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THE ROLE OF INFORMATION TECHNOLOGY IN SPECIAL EDUCATION

Submission Date: May 21, 2024, Accepted Date: May 26, 2024,

Published Date: May 31, 2024

Crossref doi: <https://doi.org/10.37547/ajsshr/Volume04Issue05-52>

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ABSTRACT

The article addresses the issue of organizing the entire learning process using information technology as a backup part of learning. Introduction of digital technologies in education, etc.

KEYWORDS

Special education, inclusive education, children for hearing impairment, variability, digitization, communication.

INTRODUCTION

Modern society is characterized by the rapid development of the processes of informatization and computerization. The information environment, along with the natural and socio-cultural environment, forms a new layer of the daily reality of modern man. These processes cover all spheres of human activity – educational, professional, leisure, interpersonal interaction, etc. Information technologies are becoming available to a wide range of the population, mastered by people of different professions and different ages, including people with disabilities. In this

regard, reforms are taking place in education in order to improve the quality of education.

To improve the literacy of persons with visual, hearing and speech impairments, improve the quality of educational services provided to them, protect their rights, freedoms and legitimate interests, the main directions of development of the Uzbek sign language and Braille alphabet have been identified:

- improvement of state requirements for educational programs;

- wide application of modern information technologies, innovative tools and methods in teaching Uzbek sign language and Braille;

- provision is made for the creation of television programs, films, theatrical and other cultural events in formats accessible to persons with visual, hearing and speech impairments, including their display with sign language translation or subtitles, which we can see in some TV channels of Uzbekistan;

- assistance in the formation of social and labor skills and integration into society of persons with visual, hearing and speech impairments. Since January 1, 2023, special training courses on teaching Uzbek sign language and Braille alphabet will be organized in institutions of general secondary education and single centers "Ishga Marhamat". At the same time, education for persons with visual, hearing and speech impairments, as well as parents (persons replacing them) of minor children is carried out free of charge, for other persons - for a fee. For this purpose, persons wishing to study at special training courses undergo online registration on a special information platform of the Agency for the Development of Medical and Social Services.

The Regulation on the procedure for organizing a training course on teaching Uzbek sign language and Braille has been approved. From January 1, 2023, it is provided for:

- broadcasts in the amount of at least 5% of the weekly airtime of state TV channels are broadcast with sign language translation, subtitles or with a "running line";

- when applying for master's degree and postgraduate education in state universities, persons with visual, hearing and speech impairments do not provide a national or equivalent international certificate of foreign language proficiency;

- applicants with hearing and speech impairments are required to provide sign language translation services at entrance exams to higher educational institutions.

Starting from the 2024/2025 academic year, teachers of specialized educational institutions for deaf and hard-of-hearing children are employed exclusively by teaching staff who speak the sign language in which classes are conducted.

When forming the parameters of the state order for admission to universities for the 2023/2024 academic year, admission rates based on a state grant for the areas of "Sign language teaching" and "Typhlopädagogik" increase by 25%. As part of the final exams for students studying in the areas of "Sign language Pedagogy" and "Typhlopädagogik", mandatory exams on knowledge of sign language and Braille will be conducted. Starting in 2023, a competition "The best sign Language Translator" will be organized annually in September at the expense of

the State budget allocated to the Agency for the Development of Medical and Social Services.

One of the priorities of our state's policy is to create a barrier-free environment for people with disabilities, which involves not only overcoming architectural and transport barriers, but also ensuring the accessibility of information and communication technologies for this category of the population, which is enshrined at the legislative level. The exercise by persons with disabilities of the right to education, one of the fundamental human rights, is fraught with a number of problems. The lack of necessary conditions for full participation in the educational process that meet the individual needs and capabilities of students, as well as the use of insufficiently effective teaching methods, leads to the fact that most young people with limited health opportunities cannot get a good education and profession.

