficient and interactive. For instance, teachers can present lesson materials on digital platforms using videos, graphics, and interactive simulations, which helps students understand the material more easily. This allows students to learn new material quickly and effectively. With the help of digital technologies, students have the opportunity to apply theoretical knowledge in practice, thus developing their skills.

Increased Student Motivation and Interest

Using digital technologies increases students' motivation. Innovative technologies, such as games, virtual reality, interactive programs, enhance students' interest in lessons. By implementing digital education, students also expand their opportunities for self-expression. They become more actively involved in creating their own projects and solving problems. As a result, students' interest in lessons and their level of participation significantly increase.

Improvement in Teachers' Digital Competence

Training teachers in the use of digital technologies plays a crucial role in improving the quality of the education process. Teachers, by learning how to use technologies effectively, can make their lessons more interactive and engaging. In line with this, their pedagogical approaches also develop. An improvement in teachers' digital competence not only impacts the quality of education but also has a positive effect on students' success.

Information Security and Personal Data Protection

Information security is a significant issue in the use of digital technologies. While certain measures have been taken to ensure information security in schools, more work needs to be done in this area. To protect personal data and create a safe online environment, regular training sessions and security seminars should be held for students. This will help ensure information security in the educational process.

Improvement in Financial Resources and Infrastructure

Financial resources and infrastructure play a vital role in the implementation of digital technologies. If schools have the necessary technical equipment, the quality of education improves, and new opportunities are created for students. However, for the widespread implementation of digital technologies, additional investments from the public or private sectors are required. This will provide Preparing Students for the Modern Labor Market

Using digital technologies not only helps students in education but also prepares them for the modern labor market. By applying digital tools and technologies, students develop

practical skills and become more interested in learning new technologies. This ensures their readiness for future careers. Moreover, learning digital technologies enables students to become competitive on a global scale.

Discussion

The application of digital technologies in the education process helps improve the quality of education, prepares students for the modern labor market, and enhances teachers' qualifications. However, for the successful implementation of this process, a number of challenges need to be addressed. Issues such as limited access to digital technologies, low digital competence of teachers, information security concerns, and financial resource shortages require effective solutions. Strengthening cooperation between the government, the private sector, and educational institutions, and coordinating the activities of all parties involved in the implementation of technologies in schools is essential.

As a result, the full and effective application of digital technologies in schools contributes significantly to the development of the education system. This not only improves the quality of education but also creates opportunities for students to develop themselves, acquire new knowledge, and succeed in the future labor market.

Conclusion

In conclusion, the application of digital technologies in technology lessons in schools creates opportunities to make the educational process more efficient and interactive. Through digital technologies, students can apply theoretical knowledge in practice, acquire new skills, and increase their motivation. However, a number of issues, such as insufficient digital infrastructure, low digital competence of teachers, and concerns about information security, need to be addressed for the successful implementation of this process.

Effective solutions must be developed to solve these problems, such as improving teachers' qualifications, widely implementing digital technologies in the education process, and ensuring information security. Additionally, collaboration between the public and private sectors to provide technological resources and improve school infrastructure, as well as investment in financial resources, is crucial in enhancing the quality of education.

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