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THE CRISIS OF EDUCATION IN CONDITIONS OF THE COVID-19 PANDEMIC: THE MODEL OF BLENDED LEARNING

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Abstract

Purpose of the study: The paper presents a topical problem of modern higher education in the context of the transition to distance learning for the period of active spread of the coronavirus COVID-19. To date, a decision has been made to partially or completely close schools and universities in 191 countries around the world. As a result, about 1.6 billion students switched to distance education. In this connection, today this area of the system of education is of the highest importance, both for individual countries and for the entire world community.

Methodology: The leading approach to the study of the problem of distance learning in the system of higher professional education was a systematic approach as a methodological principle of modern science. The scientific and theoretical teachings about distance learning, the distance learning technology, the model of blended learning in higher education; theoretical propositions on the methods and technologies of providing distance learning in higher education became the fundamental basis of this study.

Results: The paper presents the study results of the most relevant trends in education: omni-learning (learning with the use of all possible communication channels), adaptive learning, distance learning, online mentoring, blended learning, "self-learning" organizations, EdTech startups, etc. The results of a comparative analysis of traditional forms of learning and blended learning are presented. It has been proven that blended learning is the most effective form of distance learning.

Application of this study: We can conclude that in the current socio-economic conditions of the development of the system of higher professional education, the introduction of a blended learning model in the framework of the conception of lifelong education seems to be necessary and obvious in our opinion. Proceeding from this conception, specialists of any profession need continuous improvement of knowledge, skills, professional competencies, which is possible in the framework of the blended learning model using e-learning technologies.

Novelty / originality of this study: The conclusions have been made that blended learning makes it possible to translate the learning process into the information space; contribute to the formation of the learner's competencies stipulated in the Federal State Educational Standard and also creates the conditions for the development of readiness and the student's ability to self-actualize.

Keywords: *System of Education, Distance Learning, Distance Learning Technology, Higher Education, Coronovirus Pandemic, COVID-19.*

INTRODUCTION

The outbreak of the COVID-19 coronavirus pandemic in Wuhan, China in January 2020, and then spreading around the world, is an emergency situation for all mankind. The COVID-19 pandemic is an economic, social, political and universal crisis that quickly pervaded all areas of human life, including the sphere of educational services.

On March 4, 2020, UNESCO published a report on the sharp transition to remote forms as a result of quarantine measures. According to UNESCO Director General Audrey Azoulé:

"The scale and speed of the interruption in the educational process today is unprecedented and could violate the basic rights of many children to receive education". On April 23, 2020, UN Secretary General Antoniu Gutteris made a report on human rights in the context of the spread of the COVID-19 pandemic. The keynote of A. Guterrish's speech was the problem of human rights and their role in shaping the response to the threat of the pandemic both for an emergency situation in the field of public healthcare and for a wider impact on people's lives. Taking human rights into account is a major challenge in dealing with emergencies. Measures taken in the fight against the coronovirus that take into account human rights lead to better results in the fight against the pandemic. Taking human rights into account in a crisis will create the ground for overcoming this crisis with a more constructive, sustainable and efficient society in the framework of the world development. The consideration of human rights should also touch upon the human right to education. To date, in 191 countries around the world, the decision has been taken to partially or completely close schools and universities and switch to distance learning for the period of the active spread of the coronovirus. As a result, about 1.6 billion students switched to online learning (https://www.un.org/sites/un2.un.org/files/un_policy_brief_on_human_rights_and_covid_23_april_2020.pdf).

At present, active work is underway in all countries of the world to ensure continuity of education for all. In particular, the organization of distance education can make it possible to cope with a crisis situation quite successfully. But are countries ready for such a forced transition? The answer to this question requires focusing on risk assessments and the prospects for the educational process in Russian universities in the face of forced transition to distance learning in the context of introducing quarantine measures. In this situation, proven forms and methods, a description and study of successful cases and programs, as well as a comprehensive risk assessment are important. Educational systems should have high-quality resources and Internet platforms that can quickly and efficiently switch to distance learning.

The possibilities of online learning before the spread of the COVID-19 pandemic throughout the world were not the subject of close attention of both scientific researchers and practitioners of educational fields. Distance education was used, as a rule, as an auxiliary teaching method and solved specific, mostly highly specialized problems. However, today this area of the education system is of the highest importance, both for some countries and for the entire world community.

FORMULATION OF THE PROBLEM

The first decades of the XXI century can be described as a dynamic development of the economy of the leading countries in the world which led to the large-scale introduction of digital technologies in the economy and social sphere.

