VOLUME-3, ISSUE-6

Comparative Pedagogical Analysis of the Use of Digital Technologies in Foreign Education Systems

Ikromova Mahbuba Vali qizi
mahbubaikromova@gmail.com
PhD Researcher Uzbekistan State World Languages University

Abstract

This article studies the experiences of developed countries — the USA, South Korea, Finland, and Estonia — in the use of digital tools in education during a time when digital technologies are deeply penetrating the education system. Pedagogical approaches, technological infrastructure, the content of digital resources, and their impact on the quality and effectiveness of education are analyzed. Comparative aspects with the education system of Uzbekistan are presented, along with suggestions and recommendations for effectively organizing digital education in national conditions.

Keywords: digital technologies, education system, digital education, digital textbooks, comparative pedagogy, modern teaching, international experience.

In the last decade, digital technologies have initiated a turning point in the field of education. Instead of traditional teaching methods, digital platforms, artificial intelligence-based learning systems, online assessment systems, and other innovative approaches are being widely implemented. This allows students to learn more efficiently and helps develop their independent and creative thinking skills.

Currently, each country implements digital education based on its socio-economic capabilities, pedagogical traditions, and level of technological development. Therefore, studying their experience through comparative analysis holds significant theoretical and practical importance. Let's take a look at the experiences of several foreign countries in the effective use of digital technologies in education.

Use of Digital Technologies in the U.S. Education System

The key features of digital education in the USA are independence, flexibility, and diversity of technological solutions. Platforms such as Google Classroom, Edmodo, Canvas, and Blackboard (LMS – Learning Management System) constitute the main part of the educational process. Each state and even each school has its own digital strategy. Students are provided with digital resources adapted to their age and needs.

Through digital assessment tools, student achievements are regularly analyzed. Additionally, there are support technologies available for students with special needs. Teachers receive continuous professional development through digital methodological resources and online courses.

South Korea: The "Smart Education" Concept

Since 2011, South Korea has been implementing the national "Smart Education" program. Under this program, digital textbooks, tablets, interactive whiteboards, and AI-powered tests and assignments have been introduced in all general secondary schools.

One of the main platforms is EDUNET, which is managed by the government and provides free services for all schools. Digital textbooks are regularly updated and enriched with multimedia

content for different subjects. Teachers' digital literacy is assessed based on nationally defined standards.

The Finnish Experience: Freedom and Integrated Approach

In Finland, the concept of digital education is based on a student-centered approach. The teaching process is mostly organized through project-based methods. The concept of "Phenomenon-based learning" is widely implemented, where subjects are integrated and taught through real-world contexts.

Each school has its own independent curriculum. Teachers use either self-developed or open-access digital learning resources in their lessons.

Estonia: A Fully Digitized School Model

Estonia's education system has one of the most advanced digital infrastructures in Europe. From the preschool stage, children are taught digital literacy. Each student is provided with a personal electronic profile where all achievements, assignments, and completed courses are automatically archived.

Platforms such as e-School, e-Kool, and Stuudium allow parents to monitor their child's educational process.

Current State of Education in Uzbekistan

In Uzbekistan, the digital transformation of education is being implemented step by step. Platforms such as "Milliy elektron ta'lim tarmog'i", "edu.uz", "my.maktab.uz", and "O'quvchi onlayn" have been launched. Since 2023, digital textbooks have started being introduced on a trial basis.

However, several issues remain: internet speed, the digital skills of teachers, and the quality of locally developed content.

Implementing digital technologies in the education system is a requirement of modern times. This process is not only transforming the way students acquire knowledge but also fundamentally changing teachers' methodological approaches. The experiences of foreign countries — the USA, South Korea, Finland, and Estonia — show that digital technologies are not just tools, but essential participants in the learning process.

The analysis confirms that the effectiveness of digital education largely depends on the consistency of state policy, a highly developed digital infrastructure, the professional preparedness of teachers, and the digital culture of students. Although each country has developed its own model of digital education based on historical, cultural, and social contexts, all are unified by a common goal — improving the quality of education.

For Uzbekistan, these foreign experiences serve as valuable examples. However, implementing them requires adaptation to national values, language, and regional capacities through a systematic and gradual approach.

List of References

1. Karimov, A. (2022). Digital Education: Challenges and Prospects for Development. *Pedagogical Mastery*, No.1, pp. 15–22.
2. OECD (2021). *The State of School Education: One Year into the COVID Pandemic*. OECD Publishing.
3. Lee, H., & Kim, J. (2020). Smart Education Strategy in Korea: Implementation and Challenges. *Asian Education Studies*, Vol. 5(3), pp. 67–74.

4. Sahlberg, P. (2015). *Finnish Lessons 2.0: What Can the World Learn from Educational Change in Finland?* Teachers College Press.
5. Ministry of Education and Research of Estonia. (2022). *Digital Focus in Education*.
6. Jalolov, M. (2021). Modern Stages of Digital Education Implementation in Uzbekistan. *Journal of Tashkent State University*, No.2, pp. 45–52.
7. World Bank. (2020). *Reimagining Human Connections: Technology & Innovation at the World Bank Education Global Practice*.
8. Kozlov, A., & Petrova, N. (2019). Digitalization of Education in the United States and Europe: A Comparative Study. *International Journal of Educational Research*, Vol. 93, pp. 98–105.
9. Sharipova, N. (2023). Specific Aspects of Using Digital Technologies in International Education Systems. *Innovations in Education*, No.4, pp. 23–30.
10. UNESCO (2022). *ICT in Education: Global Trends and Challenges*.