The Use of Information Technologies in the Practice of the Educational Process as a Means of Improving the Quality of Education

Laura Kagermazova¹*, and Zarema Masaeva²

¹Chechen State Pedagogical University, Subra Kishieva str. 33, 364068, Grozny, Russia
²Kadyrov Chechen State University, Sheripova Street, 32, 364024, Grozny, Russia

Abstract. The article substantiates the relevance of the need to create an online platform for distance learning, which allows to support students with special educational needs. The problematic issues voiced by school teachers during the transition to distance learning during the period of the threat of the spread of a new infection in the Russian Federation are presented. The main documents on the basis of which the children of this group receive education in schools, including the use of distance technologies, are named. The educational online resources recommended by the Ministry of Education of the Russian Federation are analyzed in order to identify the material necessary for the psychological and pedagogical support of children with specific educational needs. Examples of various sites and Internet portals used by teachers and psychologists are given. The article implements the developed and tested educational standards of primary general education for students with disabilities, which allow each student with different starting opportunities to create conditions for success in obtaining an education.

1 Introduction

The problems of the world community since 2020 have necessitated the formation of a person's readiness for learning and working remotely. Due to global events related to the spread of COVID-19, in 2020, educational organizations in many countries were forced to switch (in Russia after spring break) to distance learning in order to comply with the self-isolation regime.

The most vulnerable group of schoolchildren who experience the greatest difficulties in learning in this format are children with special educational needs (hereinafter referred to as SEN), despite the fact that in Russia the state policy in the field of education is aimed at providing affordable and high-quality education for students with disabilities health (hereinafter - HIA) and children with disabilities.

In paragraph 16, art. 2, ch. 1 of the Federal Law on Education, for the first time in Russian legislative practice, the concept of “student with disabilities” is enshrined in terms of the need to create special conditions for obtaining education. In paragraph 3, art. 79, ch. 11 of this law determines what refers to the special conditions (components are listed) necessary for this group of children. In Art. 1, ch. 1 of the Federal Law "On the Social

*Corresponding author: laura07@yandex.ru

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Protection of Persons with Disabilities in the Russian Federation, the concepts of "disabled person", "restriction of life" are disclosed. The developed and tested educational standards of primary general education for students with disabilities are being implemented, which allow each student with different starting opportunities to create conditions for success in obtaining education [2]. Based on the existing standards, children with disabilities and children with disabilities are included in an inclusive educational environment, a situation is created for motivation for educational activities, various types of activities for social adaptation are provided, the concept of competitiveness, readiness for life and work in society is being formed. However, OOP also require the creation of special conditions for distance learning.

At this historical moment, high-quality education is practically unthinkable without information technology, including distance learning technology that allows you to pass through space and use convenient time. E. V. Lopatina notes that information technologies have changed the spheres of our life, made it possible to study independently remotely [3].

Distance learning is of great importance for the following categories of children with SEN:

- people with limited mobility and living remotely, when the nearest school is often located only in the administrative center, it becomes possible to study at home using remote educational resources and the assistance of specialized teachers;
- in need of individualization of programs, the pace of learning, its organization in accordance with individual needs in the development of the material. For everyone, work in the virtual space allows them to quickly adapt to an informatized society, learn how to operate in the latest generation computer programs, and form the skills and abilities necessary when choosing a profession. Virtual communication helps schoolchildren develop communication skills and free communication on the network, promotes integration into society outside school hours [1].

Among the publications of recent years devoted to the problems of distance learning, the following issues should be highlighted:

- relevance of application of remote technologies [2], [12];
- problems, perspectives of distance learning [4], [13];
- concept, provision, forms of interaction between participants, types of communication, reporting forms, technologies for creating electronic resources, conditions for distance learning [6];
- advantages, disadvantages of distance learning from the position of parents [7];
- distance learning for children with SEN [1]).

An analysis of the literature, a study of information and methodological tools, a survey of teachers and educational psychologists of schools in the Kabardino-Balkarian Republic confirms the fact that among the problems that were noted during distance learning by all participants in the educational process (teachers, psychologists, social pedagogues, parents and students), are called organizational, logistical, methodological, psychological. For example, parents, teachers, students are faced with the fact that the systems "Electronic Journal", "Russian Electronic School", "Foxford", YaKlass and others could not cope with the colossal influx of users, could not provide full technical support on the first day: at the same time, the number of users sent, downloaded files. Of course, these technical problems were quickly overcome, and all platforms began to function in full. Solving the problems of psychological and methodological readiness of teachers required a lot of time, development and implementation of special training courses. The first difficulty noted by teachers is related to the choice of online educational platforms recommended by the Ministry of Education of the Russian Federation, which allow studying school subjects in full in accordance with the program. It took time for primary school teachers, subject teachers to analyze some of the proposed educational platforms, to find materials on their subjects of the school curriculum [8].
The topic of our study is especially relevant at the present stage of education in the Russian Federation, since the resources of distance and online learning expand the capabilities of teachers in remote psychological and pedagogical support (hereinafter referred to as teaching staff) of children with special educational needs (SEN), and also increase the professional competence of teachers through use of information and communication technologies (ICT).

Based on the foregoing, we can conclude that there is a need to create a new information and methodological toolkit for distance learning, which allows the teaching staff of students with SEN.

Thus, the relevance of this study lies in the need to resolve a number of contradictions between:

- the requirements of legal documents in the implementation of adapted basic general education programs and the imperfection of the mechanisms for their implementation in distance learning;

- the requirements set by the "Professional standard of a teacher" (to have ICT competencies) and the lack of information and methodological support.

