
DISTANCE LEARNING IN THE EDUCATION OF PERSONS WITH SPECIAL NEEDS: PROBLEMS AND THEIR SOLUTIONS



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To cite this article:

Prokhorenko, L., & Sokolova, H. (2024). Distance learning in the education system of persons with special needs: problems and their solutions.. *Education: Modern Discourses*, 7, 47–55.
<https://doi.org/10.37472/2617-3107-2024-7-05>

Abstract. *The article substantiates that the introduction of distance learning as one of the directions has become globally widespread during the coronavirus pandemic. Various obstacles and challenges that have arisen are related to the synchronisation of the educational process, the construction of a distance learning environment, as well as the provision of psychological and pedagogical support and correctional and developmental work in a distance format. The author outlines a number of difficulties that have arisen with the introduction of distance learning. According to the results of the study, the main problems of distance learning for children with special educational needs, which are inherent in all categories, include: technical barriers, personal and activity barriers, and technological and methodological barriers. In view of this, the authors propose a model of distance learning, the implementation of which in the educational process of children with SEN will allow teachers to master the methods of distance learning and use variable means in providing educational information. Recommendations are offered to address pressing issues, that will make learning truly personally oriented and will increase the effectiveness of the educational process for students with different levels of mental development and in accordance with special needs, etc.*

Keywords: *academic inclusion; special education; distance learning model; digital content; psychological and pedagogical support.*

INTRODUCTION, PROBLEM STATEMENT

Distance learning in the Ukrainian education system is a recent phenomenon, facilitated by a number of crisis challenges that affected both the economic and educational situation in the country. Due to its novelty, the organisation of distance learning was based on the best pedagogical and methodological experience accumulated by various educational institutions around the world using the latest information technologies.

The successful implementation of distance learning in Ukraine is greatly facilitated by the state policy of Ukraine. During the years of independence, a number of laws have been passed aimed at informatisation of the society, including the State National Policy “Education” (“XXI Century Ukraine”), the Law of Ukraine “The National Programme of Informatisation”, The Presidential Decree “On measures to develop the national component of the global information network Internet and to ensure wide access to this network in Ukraine”, “The concept of development of distance learning in Ukraine”, “Regulations on distance learning”. The Law of Ukraine “On Higher Education” defines distance learning as one of the forms of modern education, along with full-time, part-time and external education. “The Regulations on Distance Learning for Complete General Secondary Education” and “The Concept for the Development of Distance Learning in Ukraine” regulate the rights and obligations of participants in the educational process (Law of Ukraine “The National Programme of Informatisation”, 2023; The Presidential Decree “On measures to develop the national component of the global information network Internet and to ensure wide access to this network in Ukraine”, 2000; “The Concept for the Development of Distance Learning in Ukraine”, 2000; “The Regulations on Distance Learning for Complete General Secondary Education”, 2013).

In the education of people with special needs, distance learning became globally widespread during the SARS-CoV-2 pandemic. Most children faced various obstacles and problems related to the synchronisation of the educational process, the creation of a distance learning environment, etc., because usually in special or inclusive educational institutions, in addition to teaching, systematic psychological and pedagogical support and, importantly, correctional and developmental work is provided (Prokhorenko & Prokhorenko, 2023).

LITERATURE REVIEW

There are two stages of development and implementation of distance learning in the educational process in Ukraine: 1991–1998 — development of concepts of flexible distance learning based on global computer communications (use of information and communication technologies in education; introduction of computer telecommunication laboratories; development of distance learning programmes and courses, etc.) and 1999–nowadays — use of intelligent information technologies to support continuous learning (creation of information and learning environments, virtual laboratories, multimedia technologies, virtual communities, etc.) (Belikov, 2020; Bykov, 2008).

In Ukraine, distance learning has become widespread during the COVID-19 pandemic. Currently, in times of war, distance learning is the most alternative form of education and is becoming a “salvation” for children when school attendance is dangerous.

Distance learning has a number of characteristics that distinguish it from other ways of receiving traditional education and emphasise the innovation and relevance of the learning process, in which interactive interaction between teacher and student is regular rather than episodic.

