Applying of distance learning technologies within the
digitalization of the educational process as a real alternative to
education for persons with disabilities

E V Rezak$^{1,3}$ and S G Pankrateva$^2$

$^1$Pacific National University, Khabarovsk, Russia
$^2$Far Eastern Institute of Management - branch of the Russian Academy of National
Economy and Public Administration, Khabarovsk, Russia

$^3$E-mail: 010931@pnu.edu.ru

Abstract. The article deals with the topic of teaching people with disabilities. The issue of the
development of education towards digitalization is considered, within which in the process of
teaching, distance educational technologies are beginning to be actively used, in particular for
students with disabilities. The difficulties in the process of obtaining an individual rehabilitation
program for full-time, part time or extra mural education are shown there. The idea is
substantiated that teaching with the use of distance educational technologies is an alternative to
full-time education. This kind of training is aimed at developing students' independence in terms
of searching, processing, using and analyzing essencial information. The article presents the
possibilities of using the training opportunities for persons with disabilities based on distance
technologies, and also reveals a number of problems in the field of distance education. It is also
noted that the use of distance educational technologies makes it possible to organize the training
process for persons with disabilities.

1. Introduction
At present, the problem of training and development of persons with disabilities is becoming more and
more important. From year to year, their number in Russia is increasing, so the issue of modernization
and digital education for this category of people is relevant. The educational environment should be
designed in such a way that each child of this category not only be able to master educational programs
successfully, but also find the optimal way for himself to learn and adapt to the educational process.
Regardless of the state of health, the rights of everyone to receive education are enshrined in the
Constitution of the Russian Federation [1], as well as in federal laws of November 24, 1995, No. 181
"On social protection of disabled people in the Russian Federation" [2] and of December 29, 2012 No.
273 "About education in the Russian Federation" [3]. These laws allow students with disabilities to be
among their peers in educational institutions, to communicate, and to adapt to the learning environment.
Elimination of barriers to communication with peers and overcoming self-doubt will lead to the
formation of social and communicative competence of disabled children, which will have a positive
effect on their socialization. To design such learning environment, it is necessary to use distance
teaching technologies.

However, noting the fact that the number of people with disabilities is increasing now, it should be
noted that the very recognition of a person as a disabled person becomes more complicated process that
requires patience and methodicalness, both on the part of the disabled person and/or his parents (guardians), and of representatives government agencies involved in this process. [4]

In order to obtain a conclusion for training (based on the results of a psychological, medical and pedagogical examination), a pupil with disabilities must undergo the following state institutions [5]:

First, a polyclinic at the place of residence, in which it is necessary to collect a certain list of analyses and visit all necessary specialists, so, at this stage the process takes place quite quickly (if the child's parents cooperate), since children with disabilities are often examined out of turn.

Second, medical and social expertise. In the bureau of medical and social expertise, on the basis of the necessary analyses, examinations and extracts, the decision is made to confirm such a state of human health, which entails the onset of legally significant consequences (disability).

And if there are violations of the musculoskeletal system, in addition to the listed institutions, you will also need to pass:

- prosthetic and orthopedic enterprise to obtain the act of the medical and technical commission (pass before visiting the bureau of medical and social expertise);
- social insurance fund, to receive a referral for the manufacture of a prosthesis, orthosis, etc. (pass after visiting the bureau of medical and social expertise). Then, the necessary product is manufactured at the prosthetic and orthopedic enterprise.

And only after that, in the bureau of medical and social expertise, an individual rehabilitation program is drawn up, which must necessarily contain the following information of the conditions of training:

- kind of educational program;
- recommended training conditions;
- form of study (full-time, part-time, extra mural);
- special training mode (training time, vision mode, etc.);
- special technical training tools (for various types of health disorders);
- getting the services of an assistant (helper), tutor, etc.

However, even after receiving an individual rehabilitation program, students must adapt to the educational system in the educational institution [6].

2. Results and discussion

However, at present there are a huge number of opportunities for the system itself to adapt to that category of students. One of these methods is distance teaching. [7]

In the age of informational digitalization, when using of information and communication technologies, the remote educational technologies are one of the most modern forms of knowledge acquisition. [8] Computer, Internet, information and communication technologies, distance educational means are an integral part of modern education. These technologies are becoming increasingly popular in vocational training and advanced training.

