The use of electronic educational resources in an agrarian university during the pandemic

O uso de recursos educacionais eletrônicos em uma universidade agrária durante a pandemia

El uso de recursos educativos electrónicos en una universidad agraria durante la pandemia

Olga Nikolaevna Goncharenko[1] (iD), Svetlana Nikolaevna Semenkova[1] (iD)

[1] Department of Philosophy and Social Sciences and Humanities, State Agrarian University of the Northern Trans-Urals, Tyumen, Russia.

Corresponding author:
Olga Nikolaevna Goncharenko
Email: goncharenko-65@mail.ru

ABSTRACT
The coronavirus pandemic brought major changes to virtually all spheres of human life. Despite seeming a fantastic reality at first glance, fulfilling professional duties using electronic resources has gradually become an integral part of our lives. All spheres of society had to adapt to the changed reality in a short amount of time including in the sphere of education. However, despite all the difficulties associated with the problems of getting access to high-speed Internet, traffic speed, the lack of modern electronic devices, etc, the sphere of education has handled them quite shortly. The goal of the study is to disclose the specific features of the organization of the educational process with the use of electronic educational resources in an agrarian university during the pandemic. The article indicates the distinguishing characteristics of distance learning, identifies and characterizes the main instruments of distance learning in the force majeure circumstances of self-isolation in a specific university, as well as provides an example of the minimum requirements for filling up the Moodle e-learning environment. The attitudes of teachers and students to distance education in the new conditions are studied through a survey. The scientific novelty of the study lies in the interdisciplinarity of the consideration of the topic of interest. As a result, the study reveals a common trend characteristic of both students and teachers, consisting in the division into those who feel good about the electronic educational environment and those who have difficulty using it in the learning process.
Keywords: Pandemic. Distance learning. Attitude to distance learning. Teachers. Agrarian university.

RESUMO

A pandemia de coronavírus trouxe grandes mudanças a praticamente todas as esferas da vida humana. Apesar de parecer uma realidade fantástica à primeira vista, o cumprimento dos deveres profissionais com recursos eletrônicos tem se tornado parte integrante de nossas vidas. Todas as esferas da sociedade tiveram que se adaptar à realidade mudada em um curto espaço de tempo, inclusive na esfera da educação. No entanto, apesar de todas as dificuldades associadas aos problemas de acesso à Internet de alta velocidade, à velocidade do tráfego, à falta de aparelhos eletrónicos modernos, etc., a esfera da educação tem resolvido muito rapidamente. O objetivo do estudo é divulgar as especificidades da organização do processo educacional com a utilização de recursos educacionais eletrônicos em uma universidade agrária durante a pandemia. O artigo indica as características distintivas da EAD, identifica e caracteriza os principais instrumentos da EAD nas circunstâncias de força maior do auto-isolamento em uma determinada universidade, bem como exemplifica os requisitos mínimos para o preenchimento do Moodle e- ambiente de aprendizagem. As atitudes de professores e alunos em relação à educação a distância nas novas condições são estudadas por meio de um survey. A novidade científica do estudo reside na interdisciplinaridade da consideração do tema de interesse. Como resultado, o estudo revela uma tendência comum característica tanto de alunos quanto de professores, que consiste na divisão entre quem se sente bem com o ambiente educacional eletrônico e quem tem dificuldade de utilizá-lo no processo de aprendizagem.

Palavras-chave: Pandemia. Ensino à distância. Ambiente educacional eletrônico Moodle. Professores. Universidade agrária.