The advantage of distance learning is that each student has constant access to theoretical material at a convenient time and at an acceptable individual pace. However, the use of distance learning is possible only if each child has access to a personal computer or other devices and a high-quality Internet connection (Mala, 2022; Tolochko, 2009).

Many scholars have studied the problem of distance learning. The analysis of scientific sources shows that most scholars note a certain variety of principles of organising, building and implementing distance learning (Bykov, 2008; Topuzov & Lokshyna, 2023).

The problems of distance education have been studied by various researchers: psychological peculiarities of building the educational process with the use of distance educational technologies (Zavizion, 2020); psychological and pedagogical peculiarities of designing a virtual educational environment (Bykov, 2008); social and psychological aspects of distance education (Halatur & Kriuchko, 2020); organisational structure and psychological and pedagogical principles (Vasilieva, 2020); psychological and pedagogical problems of distance learning (Sysoieva, 2004), etc.

In the field of psychology, the use of distance learning technologies in the educational process has been studied (Chepeleva & Karamushka, 2020), etc.

Foreign scientists, in particular, have made a significant contribution to the development and understanding of distance learning: M. Moore, known for his research in the field of distance learning and transactional distance theory; T. Anderson, D. Garrison – co-authors of the Community of Inquiry Framework, which is one of the main models of distance learning; D. Keegan, developed the theory of distance learning; M. Simons, researched various methods and approaches to distance learning; D. Gasevic, studied the use of learning analytics in distance learning, etc.

Scientists outline a number of advantages of distance learning, including studying regardless of place of residence, health status; simultaneous study and work without leaving the main place of work; concentrated presentation of educational information and multi-access to it, which increases the efficiency of learning; avoiding psychological barriers related to a person's communication skills; learning at an attractive individual pace; developing digital literacy and increasing opportunities for the implementation of knowledge; the quality of distance learning is not inferior to the quality of full-time education, but is improved by attracting the highest-qualified staff (faculty) and using the best teaching materials and control tests in the educational process; reducing the cost of textbooks (access to all necessary literature after registration in the learning system, or receiving educational materials by email), stationery, clothing, travel, etc. (Garrison, 2015; Moore, 1997; Simons & Leverett, 2020). –

Different scholars agree that the organisation of distance learning, the state and quality of teaching and learning materials, the forms and technologies of presenting material to students determine not only the quality of their knowledge, but also the presence and number of knowledge gaps, which, unlike financial or moral losses, remain for life (Mala, 2020; Prokhorenko, 2023; Narzisi, 2021).

This is especially true for children with special educational needs, who usually receive systematic psychological and pedagogical support and, importantly, correctional and developmental work in special or inclusive educational institutions, in addition to education.

In the studies of S. Sonnenschein, G. Yazcayir, H. Cooper, A. Hawk, S. Wachtel and others have identified the main problems in distance learning for children with SEN, namely: a decrease in the level of knowledge and correctional and developmental services; inability to learn without adult support; incomprehension of online lessons; lack of feedback; lack of communication and cooperation, etc.

D. Garrison, T. Anderson, W. Archer draw attention to the likelihood of regression during online learning for children with SEN due to the inability to master the necessary skills and knowledge compared to their peers with normal development. According to scientists, distance learning in the education of people with special educational needs faces a number of organisational and methodological difficulties, caused by both modal and non-specific patterns of development of such children, a certain nosological group, and individual needs and capabilities of a particular child. Researchers have shown that modally nonspecific qualities are observed in all groups of children with SEN (reduced volume and speed of perception

and processing of information; impaired mental or physical performance; peculiarity of interaction with other people, etc.) (Garrison & Archer, 2000).

In her works, J. Simons emphasizes that the basis for distance learning for students with SEN is the individualization of learning due to their different needs, combined with access to digital platforms and e-learning materials. However, the organization of distance learning causes difficulties for all participants in the educational process due to the inability to ensure the continuity of the educational process, considering the individual educational trajectory of children with SEN (Simons & Beaumont, 2020).

Practical experience shows that special educational institutions are not provided with electronic textbooks, partially with textbooks for specific subjects, printed workbooks, study guides, and no digital platforms for teaching students with SEN have been created, which would allow for high-quality distance learning.

