



SECONDARY EDUCATION: TECHNOLOGY SUPPORTED  
LEARNING AND LEARNING AND DIGITAL LITERACY.

*Arslonova Mushtariybegim Abdullajon qizi*

*Boltayeva Shahrizoda Sa'dulloyevna*

*Student of Samarkand state institute of foreign languages*

*Scientific supervisor: Ikrom Mamasoliyev.*

**Abstract.** This paper explores the role of technology-supported learning and digital literacy in secondary education. With the rapid development of digital technologies, the integration of technological tools into the learning process has become essential for improving educational outcomes. Technology-supported learning enhances student engagement, facilitates personalized learning, and provides access to a wide range of educational resources. At the same time, digital literacy is a crucial skill that enables students to effectively find, evaluate, and use information in digital environments. The study highlights the interconnection between technology use and the development of digital competencies among students.

**Annotatsiya.** Ushbu kurs ishida o'рта ta'limda texnologiyaga asoslangan ta'lim va raqamli savodxonlikning o'rnini tahlil qilinadi. Zamonaviy raqamli texnologiyalarning jadal rivojlanishi natijasida ta'lim jarayoniga texnologiyalarni integratsiya qilish muhim ahamiyat kasb etmoqda. Texnologiyaga asoslangan ta'lim o'quvchilarning faolligini oshiradi, individual o'rganish imkoniyatlarini kengaytiradi hamda turli xil ta'lim resurslariga kirishni ta'minlaydi. Shu bilan birga, raqamli savodxonlik o'quvchilarga axborotni izlash, tahlil qilish va undan samarali foydalanish



ko'nikmalarini shakllantiradi. Ishda texnologiyalardan foydalanish va raqamli kompetensiyalar rivoji o'rtasidagi bog'liqlik yoritilgan.

**Аннотация.** В данной работе рассматривается роль обучения с использованием технологий и цифровой грамотности в системе среднего образования. В условиях стремительного развития цифровых технологий их интеграция в образовательный процесс становится важным фактором повышения качества обучения. Использование технологий способствует повышению мотивации учащихся, обеспечивает индивидуализацию обучения и расширяет доступ к образовательным ресурсам. Цифровая грамотность рассматривается как ключевая компетенция, позволяющая учащимся эффективно искать, анализировать и использовать информацию в цифровой среде. В работе показана взаимосвязь между использованием технологий и развитием цифровых навыков.

**Key words.** Technology-supported learning, digital literacy, secondary education, educational technology, student engagement, online learning, digital competence, information literacy

**Introduction.** In recent decades, the rapid development of digital technologies has significantly transformed various aspects of human life, including the field of education. Secondary education, in particular, has experienced a shift from traditional teacher-centered approaches to more interactive and technology-supported learning environments. The integration of digital tools such as computers, mobile devices, and online platforms has created new opportunities for both teachers and students.

Technology-supported learning enables more flexible, engaging, and personalized educational experiences. It allows students to access a wide range of resources, collaborate with peers, and develop independent learning skills.

However, the effective use of technology in education requires more than just access to devices; it demands a certain level of digital literacy.

Digital literacy has become an essential competence for students in the modern world. It includes the ability to find, evaluate, and use information responsibly, as well as to communicate effectively in digital environments. Without these skills, students may struggle to benefit fully from technology-based education. This paper aims to examine the role of technology-supported learning and digital literacy in secondary education, analyze their interconnection, and identify the main challenges and possible solutions in their implementation.

**Main part.** 1. The Concept of Technology-Supported Learning. Technology-supported learning refers to the use of digital tools and resources to enhance the teaching and learning process. In secondary education, it includes the use of online platforms, multimedia materials, virtual classrooms, and interactive applications.

One of the key advantages of this approach is increased student engagement. Digital tools make lessons more interactive and visually appealing, which helps maintain students' interest. Moreover, technology allows for personalized learning, where students can progress at their own pace and focus on their individual needs.

However, assuming that technology automatically improves learning outcomes is a weak argument. Without proper teaching strategies and guidance, digital tools may become distractions rather than effective learning aids.

2. Digital Literacy in Secondary Education. Digital literacy is a crucial component of modern education. It goes beyond basic technical skills and includes critical thinking, information evaluation, and responsible online behavior.

In secondary education, students are frequently exposed to large amounts of information through the internet. Without proper digital literacy skills, they may struggle to distinguish between reliable and unreliable sources. This can lead to misinformation and superficial understanding.

Developing digital literacy helps students become independent learners. They learn how to analyze information, solve problems, and communicate effectively in digital environments. These skills are essential not only for academic success but also for future careers.

3. The Relationship Between Technology and Digital Literacy. Technology-supported learning and digital literacy are closely interconnected. The use of technology in education provides opportunities to develop digital skills, while digital literacy ensures that technology is used effectively and responsibly. For example, when students are assigned online research tasks, they must search for information, evaluate sources, and present their findings. In this process, both technological tools and digital literacy skills are actively used. This relationship shows that simply introducing technology into classrooms is not enough. Schools must also focus on teaching students how to use these tools critically and ethically.

4. Challenges and Limitations. Despite its advantages, the integration of technology in secondary education faces several challenges. One major issue is unequal access to digital resources. Not all students have reliable internet connections or personal devices, which creates a digital divide.

Another challenge is the lack of teacher training. Some teachers may not feel confident using digital tools, which limits their effectiveness in the classroom. Additionally, excessive use of technology can lead to distractions, reducing students' concentration and productivity. These challenges highlight the need for a balanced and well-planned approach to technology integration.

5. Possible Solutions. To address these challenges, several measures can be taken. First, schools should invest in teacher training programs to improve digital competence. Second, digital literacy should be included as a core component of the curriculum.. Furthermore, educators should use technology in a controlled and purposeful way, ensuring that it supports learning objectives rather than replacing them. Providing equal access to digital resources is also essential for creating an inclusive educational environment.

**Conclusion.** In conclusion, technology-supported learning and digital literacy play a vital role in modern secondary education. They offer numerous benefits, including increased engagement, personalized learning, and the development of essential skills for the digital age. However, the successful implementation of these approaches depends on more than just access to technology. It requires the development of critical thinking, responsible digital behavior, and effective teaching strategies. Therefore, educators and policymakers must focus not only on integrating technology into classrooms but also on ensuring that students are equipped with the necessary skills to use it effectively. Only then can technology truly enhance the quality of education.

## REFERENCES

- 1.Prensky, M. (2001). Digital natives, digital immigrants. *On the Horizon*, 9(5), 1–6.
- 2.Selwyn, N. (2016). *Education and technology: Key issues and debates* (2nd ed.). Bloomsbury Academic.
- 3.UNESCO. (2018). *A global framework of reference on digital literacy skills for indicator 4.4.2*. UNESCO Publishing.

4.OECD. (2020). Education in the digital age: Healthy and happy children. OECD Publishing.

5.Redecker, C. (2017). European framework for the digital competence of educators: DigCompEdu. Publications Office of the European Union.

6.Gilster, P. (1997). Digital literacy. Wiley Computer Publishing.

7.Warschauer, M. (2004). Technology and social inclusion: Rethinking the digital divide. MIT Press.

8.Mishra, P., & Koehler, M. J. (2006). Technological pedagogical content knowledge: A framework for teacher knowledge. Teachers College Record, 108(6), 1017–1054.