RESUMEN

La pandemia de coronavirus trajo cambios importantes a prácticamente todas las esferas de la vida humana. A pesar de parecer una realidad fantástica a primera vista, el cumplimiento de deberes profesionales utilizando recursos electrónicos se ha convertido gradualmente en una parte integral de nuestras vidas. Todas las esferas de la sociedad tuvieron que adaptarse a la nueva realidad en un corto período de tiempo, incluso en la esfera de la educación. Sin embargo, a pesar de todas las dificultades asociadas a los problemas de acceso a Internet de alta velocidad, la velocidad del tráfico, la falta de dispositivos electrónicos modernos, etc., el ámbito de la educación los ha resuelto en muy poco tiempo. El objetivo del estudio es dar a conocer las características específicas de la organización del proceso educativo con el uso de recursos educativos electrónicos en una universidad agraria durante la pandemia. El artículo indica las características diferenciadoras de la educación a distancia, identifica y caracteriza los principales instrumentos de la educación a distancia en las circunstancias de fuerza mayor de autoaislamiento en una universidad específica, así como proporciona un ejemplo de los requisitos mínimos para el llenado del formulario Moodle e- ambiente de aprendizaje. Las actitudes de profesores y estudiantes hacia la educación a distancia en las nuevas condiciones se estudian a través de una encuesta. La novedad científica del estudio radica en la interdisciplinariedad de la consideración del tema de interés. Como resultado, el estudio revela una tendencia común característica tanto de estudiantes como de profesores, consistente en la división en aquellos que se sienten bien con el entorno educativo electrónico y aquellos que tienen dificultades para utilizarlo en el proceso de aprendizaje.

Palabras clave: Pandemia. La educación a distancia. Entorno educativo electrónico Moodle. Maestros. Universidad agraria.

INTRODUCTION

In the current conditions of the spread of COVID-19 both in Russian and worldwide, the functioning of all spheres of social life has changed significantly including in the sphere of

professional education. According to I.D. Frumin, the scientific director of the Institute of Education, only some 30 years ago the pandemic would have meant the complete cessation of universities and colleges whereas today we have seen how digital technology can be used and what we are losing in the transition to distance learning (Vodolad et al., 2010). Therefore, a summary of the experience of using electronic educational resources in an agrarian university during the pandemic appears important since the coronavirus-related limitations that were present up to the end of 2020/2021 academic year altered the organization of the educational process.

In 2020 and 2021, a number of articles and conference abstracts concerning the problem of teaching university students during the pandemic emerged in scientific literature. The studies of Abramian G.V. (2020), Katasonova G.R. (2020), Tokmakova S.I., Bondarenko O.V. and Lunitsina Iu.V. (2020), Shukshina L. V. and Frolova K.G. (2021) examine the specific features of the organization of distance and online learning in Russian universities under the conditions of the self-isolation of teachers and students in the coronavirus pandemic. Bukeikhanov N.R., Gvozdkova S.I., and Butrimova E.V. (2020) assess the effectiveness of digital teaching technologies in the conditions of COVID-19 and conclude that the introduction of information technology helps to eliminate a number of drawbacks of the traditional way of teaching. A.V. Urumov (2019) reviews the legal basis for distance learning in the system of additional professional education, and U.S. Cherdakli (2020) explores the possibilities of concluding an additional agreement between a teacher and an educational organization to change the terms of an employment contract for the period of distance learning.

Scientific articles widely present the experience of using mass distance education in universities obtained by Russian and foreign universities using messenger channels and electronic educational platforms in extreme conditions (Lutfullaev et al., 2020). A number of authors (Bukeikhanov et al., 2020; Vaindorf-Sysoeva & Subocheva, 2020; Iltakova et al., 2020; Shtykhno et al., 2020) conclude that the situation that was stressful for all participants could not but reflect on the quality of learning. However, the course materials selected correctly in accordance with the goals and objectives of learning and the characteristics of the educational process in the online environment have ensured the educational result for the students and positive feedback for the teachers. A.S. Tishchenko (2020) notes that despite the restrictions on citizens' movement and employment, as well as on the activities of organizations including those in education, educational organizations remained financially sustainable in 2020. In November, the first monographic work "How universities and colleges survived through the pandemic: risks and new opportunities" prepared by the Institute of Education was published (Dudyrev et al., 2020).

