INNOVATIVE WORLD
Ilmiy tadqiqotlar markazi

YANGI RENESSANS

RESPUBLIKA ILMIY JURNALI

+998335668868
www.innoworld.net

Google Scholar
doi
zenodo
OpenAIRE

YANGI RENESSANS

RESPUBLIKA ILMIY JURNALI

TO'PLAMI

2 - JILD, 3 - SON
2025

www.innoworld.net

O'ZBEKISTON-2025

THE ROLE OF TECHNOLOGY IN MODERN CLASSROOMS

Sevinch Rustamova,
The student of the Philological faculty,
Uzbekistan State University of World Languages,
Tashkent, Uzbekistan
s.rustamova.glamorous77@gmail.com

Abstract: This paper explores how technology shapes modern education. Digital tools make learning more engaging, personalized, and collaborative, but challenges like unequal access and limited teacher training remain. Suggested solutions include improving infrastructure and supporting teachers through training.

Keywords: Personalized learning, teacher training, digital divide, collaborative learning

Introduction. It is hard to imagine modern life without technology, and education is no exception. Classrooms today look very different from those of the past, where students relied only on blackboards, notebooks, and printed textbooks. Now, many learners walk into rooms equipped with projectors, interactive boards, or even virtual platforms that allow them to connect with knowledge beyond the four walls of a school. For teachers, these tools open new doors to creativity, making it possible to explain complicated ideas with the help of videos, simulations, or online exercises. At the same time, technology changes the way students learn. Instead of passively listening, they can interact with materials, search for information instantly, and even collaborate with classmates through digital platforms. **This article will explore the key roles technology plays in modern classrooms, highlighting its benefits, challenges, and its impact on the future of education.**

Benefits of educational technology. It is crucial to have effective techniques for incorporating technology into teacher education in order to provide educators with the requisite abilities to adjust to the ever-changing educational landscape (Suchita et al., 2023). Numerous benefits brought about by the incorporation of technology into education have fundamentally changed the way that people learn. A prominent advantage is the heightened degree of involvement and interaction in the classroom. For example, teachers can make abstract ideas more tangible and intelligible by using multimedia tools like interactive whiteboards, simulations, and movies. For instance, a science instructor can illustrate chemical processes using a digital simulation that would otherwise be too risky or expensive to carry out in a school lab. The potential for individualized learning is yet another significant benefit.

Digital platforms enable learners to progress in accordance with their unique requirements and talents, in contrast to traditional techniques where all students follow the same pace. Personalized exercises that automatically adapt to the learner's progress are offered by adaptive learning software, such Khan Academy or Duolingo, which helps both advanced students and those who need more practice. Sharma (2023) argues that the usage of collaborative learning platforms like Google Docs and Padlet facilitates easy group projects and idea exchange, which in turn creates an engaging learning environment for students. Additionally, thanks to technological advancements, children can now explore aspects of nature that are frequently inaccessible during regular school hours (Amin, Md., 2019).

Challenges and solutions. Although technology has many benefits, there are drawbacks to integrating it into the classroom. The digital gap is a significant problem since not all kids have equal access to dependable internet and electronic gadgets. Learning results may differ as a result of this inequality, especially in low-income or rural locations. According to a 2011 study by Warschauer, access to digital tools frequently reflects larger societal discrepancies, indicating that in the absence of focused solutions, technology may exacerbate already-existing inequities. Governments and educational institutions should make infrastructural investments and offer reasonably priced equipment or community-based learning centers to guarantee inclusivity in order to tackle this issue. The absence of teacher preparation is another issue. Many instructors find it difficult to adjust to new technology since they haven't had enough time for professional development or preparation. Ertmer and Ottenbreit-Leftwich (2010) assert that the caliber of training and continuing assistance teachers obtain has a significant impact on their self-assurance and capacity to include technology. As a remedy, educational establishments ought to provide top priority to professional development courses that educate technical skills while also showcasing successful pedagogical uses of technology.

Conclusion. Technology greatly enriches teaching and learning. Yet, without equal access and teacher readiness, its benefits are limited. With better resources and training, schools can use technology to create fair and effective learning for all.

1. Amin, M. (2019). The role of educational technology in the ESL classroom. Global Journal of Linguistics & Education, 11(1), 1–11.
2. Ertmer, P. A., & Ottenbreit-Leftwich, A. T. (2010). Teacher technology change: How knowledge, confidence, beliefs, and culture intersect. Journal of Research on Technology in Education, 42(3), 255–284.

3. Suchita, Gupta, S., Devi, S., Pal, S., & Mahajan, R. (2023). Exploring effective strategies for integrating technology in teacher education. European Chemical Bulletin, 12(SI12), 746–755.
4. Sharma, R. (2023, June 20). EdTech tools for classroom collaboration. Medium. https://medium.com/@rishani.ynr/edtech-tools-for-classroom-collaboration-cec6aad38530
5. Warschauer, M. (2011). Learning in the cloud: How (and why) to transform schools with digital media. Teachers College Press.