At the same time, the low level of effectiveness of distance learning is due to limited accessibility to websites, digital platforms, e-learning materials, lack of digital learning content specifically designed to meet the needs of children of a particular category, lack of electronic textbooks, teaching aids, etc. At the same time, the inconsistency of the content of the material and the time of its teaching in distance learning negatively affects the quality of knowledge acquired by children with SEN, as synchronous learning (zoom lessons) remains the main type of activity, while asynchronous learning (independent work) remains without proper pedagogical support (Sysoieva, 2004; Prokhorenko, 2023).

To summarise, distance learning undoubtedly has its advantages, however, the main disadvantages of such learning are the lack of live communication and the inability of children with SEN to learn independently, which affects the quality of knowledge acquisition by students.

METHODOLOGY

The methodology of the study on distance learning for individuals with special needs in Ukraine aims to scientifically substantiate the key barriers and identify ways to overcome them in order to ensure a high-quality and accessible educational process. A comprehensive approach was used in the study, incorporating various data collection and analysis methods to obtain a holistic picture.

Main stages of the study include: theoretical analysis of scientific articles, methodological recommendations, national standards, and reports from international organizations; identification of key research questions (such as the barriers and needs of participants in distance learning, level of technical accessibility, degree of satisfaction with the quality of learning, and main challenges in using digital platforms); conducting surveys among educational process participants (students, their parents, teachers, and administrative staff of educational institutions); planning the sample size (20 special and inclusive educational institutions of Kyiv, Odesa, Dnipro, Zakarpattia, Chernihiv regions of Ukraine); online interviews with experts (specialists in inclusive and special education, school principals, teachers, and teacher assistants); focus groups with students with special needs and their parents to explore subjective experiences regarding distance learning and identify psychological, technical, and organizational challenges; data analysis and development of recommendations (systematization of results, identification of the most common barriers to distance learning, and outlining specific recommendations for overcoming them). The study involved 215 respondents (5 principals of special and inclusive education institutions, 50 teachers, 120 parents, and 40 students). The research was conducted from November 2021 to May 2023.

The purpose and objectives of the article: to scientifically substantiate the key barriers to distance learning in Ukraine and to identify effective solutions for overcoming them to ensure a high-quality and accessible educational process for individuals with special needs.

MAIN RESULTS

Main According to the study, the main problems of distance learning for children with special educational needs that are common to all categories are:

1) problems related to technical barriers:

- 62 % of respondents noted the unpreparedness of the information and educational environment of educational institutions to support a holistic educational process in the distance learning format;

- 78 % of respondents believe that students have limited access to computers (a family may have two or three students and parents who work remotely);

- 63 % of respondents named the lack of modern mobile devices as a problem;

- 55 % of participants complain about the lack of internet connection;

- 32 % of respondents mentioned irregular working hours of teachers, etc.

Children with visual impairments and blind people face a difficult situation due to the lack of typhlotechnical devices at home;

2) problems related to personal and activity barriers:

- 89% of respondents point to the lack of direct communication between teacher and student, which makes it impossible to identify the student;

- 90 % of teachers emphasise the impossibility of providing independent work, especially for primary school students;

- 48 % of respondents report the inability of both children and teachers to communicate at a distance, which creates communication barriers and obstacles to the psychological comfort of all participants in distance learning;

- 52 % complain about a decrease in students' understanding of the material, and 34% of respondents note the difficulty of isolating the main information from the entire volume of material;

- 28 % of teachers point to problems in the development of communication and team-work skills of children with special needs;

3) problems related to technological and methodological barriers:

- 42 % of respondents say that teachers are not ready to use modern information technologies due to the lack of distance learning methods;

- 80 % of respondents are psychologically unprepared to work with such children in the context of online learning in times of war;

- 49 % of teachers note the problem of accessibility of information for children with hearing impairments/deafness, which requires teachers or interpreters to be proficient in sign language;

- 87 % of respondents emphasise that almost all children with special needs cannot absorb information on their own, so they need constant help from an adult, which makes them raise the issue of methodological and pedagogical support from their parents;

- 55% of teachers pointed to the low level of implementation of teacher training courses on working with children with special educational needs in such conditions at the state level, etc.