2 Research Methodology

1. Theoretical: analysis and synthesis in the study of legal acts in the field of education, scientific and methodological literature on the research topic;

2. Empirical: questioning teachers of secondary schools, studying social networks and Internet resources in the field of remote psychological and pedagogical support for children with special needs;

3. Mathematical: a method for calculating elementary statistics based on the results of primary and final questioning, qualitative and quantitative processing of research results, a method for visualizing the results.

The basis of the empirical study was:

1. Internet resources and social networks.

2. General education schools of the Kabardino-Balkarian Republic.

The novelty of the obtained results is as follows:

1. For the first time, resources were identified and the state of organization of remote teaching staff for children with SEN in the Kabardino-Balkarian Republic was analyzed.

2. Taking into account the identified problems, a new information and methodological toolkit for teaching staff of children with SEN has been developed [14];

Let us consider in more detail the online resources recommended by the Ministry of Education of the Russian Federation for distance learning [4]. It is possible to use the resources of "Yandex.Textbook", "Yaklass", "Uchi.ru", "Russian Electronic School", "MESH" by specialists in the implementation of correctional programs, provided that these tasks are not used by teachers who teach basic subjects. The websites My Achievements, Foxford, Olympium are aimed at preparing schoolchildren in grades 3-11 for exams and olympiads. The resource “Ticket to the Future” (for grades 6–11) is of a different plan, which provides an opportunity for teachers to acquaint students with professions. Marketplace is another online course platform that provides educational materials for free in 13 regions [2], [11].

After analyzing the recommended online resources, we can conclude that they are aimed at providing materials only for mastering programs in academic subjects. There is practically no correctional block or materials for psychological and pedagogical support of children with disabilities and children with disabilities on these sites.

3 Results and Discussions
There is a problem that many teachers have faced: where to find a proven system of materials for the implementation of special programs in distance learning (for example, speech therapists need video materials for articulation, kinesiology, music-rhythm, special exercises, simulators, tests). This was one of the tasks that we set ourselves: to explore information and methodological tools on the problem of remote psychological and pedagogical support for children with special educational needs [8].

You can find resources that provide psychological assistance to families who are raising a special child, by choosing tactics, methods, ways of interaction (for example, "Special resource" (https://special resource.rf/team). There are also many various Internet resources that host information only for a certain group of children in this category [2], [10]. There is the possibility of long-term education (2-3 years) in accordance with the level of development of the program on a paid basis. For children with disorders of the musculoskeletal system, you can find the necessary information on the websites "All about aplasia, hypoplasia and defects of the limbs", "All Elfika's Tales".

Thus, we see that on the educational online sites recommended by the Ministry of Education of the Russian Federation for distance learning, there are no resources containing a free accessible system of classes for specialists in the correctional unit. The materials for teaching children with OOP posted on various portals are scattered, do not allow you to create or use ready-made materials using the constructor. Based on the foregoing, we conclude that there is a need to create a new information and methodological toolkit for distance learning, allowing the teaching staff of students with SEN. In a survey of teachers in general education schools, 35% of teachers have limited ideas about working in the conditions of distance education, 35% have not used a single site in their work, which means that the development of new information and methodological tools will be interesting and useful to 35% of teachers in organizing remote teaching staff children with OOP.

It was also interesting for us to find out what information from the Internet resource was useful in the work of teachers and specialists in the field of special psychology. An analysis of the responses showed that 86.1% of the respondents used the information in the "Category of children" section. It can be assumed that this is due to the fact that the number of children with AKI attending general education institutions is growing every year. For example, if 5 years ago these were mostly students with mental retardation and rarely with intellectual disabilities (mental retardation), now children with visual impairments, autism spectrum disorders and others study at school. In this regard, the need for specialists to accompany students with disabilities. It can be assumed that this is why 83.3% of the teachers surveyed got acquainted with the materials in the "Specialists" section. 69.4% of survey participants chose the position "Libraries" in their answers. This suggests that the participants in the educational process use (will use) scientific literature and research by scientists in their work. 58.3% of respondents turned to the VK Communities section of the Internet resource. It can be concluded that more than half of the teachers are active users of networks.

4 Conclusions

A new information and methodological toolkit for organizing remote teaching staff for children with special educational needs was recommended to general educational institutions of the Kabardino-Balkarian Republic. A significant question for us was addressed to teachers and specialists of general education schools: “Was this online platform for psychological and pedagogical support of children with SEN useful to you?”. 100% of teachers and specialists answered: “Yes”. After analyzing another question, we found that all the pages of the information and methodological tools were used by teachers in their work with children with AKI in full.
The theoretical and practical significance of this study lies in the fact that the results of empirical work can be used to improve the quality of remote teaching staff for children with SEN, this resource can be used by teachers of educational institutions not only in the Kabardino-Balkarian Republic, but also in other subjects of the Russian Federation.

A developed resource on the online platform for the psychological and pedagogical support of children with SEN in the distance learning system, where a list of sites for teaching children with SEN is systematized and located, there is a constructor that allows you to create exercises, form classes from ready-made tasks, video clips, sound recordings.

Summarizing the above, we can conclude that the developed new information and methodological tools were interesting and useful to all subjects of the educational process in the remote teaching of children with SEN, thereby confirming the hypothesis of the study. We also consider it necessary to further develop new information and methodological tools, as well as create versions of the Internet resource for phones and tablets, which will significantly increase the number of site users, thereby improving the quality of remote psychological and pedagogical support for children with disabilities.

References

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