The unavailability of education is one of the main reasons preventing the full inclusion of persons with disabilities in the life of modern society. The creation of suitable learning conditions for students with disabilities can be achieved through the use of the potential of information and communication technologies. Uzbekistan is at the stage of increased attention to the development and improvement of the quality of education. In this regard, President of Uzbekistan Shavkat Mirziyoyev, delivering a message to the Oliy Majlis and the people of Uzbekistan,

proposed to proclaim 2023 the Year of Human Care and Quality Education. The President stressed that it is necessary to continue reforms in the field of education, "go to educational institutions, meet more with teachers, solve existing problems together, and contribute to the implementation of their ideas to improve the quality of education." "We will include in the State Program next year all the issues raised by our people, indicating specific ways to solve them. I ask you to be active in this process, putting forward new initiatives, deputies and senators, representatives of mahallas, intellectuals, youth and entrepreneurs, the general public," the head of state urged. Today, in the world of advanced technologies, it is impossible to imagine not only education, but also life in general without information technology. Today, they have entered our lives firmly, as the current generation is growing up completely immersed in the world of technology. Digital technologies are a formalized type of information presentation, and in the case of education it is both a type of presentation and a qualitative consolidation of knowledge. For children who are passionate about techniques and technologies, providing information in this way increases accessibility, which significantly affects the quality of education. The widespread and productive use of digital technologies in education takes over intellectual assignments, which leads to the economical use of other means. Thus, there is a noticeable saving of time, energy and other means.

The role of digital technologies is increasing due to the wide possibilities of information resources. The use of digital technologies is significant not only in the field of education, but in other areas as well. The role of digital technologies is also significant in the development of the global economy.

Information technologies have appeared as a social phenomenon that determines the position of humanity on a global scale, since this procedure involves the solvation of humanity and maintains the popularity of numerous information. IT has entered the life of mankind in a relatively short time and easily, helping to regulate problems in all areas of activity and expanding ties both domestic and international, influencing the resettlement of people around the planet and is the core of minimizing human participation in the online catalog management procedure and improving methods that allow you to gain new knowledge, advertise cultural creations and stories. The widespread sale of impeccable knowledge included in high-tech products is becoming commonplace on the market, and there is a successful trade in the invisible product of cultural and artistic creations. IT is forcibly forced to accept some stereotypes of the way of actions and deeds. Information, knowledge and creativity are becoming the main strategic resources in today's society.

Below we will consider the role and importance of information technology:

1. Information technologies make it possible to activate and effectively use the information resources of society, which today are the most important strategic factor in its development. Experience shows that the activation, dissemination and effective use of information resources (scientific knowledge, discoveries, inventions, technologies, best practices) they allow you to get significant savings of other types of resources: raw materials, energy, minerals, materials and equipment, human resources, social time.

2. Information technologies make it possible to optimize and, in many cases, automate information processes, which in recent years have occupied an increasing place in the life of human society. It is well known that the development of civilization is taking place in the direction of the formation of an information society in which the objects and results of the work of the majority of the employed population are no longer material values, but mainly information and scientific knowledge.

3. Information processes are important elements of other more complex industrial or social processes. Therefore, information technologies very often act as components of the corresponding production or social technologies. At the same time, they usually implement the most important, "intelligent" functions of these technologies.

4. Information technologies today play an extremely important role in ensuring information interaction between people, as well as in the systems of preparation and dissemination of mass information. In addition to the already traditional means of communication (telephone, telegraph, radio and television), electronic telecommunications systems, e-mail, fax transmission of information and other types of communication are increasingly used in the social sphere. These tools are quickly assimilated by the culture of modern society, as they not only create great convenience, but also remove many industrial, social and household problems

5. Information technologies occupy a central place today in the process of intellectualization of society, the development of its educational and cultural system. In almost all developed and in many developing countries, computer and television equipment, educational programs on optical discs and multimedia technologies are becoming familiar attributes not only of higher education institutions, but also of ordinary schools of primary and secondary education.

6. Information technologies currently play a key role in the processes of obtaining and accumulating new knowledge. At the same time, traditional methods of information support for scientific research through the accumulation, classification and dissemination of scientific and technical information are being replaced

by new methods based on the use of newly opened opportunities for information support of fundamental and applied science, which are provided by modern information technologies.

7. The importance of the development of information technologies, which is fundamentally important for the modern stage of society's development, lies in the fact that their use can provide significant assistance in solving global problems of mankind and, above all, problems related to the need to overcome the global crisis of civilization experienced by the world community. After all, it is the methods of information modeling of global processes, especially in combination with methods of space information monitoring, that can already provide the opportunity to predict many crisis situations in regions of increased social and political tension, as well as in areas of environmental disaster, in places of natural disasters and major technological accidents that pose an increased threat to societies.