Different states executed the transition to distance learning differently. In the countries where the threat to health was particularly high (Italy, Spain, France) and the acute epidemic partially paralyzed the economic and social life, educational organizations were completely closed and went online. The countries where the epidemiological situation was milder (Indonesia, Australia, Egypt) made half-hearted decisions, and colleges preserved a high degree of freedom. In a UNESCO expert survey conducted in late April, 40% of respondents from 100 countries indicated videoconferencing as the most common means of communication between teachers and students. All countries acted in the crisis with no additional funds relying on the existing human, financial, and organizational resources (Dudyrev et al., 2020).

For the purpose of preventing the spread of coronavirus in Russia, in March 2020, The Ministry of Education and the Ministry of Science and Higher Education of the Russian Federation (order No. 397 of March 13, 2020) recommended most universities organize completely online-based distance form of learning to ensure the safety of students and employees in the face of the COVID-19 pandemic. Universities were left to choose the forms of distance learning independently. In the most favorable position were the regions of Russia where the digitalization program has

already been in progress for 5-10 years. About a dozen regions having systemic solutions for the problem turned out to be the most prepared for the new reality.

The term "distance education" itself is not yet fully established although it has become quite frequently used in scientific literature. Distance education is understood as the remote interaction between the teacher and the student demonstrating all the components characteristic of the educational process (goals, content, methods, organizational forms, means of learning) and implemented through the specific instruments of Internet technologies or other means that imply interactivity (Vodolad et al., 2010). At the present, there are several forms of this term: distant education and distance education. The main feature of distance education is the principle of interactivity in the interaction between the students and the teachers.

The main features distinguishing distance education from the traditional form are:

1. the "long-range interaction", i.e. the student and the teacher can be at any distance;

2. the opportunity to study at a convenient time (except for live broadcasts or online webinars);

3. the opportunity to study in several programs (in higher education);

4. cost-effectiveness, i.e. no transportation and accommodation costs, etc.

The introduction of distance education in universities, schools, and other educational organizations allows empirically identifying the means used for its implementation. These means include: video-conferencing programs including Zoom, Skype, TrueConf, etc.; education platforms including Moodle, Edmodo, Google Classroom, iSpringOnline, Russian Electronic School, Moscow Electronic School, Electronic School 2.0; some forms of education also used messengers including Whatsapp, Viber, etc.

The State Agrarian University of the Northern Trans-Urals was ready for a rapid transition to distance education of students thanks to the previously created and timely adapted hardware, software, subject, methodological (Gavrilyuk et al., 2018; Goncharenko et al., 2018; Semenkova et al., 2018), and administrative and managerial base and distance learning support services. Students and teachers, using their username and password, have 24-hour access to their personal accounts. Lectures, practical classes in a number of disciplines, defense of the term and graduation projects, and scientific conferences are held using the Google Meet service.

The ongoing work is organized through the Moodle electronic educational environment (EEE Moodle) that is free, has a simple and clear interface, and is reliable, adapted for various devices with different operating systems, and translated to over 100 languages, and is used by the largest universities in the world. EEE Moodle allows designing and structuring educational courses at the discretion of the educational institution. Having analyzed the requirements of different educational institutions for filling up the Moodle EEE, we can conclude that there is no unity. However, it is possible to propose some minimal requirements:

1. All types of assignments except for tests are graded on a 5-point scale.

2. The assignments are posted in advance of the class.

3. Lecture design structure:

● The title of the topic – corresponds to the date of the class.

● Explanation – a summary of the topic (welcome speech, instructions for work on the topic).

● File – the text of the lecture and the presentation are attached.

● Assignment – there may be a task for students to attach the lecture notes which, in turn, requires a mandatory indication of the requirements for the lecture notes to ensure meaningful feedback.

● To compose a test of up to 10 questions on the text of the lecture for the students to answer at the end of the class. This type of test is typically graded automatically.

4. Structure of the design of a practical lesson or seminar:

● The title of the topic – corresponds to the date of the class.

● Explanation – a summary of the topic (welcome speech, instructions for work on the topic).

