ADVANTAGES OF USING INFORMATION COMMUNICATION TECHNOLOGIES IN THE EDUCATIONAL PROCESS

PhD **Umarov Shuxratjon Azizjonovich**
TATU Fergana branch, Uzbekistan

The article describes various methods of improving the quality of education when using information and communication technologies. The goals and tasks of ICT in education are listed here. Also, the advantages and achievements of ICT in the educational process are described in the article.

Keywords

information, e-learning, portfolio, technology, interactive, multimedia, remote platform.

INTRODUCTION

The education system plays a decisive role in the formation of society and the improvement of individual well-being. Technology has truly revolutionized education and made it more accessible and interesting for students. By integrating technology into the learning process, we are able to provide a personalized learning experience that fits each student's unique needs and learning styles. Interactive multimedia resources and collaboration tools not only develop critical thinking skills, but also creativity and problem-solving skills [1,2]. In addition, technology allows teachers to adapt their teaching methods and provide timely feedback, facilitating a more effective learning environment. In general, the use of information and communication technologies has the potential to significantly increase educational outcomes and contribute to the overall development of the country [3,4].

MATERIALS AND METHODS

Information and communication technologies (ICT) play a decisive role in improving the educational process. They offer many advantages, such as improved access to educational resources, interactive learning experiences, and effective communication between teachers and students. ICT tools such as computers, tablets and educational software can be used to deliver engaging lessons, facilitate research and foster collaboration between students. In addition, online platforms

and e-learning systems provide distance learning opportunities that allow students to access study materials and attend virtual classes from anywhere. In general, the use of ICT in education has the potential to change traditional teaching methods and improve student learning outcomes [5,6].

These benefits highlight the transformative potential of ICT in education, enhance the teaching and learning experience, and prepare students for the digital age.

Extensive studies have been conducted on the advantages of using information and communication technologies in the educational process. Here are some common materials and methods used in such studies:

Researchers often conduct literature reviews to gather existing knowledge and evidence about the benefits of ICT in education. They analyze and synthesize the results of various studies, reports and scientific articles to determine the main advantages of using ICT in the educational process.

Questionnaires and questionnaires are commonly used to collect data from teachers, students and other stakeholders in the education system. These instruments can assess perceptions, attitudes and experiences related to the use of ICT in education. Researchers can collect quantitative and qualitative data to understand the benefits and challenges associated with ICT implementation.

Case studies involve in-depth studies of specific educational institutions or programs that have implemented ICT. Researchers examine the impact of ICT on teaching and learning processes, student outcomes, and the overall learning experience. They may use a combination of interviews, observations, and document analysis to collect data.

Researchers can design experiments or quasi-experiments to evaluate the effects of ICT interventions in educational institutions. They usually compare groups of students receiving ICT-based education with those receiving traditional education. Quantitative data such as test scores or performance indicators are collected and analyzed to determine the benefits of ICT implementation.

Longitudinal research involves tracking student progress and outcomes over a long period of time. Researchers collect data at several points in time to assess the long-term benefits of using ICT in education. This method makes it possible to check changes in students' activity, activity and attitudes over time.

Meta-analyses involve the statistical synthesis of the results of many studies on the benefits of ICT in education. Researchers aggregate data from different studies to comprehensively analyze the overall impact of ICT implementation. This

method makes it possible to identify consistent patterns and trends across different research studies.

These materials and methods help researchers explore the benefits of using ICT in education, providing valuable insights for policymakers, educators, and other stakeholders in education.

RESULTS

Currently, ICT in the educational system includes the following goals [7]:

1. Improving reading speed and success: ICT tools can provide interactive and interesting platforms for reading, which can help students improve their reading skills and achieve better academic results.

2. Encouraging and facilitating human-environment relationships: ICT can be used to create virtual simulations and interactive experiences that allow students to explore and understand the natural and social environment [8].

3. Implementation of the principle of continuous learning: ICT enables lifelong learning by providing access to online courses, resources and platforms that support continuous learning and professional development [9].

4. Enhancing the diversity of teaching methods and services and literacy through distance education: ICT can improve literacy and reach students in remote areas through a variety of teaching methods such as online lectures, virtual classrooms and multimedia resources. allows [10,11].