The introduction of digital technologies into education has occurred through digitalization. Digitalization is the introduction of modern digital technologies into various spheres of life and production. At the end of the 90s of the XX century, the world began to talk about IT technologies and the digital economy, whereas at that time the first mobile phones were just beginning to appear in our country. The quality of education depends on the level of organization of the

education system. As we have already stated above, today, in order to improve the quality of education, it is important to apply digital technologies in all types of educational process. Digital technologies expand the possibilities of presenting information, taking into account their variability. Digital educational technologies are an innovative way of organizing the educational process based on the use of electronic systems that provide visibility. The purpose of using digital technologies is to improve the quality, efficiency of the educational process, as well as the successful socialization of children. In this regard, the use of information technology in education becomes part of the requirements for the organization of lessons or classes. Information technologies are currently divided into several types, which makes it possible to organize the process in a pleasant and accessible way for students. Thus, more comfortable conditions are created where students have the opportunity to open up and become more active. Information technology helps not only students to give their best, but also teachers. Today, teachers understand that with the use of information technology, it is easier for them to conduct lessons by putting forward relevant issues and tasks in order to achieve goals. This is a unique option for maximizing the implementation of the curriculum.

The problem of the widespread use of information technologies in the field of education in the last decade has aroused increased interest in Russian pedagogical

science. The classics of scientific informatics, originating from cybernetics and mathematics, were the most prominent Russian and foreign scientists-academicians A.I.Berg, A.P.Ershov, A.N.Kolmogorov, P.Landa, S.A.Lebedev, N. Wiener, D.Neumann, S.Papert, K.Shannon, etc. Russian and foreign scientists have made a great contribution to the study of the processes of informatization of education and solving the problem of computer technologies of education: Ya.A.Vagramenko, E.P.Velikhov, G.R.Gromov, V.I.Gritsenko, B.S.Gershunsky, D.V.Zaretsky, 6 E.V.Zvorygin, V.M.Monakhov, T.B.Kaziakhmedov, O.A.Krivosheev, Yu.A.Pervin, V.F.Sholokhov, S.Papert, G.Kleiman, B.Sendov, B.Hunter, etc. It should also be noted the creators of textbooks on computer science: S.I.Beshenkov, A.G.Geina, Y.M.Horvitz, A.G.Kushnirenko, E.I.Mashbits, I.G.Semakin, Yu.A.Shafrin.

Various didactic problems of computerization of learning are reflected in the works of A.P.Ershov, A.A.Kuznetsova, T.A.Sergeeva, G.K.Selevko, I.V.Robert; methodological — in the works of B.S.Gershunsky, E.I.Mashbitsa, N.F.Talyzina; psychological — in the works of V.V.Rubtsov, V.V.Tikhomirov, etc.

Due to the development of science and technology, the education system periodically needs to be improved. In this regard, on 05/11/2022, the Decree of the President of the Republic of Uzbekistan, No. UP-

134 "On approval of the national program for the development of public education in 2022-2026" was approved. The main directions of the Development Program are as follows:

-full-fledged implementation of the National Curriculum in school education, developed on the basis of international best practices, as well as the practical application of modern textbooks created by domestic and foreign authors;

-increasing the authority of the teaching profession in society, creating favorable social conditions for teachers and decent stimulation of their work;

-increasing the responsibility of teachers for the education and training of young people, their demands in their continuous professional development;

-the formation of a national personnel reserve for institutions of general secondary education, the development of criteria for an advanced school principal and an exemplary teacher, as well as conducting regular assessments of the activities of management and teaching staff on their basis;

- the systematic organization of spiritual and educational work in institutions of general secondary education, the introduction of mechanisms for continuous monitoring, assessment and forecasting in this area, increasing the role of the family, especially parents, in the education and upbringing of the child;

- meaningful organization of students' free time, improvement of their professional orientation system;

-strengthening the integration of children with special educational needs into the public education system, as well as accelerating the processes of inclusive education;

-ensuring the implementation of all data exchange processes in general secondary education through a single software package for managing the public education system, expanding the range of electronic public services in this area;

-bringing the shift ratio of general secondary education institutions to an optimal level, carrying out construction, reconstruction, major repairs and equipping schools with the necessary equipment based on modern models. The main directions of the Development Program are implemented through the widespread use of digital technologies. The above-mentioned decree in the fourth paragraph establishes to allow State institutions of general secondary education, in coordination with the Ministry of Public Education, to introduce internationally recognized educational programs into the educational process, including making changes to curricula within the framework of state educational standards and selecting textbooks (with the exception of native language, literature, history, education and law). The Ministry of Public Education is also charged with

approving the procedure for the introduction of internationally recognized educational programs into the educational process of State institutions of general secondary education within a month.

