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# Impact of COVID-19 on the Distance Learning Approach (Possibilities/Prospects) in Higher Education Institutions in Russia

Yevgeniya Gulyaeva\* (a), Yulia Semikina (b), Dmitriy Semikin (c),  
Liudmila Kompaneyeva (d)

(a), (b), (c), (d) *Volgograd Institute of Management – branch of RANEP, 400066, Volgograd (Russia), 8  
Gagarin Street, guevgenia@yandex.ru*

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## Abstract

The article considers the issue of changing the distance learning approaches in higher education institutions in Russia as a result of the COVID-19 pandemic. The widespread introduction of electronic technology is one of the indicators of the high quality educational process organization in cases of crisis. The unexpected shift to distance learning due to the pandemic has become a catalyst for the beginning of the process of mass creation of online learning courses.

The authors conducted a survey involving students of four higher education institutions of Volgograd. Its purpose was assessment of the effective use of distance learning technologies during the pandemic. The advantages of the use of online courses during the pandemic were considered in this study: the students gained important skills (the ability to work independently, use different sources to obtain information, implement projects with the use of digital technology, etc.), the higher education institutions became more competitive since they can provide unique educational courses to a greater number of Russian and foreign students. The combined learning experience became another positive legacy of the pandemic.

A number of problems related to the use of distance learning technologies were identified in the course of the study: the insufficiently developed informational infrastructure of higher education institutions, reduced psychological readiness of professors and students to use digital services and platforms in the educational process, for multichannel interaction, etc.

*Keywords:* pandemic, distance learning, online courses, communication channels, educational process, information society, digital educational environment.

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\* Corresponding author. E-mail: guevgenia@yandex.ru

## **Introduction**

The modern digitization trend in various areas of activity is a stimulus for development of educational institutions. The transformation of life due to the pandemic has put higher education institutions in the situation where it is necessary to find a balance: on the one hand, to meet the challenge and change the learning process, on the other hand, to preserve the best traditions of the classical higher school.

As a result, studies dedicated to the analysis of the active application of distance learning technologies as an aspect of improvement of educational institutions in terms of the pandemic become even more relevant. Works dedicated to this issue are often at the intersection of several sciences (pedagogy, sociology, computer science, etc.). The study of the issue from the perspective of pedagogy appears relevant since the analysis of the transformation of approaches to online learning during the pandemic will help to find a worthy use for the gained experience. It is necessary to understand how professors and students mastered a new work mode and adapted to multichannel interaction conditions in the course of application of distance learning technologies. It should be noted that the pandemic accelerated the process of creation of the basis of online courses in higher education institutions.

The scientific novelty of the research is in its substantiation of the need to study the experience of application of distance learning technologies in terms of the pandemic. The theoretical relevance consists in the possibility to use the obtained results in order to further work out the measures intended for development of educational institutions in the context of digitization. The practical relevance is in the results of the study that can be used in the work of experts for the planning of the concept of work organization in case of emergency. The results of the study can be useful also to professors working on the creation of MOOCs.

## **Purpose and objectives of the study**

The reasonableness of the study conducted within the stated topic is determined by the need to resolve the issue related to the advantages and disadvantages of online learning in relation to the modern digital educational environment. It is necessary to analyze how higher education institutions changed the approaches to online learning and how they will be able to use the work experience gained during the pandemic.

The aim of the article is to analyze how the pandemic caused by COVID-19 has influenced the approaches to application of distance learning technologies. It appears necessary to consider the prospects of development of online education taking into account the experience acquired in terms of the pandemic.

A range of objectives must be fulfilled to achieve the established purpose:

- to study the experience of distance learning organization during the pandemic;
- to identify the advantages and disadvantages of the urgent use of distance learning technologies in higher education institutions;
- to consider the prospects of application and the peculiarities of development of online courses in the modern digital educational environment.