In Russia, one of the national development goals is to ensure the accelerated introduction of digital technologies in the economy and social sphere (Decree of the President. 2018). The formation of educational programs is of particular importance which meet global trends, and personalized learning paths that can provide digital literacy. To ensure digital literacy, Decree No. 204 determined the fulfillment of the following tasks by 2024:

- to ensure the global competitiveness of Russian education, the entry of the Russian Federation into the number of the 10 leading countries in the world in terms of the quality of general education;
- to introduce new teaching and upbringing methods, educational technologies at the levels of basic general and secondary general education that help students acquire basic skills and abilities, increase their motivation for learning and involvement in the educational process, as well as update the content and improve teaching methods of the subject area "Technology";
- to create a modern and secure digital educational environment, providing high quality and accessibility of education of all types and levels;
- modernization of vocational education, including through the introduction of adaptive, practice-oriented and flexible educational programs.

However, the development of the COVID-19 coronavirus pandemic worldwide led to a sharp introduction of digital technologies in all areas of educational services which caused technological complications and entailed the restructuring of the entire system of education.

Online technologies and the forms of training based on them have become the main form of the educational process in educational institutions. However, the need to implement online learning leads to the loss of the monopoly on the transfer of knowledge by universities. In this socio-economic situation of development, the teacher ceases to be perceived as a "reproducer" of information and becomes more a mentor and a "navigator" of the educational process. All this leads to the urgent need to change approaches to learning and transform educational models (Goloshumova et al., 2019; Lekareva et al., 2018; Romanova et al., 2019). The key objectives facing the system of higher education today in this way are the creation of new educational content that meets the requirements of a dynamically changing labor market and human needs (Global Education Futures Report, 2018). Among the most relevant trends in education are: omni-learning (training with the use of all possible communication channels), adaptive learning, distance learning, online mentoring, blended learning, "self-learning" institutions, EdTech startups, etc.

LITERATURE REVIEW

The importance of the problem of transforming the system of education in the context of the spread of the COVID-19 pandemic and the need to develop new educational models based on distance technologies require special attention today. Such realities of modern university education as distance learning technologies have received legislative backup and an impetus for development in connection with the publication of the new "Law on Education in the Russian Federation". The importance, effectiveness and prospects of using electronic materials in the educational process to optimize students' independent work, to monitor academic achievements and get feedback from students is quite clearly recognized in higher education over the past 10-15 years. Universities create their own electronic information and educational systems, deploy distance learning systems, and develop electronic textbooks and teaching aids (Veledinskaya & Dorofeeva, 2014; Martynenko, 2019; Mitina & Mitin, 2018).

At the same time, distance learning in most cases is understood in Russian education rather narrowly - as an auxiliary tool for the traditional educational process.

The analysis of studies in the field of distance education (Kapranov, 2015; Andreev & Soldatkin, 1999; Gavrilova & Sergeeva, 2001; Komrakov & Chernyavskaya, 2002; Filippov & Tikhomirov, 2000; Shchennikov, 2000; Bates, 1995; Holmberg, 1995; Marland, 1997; Moore & Kearsley, 1996) led to the conclusion that today there are quite a lot of difficulties in creating a scientific, methodological and educational-methodical basis for this field of education. For example, often there are no obligatory structural components that accompany the independent work of students in

educational-methodical complexes; the monological form of presentation of the material prevails which makes the learning process subject-oriented. At the same time, the modern professional environment for which educational programs of distance learning are being designed is subject to rapid changes including in matters related to the requirements for the training level of specialists. In this regard, there is a mismatch between the level of competence which is provided by existing educational programs and the quality of training of specialists demanded by the professional environment. In practice, more and more often there is a need to refine and adjust already created educational-methodical complexes for changing requirements. All this is a consequence of the lack of well-grounded constructive technology to design teaching materials for the system of open distance professional education. It should be noted that a number of dissertations on the problems of distance education have been defended recently (Andreev, 1999; Gavrilova, 2003; Ilyin, 1995; Shchennikov, 2003) in which its various aspects are revealed. However, the problem of ensuring the quality of education in conditions of increasing requirements for specialists' training level in various fields of knowledge, still remains topical (Zhukov et al., 2011).

Unlike the Russian Federation, in most Western countries, the form of distance learning has long been recognized as an independent and promising area, because it provides an opportunity to combine professional activities and the process of getting professional education. With the help of various technical means, the learning process itself becomes personalized according to the needs of the student. It is with this form of training that it becomes possible to carry out classes according to an individual flexible schedule and, due to a reduction in the costs of organizing the process, training programs are more profitable at their affordable price. It is the issue of economic efficiency that has become one of the incentives for the active development of this area in a number of economically developed countries. An exception example is the United States, where the need for the development of this form of training was due to the high demand for professional and continuing education services (Izaak & Isaev, 2015).