● File – a text or the plan of the lesson are attached. The attached file must contain:

а) topic number, topic title, type of class;

б) outline of the practical lesson;

в) the assignments a student has to complete. As a form of feedback, the teacher indicates the format in which the students have to submit their answers, and the students attach the answers to the assignment. The grades are typically posted within twenty-four hours of the students' submission and include a comment if the grade is lowered.

5. Examinations and tests are held in the form of tests. A test bank of at least 300 tasks is created in advance for the system to independently generate and present to the students. The teacher can independently set up, synchronize, and further adjust any activities in EEE Moodle. The university first started to work in the system to teach extramural students, thus, by the beginning of the pandemic, most teachers knew how to work with the electronic educational environment.

Nevertheless, the attitudes of teachers and students formed in the course of distance learning carried out from March to July of 2020 are ambiguous. There are both positive and negative aspects.

SUBJECTS AND METHODS

The empirical work is conducted using the communicative-cognitive approach. To disclose the specific features of the organization of the educational process during the COVID-19 pandemic in an agrarian university using electronic educational resources, we conducted a study in the State Agrarian University of the Northern Trans-Urals with a sample of about 200 respondents from both students and teachers, the parents of students did not take part in the survey. The choice of the sample is due to the fact that due to certain specifics, the main load is laid in higher education upon the shoulders of teachers and students who are the main participants in our study. The study uses the methods of surveying and interview, comparison and summarization of the content of concepts and categories, qualitative and quantitative analysis of the obtained data, and statistical data processing methods.

RESULTS

Both positive and negative aspects can be highlighted in university teachers' perception of distance education. On the one hand, the forced transition to online learning has contributed to more active mastery of technological resources and services, moreover, the employee teams have become more united against the external threat of the distance mode of learning. On the other hand, distance learning has had the most severe impact on the teachers and researchers for whom the educational process is closely tied to the use of laboratory equipment in the agrarian and veterinary sphere. A negative effect was also caused by the lack of eye contact, physical interaction, and mimics and gestures that violated the logic of the educational process. In addition, the upbringing function of higher education as an institution of socialization and the retention and appropriation of role models was lost, especially in regional universities.

The rejection of distance education is mainly due to the fact that many teachers began to equate it with the distance form of education, the administrative coercion to a certain format, and a form of administrative control. This confusion of concepts leads to a decrease in the rate of popularity of distance learning. When asked the question "In your opinion, will today's situation caused by the coronavirus infection lead to an improvement or deterioration in the quality of higher education in Russia, or will it have no effect at all?", only 15% of teachers respond that the quality

of education will improve, 43% say it will deteriorate, 20% believe it will not change, and 23% refuse to answer this question at all without giving any reason for it. At the same time, all teachers who took part in the survey agree that the use of distance forms of education can provide teachers with more freedom to choose the means and techniques of teaching and education can become more individualized, tailored to the educational trajectory of each particular student. Moreover, new methods of grading students associated more with individual work will be introduced. At the same time, the teachers believe that the distance format can only develop in a liberal educational environment where a teacher is free to choose the methods and forms of teaching, the administrative pressure is minimized, and the transfer of knowledge is prioritized over report forms.

The survey of students was conducted in April of 2020 using the questionnaire titled "The special features of students' perception of distance learning in the period of self-isolation". The survey involved 150 students of different years and directions of training. The results indicate that 80% of the students are satisfied with education at the university and 64% experience interest in learning. To the question "What resources do you mainly use to get educational information (aside from lectures and practical lessons)?", the respondents answered:

- printed – 14%
- electronic – 6%
- online resources – 80%.

Meanwhile, before self-isolation, only 63% of the respondents accessed the Internet for educational information every day, 35% did so every other day, and 2% did it about once a week. Thus, self-isolation and the complete transition to distance learning did not put the younger generation in a state of culture shock even though almost 99% of full-time students had no experience of distance learning before the introduction of the self-isolation regime. The effectiveness of distance education is rated as satisfactory by 70% of the respondents and as good by only 30%. Future bachelors note the following disadvantages of distance learning:

- dependence on technical devices;
- limitations in the acquisition of practical skills;
- high distractibility;
- problems with self-organization;
- the lack of communication with teachers and groupmates;
- poor perceptibility of the educational material based on the slides and the teacher's voice;
- deindividualization of learning.