Distance technologies are understood as educational means with applying information and communication technologies, implemented with indirect or partially indirect interaction of the parties to the educational process. [9]

The most common forms of distance teaching are online chat classes, web classes and teleconferences.

Chat classes are carried out by means of chat technologies. All participants of the educational process at the same time have access to a common chat, during which they can directly ask questions both to the teacher and other students, exchange files, pictures, etc.
Web classes are one of the most popular forms of distance training. It includes online lectures, seminars, conferences, business games, laboratory and practical classes, defence of tests and self-study tasks. This form of the educational process’ organization allows you to communicate using video chat.

Teleconferences are mainly based on e-mail mailing lists.

Applying of distance education technologies in the educational process has both advantages and disadvantages.

Efficiency is the undeniable advantage of remote technologies. The use of modern information and communication means, software and technology in teaching, makes it more effective. These technologies make the information more bright, memorable, interesting, interaction between the teacher and the student becomes more active, and the learning process becomes dynamic. This type of teaching allows you to reduce the length of training, to receive several entities at the same time, in particular, to get education abroad. The use of distance learning is aimed at developing the independence of students in terms of finding, processing, using and analyzing the necessary information. [10]

In parallel with this, learners develop skills in professional communication, critical thinking, and also develop skills in using modern information and communication technologies. Thus, in the course of distance teaching, students not only possess professional knowledge, abilities, skills, but also form vital competences necessary in professional activity. [11]

Distance learning can be organized on many specialized platforms [12] (Moodle, Moodle Cloud, Edmodo, Google Classroom, iSpring Online, etc.), on the basis of which teachers create their online courses. The created courses are very convenient; information is available at any time and in any place where there is an Internet connection; systems allow you to evaluate works automatically and immediately build a rating of students; interaction between the teacher and the student occurs not only by evaluating the work of the teacher, but also using forums. Students perform tasks at a convenient time for them, in a comfortable environment, at an individual pace of work, which is very important for people with disabilities. Thus, the organization of distance learning uses an individual approach. [13]

Training becomes more flexible, this system forms students’ self-education skills.

Also, with distance learning disappears the factor of constraint in front of the audience and its psychological impact, for example, when passing a test or an exam. The factor of subjective assessment on the part of the teacher is removed, since no sympathies and/or antipathies arise, of course, this contributes to a more relaxed behavior of students, and the level of their academic performance increases.

When studying remotely, there is an opportunity to practice incognito. Depending on the inner perception of themselves, disabled children may be ashamed of their appearance, age, etc.

The fact of the cost of distance learning should also be noted. As a rule, such training is cheaper than traditional training due to reduced transport costs, living in another city, classroom fund and its wear and tear, since students do not occupy the classroom of the educational institution, and also payment for the work of teachers.

These advantages of distance learning lead to an increase in student motivation [14], especially for the category of people with disabilities. This is an opportunity to independently assess your potential, to try to determine your place in your future professional activity.

Despite the obvious advantages of distance learning, there are a number of problems in this area.

For many educational institutions, there is a problem of adapting curricula and educational and methodological support of the educational process for students with disabilities. When developing programs, it is necessary to take into account that such persons do not fully assimilate knowledge by the usual methods. The arrangement of a specialized office with technical equipment is a necessary requirement for organizing training with distance technologies.

Insufficient qualifications of teachers to work with distance educational technologies is also the problem. Many of the teachers do not have specialized education, have a low level of skills in working with information and communication technologies, including both specialized software and equipment.
The regulatory framework also requires supplementation, since at the moment there are no standards describing the requirements for the organization of the educational process for students with disabilities in educational institutions.

In addition to the above, the disadvantages of distance teaching include the lack of personal communication between the teacher and the student, the difficulty of making a creative atmosphere in the learning process, the technical lack of equipment for students [15], the problem of confirming identity when testing knowledge, and the high labor intensity of developing courses for teachers.

3. Conclusions
In conclusion, it should be noted that the use of remote educational technologies makes it possible to effectively organize the educational process for persons with disabilities. Often this is the only chance for them to get an education. The educational environment with the use of distance learning should be aimed at assisting in the self-realization and socialization of this category of people.

The use of digital and information and communication technologies in distance learning is a modern way of obtaining, transferring knowledge and developing persons with disabilities. These technologies contribute to successful socialization, increase motivation to teach children with disabilities, develop their independence, communicativity, responsibility, and provide psychological support. The main characteristics of distance learning are accessibility, consistency, social adaptation to the educational process and further adult life.

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