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### Psychological Features of the Application of Distance Technologies in Education

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### **Abstract**

The article examines the psychological features of the use of distance learning technologies in the educational process of schools and higher educational institutions of the Russian Federation. Since modern education is developing in the context of an increasing flow of information, the participants in the educational process have to operate with a huge amount of knowledge in various spheres of human activity. The development of information and communication technologies has created fundamentally new conditions for working with information in the education system. In recent decades, distance learning technologies based on the use of modern information and communication capabilities have been actively introduced. Previously, one could hear about distance learning as an innovative form of the educational process, but today the use of distance learning technologies in the field of education does not surprise anyone. Particular attention in the article is paid to the advantages and disadvantages of distance learning in comparison with the traditional one. The use of distance technologies allows to significantly diversify the educational process, introducing elements of play, competition, and color into it, to reveal the creative abilities of students, and also to cause students' satisfaction from the learning process itself. With a correctly chosen teaching strategy, information technology can be effectively used to create interest among students in the subject under study. The article provides general recommendations on the use of distance learning technologies in teaching various age groups, from primary school age to adolescents.

**Keywords:** *distance educational technologies, distance learning, educational process, information technologies.*

### **Introduction**

Our living conditions have changed due to coming into existence pandemic, which had a serious impact on how much time we spend on the internet. Also this situation influence education. Many educational establishments in the Russian Federation started to work online to prevent the spread of the epidemic. It became actual for using distance forms of education.

Distance educational is educational in which its subjects are separated in space and, possibly, in time, is implemented taking into account the transmission and perception of information in a virtual environment, is provided by a special system for organizing the educational process, a special methodology for the development of teaching aids

and a teaching strategy, as well as the use of electronic or other communication technologies (Andreyev, 1999).

This article reveals the following features of the application of distance technologies in education:

- (i) organization of distance education in Russian schools, colleges and universities;
- (ii) advantages and disadvantages of distance education;
- (iii) the use of distance learning technologies in teaching different age groups.

The remainder of this paper is organized as follows: the second section is devoted to a description of the features of the use of distance education technologies in Russia. The third section deals with the main advantages and disadvantages of distance education. Section 4 is devoted to the psychological characteristics of primary school students, middle school students, and senior students; analyzed the possibilities of using distance educational technologies when teaching them in Russian schools.

### **Advantages and disadvantages of distance education**

Experiments carried out in various Russian universities have confirmed that the quality and structure of training courses, as well as the quality of teaching in distance learning, are often much better than in traditional forms of education. The interactive capabilities of programs and information delivery systems used in the distance learning system allow you to establish and even stimulate feedback, provide dialogue and ongoing support that are impossible in most traditional learning systems (Ibragimov, 2005). The “virtuality” of teaching helped to remove psychological barriers for certain types of students who are embarrassed to ask questions in chat or videoconference.

According to statistics, the number of lecturers in Russian universities who have a negative attitude towards distance learning is diminishing every year. They note that using distance technologies has had a positive impact on the growth of the digital competence of the teaching staff. Many lecturers also note that there is an opportunity to select interesting audio and video materials for each lesson, to form a high-quality content of the training course, and the developed courses can be successfully used and supplemented in the future (Kruk, 2017).

However, there is one feature, using distance educational forms is not possible for every syllabus. For many specialties, the curriculum includes activities such as laboratory and practical exercises, which cannot be carried out online. Consequently, we can't say that distance education is absolutely adapted for using in all universities of the Russian Federation. But despite it this way of organizing classes, namely distance education, has advantages (Pashchenko, 2013):

1. Those participants of the educational process who could not attend due to geographic remoteness or for health reasons can attend classes.
2. The information obtained in the lesson in the form of electronic materials (presentations, cases, etc.), as well as video lessons remains for the entire period of study and can be updated as needed.
3. Distance education allowed students to study at their own pace.
4. Independent cognitive activity of the students effectively develops.

However, distance technologies in the educational process also have a disadvantages

1. The main one is the time the child spends at the computer. Sometimes study takes from 2 to 5 hours and during this entire period, the pupil or student needs to be near the computer, which undoubtedly harms his health.
2. Not all participants in the educational process have the necessary technical resources to participate in the classroom.

### **Features of the use of distance education technologies in Russia**

Distance learning is fundamentally different from traditional forms of education. When considering distance learning as an activity mediated by computer technologies, it should be noted that it is characterized by many psychological features in comparison with traditional forms of education.