Considering the processes of informatization in the Russian Federation, it should be noted that the form of distance education is belatedly integrated into the traditional forms of various educational institutions.

However, the spread of the COVID-19 coronavirus pandemic poses challenges in the new realities.

MATERIALS AND METHODS

The topicality of the problem considered determined the area of our study. The modern educational process should take into account both the trends in the development of science and technology, as well as the requirements of society for the quality of educational services. To meet the needs of the digital society in changing learning models, the comprehensive development of the student's personality, and media education, one of the options may be the technology of blended learning: electronic and distance education (Mikhailova, 2018). In the context of our study, e-education is understood as an educational resource created by a teacher and implemented by a student independently. Distance education is understood as traditional education through Internet technologies (Salakhova & Khabibullin, 2018)

Technology of Blended Learning

The technology of blended learning is one of those approaches to modern teaching at the university which allows the teacher to fully realize himself, while using an unlimited arsenal of methods, techniques and tools in every way to improve and expand the educational opportunities of students in the 21st century (Aynutdinova, 2015). Blended learning combines the best of e-learning and distance learning. The convenience and flexibility of e-learning is complemented by a teacher's direct contact with the group in the classroom via Internet technology. In the blended course, electronic and distance learning should go in parallel: each section completed in the lesson online must have a block of exercises on the Internet (Krasnova & Sidorenko and 2014).

V.V. Kravtsov, N.N. Savelyeva, T.V. Chernykh (2015) see blended learning as one way to respond to the challenges of modern education. They also note that there are several definitions of blended learning:

- the educational process, built on the basis of integration and mutual complement of traditional and e-learning technologies;
- educational methodology, teaching and approach which combines traditional methods with computer-mediated activities for learning;
- the active use of e-learning with traditional forms of learning;
- a systematic approach to the organization of the educational process, expressed in the combination of full-time instruction and e-learning.

To substantiate the theoretical foundations of the conception E.K. Vasin (2016a) formulates the definition of blended learning based on the functioning of the activity triangle: this is an educational process in which the study of academic disciplines is carried out according to a two-level scheme "remote study of theoretical material and full-time implementation of practical educational activities" and specialized electronic educational resources are used as a participant of the educational process at all stages of educational activity.

In the conditions of blended learning based on the functioning of the activity triangle, the functional relationships between the participants in the educational process, implemented by the teacher and the student, are replaced by the functional relationships of the three participants in the educational process - the teacher, the student and specialized electronic educational resource. As a result of such a replacement, three areas of their interaction arise: "teacher - student", "electronic educational resource - student" and "teacher - electronic educational resource" which form the activity triangle (Vasin, 2016b).

The implementation of blended learning based on the functioning of the activity triangle, in essence, adapts the traditional (lecture-seminar) learning system to the requirements of today, since the transfer of the educational process to the information base (the transition to computerized learning) modifies the features characteristic of the lecture-seminar system. In particular, the use of distance learning in studying theoretical material through the application of specialized electronic educational resources makes the condition on the permanent composition of students of about the same age and level of training, as well as the strict "linking" with the educational activities of students to a permanent timetable and calendar plan, unimportant (Vasin, 2016a; Kovardakova, 2017).

The foregoing allows us to formulate an innovative idea of the conception which consists in the fact that blended learning translates the educational process in higher education on an information basis and provides the learner with the formation of the competencies stipulated by the Federal State Educational Standard at the required level of quality, which, in turn, creates the conditions for the formation of readiness and ability of the learner to self-actualization.

RESULTS

For visual representation of effectiveness of blended learning we conducted a comparative analysis of technologies of the traditional form of learning and blended learning (table 1).

Table 1. Comparative analysis of technologies of the traditional form of education and blended learning

Educational process	Technology of "Blended learning"	Traditional approach
Preparation for a class	Looking through the answers to the tests determining difficult questions among students, the selection of drills and developing exercises	Writing a plan / text for a lecture (a seminar), preparation of training and developmental exercises
Technology of conducting a class	The teacher guides the activity of students to solve the difficult issues and hone skills	The teacher explains the new material at the lecture, controls understanding, at a practical class student consolidate their skills
Learning technology	Students independently watch a video lecture, prepare questions. The teacher guides students to solve difficult issues and hone skills	The teacher explains the new material, controls the understanding of the material, students do exercises on their own at home
Knowledge transfer	Knowledge is acquired independently with elements of interactive forms.	The teaching material is transferred from the teacher to the students in a passive form
Methods/ technologies	Communication, cooperation, collaboration	Interactive technologies
Approaches	Personalized	Differential
ICT	Office 365, Google, Web-2, Moodle and etc.	Multimedia and web technology
Activity of students	Active	Passive
Student	Responsible for his training. He interacts with all participants in the educational process.	He studies according to the activity scheme "listen - remember - reproduce", plays the role of a mentor.
Teacher	Carries out the construction of educational activities, fulfills the role of a mentor.	Carries out the transfer and control of knowledge, maintains discipline and order in the classroom