There also appears to be the heterogeneity of the student contingent: 6.5% of students were unable to complete their education in the distance format due to the specifics of the programs with a high proportion of practical assignments and laboratory work, over 40% of the students note a significant increase in the study load, and 64% of students expect an increase in unfair behavior in examinations.

The students also note the "pluses" of distance education including:

- the opportunity to plan their time while staying at home – 19%;
- the opportunity to continue studying in the extreme conditions associated with self-isolation or quarantine – 77%;
- the opportunity to continue studying in case of falling ill – 2%;
- accessibility for people with disabilities – 0%.

An affirmative answer to the question: "In your opinion, can distance learning completely replace full-time?" was provided by 52% of the survey participants.

DISCUSSION

The results obtained in the study of EEE's functioning and the opinions of teachers and students on the educational process in the pandemic are compared with the data available in Russian scientific pedagogical and sociological literature.

It must be stated that a number of authors (Dudyrev et al., 2020; Katasonova, 2020; Tishchenko, 2020) emphasize that in the conditions of the universal transition to distance learning, the importance of the development of digital educational technologies has risen sharply. Meanwhile, university administration independently designing the most optimal technical and software solutions and educational models for each educational program had timely provided the staff with the necessary knowledge and skills either before the crisis situation or during the transition process by means of retraining courses. The created technical capacities have allowed optimizing and reducing the potential negative consequences of the transition to a completely remote online telecommunication form of education organization given the ability of students and teachers to move being limited in the midst of the viral pandemic.

All practice-oriented directions of professional training are in even more challenging conditions. Aside from agrarian universities, according to S.I. Tokmakova, O.V. Bondarenko, and Iu.V. Lunitsyna (2020), medical universities also face this problem. The difficulties in the realization of the educational process in the pandemic were finally solved only at the start of the 2020-2021 academic year by utilizing the blended learning format and using new technologies for laboratory classes. All of the above leads us to a conclusion that in order to improve the efficiency of the knowledge transfer process in a timely manner, it is necessary to make full use of an automated system for managing the educational process at each higher education institution. The automation of the educational organization management process addresses a number of objectives: 1) the creation of a universal database of university staff and students; 2) the automation and standardization of the document flow, the transition to electronic record keeping; 3) prompt open access to up-to-date information for all participants in the educational process; 4) high-quality and comprehensive analysis of the educational process.

The opinion of teachers of higher education institutions on the transition to the distance form with the use of EEE is ambiguous, as noted in their articles by M.E. Vaindorf-Sysoeva, M.P. Zaikovskaia, T.V. Kovaleva, G.V. Savelieva, and other scientists (Vaindorf-Sysoeva & Subocheva, 2020; Iltakova et al., 2020; Vodolad et al., 2010). A quite positive status of adaptation to self-isolation and forced transition to a distance education format during the coronavirus epidemic is reported in the article by E.A. Terentyev and U.S. Zakharova (2020, p. 77-79). The researchers state that teachers managed to mobilize for acting in the new conditions and patterns of communication platform selection emerged in the first few weeks of such work. Our observations of agrarian university teachers in the present study indeed indicate their increased mobility in teaching in the new context. Nevertheless, most researchers who have conducted surveys of university teachers in the first months of the complete transition to distance learning (Iltakova et al., 2020; Rogozin, 2021; Tokmakova et al., 2020; Cherdakli, 2020; Shtykhno et al., 2020) note considerable psychological difficulties and problems, mention aggravating social isolation, challenges of working from home, and lack of certainty and the ability to plan for the future. At the same time, our survey of teachers of the State Agrarian University of the Northern Trans-Urals convincingly shows that the desire to work under any conditions inherent in a true teacher will change the assessment of the future after some time, reduce the level of pessimism and alienation in relation to modern technology, as well as allow to apply the invaluable experience of teaching obtained in March-December 2020 in the development of distance education at universities.