5. Improving citizens' technological literacy and giving equal importance to gifted children: ICT integration helps students develop technological literacy, which is crucial in today's digital world. It also provides a personalized learning experience that meets the needs of gifted students [12].

By achieving these goals, the integration of ICT in education can significantly improve the learning process and contribute to the comprehensive development of students.

The role and benefits of ICT in education [13]:

1. Access to information: ICT allows students and teachers to quickly access large amounts of information and resources. This allows them to study different topics, conduct research and stay up to date with the latest news in their field.

2. Enhancing teaching and learning: ICT tools such as interactive whiteboards, educational applications and multimedia resources make learning more interesting and interactive. It allows teachers to present information in innovative ways, adapt to different learning styles, and actively participate.

3. Collaboration and Communication: ICT facilitates collaboration and communication between students and teachers. Online platforms, discussion

forums, and video conferencing tools allow students to collaborate on projects, share ideas, and receive feedback from peers and teachers.

4. Personalized learning: ICT enables a personalized learning experience by providing customized learning platforms and individualized feedback. Students can learn at their own pace, access personalized learning materials, and receive personalized instruction based on their unique needs and learning styles.

5. Distance learning and accessibility: ICT has the potential to overcome geographic barriers and provide education for individuals who cannot attend traditional classrooms. Distance learning programs, online courses and educational platforms allow students to learn from anywhere and at any time [14].

DISCUSSIONS

In addition to the above advantages, the use of information and communication technologies (ICT) in the educational process has a number of other advantages. The main essence of the advantages is that they depend on what purpose and when to use information and communication technologies [15]. Each form of education has its own characteristics, and the use of information and communication technologies in the educational process also embodies these characteristics, including [16]:

- Enhanced learning experience: ICT tools such as multimedia presentations, interactive videos and educational programs can make learning more interesting and interactive. They can provide students with a deeper and more personalized learning experience that suits different learning styles [17];

- Access to information: ICT enables students and teachers to access large amounts of information and resources from around the world. The Internet provides access to online libraries, educational websites, and research databases that allow students to study and learn beyond the limitations of traditional textbooks;

- Collaboration and communication: ICT facilitates collaboration and communication between students and teachers. Online platforms, discussion forums, and videoconferencing tools allow students to collaborate on projects, share ideas, and communicate with experts or peers from different locations [18];

- Flexibility and personalization: ICT enables flexible and personalized learning. Students can access learning materials and resources at their own pace and convenience, allowing for self-directed learning and individualized learning. This flexibility also benefits students with different learning needs and abilities [19];

- Assessment and feedback: ICT provides tools for effective assessment and feedback. Online quizzes, interactive assessments, and automated grading systems

can streamline the grading process. Teachers can also help students monitor and improve their progress by providing timely feedback [20].

- Lifelong learning: ICT facilitates lifelong learning by providing continuous learning and professional development opportunities. Online courses, webinars, and virtual learning platforms allow people to acquire new skills and knowledge throughout their lives [21].

CONCLUSIONS

Information and communication technologies (ICT) play a decisive role in improving the educational process. They offer many advantages, such as improved access to educational resources, interactive learning experiences, and effective communication between teachers and students. ICT tools such as computers, tablets and educational software can be used to deliver engaging lessons, facilitate research and foster collaboration between students. In addition, online platforms and e-learning systems provide distance learning opportunities that allow students to access study materials and attend virtual classes from anywhere. In general, the use of ICT in education has the potential to change traditional teaching methods and improve student learning outcomes.

ICT really has the potential to revolutionize the way we teach and learn. ICT by providing access to information, improving teaching and learning, facilitating collaboration and communication, enabling personalized learning, supporting distance learning and accessibility and encouraging skills development can greatly enhance the learning experience for students and teachers. It opens up new possibilities and opportunities for learning, making education more interesting, interactive and accessible to all.

By using ICT tools and platforms, teachers can bridge the gap between themselves and students, create a more interactive and engaging learning environment, and effectively assess student learning and progress.

REFERENCES:

1. Anu Sharma, Kapil Gandhar and Seema, (2011). Role of ICT in the Process of Teaching and Learning. Journal of Education and Practice, Vol.,2, No 5, pp.1-6.

