



THE ROLE OF DISTANCE EDUCATION IN THE IMPLEMENTATION OF STRATEGIES OF GENERAL SECONDARY EDUCATION

Rustam Salimovich Odilov

Samarkand State University named after Sharaf Rashidov

Abstract

This article analyzes the role of distance education in the implementation of general secondary education strategies. Distance education, based on modern technologies, helps make the educational process more flexible, convenient, and effective. The study highlights the importance of distance education for both learners and teachers, its advantages, as well as the challenges encountered. Through surveys and analysis of scientific literature, the effectiveness of distance education is evaluated. The article examines the role of distance learning in students' educational processes, its contribution to improving the quality of education, and issues related to digital transformation in the education system. The research findings emphasize the importance of developing technological infrastructure, enhancing teachers' professional qualifications, and fostering learners' independent learning skills for the effective use of distance education.

Keywords: Distance education, digital learning, secondary education strategy, online learning, pedagogy, innovative teaching methods, educational effectiveness, interactive learning.

UMUMIY O‘RTA TA’LIM STRATEGIYALARINI AMALGA OSHIRISHDA MASOFAVIY TA’LIMNING O‘RNI

Rustam Salimovich Odilov

Sharof Rashidov nomidagi Samarqand davlat universiteti

Annotatsiya

Ushbu maqolada umumiy o‘rta ta’lim strategiyalarini amalga oshirish jarayonida masofaviy ta’limning o‘rni tahlil qilinadi. Masofaviy ta’lim zamonaviy texnologiyalar asosida ta’lim jarayonini moslashuvchan, qulay va samarali qilishga yordam beradi. Tadqiqotda masofaviy ta’limning ta’lim oluvchilar va pedagoglar



uchun ahamiyati, uning afzalliklari hamda duch kelinayotgan muammolar yoritilgan. So‘rovnomalar va ilmiy adabiyotlar tahlili orqali masofaviy ta’limning samaradorligi baholanadi. Maqolada masofaviy ta’limning o‘quvchilar bilim olish jarayonidagi roli, ta’lim sifatini oshirishga qo‘shadigan hissasi va ta’lim tizimidagi raqamli transformatsiya bilan bog‘liq masalalar ko‘rib chiqilgan. Tadqiqot natijalari masofaviy ta’limdan samarali foydalanish uchun texnologik infratuzilmani rivojlantirish, pedagoglarning malakasini oshirish va ta’lim oluvchilarning mustaqil ta’lim olish qobiliyatlarini shakllantirish muhimligini ko‘rsatadi.

Kalit so‘zlar: Masofaviy ta’lim, raqamli ta’lim, o‘rta ta’lim strategiyasi, onlayn ta’lim, pedagogika, innovatsion ta’lim metodlari, ta’lim samaradorligi, interaktiv ta’lim.

Introduction

In today's context of globalization and technological advancement, the development of the general secondary education system is considered one of the key issues. Distance education plays a significant role in modern educational processes, serving as one of the main tools to enhance the effectiveness of teaching, ensure continuous learning, and create convenient conditions for students. It provides new opportunities for both teachers and students, complementing traditional teaching methods and increasing their efficiency.

In recent years, the importance of distance education has increased, especially during the global pandemic. Online learning platforms have been widely used to prevent disruptions in the educational process worldwide, which has contributed to strengthening the future role of distance education in the education system. At the same time, the development of digital technologies and the internet has made it possible to render the learning process more interactive, innovative, and adaptable. The introduction of distance education models has also significantly influenced the teaching methodology of educators. Teachers are now adapting to deliver lessons not only in traditional classrooms but also through the use of interactive platforms. Similarly, learners are adjusting to new ways of acquiring knowledge and developing competencies for independent learning. Distance education enables both students and teachers to master new technologies.



As a result of the growth of distance learning, the use of artificial intelligence and digital educational resources in the learning process is becoming increasingly prevalent. Therefore, to further improve the general secondary education system, it is essential to expand digital infrastructure and enhance teachers' skills in working with modern technologies. In addition, in order to improve the quality of education, it is necessary to develop the functionality of distance education platforms and to increase the interactivity of the learning process.

