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THE PROS AND CONS OF DISTANCE LEARNING

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Abstract

Distance education is becoming more and more in demand in the Russian higher educational institutions and all over the world. This study is devoted to the analysis of both positive and negative features of distance education. The positive features include: access to education for a wide range of people; the chance to learn from home; the opportunity for students to save money on transport, accommodation, textbooks, etc. as well as for universities to spend less on renting lecture halls and salaries for a large staff. Students can also save time by studying only those subjects that seem necessary for them. Other positive features are: the opportunity to check the acquired information and receive feedback from the authors of the course; organization of training courses for working professionals with greater convenience. Besides distance courses form the ability to search and process information independently and develop the need for self-education, essential in the future career of a student. The negative features of distance education include: the absence of a continuous live communication between subjects of the educational process; insufficient time for developing skills, revision of the material; imperfection of the test system for assessing the knowledge gained; rapid obsolescence of lecture materials and, consequently, the need for their constant updating. The need for proctoring final attestation of students and constant moderation of the educational process together with unpreparedness of teaching staff of the majority of universities to create distance learning courses pose other serious problems.

1. Introduction

The modern world sets new development vectors for universities, in particular, the need to implement more modern methods of teaching, one of which is the method of distance learning.

Distance learning implies distant interaction between lecturer and students. At the same time the lecturer has the opportunity to communicate with students both on-line and off-line. Students can also ask their questions about the material which they have studied and receive feedback. Distance learning involves video clips with the recording of lectures, audio and video conferences, chats, forums for discussion. Besides e-mail communication between students and lecturers can be used (Tsai & Machado, 2003).

"The great popularity of the Internet and the widespread use of mobile information and communication technologies has significantly changed the social environment and social communication" (Bylieva, Lobatyuk, & Rubtsova, 2017, p. 226). This process has also affected the education system, in which an increasing share is allocated to distance education.

Currently, distance forms of education are becoming increasingly popular. The number of courses offered on the Internet is growing rapidly as well as the number of people who want to learn remotely. In Russia, these processes are only beginning to gain momentum. It happens in parallel with the advancement of such values as freedom and self-expression, the realization of which is facilitated by distance education (Pozdeeva, Trostinskaya, Evseeva, & Ivanova, 2017). An actual problem is the analysis of positive and negative features of distance learning in order to understand the mechanisms of interaction between students and lecturers, carried out without direct contact, and to create the most effective model of distance educational process. This study is devoted to understanding the advantages and problems of distance learning within the framework of higher education.

2. Problem Statement

In modern society, the need for distance learning has matured in connection with the increased popularity of higher education and sometimes the great difficulty of getting it remotely, living outside the metropolis. In addition, teaching staff working in the universities of these megacities often face the problem of "clip-thinking", through the prism of which students perceive information. One can keep their attention only by giving out the material in small portions of 10 to 15 minutes, between which one has to make short breaks for direct interaction with the students, provoking them to ask questions and answering them. After all, modern young people are used to clicking on links on the Internet: whenever they are interested in something, they want to learn more about this and if the lecturer does not satisfy their curiosity, there is a high probability that they will redirect their attention to electronic devices using which, via wireless communication, they will immediately begin to search for answers on the Internet. Within the framework of distance learning the material of each individual lecture is presented in the form of a short video accompanied by subtitles and supplemented with a detailed summary in a format suitable for reading.

In addition, most of the modern students actively use the Internet to find the information necessary for the successful mastering of the material of a particular course. Electronic information carriers are much more convenient and customary for them than print media (Bylieva, 2015).

At the same time, some lecturers, who do not understand such preferences, tend to restrict students in using Internet resources, try to encourage them to find information in traditional libraries. However, such tactics are doomed to failure from the outset. In today's society, the search for material (including, educational) on the Internet is a faster, more economical, democratic way than any other means of obtaining information (Aladyshkin, Kulik, Michurin, & Anosova, 2017). Moreover, search on the Internet becomes especially actual when it is necessary to find the latest information on the disciplines which are characterized by rapid development and, consequently, rapid obsolescence of information (Belyayeva, 2013).

Within the framework of distance learning, these materials are deliberately selected and provided to students by professionals in one field of knowledge or another. Moreover, the materials are not simply uploaded, but are structured in a certain way. Their presentation has been thought out, arranged correctly from a methodological point of view. From time to time the material can be updated: not only its content, but also form and structure, which is done to help students to master the material of the course more efficiently.