Over half a century ago, J. Bruner (1966, p. 22-23) formulated four significant changes in educational practice of his time, which would now be called "innovations". The first change lies in the notion of a studying individual, there emerged complex pedagogical science. Second,

researchers learned to interpret and understand mental processes. Third, an understanding of the content of the learning process was reached with the aid of numerous educational experiments. Fourth, the ideas of how youth should be taught and how education could stay ahead of the present and look to the future were reimagined. Today, at the new stage of development of the educational process, it is possible to repeat with confidence all four points presented by the American psychologist and educator. Progress in the international educational market in recent years is evident: we have become more aware of the human being, of mental processes, of learning procedures, and of the needs of young people. However, one more point can be added to Bruner's argument: we have come to value freedom more as a necessary and sufficient condition for any education. A modern educational community can only form in an environment that is free, decentralized, and included in the international community. And it is only distance education that meets all the criteria of freedom and makes not only the environment, but also the education itself demanded, meaningful, and extremely useful. It is now just a matter of overcoming negative feelings and fears, distancing oneself from administrative arbitrariness, and devoting oneself to free education (Rogozin, 2021, p. 51).

The transformation of higher education reached an unprecedented scale in the 2020-2021 academic year. In Russia, it affected over 4 million students and 235'000 teachers (Tishchenko, 2020, p. 93) and caused mixed reactions among all participants in the educational process, both administration, teachers, and students, becoming the most discussed topic.

Analyzing surveys of students at various universities, scientists (Nurullaeva, 2020; Terentev & Zakharova, 2020; Shukshina & Frolova, 2021) conclude that most students experience a strong discomfort in connection with the transition to a different form of learning, but the results of our survey of agrarian university students show no considerable culture shock. At the same time, A.I. Nurullaeva's studies (Nurullaeva, 2020) report students noting that distance learning, same as any other form, has both its advantages and major disadvantages. Moreover, the latter have a significant impact on students' health. Researchers argue (Nurullaeva, 2020; Terentev & Zakharova, 2020; Shukshina & Frolova, 2021) that with a little effort and willingness, one can minimize the damage from such shortcomings as the lack of communication with the instructor and fellow students, fear of not understanding lecture material and not completing the course, and dependence on technical aids. The current study uncovers such negative phenomena as limitations in gaining practical skills, high distractibility, the problem of self-organization, and deindividualization of learning. With the new social learning experiences, these skills were acquired and the students became more organized and independent. However, one particular condition, the lack of direct upbringing impact, which is only possible in face-to-face learning and direct communication between a teacher and a student, remains a concern and requires further research and recommendations on the upbringing of the younger generation in the distance format. Meanwhile, it should be noted that distance learning has proven to be a good solution in the pandemic to some extent since, as confirmed by our survey, with the restrictions on time spent outdoors, studying has filled the time spent at home. Time management, self-organization, and the desire to live and socialize were probably the main tools that helped not only the students but also the faculty.

CONCLUSION

Thus, in the conditions when it is impossible to conduct the educational process in the traditional format using the traditional educational means, there are always other alternatives. Meanwhile, it should be borne in mind that the alternative forms, methods, and means of education cannot completely replace the traditional ones as they require considerable refinement and improvement. However, they can come to the rescue in force majeure conditions. As a result of the conducted study of teachers and students, we indicate a common trend consisting in the division of

the educational environment into those who feel good in it and those who have difficulty using it in the learning process. The implementation of distance education with the use of electronic educational means required restructuring virtually the entire educational process. The teachers were faced with the need to introduce new forms of using laboratory equipment in the learning process. In addition, the lack of direct eye contact, physical interaction, and facial expressions and gestures in the learning process also has a negative impact, which at times leads to the violation of the logic of the educational process. Moreover, the upbringing function of higher education as an institution of socialization and the retention and appropriation of role models was lost, especially in regional universities, which, in turn, entails difficulties in the development of critical thinking in the younger generation. As a result, at the beginning of 2021, we have observed mass and often unconscious participation of youth in unsanctioned demonstrations.

