

THE ROLE OF TECHNOLOGY IN EDUCATION

Mirsaitova Sevinch Elmurod qizi

Uzbekistan State World Languages University

Foreign Language and Literature: First faculty, third year student

Mirsaitovasevinch2005@gmail.com

Supervisor: **Alikulova Shaxnoza Abdullo qizi**

Abstract: The quick use of digital technology in schools has changed the way people teach and learn all over the world. This article looks at how important classroom tools like Google Docs, Duolingo, Stimuler, Quizlet, and Kahoot are used in today's classrooms and how they help with teaching, learning, and making things accessible. The study examines the practical use of digital platforms in educational settings, the advantages of technology integration such as personalised learning, enhanced engagement, and increased accessibility, and the challenges related to data privacy issues, teacher unpreparedness, and the dangers of excessive dependence. To get meaningful and inclusive learning results, we still need a balanced, human-centered approach.

Keywords: educational technology, digital tools, personalized learning, classroom technology.

Annotatsiya: Maktablarda raqamli texnologiyalardan tezkor foydalanish butun dunyo bo'ylab odamlarning o'qitish va o'rganish usulini o'zgartirdi. Ushbu maqolada Google Docs, Duolingo, Stimuler, Quizlet va Kahoot kabi sinf vositalarining bugungi sinflarda qanday muhim qo'llanilishi va ular o'qitish, o'rganish va narsalarni osonlashtirishga qanday yordam berishi ko'rib chiqiladi. Tadqiqotda ta'lim muassasalarida raqamli platformalardan amaliy foydalanish, shaxsiylashtirilgan o'rganish, faollikni oshirish va kirish imkoniyatini oshirish kabi texnologiyalar integratsiyasining afzalliklari, shuningdek, ma'lumotlar maxfiyligi muammolari, o'qituvchilarning tayyor emasligi va haddan tashqari qaramlik xavfi bilan bog'liq muammolar o'rganiladi. Mazmunli va inklyuziv o'rganish natijalariga erishish uchun bizga hali ham muvozanatli, insonga yo'naltirilgan yondashuv kerak.

Kalit so'zlar: ta'lim texnologiyasi, raqamli vositalar, shaxsiylashtirilgan o'rganish, sinf texnologiyasi.

Аннотация: Быстрое внедрение цифровых технологий в школах изменило методы преподавания и обучения во всем мире. В данной статье рассматривается, насколько важны в современных классах такие инструменты, как Google Docs, Duolingo, Stimuler, Quizlet и Kahoot, и как они помогают в преподавании, обучении и обеспечении доступности информации. Исследование анализирует практическое использование цифровых платформ в образовательных учреждениях, преимущества интеграции технологий, такие как персонализированное обучение, повышение вовлеченности и доступности, а также проблемы, связанные с конфиденциальностью данных, неподготовленностью учителей и опасностью чрезмерной зависимости. Для достижения значимых и инклюзивных результатов обучения нам по-прежнему необходим сбалансированный подход.

Ключевые слова: образовательные технологии, цифровые инструменты, персонализированное обучение, технология "класс".

Introduction. Over the twenty years, technology has transformed and has a strong impact on several fields. For example, the use of technology within the educational system has evolved from being merely a supportive innovation to becoming an integral part of the contemporary education system. The fast-paced evolution of artificial intelligence, virtual reality, and other immersive technologies, as well as increased connectivity through digital means, has created the need for scholarly examination and assessment of their impact on modern education. Schools at all levels of education, ranging from elementary school to higher education institutions, have increasingly been incorporating digital technologies to improve the quality of instruction, increase accessibility, and create personalized learning opportunities which were previously inaccessible.

Main body. *Digital Tools Commonly Used in Classrooms.* Digital tools have shaped modern classrooms into more engaging learning environments. Digital tools support collaboration, or individual learning. Platforms like Google Docs, Duolingo, Stimuler, Quizlet, and Kahoot serve different functions, but when used together make for meaningful learning experiences. Google Docs is arguably the most used digital tool in academic work. Google Docs is a browser based word processor that allows real time editing and in document communication. People can collaborate across different geographical locations. Google Docs is exceptionally helpful in a Google Classroom environment, and in a hybrid or fully remote environment. Google Docs allows for peer editing, multiple authorship in documents, and documents as formative assessments.