At the same time, the representatives of the "clip-thinking" can cope with the simultaneous processing of fairly large blocks of information, provided that it is presented to them competently. As modern scholars convincingly show, "the essence of the clip thinking is the ability of a person to quickly switch between disjointed semantic fragments, and its most important advantage is the high speed of information processing" (Grineva, 2012, p. 26). "The modern era is the era of total visualization of information. A person receives the information necessary to him, not through words and meanings, but through vivid images and simple signs" (Simakova, 2017, p. 107). Accordingly, if you fill the video lectures with bright visual images, visual diagrams, maps, memorable photos, short clips illustrating the material, the level of students' assimilation of information and memorization in comparison with usual lectures can be much higher.

Thus, distance learning allows solving a number of primary problems, which modern society poses to universities, and meets the needs and opportunities of modern students. But, like any method, distance learning has its own strengths and weaknesses.

3. Research Questions

The research questions, the answers to which we try to find in this study, are:

1. What are the positive aspects of distance education in the university?

2. What are the negative aspects of distance education in the university?

3. Does distance education contribute to the development of students' independence and skills of self-education?

4. Can the traditional form of teaching in universities be replaced with distance learning?

4. Purpose of the Study

The purpose of this article is to identify and analyze the positive and negative features of distance learning.

In the future, this will contribute to understanding the mechanisms of distant interaction between students and lecturers, and creation of the most effective model of the distance learning process.

5. Research Methods

As a methodological basis in this study, a descriptive method is used that enables to examine the problems and advantages of distance learning from different sides. Besides general scientific methods of analysis, comparison and generalization are used in the article.

6. Findings

Let us analyze the positive and negative features of distance education.

The undoubted advantages of distance learning include the following.

Firstly, it is an opportunity to study remotely, at a time convenient for the student and, most importantly, anywhere in the world. To do this, he/she only needs a computer (or a smartphone, a tablet) with Internet access. The student decides when and where he will study the material. Also interested in the distance form of education are "people who do not have the opportunity to receive educational services in the traditional education system because of the limited capacity of this system, the inability to combine study with work and other specific conditions (villagers, sportsmen, etc.)" (Khuziakhmetov & Nasibullov, 2012, p. 44).

In addition, due to the opportunity to study remotely, there is an opportunity to save money on training, transportation costs, as well as accommodation in a metropolitan area for students. Distance education today is the most democratic in price. Students do not have to pay for textbooks, additional literature, do not rent a house or live in a hall of residence. There is no need to spend a lot of money on moving between a place of residence and a university.

For higher educational institutions, the undoubted advantages of distance learning are the cost savings on providing and maintaining classrooms and lecture halls in due form.

It is also worth noting that scientific and technological progress gives a lot of opportunities for effective presentation of the material. A computer with Internet access, an electronic board, a multimedia projector, video and audio equipment are among the technical means used by lecturers of virtually any discipline. Providing this equipment for all the classrooms can sometimes be a task beyond the power of the university administration. Within distance learning, the amount of the equipment necessary for the learning process is greatly reduced.

Another positive aspect of distance education is "the possibility of attracting the most professional lecturers, or simply well-known people, to work in the framework of the distance education in an interactive educational process" (Khuziakhmetov & Nasibullov, 2012, p.72). In its framework, scientists with a world-wide name will be able to transfer their knowledge and tell students about their discoveries, thereby making the science more "live", open, aimed directly at students. Undoubtedly, this experience will be of great value in the eyes of many participants in the educational process, and the very opportunity to communicate with the luminaries of science will attract more students to the university.

Along with students, universities lecturers can also be trained remotely, increasing their qualifications in this or that field of knowledge. It will also be important for them to have the opportunity of such interaction with outstanding scientists.

The next positive moment of distance learning is connected with the peculiarities of people's perception of information. All students perceive the material differently. One needs to spend a lot of time understanding and mastering it, the other does it quite quickly. The distance learning system is very flexible in this regard. Being at a lecture in real time, students cannot make the lecturer pause to comprehend a particular information block. The laws of psychological perception are such that intensive work for 15-20 minutes requires a 5-10-minute break for "digesting" information. If at that time a new stream of unknown material falls upon the student, the assimilation of this material is difficult. If you imagine what happens to a modern representative of clip-thinking during an hour and a half lecture that goes on without a break, distance learning may well seem to be a better alternative to full-time education.

In addition, if some students have misunderstood something, they do not always dare to ask a question to a lecturer, embarrassed by their classmates. Within distance learning, shy students feel more comfortable. At the same time, students who need more time to think about information than their classmates can listen to the lecture more than once, take a long time to reflect on the material provided, and after that, if something still remains incomprehensible, ask the lecturer.

Another positive feature is the ability to receive quick feedback from students. As the researchers write: "Monitoring student satisfaction with education quality has become an integral part of the educational process not only in a number of European universities <…>, but also in Russian universities, which are interested in education quality improvement" (Razinkina, Pankova, Trostinskaya, Pozdeeva, Evseeva, & Tanova, 2018). And distance learning allows you to get feedback from a large number of students quickly.