Authors' Contributions: Goncharenko, O. N.: conception and design, acquisition of data, analysis and interpretation of data, drafting the article, critical review of important intellectual content. Semenkova, S. N.: conception and design, acquisition of data, analysis and interpretation of data, drafting the article, critical review of important intellectual content. All authors have read and approved the final version of the manuscript.

Ethics Approval: Not applicable.

Acknowledgments: Not applicable.

REFERENCES

Abramian, G. V., & Katasonova, G. R. (2020). Osobennosti organizatsii distantsionnogo obrazovaniia v vuzakh v usloviiakh samoizoliatsii grazhdan pri virusnoi pandemii [Specific features of organizing distance education in universities under the conditions of self-isolation of citizens under a viral pandemic]. *Modern Problems of Science and Education, 3*, 5-15. https://doi.org/10.17513/spno.29830

Bruner, J. (1966). Towards a theory of iInstruction. Cambridge: Harvard University.

Bukeikhanov, N. R., Gvozdkova, S. I., & Butrimova, E. V. (2020). Otsenka effektivnosti tsifrovykh tekhnologii prepodavaniia v usloviiakh COVID-19 [Assessment of the effectiveness of digital teaching technologies in the context of COVID-19]. *Russian regions: looking into the future, 7*(2), 62-75.

Cherdakli, U. S. (2020). Osobennosti truda pedagogicheskikh rabotnikov v sisteme distantsionnogo obucheniia v period pandemii COVID-19 [Special features of pedagogical work in the distance learning system during the COVID-19 pandemic]. *Mir nauki, kultury, obrazovaniia, 3*(82), 278-280. https://doi.org/10.24411/1991-5497-2020-00542

Dudyrev, F. F., Leshukov, O. V., Terentyev, E. A., & Frumin, I. D. (June 19, 2020). Kak perezhili pandemiiu vuzy i kolledzhi: riski i novye vozmozhnosti [How universities and colleges survived through the pandemic: risks and new opportunities]. *Institute of Education*. Available: https://ioe.hse.ru/news/373725976.html (accessed November 29, 2020).

Gavrilyuk, N. P., Kryucheva, Y. V., & Semenkova, S. N. (2018). Professional integrity within the structure of professional activity: psychological and pedagogical formation basis. *Astra Salvensis, 6*(12), 183-191.

Goncharenko, O. N., Krasnolobova, E. P., Cheremenina, N. A., Sidorova, K. A., & Veremeeva, S. A. (2018). Case-method in the structure of training the veterinary physician. *Astra Salvensis, 6*, 647-655.

Iltakova, N. V., Pustovarova, A. O., & Kopalkina, E. G. (2020). Opyt pedagogicheskogo soprovozhdeniia obuchaiushchikhsia v usloviiakh distantsionnogo obucheniia v period pandemii koronavirusa [Experience of pedagogical support for distance learning students during the coronavirus pandemic]. *Pedagogical Sciences, 5*(4), 42-51.

Katasonova, G. R. (2020). Znachimost razvitiia tsifrovykh obrazovatelnykh tekhnologii v usloviiakh vseobshchego distantsionnogo obucheniia [The importance of the development of digital educational technologies in the context of universal distance learning]. In: Kirillova R. I., Timofeeva, N. N. (Eds.). Tsifrovizatsiia obrazovaniia: vyzovy sovremennosti: materials of the all-Russian scientific conference with international participation, Cheboksary, Russia, November 13, 2020. Cheboksary: Sreda Publishing House, pp. 121-125.

Lutfullaev, G. U., Lutfullaev, U. L., & Kobilova, Sh. Sh. (2020). Opyt distantsionnogo obucheniia v usloviiakh pandemii COVID-19 [Experience of distance learning in the COVID-19 pandemic]. *Problems of Pedagogy, 4*(49), 66-70.