In this regard, the article provides an in-depth analysis of the role of distance education in the implementation of general secondary education strategies, highlighting its advantages and the challenges it faces. It also presents proposals for the effective use and further development of distance education.

Scientific research on distance education confirms that digital technologies play a crucial role in increasing the efficiency of the educational process. According to reports by the World Bank and UNESCO, the development of distance education is essential for expanding access to education, enhancing the flexibility of the learning process, and improving its quality. Studies have examined the impact of distance learning on students' abilities for independent learning and on teachers' use of innovative pedagogical approaches.

In addition, both national and international experiences in the field of distance education have been analyzed. According to findings from PISA and TIMSS studies, countries with high-tech educational environments demonstrate higher efficiency in distance learning outcomes. Research by Uzbek scholars has shown that distance education significantly contributes to the advancement of pedagogical innovations. For instance, studies conducted by the scientists of the Academy of Sciences of the Republic of Uzbekistan analyzed the impact of distance learning platforms on student motivation and the effectiveness of education. Local researchers have also developed recommendations on integrating distance learning methodologies into the national education system.

Methodology

The study employed both qualitative and quantitative methods of analysis. To determine the importance of distance education in the general secondary education system, surveys were conducted among teachers, students, and parents.



Furthermore, existing academic literature on the impact of distance education on the effectiveness of learning was analyzed.

The following methods were used for the practical part of the study:

1. Surveys - surveys were conducted electronically with the participation of teachers and students to determine the effectiveness of distance learning in general education institutions. The results were evaluated using statistical analysis.

Interviews - in-depth interviews with teachers and educational experts on the advantages and disadvantages of distance learning. The results of these interviews helped to develop proposals for further improvement of the distance learning system.

The experimental method - the results of using distance learning platforms in certain classes were analyzed and their impact on the effectiveness of education was assessed. Changes in the level of students' knowledge were compared in the control and experimental groups.

Analysis of scientific literature - Based on scientific articles, dissertations, and reports at the international and national levels, the specific features, pedagogical, and psychological aspects of distance learning were studied. Research conducted by Uzbek scientists on distance learning was analyzed separately, and their recommendations and results were summarized.

Statistical data analysis - the results of Uzbekistan in the PISA, TIMSS, and other international rankings on distance learning were studied and compared with other countries. At the same time, data collected by governmental and non-governmental organizations on distance learning within the country were also analyzed.

Assessment of the effectiveness of educational technologies - the level of use of distance learning platforms, virtual classrooms and electronic learning resources and the results obtained from them were studied. The level of adaptation of students to digital learning was also assessed.

Analytical and comparative analysis - international and local experiences were compared, and the specific problems and development directions of distance learning in Uzbekistan were identified.



Didactic approach - the pedagogical foundations of distance learning, interactive methods and individual learning areas were analyzed in depth. Scientific and practical proposals were developed for the development of distance learning courses based on didactic principles.

Assessment of the level of use of information technologies - special testing and assessment systems were used to increase the digital competence of students and teachers in distance learning. Based on their results, improvement measures were determined.

The introduction of innovative methods - the impact of artificial intelligence, adaptive learning systems, and AR/VR technologies on the educational process in distance education - was studied.

Ushbu usullar yordamida masofaviy ta'limning umumiy o'rta ta'lim tizimidagi o'rni, samaradorligi va rivojlantirish imkoniyatlari chuqur tahlil qilindi. Tadqiqot natijalari asosida masofaviy ta'limni rivojlantirish bo'yicha ilmiy-amaliy takliflar ishlab chiqildi.

Results

The results of the study showed that distance learning plays an important role in the general secondary education system and its effectiveness depends on many factors. The following main results were achieved during the study:

1. Attitude of students and teachers to distance learning: The results of the questionnaires showed that 75% of students consider the use of distance learning to be convenient, but 40% of them indicated the Internet and technological problems as the main obstacles. 68% of teachers believe that distance learning methodology should be further improved.
2. Effectiveness of distance learning: When analyzing the learning outcomes of the experimental and control groups, it was shown that the level of knowledge of students using distance learning was on average 10-15% higher than in traditional education. This is especially due to the individual approach and the possibility of using digital resources.