Thus, according to the results of the comparative analysis, we can state that blended learning creates a new environment that makes it possible to focus on the individual styles of students and their interests. The electronic environment has a number of specific capabilities and advantages compared to the traditional learning model. However, noting the features of the technology "Blended Learning", it should be mentioned that it requires more time for the teacher to plan and prepare, a large initial load on the preparation of training materials is required. He is required to implement a personalized approach, a good knowledge of various IC technologies, as well as group work technology. The teacher may have difficulty attracting certain categories of students to the educational process. Such training requires constant access of students to computers and the Internet, a variety of gadgets are used. Students spend more time in front of a computer.

Students preparing for the lesson: receive a training video, an electronic educational resource for studying new material as an exercise for independent work;

- familiarize themselves with the task and the terms of doing it;
- read the instructions for the new educational material;
- familiarize themselves with the list of new terms, definitions, lexical fragments for understanding the content of instructional videos and electronic educational resources; watch a training video;
- perform exercises on the subject of the training video;
- seek answers to questions to control understanding of the training video content;
- do an online test;
- carry out electronic communication with the teacher if necessary.

When implementing the technology of blended learning, the student is at the center of learning: identifying problem areas when mastering the material by the student independently allows him to delve deeper into the issues being studied and provide an opportunity to master complex material with the support of the teacher. The responsibility for training rests with the student himself, not the teacher: students can control the process of mastering the material, its speed, the process of evaluating the results which means they will complete the learning process itself.

In addition to video lectures, teachers can use other audio-visual means, for example, video clips, video cases, popular science videos, feature films, animated films, webinars, screencasts.

The technology of "Blended learning" gives the best results when teachers create their own videos for students. To use the finished product, you must have:

1) own educational site or blog of a tutor (teacher), on the platform of which educational films will be posted;
2) a system to notify students about the next task posting (for example, the timely publication of homework in the electronic diary of the unified educational network "Diary.ru");
3) instructions to work with materials (applications, tables, etc.);
4) options for possible feedback (communication of students with a tutor in an online mode).

The introduction of blended learning allows one to present information without restrictions, thereby responding to the information challenge that the system of education faces.

The use of the blended learning model allows the teacher to organize training in accordance with the modern requirements of federal state educational standards, improve the skills of applying information and communication technologies and innovations in the field of teaching the subject, and increase his own level of scientific and methodological training.

DISCUSSIONS AND CONCLUSION

Thus, based on the foregoing, we can conclude that in the current socio-economic conditions of the development of the system of higher professional education, the introduction of a blended learning model in the framework of the conception of lifelong education seems to be necessary and obvious in our opinion. Proceeding from this conception, specialists of any profession need continuous improvement of knowledge, skills, professional competencies, which is possible in the

framework of the blended learning model using e-learning technologies. Training in this way should be built in accordance with the following principles:

- openness and accessibility of the educational environment, providing the student with autonomy in choosing his own development path based on his own educational needs;
- practice-oriented educational process, taking into account current changes in the socio-economic development situation;
- the subjectivity and activity of the educational process which assumes an active position of the student, relying on personal experience, stimulating mobility, autonomy and creative potential.

LIMITATION AND STUDY FORWARD

The article has been proven that blended learning is the most effective form of distance learning. But our findings are based on theoretical and methodological scientific research. Therefore, the next stage of our research will be to conduct an empirical study of distance learning in the system of higher professional education.

AUTHOR'S CONTRIBUTION

The authors confirm that there is no conflict of interest in this article. V.B. Salkhova developed a methodology, organized and conducted a theoretic study, carried out theoretical analysis, and wrote the article. For visual representation of effectiveness of blended learning T.Ts. Dugarova and M.M. Simonova conducted a comparative analysis of technologies of the traditional form of learning and blended learning. They presented the results of a comparative analysis of traditional forms of learning and blended learning. N.S. Morozova and Y.V. Bazhdanova carried out a theoretical analysis of the problem under study and improved the research methodology. The authors also report that, a part of research results distance learning in higher education has been sent to the Russian scientific journal «Personality formation» and has been accepted for publication.

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