In the context of distance learning, information is provided in a concise form, without digressions. The lecturer orientates the students in the literature, helps to work out the necessary material using a testing system. In real (not virtual) classes, not every student takes initiative and actively participates in the assimilation of the material. Some students postpone the period of their activity until the session. Within the framework of distance learning all the necessary material is divided into blocks, for each of which the student is obliged to perform proof tests within one to two weeks. If the student is lazy and does not do this, the deadline is over, and the opportunity for further progress is lost. At the end of the course the student writes the final test. As a result, he actively assimilates information, revises the learnt material.

The lecturer is not just a "talking textbook". Each student has the opportunity to ask questions to the lecturer, discuss the topics that interest him/her at the forum both with the lecturer himself and with other listeners (in case they are also interested and want to answer him). Distance learning takes place in an interactive form, so it is aimed at a dialogue. The latter, of course, is also beneficial for students.

Another positive feature of distance learning is that it is an ideal alternative to full-time education for people with disabilities. Such students have to make a lot of physical, emotional, financial efforts to get education. They do not always have the opportunity to physically attend classes due to poor health, the need to undergo treatment in a hospital (Sidorova, 2017). Some need specially equipped ramps for

wheelchairs, which, in turn, puts before the university the problem of creating special devices and increases the cost of maintaining and equipping the premises.

Within distance learning, students with disabilities get full access to knowledge at a time convenient for them. Administration of the university, in turn, saves money on the equipment of premises.

In addition, according to a number of authors, as a result of remote participation in the educational process, "students are oriented toward independence and self-education, besides a sense of responsibility for the results of their own educational and cognitive activities is formed" (Kosarchuk, 2015, p. 72).

And also in our volatile world, where information is the main productive force, a specialist in any field should be ready for continuous education during all his/her life long. But distance learning is not without its drawbacks, among which we can distinguish the following.

First, despite the opportunity to ask any questions to the lecturer, the student is deprived of live communication both with the lecturer and with other students. The most interesting questions, provoking a deeper unfolding of the thought of the lecturer, are born in the polylogue, in which a whole group of students participate, which occurs here and now, in real time. It is thanks to them that the lecturer, who delivers a speech not in a virtual mode, understands the level of preparedness of the audience, its mood, can link the chain of associations with new material which the students have already studied in the class in other subjects. Based on the content of these issues, he can correct the flow of information, touch upon particular topics, speak on them in a more detailed way, present them from a different angle. The lecture, delivered without live participation of recipients, loses much in the semantic content and in the emotional presentation, because not every lecturer is able to be inspired by looking at the black box of the video camera aimed at him during the shooting, instead of human eyes (Kolomeyzev & Shipunova, 2017).

Secondly, modern young people are accustomed to spending most of their time on the Internet using a variety of gadgets.

In the modern globalized world technical progress forces a person to introduce technical devices into his life, thus immersing himself in a digital reality, different from the natural one. "The individual loses his personal space in totalitarian universe of technical rationality. He has no alternative, he has to integrate into digital technological structure" (Shipunova, Rabosh, Soldatov, & Deniskov, 2017, p. 1227). A dialogue with the interlocutor is gradually disappearing from the sphere of communication. Students are much more used to communicating with their peers via the Internet (Floridi, 2014). But this is a very specific way of communication, with its help it is almost impossible to learn how to work in a team. However, such skills are worth developing in the university. Within distance learning there is no live communication. Another negative aspect of distance learning is the fact that shy students (who are represented in academic groups in large numbers) who feel more comfortable with remote interaction will never cease to be afraid of expressing themselves and their thoughts in the presence of other people, will not get used to live communication (Bordovskaia & Kostromina, 2014).

The next negative point is related to the time during which new material is given. 20-40-minute presentation cannot be compared with a one and a half hour lecture. In the context of distance learning, the lecturer strives to compress the material as much as possible, to give only the most essential. But it is not always the presentation of the key points which causes interest of listeners. Probably, it is possible to

enthrall them, to keep attention, to awaken the desire for an independent study of the subject, even within 20 minutes, but not in case of the widest coverage of the key points.

At the same time, if we compensate for the lack of time given in a video lecture with a large amount of additional literature, there is a high probability that students will not study it, delving into many nuances independently.

Tests play an important role in the final assessment of the learning of the material by students in the framework of distance education. The test system is very convenient for remote assessment, but is not suitable for developing the ability to think independently, to assimilate the material, trying somehow to apply it to your own life. Accordingly, the results given to the student as a result of his mastering the material will not always reflect the level of his knowledge of the questions and topics he has studied.