### **Literature review**

In the field of pedagogy, the change of the approaches to the use of the educational potential of distance learning technologies in the era of extreme phenomena has been studied insufficiently. Moreover, there are no studies in which online learning would be considered as a factor stimulating development of higher education institutions. Some scholars have studied the main areas of enhancement of modern Russian education (Dalinger, 2020; Gvozdev & Asrorov, 2020), the practice of creation of the digital educational ecosystem in higher education institutions (Shvetsov, Rzhetskaya, Sergushicheva, & Sukonshchikov, 2018; An, Zhu, Bonk, & Lin, 2020), the use of e-learning during the pandemic (Andreev, Lednev, & Semkina, 2019), the role of professors in the organization of the project activity of students by means of distance learning (Rule, 2004), the formation of the independent cognitive activity skills of students in terms of digitization (Dekatova, 2020; Ustyuzhanina & Yevsyukov, 2018).

A number of scholars work on the problem of students' motivation for studying during online courses. For example, An et al. (2020), considering the peculiarities of selection of the materials for MOOCs, emphasize that gamification helps to make the course more interesting for the perceiving audience, increases students' motivation during independent work and makes social interaction with students more dynamic.

The works by Panova, Filimonova, Bocharnikova, & Davydova (2020) and Naaz (2020) served as an important methodological reference point in this study.

However, until now, there have been no attempts to study comprehensively the potential of the use of distance technologies in the context of the pandemic as a factor of development of higher education institutions. This article will contribute to the understanding of the problem.

### **Methodology**

The methodological basis of the study is the principles of the systemic and structural-functional approaches.

An anonymous survey was conducted to assess the students' satisfaction with the results of the work during distance learning. The study was conducted in January and February 2021 and involved 253 persons. The participants of the study included randomly selected students of five higher education institutions of Volgograd: Volgograd Institute of Management – branch of RANEPA, Volgograd State Pedagogical University, Volgograd State Medical University, Volgograd State Agrarian University, Volgograd State Technical University. They are first, second, third, fourth and fifth-year students in different programs and specialties. Students attending master's programs took part in the study as well.

The questionnaire included 12 questions. The first part of the questions helped to check the methods of organization of distance learning (what platforms and video communication tools were used for the educational process organization, whether online courses were offered to the students, what forms of work were used for the organization of distance learning, whether interactive forms of work or interactive tasks were offered, etc.). The second part of the questions helped to check the degree of immersion of the students in the educational process, the level of their motivation for studying during distance learning, the difficulties faced by them, the willingness of the students to work in online courses after the pandemic, the assessment of the quality of the gained knowledge, etc. Some questions of the first and second parts allowed the respondents to answer the question in free form or leave a comment.

## **Results**

The conducted study made it possible to analyze the experience of distance learning organization during the pandemic.

1. Such platforms as Moodle, Zoom, Microsoft Teams were used to organize distance learning in higher education institutions. The Yandex.Disk cloud storage service was used actively.
2. Most respondents (52 percent) stated that during the pandemic their higher education institutions used online courses on the Moodle platform in parallel with various video communication tools (Zoom, Microsoft Teams, Skype), 15 percent said that only video communication tools were used (Zoom, Microsoft Teams), 33 percent answered that tasks and learning materials were uploaded to the Yandex.Disk cloud storage service, and the lessons were organized with the help of video communication tools (Zoom, Microsoft Teams, Skype).

3. Answering the questions about the methods of presentation of materials, 42 percent of the respondents replied that many interactive forms of education were offered to them (interactive webinars, cases, brainstorming, collective and group projects, public presentations of projects, online clubs, binary lectures with a discussion element, simulation games, round tables, etc.). 58 percent of the respondents replied that the lessons were organized in traditional form but with the use of video communication tools.

4. The immersion of the students in the educational process was quite significant. 68 percent of them replied that the lessons were organized according to the schedule and the professors arranged and controlled the process of using the materials, assessed the knowledge and helped if necessary. However, 32 percent of the respondents stated that they worked according to a free schedule and completed various tasks, which they sent for checking. Their interaction with the professors was minimal.

5. The students' motivation for studying during distance learning was maintained due to a set of measures taken by the higher education institutions: timely and multilevel interaction between professors and students, various work forms, practice-oriented tasks and projects, well-selected visual support of the theory, the well-planned system of students' work assessment during the term. This is what was written by 62 percent of the respondents in the questionnaires; 24 percent of students replied that it was hard for them to stay highly motivated without active social interaction (without direct communication with their groupmates and professors), some respondents stated that they could not concentrate well since they worked not at the university but at home; 14 percent of the respondents were unable to stay motivated for studying and experienced significant difficulties with learning.