3. Impact of technological infrastructure: Students who used electronic textbooks and interactive platforms achieved faster learning. However, poor internet connectivity in some regions of Uzbekistan negatively affected this process.

4. Results of research conducted by Uzbek scholars: An analysis of the results of local research on distance learning shows that distance learning requires changes in pedagogical approaches. Studies by Uzbek scholars Karimov (2019) and Tursunov (2021) emphasize the need for technological cooperation and improvement of pedagogical methods for the effective implementation of distance learning.

5. Quality of education and assessment system: The results of the use of distance education show that the assessment results of students have moderate changes compared to traditional education, especially the results of students with high independent learning skills have improved.

6. Professional training of teachers: It was found that the success of the distance education process largely depends on the digital competence of teachers. 72% of teachers noted that their skills in effective distance education have improved after special training courses.

In general, the results show that distance education creates great opportunities for enriching the general secondary education system, making the educational process flexible and effectively using new technologies. However, the issues of developing technological infrastructure, improving pedagogical methods and directing students to independent learning remain relevant.

Discussion

Based on the results of the study, it is clear that the importance of distance learning in the general secondary education system is wide-ranging. The results show that this form of education depends on such important aspects as pedagogical approaches, technological infrastructure, and student motivation. In order to increase the effectiveness of distance learning, it is important to strengthen the interaction between teachers and students, further develop interactive learning resources, and update the criteria for assessing the quality of education.

In addition, research by Uzbek scientists shows that for the successful implementation of distance learning, it is necessary to improve the skills of teachers and expand technological capabilities. The results of the study indicate the need to



combine distance learning with new innovative approaches aimed at increasing educational opportunities.

One of the current problems of distance learning is the lack of technological resources. In particular, the quality of the Internet in rural areas and the lack of digital devices limit the possibilities of using distance learning. Therefore, in the future, it is necessary to strengthen measures to improve the educational infrastructure in cooperation with the public and private sectors.

It is also important to improve the knowledge and skills of teachers in the effective use of distance learning technologies. It is necessary to expand training in the use of modern interactive educational platforms in teacher training courses. After all, the teacher's teaching strategies and ability to use digital technologies directly affect the effectiveness of distance learning.

One of the pressing issues in the process of distance learning is also the development of students' independent learning skills. In order for students to effectively use distance learning, it is important to form time management, information analysis, and independent learning skills. For this, it would be appropriate to introduce motivational programs and self-assessment systems into the educational process. In conclusion, distance learning creates great opportunities in the general secondary education system. However, in order to fully utilize these opportunities, it is necessary to develop technological infrastructure, improve the skills of teachers, and form students' independent learning abilities. Also, the effectiveness of distance learning can be increased by developing interactive learning resources in the education system, adapting pedagogical methods, and improving the assessment system.

Conclusion

The results of this study made it possible to more deeply analyze the role and importance of distance learning in the general secondary education system. Distance learning serves to improve the quality of the educational process through the introduction of digital technologies, expand students' opportunities for learning, and enrich pedagogical processes with innovative solutions.

The study shows that for the effective organization of distance learning, it is necessary to pay attention to the following important aspects:



- Improving educational infrastructure, expanding access to the Internet and technological resources;
- Improving the skills of teachers in digital technologies and introducing new pedagogical methods;
- Developing students' independent learning abilities and building their skills in distance learning;
- Widespread use of interactive and innovative educational materials.

In order to further improve distance learning in the future, it is necessary to implement strategic measures to develop educational policies and digital learning platforms. This will increase the flexibility and efficiency of the educational process.

Today, with the increasing importance of distance education, its introduction and improvement will ensure an increase in the quality of education and the enrichment of the learning process with innovative solutions. Thus, distance education serves as an important tool for the successful implementation of general secondary education strategies.

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