With its mobile-centered design, Duolingo provides structured and gamified lessons that have changed how we learn languages. Lessons get personalized due to its algorithms, and offer a great supplementary resource to language classes. It has over 500 million users, and demonstrates just how useful technology can be when integrating education to the everyday lives of users. In addition, it helps students not only to acquire knowledge, but also to develop consistency in lifetime through daily activities and streak-based motivation. Also engaging users through interactivity and gamified lessons, Stimuler is a new educational tool that is utilized to achieve good results from IELTS. For instance, it is the best platform to improve and strengthen four skills, especially for Speaking. Grammar, fluency, pronunciation and vocabulary are included, with checking students' mistakes and giving feedback in order to eliminate errors completely.

Flexibility is at the core of Quizlet's design. It is a digital and virtual card platform that educators and students can take advantage of for memorization, reinforcement, and vocabulary building. Learning is individualized with the different modes of studying, and Quizlet's design is research driven with active recall and spaced repetition, two of the most effective studied techniques.

Complementary to each other, these tools complement each other and signify the transition from passive, lecture-based teaching to active, student-centered learning. Considerable support for these active learning methods can be found in many recent research publications. Although the benefits of digitally transforming education are well supported by research and literature, they range from cognitive and social to institutional benefits.

The benefits of digital tools. One of the most significant and transformative benefits of technology in education is Enhanced Personalization. AI-based learning technology has the capacity to process different types of user data and customize

learning experiences. It is innovatively designed to differentiate learning according to each student and improve their overall engagement and academic achievement. It can be considered one of the most differentiating factors of technology and education as the discipline of education has struggled to achieve effective personalization of learning for decades. An equally important and significant benefit of technology in education is Improved Accessibility. Most notably, technology has overcome the most challenging educational barriers, particularly, geographical and socioeconomic barriers. Using cloud-based applications, students residing in remote, rural, or marginalized areas or communities are now able to obtain access to quality educational materials and content, something which was previously available only to privileged students. Gamification strategies, like those used in Kahoot and Duolingo, have been shown to turn passive learning experiences into active and playful ones. Studies have shown that the use of gamification strategies in education can increase student motivation by as much as 83% compared to traditional methods of instruction.

Immediacy Feedback and Assessments is an advantage for digital pedagogy. Tools such as Quizlet, Kahoot and Stimuler give instant data to educators and students to identify gaps in knowledge and instruction in real-time. This supports an efficient cycle within the learning process. Collaboration and Communication is exemplified in the use of Google Docs. Students and educators can collaborate either synchronously or asynchronously. This form of collaborative digital environments prep students for an organization's professional setting, most of which requires remote collaboration and digital communication.

Support for Diverse Learning Needs is further enhanced through technology. Even more assistive tools like text-to-speech, captioning, adjustable interfaces, etc provide learning opportunities that were previously inaccessible for students with disabilities. This further provides equity in educational outcomes.

The drawbacks of digital tools. Screen time and digital device usage have a wide range of adverse effects that include distractions and shortened attention spans. With digital devices, distractions start the moment your student has access to something that's not schoolwork. They manage the issues from educational distractions through their policies on device usage.

Digital Overreliance creates the assumption that the rest of the tools are digital. The absence of digital tools for assignments creates a broad range of issues. Educators must consider these tools for the intents and purposes of pedagogical end goals. Increased research has been focused on the impact of Mental Health and Social Impacts. The problems students face with both Social and Mental Health as the result of anxiety, isolation, and digital fatigue will only worsen. Things will remain the same until there is a more balanced and human-centered approach to EdTech.

Conclusion. This article has looked at how technology is used in modern education by looking at three main areas: digital classroom tools, their advantages, and the problems they can cause. When used correctly, platforms like Google Docs, Duolingo, Quizlet, Kahoot and Stimuler can significantly improve engagement, accessibility, and personalized learning. We have also learned that for technology to reach its full potential, we need to deal with problems like distractions and a short attention span, addiction to technological devices and mental health problems. In the future, improvements in AI, VR, and learning analytics are likely to change the way we

teach even more. The real value of technology in education is not how advanced it is, but how well it can help every student learn in a fair and meaningful way.

Reference:

1. Axon Park. (2023). How effective is gamification in education? 10 case studies and examples.
2. Duolingo. (2023). Duolingo language learning platform.
3. Google. (2023). Google Docs: Online document editor.
4. Kahoot. (2023). Kahoot! Game-based learning platform. <https://kahoot.com>
5. Quizlet. (2023). Quizlet: Study tools and flashcards. <https://quizlet.com>
6. Stimuler. (2023). Stimuler: IELTS preparation platform.
7. Zainuddin, Z., Chu, S.K.W., Shujahat, M., & Perera, C.J. (2020). The impact of gamification on learning and instruction. *Educational Research Review*, 30, 100326.