6. Answering the question about the effectiveness of work in online courses, students stated that it was an interesting and useful experience but in addition mentioned that the study load significantly increased since not all professors matched the volume of the tasks with the actual possibility of the students to fulfill these tasks within the specified period of time. This organization of work lowered the level of the motivation and the quality of the gained knowledge. At the same time, the students expressed their wish to continue using online courses in a combined learning mode.

## **Discussion**

The unpredicted transition to distance learning has become a growth point for higher education institutions, making it possible to start the process of creating the system of online learning courses (Schneider & Council, 2020; Wissing & Kerres, 2020; Sá & Serpa, 2020; Johnson, Roberto, & Rauhaus, 2021). In the long run, the courses involving the use of distance learning technologies can become the basis for the development of open online courses (MOOCs).

It is necessary to adopt this experience of Russian and foreign colleagues working within MOOCs (Raja & Kallarakal, 2020). However, this is not an automatic process but work which must be carried out by higher education institutions purposefully and regularly (Dalinger, 2020).

The academic staff working on the creation of online courses will have to find new work forms and adapt to numerous channels of communication with students (the audience). It is gaining the experience of multichannel interaction that is a specific challenge of our time. The use of the acquired skills and new forms of work with students will help to correct the drawbacks of the classical system of educational activity organization (Filimonova, 2019).

To arrange the work during the pandemic, higher education institutions had to obtain or expand access to more flexible platforms for online courses. Modern platforms make it possible to diversify the forms of presentation of materials in distance learning. Higher education institutions will have to intensify the creation of the digital educational ecosystem, the principle of regulation of which is a student-centered approach to the organization of learning. The pandemic has become a catalyst for the acceleration of the development of the electronic informational and educational environment (Chaturvedi, Abhinav Chaturvedi, & Chaturvedi, 2020; Zaheer, 2020; Brandao & Algarvio, 2020) in the area of higher education.

Distance learning technologies help to form students' self-education skills and provide graduates with all the conditions to meet the requirements of employers and subsequently retain the ability to be competitive in the labor market. The use of distance technologies in the organization of the educational process in higher professional education institutions promotes the development of qualified experts working towards constant self-enhancement (Dekatova, 2020). In this regard, it is necessary to form cognitive independence of students. This process becomes more efficient if the educational process includes digital technology (Saenko, Panova, Filimonova, & Bocharnikova, 2020).

Higher education institutions can use distance technologies to improve their competitiveness in the educational market. Courses, interesting in the theoretical and practical aspects, can be in demand both in Russia and abroad. On the one hand, online courses must be practice-oriented, helping to acquire theoretical knowledge, self-education and self-organization skills, and, on the other hand, they must provide the opportunity for maximum immersion in practical activities. The work with online courses that comply with these requirements makes it possible to prepare graduates who are able to be successful in professional activity. Therefore, the educational process in higher education institutions must not only comply with the requirements of the innovative digital environment but also be practice-oriented. The courses involving individual or group projects can be especially productive.

Correctly organized work will help to raise the level of conscious assimilation of knowledge and formation of skills and abilities.

## Conclusion

Higher education universities have to advance the informational infrastructure, enhance the level of psychological readiness of students and professors to use digital platforms and services in the educational process, provide the conditions developing practical skills of professors for the use of digital educational content in the creation of online courses. As a result of the development of distance learning technologies higher education institutions will become more competitive and be able to offer unique educational courses to a wider range of interested Russian and foreign students.

The combined learning experience can become another positive legacy of the pandemic. In-person and distance work can be combined. For example, hours for independent work of students are included in the curriculum (which is especially relevant for extramural studies), online courses will help to raise the quality of education if intramural studies involve the use of digital technology. Higher education institutions will be able to raise the quality of adaptive learning by means of distance learning technologies since a team of authors who know the methods of work with the audience implying certain peculiarities can act as the developers of online courses. Therefore, the creation of courses for adaptive learning will help higher education institutions to expand the boundaries of the barrier-free environment.

The results of the conducted study confirm the need to continue the work on analyzing the problem of effective use of distance learning technologies in the era of extreme phenomena.

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