The use of computer technologies in distance education of schoolchildren allows improving its cognitive processes. The introduction of distance education fundamentally changes the role positions of "teacher-student". In the traditional form of teaching, the teacher acts as an interpreter of knowledge. With the expansion of the educational space, the function of interpreting knowledge is assumed by the student, and the teacher is the coordinator of this knowledge. He directs the work of students, their cognitive processes, that is, takes on the functions of accompanying the educational process (Weindorf-Sysoeva, 2019).

If to talk about using distance educational technologies in higher education institutions, then it should be remembered about online-environment specific, which seriously influence all components of learning activities: educational motivation, educational situation, control, and academic progress and introduces completely new components of the necessary educational content for the preparation of competitive specialists.

With starting of using distance educational technologies in the organization of the educational process Russian schools teachers have to be maximally adapted to new education form. The rapid development of information technologies, new education methodologies emergence, standardization of general secondary education programs - all these factors influence the choice of the way of organization of the educational process, that has to maximally use available telecommunication, information, educational technologies. In this regard, to organize an effective educational process, Russian schools use such a learning mode as live online communication between students and teachers (Nagaeva, 2011). That happens through the creation of the online conference in programs «Microsoft Teams», «Zoom», etc. Also platforms «Дневник.ру», «ЯКласс», «Учи.ру» have big popularity. They are intended for homework, parental control and provide learning at any convenient time for a student. It should be noted that a feature of distance education in Russia is the inclusion in the educational process not only of students but also of their parents. The introduction of new information technologies into the educational process requires the maximum participation of parents for children to adapt to new learning conditions with minimal stress. With the transition to the online education format, adults have inclusiveness in doing school homework, which carries out the unity and continuity of family and social upbringing.

### **Recommendations for the use of distance learning technologies in teaching different age groups**

The beginning of schooling means the transition from play to learning activities as the leading activity of primary school age. School education in the Russian elementary school (grades 1-4) is structured in such a way that verbal-logical thinking is predominantly developed. If in the first two years of schooling, children work a lot with visual samples, then in the next classes the volume of such classes is reduced. Memory in primary school age develops in two directions - arbitrariness and meaningfulness. Children involuntarily memorize educational material that arouses their interest, is presented playfully, is associated with vivid visual aids, etc. But,

unlike preschoolers, they can purposefully, voluntarily memorize material that is not too interesting for them (Obukhova,2019). The modern elementary school puts forward the requirement for the full assimilation of knowledge, skills, the formation of a learning product by a specific goal. Therefore, it is so important to know how the educational process takes place and what its effectiveness depends on. In elementary school, a teacher can use various forms of organizing the perception of new knowledge: oral presentation of knowledge, supported by clarity, the performance of search tasks. Game activity at this age is still present, therefore, when constructing a lesson, you can use web quests - problematic tasks with elements of role-playing games, training simulators built in the form of a game, as well as interactive content (games, puzzles, timelines, etc.).

Adolescence is the hardest age. Teenagers are students in grades 5-9. They are no longer children, but they are not adults either. In adolescence, communication with peers becomes the leading activity (Isaev, 2012).

Attention during adolescence is voluntary and can be fully organized and controlled by the student. Individual fluctuations in attention are due to a decrease in interest in learning activities. It is possible to increase interest in learning using case studies, which involves the reflection of a situation as close as possible to reality, which the students must solve. The study materials of the cases are distinguished by interactivity, which implies and stimulates the independent work of students.

The connection of memory with mental activity at this age, with intellectual processes in adolescence, acquires an independent meaning. As a teenager develops, the content of his mental activity changes in the direction of transition to thinking in concepts that more deeply and comprehensively reflect the relationship between the phenomena of reality. Distance Olympiads are becoming relevant, which allow students not only to apply their knowledge, check the development of the mental activity but also help to get out of the comfort zone, which contributes to their personal development. There is a transition to a new stage of mental development (Bordovskaya, 2017).

In senior school age (grades 10-11), social consciousness and self-awareness are formed, and the process of professional self-determination begins. Older students choose what they will do after graduation. It is at this age that it is important in the educational process to use computer training programs and electronic textbooks available to students using global computer networks. This will contribute to a deeper analysis of information related to their future profession. All this increases motivation for learning activities (Selevko, 2019).

## **Conclusion**

Based on the fact that there are not only advantages but also disadvantages in distance learning, it is used to develop conditions for the successful implementation of this form. It will be only in the case of its reasonable use, taking into account the parameters of the psychological development of students of different age periods. To determine these methods and forms of requirements for classes, taking them into account, it is necessary to conduct a study aimed at studying the effectiveness of the use of distance technologies in education at different ages and using different methods.

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