Nurullaeva, A. I. (2020). Sotsialnyi opros na temu "Vliianie distantsionnogo obucheniia na samochuvstvie studentov vo vremia pandemii" [Social survey on the topic "The impact of distance learning on students; well-being during the pandemic"]. Available: https://docs.google.com/forms/d/1JreUqXXfPhFa8Kley8RfXMZOZ3FAXIRGkfHngLM0qeU/edit?pli=1 (accessed September 7, 2021).

Rogozin, D. M. (2021). Predstavleniia prepodavatelei vuzov o budushchem distantsionnogo obrazovaniia [University teachers' view of the future of distance education]. *Voprosy obrazovaniia, 1*, 31-51.

Semenkova, S. N., Bannykh, S. G., Doronina, M. V., Novoselova, M. A., & Taburkin, V. I. (2018). System grounds of social management theory. In: The European Proceedings of Social & Behavioural Sciences (EpSBS). Future Academy, pp. 1173-1179. http://dx.doi.org/10.15405/epsbs.2018.02.138

Shtykhno, D. A., Konstantinova, L. V., & Gagiev, N. N. (2020). Perekhod vuzov v distantsionnyi rezhim v period pandemii: problemy i vozmozhnye riski [Transition of universities to distance learning during the pandemic: problems and possible risks]. *Open Education, 24*(5), 72-81. https://doi.org/10.21686/1818-4243-2020-5-72-81

Shukshina, L. V., & Frolova, K. G. (2021). Osobennosti obucheniia i motivatsia studentov v usloviiakh onlain vzaimodeistviia [Special features of learning and students' motivation under the conditions of online interaction]. *Modern Pedagogical Education, 2*, 91-96.

Terentev, E. A., & Zakharova, U. S. (2020). "Eto rabotaet!": perekhod na udalennyi rezhim raboty i distantsionnoe obuchenie v otsenkakh prepodavatelei rossiiskikh universitetov ["It works!": transition to remote work and distance learning as evaluated by Russian university teachers]. In: Kuzminov, Ya. I., Frumin, I. D. (Eds.). Shtorm pervykh nedel: kak vysshee obrazovanie shagnulo v realnost pandemii. Moscow: Higher School of Economics, pp. 67–79.

Tishchenko, A. S. (2020). Vliianie pandemii na ekonomiku obrazovaniia [Impact of the pandemic on the economics of education]. *Russian Economic Developments, 27*(5), 91-99.

Tokmakova, S. I., Bondarenko, O. V., & Lunitsyna, Iu. V. (2020). Opyt distantsionnogo obucheniia studentov stomatologicheskogo fakulteta v usloviiakh pandemii COVID-19 [Experience of distance learning for students of the Faculty of Dentistry in the COVID-19 pandemic]. *Modern Problems of Science and Education, 3*, 6. https://doi.org/10.17513/spno.29772

Urumov, A. V. (2019). Pravovye osnovy distantsionnogo obucheniia v sisteme dopolnitelnogo professionalnogo obrazovaniia v obrazovatelnykh organizatsiiakh MVD Rossii [Legal basis of distance learning in the system of additional professional education in educational organizations of the Russian Ministry of Internal Affairs]. *Gaps in Russian Legislation, 6*, 280-285.

Vaindorf-Sysoeva, M. E., & Subocheva, M. L. (2020). Distantsionnoe obuchenie v usloviiakh pandemii: problemy i puti ikh preodoleniia [Distance learning in a pandemic: problems and ways to overcome them]. *Problemy sovremennogo pedagogicheskogo obrazovaniia, 67-4*, 70-74.

Vodolad, S. N., Zaikovskaia, M. P., Kovaleva, T. V., & Saveleva, G. V. (2010). Distantsionnoe obuchenie v vuze. [Distance learning at a university]. *Scientific Notes: Electronic Scientific Journal of the Kursk State University, 1*(13), 129-138.