At the same time, it should be additionally emphasised that there are other barriers for children with visual and hearing impairments in addition to the above, including:

- the problem of accessibility of information, which requires the mandatory use of sign language by educators or interpreters (relevant for children with hearing impairments/deafness);

- technical barriers — provision of the educational process with technical means of receiving/transmitting information in forms that meet the educational needs of blind children and children with visual impairments; introduction of appropriate typhlopedagogical tech-

nologies in the educational process; inability to provide all children with typhlopedagogical aids at home.

It has been found that the above disadvantages faced by children with special educational needs in the distance learning process are observed to varying degrees at the organisational, personal, activity, and control and evaluation stages of this process.

The data obtained prompts the development of a model of distance learning in the education system of people with SEN, which will include four stages: organisational and preparatory, personal, activity and control and evaluation.

At the organisational and preparatory stage, the factor in determining the quality of the distance system is the formation of a resource base. The peculiarity of distance learning is the predominance of independent work and asynchronous activity of students, so distance learning resources should be fully developed for the entire course, before its practical implementation, and should meet the needs and demands of each child with different interests, inclinations, and level of learning readiness. The main factors are the scientific nature, completeness and accessibility of the educational material.

At the personal stage, there is an emphasis on the implementation of “personality-oriented learning”, differentiation and individualisation in the learning process depending on the psychophysical development and individual needs of the student, which will create conditions for a significant increase in learning efficiency.

Distance learning, in most cases, runs in parallel with other educational processes or the child’s workload in correctional and developmental classes, which leads to overloading of students. It is possible to avoid overload by dosing the educational material, dividing it into didactic units in accordance with the didactic scenario.

The specific feature of distance learning is the student’s remoteness from the teacher, which creates problems of unambiguous identification during learning activities, making it possible for the student to simulate active work and falsify their own learning achievements. Therefore, identification and personalisation of the learner are important at the activity stage. Distance learning should take into account the use of face-to-face consultations for individual students with SEN or groups, taking into account their needs and capabilities. As an alternative, there are two options to partially compensate for the absence or lack of face-to-face communication: organising their communication by means of network technologies (telephone, e-mail, Skype, discussions in forums, chats, through the organisation of video and audio conferences, webinars, etc.), among which Skype and video conferences are the most effective and closest to face-to-face communication; another form of organising teacher-student communication is to create a system of support and guidance for the learning process through the involvement of assisted teachers — consultants (e.g., teacher assistants); blended learning, which should include several options: a combination of face-to-face and distance learning; a combination of different learning formats within the same class (basic face-to-face learning with the use of distance learning technologies and various forms of work with electronic resources, online courses, etc.); a combination of independent learning and classroom collaboration; the use of printed/electronic textbooks and teaching materials with external materials (electronic resources).

At the control and evaluation stage, the main thing is to determine the level of performance and achievement of the goal in each specific subject, which involves the development of criteria for the effectiveness of the distance learning process, which should be based on the learning outcomes of students in accordance with the defined goal, as well as on the indicator of student satisfaction with the learning process, their psychological comfort, compliance of the content and pace of learning with individual needs, availability of opportunities for unleashing their creative potential, etc.

At the same time, correctional and developmental, psychological and pedagogical support of children in the educational process is important for ensuring effective distance learning for children with special educational needs. The main task of such support is to establish connections that affect the success and effectiveness of the educational process, in particular with parents.