The use of digital technologies improves the quality of education, the effectiveness of the educational

process, with the increased use of video content, slide presentations.

The following technologies are used in education:

-Modern educational technologies



Information technology in education allows you to find not only texts, but also videos, slides, and much more on this topic. Now the training is interesting and enjoyable, because it is not only in the form of stories, but also with the help of computers and televisions, as well as projectors, information is provided in the most convenient format for children. Many even started going to school and other educational institutions with pleasure, although it used to be a great difficulty. It is impossible not to pay attention to the second side, the students. It can be very toddlers, children or even adults, the benefits of the latest discoveries do not depend on this. First of all, technology has made it possible to receive information in any quantity, and not be limited to the words of a teacher and a textbook.

The ability to use the network has become indispensable. Students also had the opportunity to show their creativity through a variety of presentations and more.

The role of information technology in the process of social rehabilitation of adolescents with disabilities. Today, education implies an approach that is very different from the early approach. Of course, we understand that this is primarily due to the development of science and technology, a change in the worldview of today's student. Thus, information technologies have begun to be introduced into the field of education in order to increase the role and quality of education. Information technologies were actively introduced into all spheres of socio-political

and cultural life, including home life, entertainment and leisure. The rapid introduction of information technology has made it possible to improve the quality of social support and social adaptation of children and adolescents with disabilities.

Information technology tools for social support of a disabled child can be divided into several categories:

- training, monitoring and training systems;
- information retrieval systems;
- modeling programs;
- instrumental tools of a cognitive nature;
- universal tools;
- tools for providing communications.

The development of information technology makes it possible to introduce computer technology into various spheres of our lives. The rehabilitation process was not left aside. The technical means of computer information technology are widely used. So, in order to increase the effectiveness of rehabilitation, new methods and technologies are used: classes using Internet resources (educational online games), which are aimed at developing coordination of movements, imagination, broadening horizons, developing the ability to think logically, etc. For example, as a direction of rehabilitation of children and adolescents with disabilities, cartoon therapy is used — a method of

rehabilitation and socialization of children and adolescents with disabilities by means of animation creativity. Classes in multitherapy are based on the age and individual characteristics of children, groups are formed by age composition of 5-6 years, 7-8 years, 9-11 years, 12-18 years. With the help of multitherapy, the following is achieved: — the development of thought processes: the formation of concepts, problem solving, logical operations; — development of communication skills: expansion of vocabulary, expressive reading skills of children in the process of voicing and discussing the script for the cartoon;

— development of cognitive processes: perception, memory, as well as creative and creative abilities of children with disabilities; — formation of computer literacy skills: working with a mouse and keyboard; — improvement of fine motor skills of fingers through the use of various materials in the classroom: plasticine, cereals, etc.; — increasing self-esteem through interaction with other participants in the process and adults: the ability to work in a team, defend their opinions and take into account the opinions of others, working towards one goal."

CONCLUSION

After studying a number of psychological and pedagogical literature on special pedagogy and research by scientists on the problem of education of children with hearing impairment, it was clear that this

problem still needs to be studied from a larger perspective, since today all children live in the world of digital technologies, with a complete fascination with various gadgets. Many scientists also confirm that in the development of children, it is necessary to take into account their interests in everything. Since the special education system requires a differentiated approach to learning, classes are conducted both individually and frontally. In some situations, there are also online lessons. For such cases, it is very convenient and effective to use "IDroo" virtual boards. To do this, it is necessary to maximize the computer literacy of teachers and equip classrooms with technology. Various didactic problems of computerization of learning are reflected in the works of A.P.Ershov, A.A.Kuznetsova, T.A.Sergeeva, G.K.Selevko, I.V.Robert; methodological — in the works of B.S.Gershunsky, E.I.Mashbitsa, N.F.Talyzina; psychological — in the works of V.V.Rubtsov, V.V.Tikhomirov and others, where it was also noted the need for digital technologies to improve the quality of education.

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