2. Azizovich, U. B. (2023). PRINCIPLES OF FORMING TEACHER COMPETENCE THROUGH INNOVATIVE TECHNOLOGIES. Finland International Scientific Journal of Education, Social Science & Humanities, 11(5), 823-828.

3. Chang, L., Shi, F., Taghizadeh-Hesary, F., & Saydaliev, H. B. (2023). Information and communication technologies development and the resource curse. Resources Policy, 80, 103123.

4. Swati Desai (2010), Role of Information Communication Technologies in Education. Proceedings of the 4th National Conference; INDIA. Computing for Nation Development.

5. Tojalievich, T. I., Mavlonjonovich, M. M., Tokhtasinovich, U. J., & Eraliyevich, T. A. (2022). Methods of implementation of information protection system. Galaxy International Interdisciplinary Research Journal, 10(6), 1037-1040.

6. Азизович, У. Б. (2018). Ўқув жараёнига инновацион таълим технологияларини жорий этиш заруряти. INFORMATIKA, AXBOROT TEXNOLOGIYALARI VA BOSHQARUV TIZIMI: BUGUN VA KELAJAKDA.

7. Умаров, Ш. А., & Умарова, М. И. (2021). Понятие о древовидных структуры данных. Интернаука, (5-1), 9-12.

8. Умарова, М. (2023). ПЕДАГОГНИНГ ЭЛЕКТРОН ПОРТФОЛИОСИНИ ШАКЛЛАНТИРИШ. Евразийский журнал математической теории и компьютерных наук, 3(1), 115-119.

9. Sh, U. (2019). Use of Chebyshev polynomials in digital processing of signals. International Journal of Advanced Research in Science, Engineering and Technology, 6(2).

10. Akbarov, D., & Abdukadirov, A. (2022, June). Research of general mathematical characteristics of logical operations and table replacements in cryptographic transformations. In AIP Conference Proceedings (Vol. 2432, No. 1). AIP Publishing.

11. Azizovich, U. B. (2023). PEDAGOGICAL-PSYCHOLOGICAL PRINCIPLES OF THE FORMATION OF PROFESSIONAL COMPETENCE. Confrencea, 6(6), 204-212.

12. Рахмонов, З. Р., & Умарова, М. И. (2022). Электрон портфолиони яратиш масалалари. Central Asian Research Journal for Interdisciplinary Studies (CARJIS), 2(Special Issue 2), 110-116.

13. Рахмонов, З., & Умарова, М. (2023). Исследования по созданию и использованию электронного портфолио. Engineering problems and innovations, 1(2), 11-17.

14. Умарова, М. (2023). ИССЛЕДОВАНИЯ ПО СОЗДАНИЮ ЭЛЕКТРОННОГО ПОРТФОЛИО. Engineering problems and innovations.

15. Умарова, М. (2023). ПЕДАГОГНИНГ ЭЛЕКТРОН ПОРТФОЛИОСИНИ ШАКЛЛАНТИРИШ. Евразийский журнал математической теории и компьютерных наук, 3(1), 115-119.

16. Farhodovich, T. X. D. (2023). Boshlang 'ich sinf o 'quvchilarining tafakkurini rivojlantirishning psixologik va pedagogik jihatlari. Ijtimoiy fanlarda innovasiya onlayn ilmiy jurnali, 3(3), 24-28.

17. Tukhtasinov, D. F. (2018). Developing Logical Thinking of 5-9th Year Students at Mathematics Lessons. Eastern European Scientific Journal, (2).

18. To'xtasinov, D. F. (2018). Didactic Bases Of Development Of Logical Thinking In Schoolchildren. Central Asian Journal of Education, 2(1), 68-74.

19. Mamatkodirov, M. M. (2023). A general description of the works of the mathematics circle. International scientific research journal, 4(5).

20. Raximovich, K. K., & Mamatisakovich, M. M. (2022). Formation of distance elective classes in mathematics for secondary school students. Miasto Przyszłości, 30, 131-132.

21. Умаров, Ш., & Умарова, М. (2023). ТАЪЛИМ МУАССАСАЛАРИДА ТАЛАБАЛАРНИНГ КАСБИЙ ЙЎНАЛТИРИЛГАН ЭЛЕКТРОН ЎҚУВ ПОРТФОЛИОСИНИ ЯРАТИШНИНГ АҲАМИЯТИ. Research and implementation, 1(3), 45-51.