The developed model of distance learning in the education system for people with SEN provides for multidirectional approaches to determining the mechanism of distance learning, which is interconnected with the learning of such children and teaching in the context of personality-oriented and competence-based approaches, namely:

1) all educational activities should be based on the strengths of the child, in accordance with his or her capabilities and needs, taking into account the peculiarities of the new “home educational” environment, in which the key issue is the preservation of the child’s health, strict adherence to the health and pedagogical regime;

2) distance learning for children with SEN is carried out in accordance with an individual development programme, i.e., during lessons, correctional and developmental classes, it is necessary to take into account the decision of the psychological and pedagogical support team to individualise the education of a child with SEN;

3) the educational process in distance learning for children with SEN is provided with the participation of a teacher, but the parents are the guarantors of feedback to the child, who contribute to the implementation of the child’s educational trajectory;

4) in the context of distance learning, a lot depends on mutual acceptance, mutual respect, mutual understanding, interaction and mutual support of the teacher, teacher’s assistant and parents of a child with SEN, as well as a responsible attitude and awareness that all this activity is for the child;

5) when planning the workload of each lesson, it should be borne in mind that independent study of material by students with SEN takes longer than the presentation of this material by the teacher, so it is necessary to reduce the theoretical amount of material as much as possible. It means optimising the thematic planning, removing unimportant fragments, and combining material from several topics into one. At the same time, it is advisable to review the expected learning outcomes and set a slightly lower level or adjust them entirely if they are too difficult to achieve in distance learning;

6) correctional and developmental support for children with SEN in the educational process is important for ensuring effective distance learning for children with SEN. The main task of such support is to establish links that affect the success and effectiveness of the educational process (the support team models the process of influence in accordance with the needs and capabilities of children, monitors the dynamics of their cognitive activity, personal development, communication activity, systemises and integrates various approaches to the child in the process of education and training, develops their own tactics, etc.);

7) in the context of distance learning, correctional and developmental influence is the basis of the pedagogical technology of an individual approach to a child with SEN. It includes online consultations (individually or collectively) with parents on organising and conducting distance learning (for example, if there is no technical support, a correctional teacher or speech therapist advises parents on what they can do at this level); classes to develop life competencies and social orientation of the child in the home environment (learning to wash dishes, make breakfast, clean the table, make a bed), etc.

In the process of distance learning, parents should be partners for teachers. For the successful implementation of parental support in the context of distance learning, it is extremely important to

- involving them in the educational process;

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- advising on the specifics of the proposed tasks, taking into account the child's individual performance in accordance with his or her health status;
 - monitoring the dynamics of fatigue, compliance with the protective regime, positive emotions of teachers and parents, etc.

Implementation of the above approaches is possible only on the basis of high teaching technologies based on modern, constantly updated computer tools and technologies. Not all students have the appropriate technology, and thus we violate the principle of creating equal conditions for all students at the very beginning: Both those who have powerful computer equipment and those who do not. Given the inappropriateness of abandoning modern, constantly improving technologies, we can give preference to those resources that present material on an alternative basis, when their textual analogues are available alongside high-tech resources.

CONCLUSIONS

Thus, summarising the obtained results, we can identify the main problems of distance learning for children with special educational needs (inherent in all nosologies), such as lack of face-to-face communication between teacher and learner; lack of necessary technical equipment; emergence of a communication barrier and lack of psychological comfort for distance learning participants; reduced perception and difficulty in isolating the necessary information, deterioration of health due to constant contact with ICT, reduced role of the teacher in the educational process; lack of electronic content for distance learning in times of war, etc.

At the same time, distance learning is not suitable for the development of communication skills, confidence, teamwork skills, the development of which is extremely important for children with SEN.

And one of the main problems is that all children with special needs cannot absorb information on their own, so they need constant help from an adult.

Parents of students with special educational needs face even greater obstacles, as they take on the role of not just being teachers, but also members of the individual child development programme (ICDP) team — a psychologist, speech therapist, correctional teacher and other specialists.

All this leads to:

- formation of an adaptive distance learning environment for teachers and children;
- creation of a unified distance learning standard: new generation textbooks, methodological guidelines, teaching aids, as well as various complexes and programmes;
- increase the number of contacts with teachers to work out unresolved issues through synchronous face-to-face or online classes, blended learning;
- use of innovations in the field of distance learning;
- creation of a supportive atmosphere for learning.

Thus, the creation of a distance learning model in the education system for people with SEN will allow for the planned and effective improvement of the educational process quality, ensure the preservation of students' health, help to neutralise harmful factors of influence, create conditions for the development and self-realisation of each individual, the development of creative activity, and allow for the economical and rational use of resources.

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