The modern world is very dynamic, information in it quickly becomes obsolete, and each lecturer from year to year updates the material that he gives to students, adjusting it in accordance with the accumulated changes in this or that field of science. There is one important requirement to the program of many courses: the literature recommended to students should be published not earlier than 5 years before the program's release. Video-lectures within the framework of distance learning are shot for an indefinite period. It is unlikely that the administration of the university will support the idea of re-shooting lectures at least once in a five-year period.

The creation of courses aimed at distance learning of students is a very energy-intensive process and is often met with resistance from lecturers who are accustomed to conducting classes in a traditional manner. As the authors write, studying the attitude to distance learning within the teaching environment of the university: "It is especially important to create positive motivation for lecturers who prepare materials for and conduct e-learning. <…> In addition, a long time working on the computer has a negative impact on health, eyesight, spine" (Dmitriev, Dmitrieva, & Serezhkina, 2016, p.115).

There is also a purely technical moment. It is necessary to establish a system of proctoring, in which the activity of the student is monitored on the network and it is forbidden to open several windows (for example, training material and test tasks) or peeking into the textbook while doing tests. Without this protection, assessing students' work on assignments will be inadequate. The introduction of such protection requires the use of a certain number of specially trained personnel whose function is to supervise the students performing the tasks.

At present, there is an exponential acceleration of technological progress. Technology is being introduced into a person's life more and more actively, influencing his self-identification and interaction with people around him (Nikiforova, Bylieva, Lobatyuk, & Petrova, 2017). The problem of anonymity in the network is another important issue in the distance learning system. A person who is used to behaving politely in everyday life, in the network is in a situation of permissiveness: his real name is hidden by a nickname, on the other side of his screen are completely unfamiliar people, who in his view differ little from robots. In this situation, some students allow themselves to bring down their entire flow of negative emotions to any subject of communication, including lecturers (Bylieva, Lobatyuk, & Rubtsova, 2018). To such outbursts of aggression in the network you need to be ready, having prescribed the rules in advance and setting sanctions for violators.

7. Conclusion

In the modern globalized world, distance learning begins to play a leading role in the field of education (Almazova, Khalyapina, & Popova, 2017).

Thus, distance learning has both its negative and positive aspects, which must be taken into account when developing courses aimed at distance learning. It is more suitable for part-time students, for lecturers who need to improve their qualifications, as well as for people who have health restrictions. For full-time students, distance learning courses should be supplemented with lectures and seminars, where students should be given the opportunity to have live communication with both members of teaching staff and their groupmates.

References

Aladyshkin, I., Kulik, S., Michurin, A., & Anosova, N. (2017). Information prospects for socio-cultural development: contradictory grounds. *RPTSS 2017 International Conference on Research Paradigms Transformation in Social Sciences, The European Proceedings of Social & Behavioural Sciences EpSBS, Vol. XXXV,* 19-25. doi: 10.15405/epsbs.2018.02.3

Almazova, N., Khalyapina, L. & Popova, N. (2017). International youth workshops as a way of preventing social conflicts in globally developing world. *3rd International Multidisciplinary Scientific Conference on Social Sciences and Arts, SGEM2016 Book 2, Vol. 1,* 253-260. doi: 10.5593/SGEMSOCIAL2016/HB21/S01.033

Belyayeva, O. S. (2013). Internet kak resurs samostoyatel'noj obrazovatel'noj raboty studenta [Internet as a resource for independent study of a student]. *Voprosy Upravleniya [Management Issues], Vol. 24,* 172-175. [in Rus.] Retrieved from http://vestnik.uapa.ru/ru/issue/2013/03/27

Bordovskaiaa N., & Kostromina S. (2014, January 1). Personal features and research potential of students. *The European Journal of Social and Behavioural Sciences, VIII* (1), 1284-1293. Retrieved from https://www.futureacademy.org.uk/files/menu_items/other/ejsbs111.pdf

Bylieva, D. S. (2015). Ispol'zovanie seti Internet v protsesse izucheniya distsiplin gumanitarnogo tsikla [The use of the Internet for studying the humanities]. In V.P. Goryunov (Ed.), *Formirovanie Professional'noj Kul'tury Spetsialistov XXI Veka v Tekhnicheskom Universitete [Professional Culture Formation of the 21st Century Specialists in the Technical University]: Peter the Great St. Petersburg Polytechnic University. Proceedings of the 15th Russian National Conference*, (pp. 99-101). Saint-Petersburg: Publishing House of Polytechnical University. [in Rus.]

Bylieva, D., Lobatyuk, V., & Rubtsova, A. (2018) Homo Virtualis: existence in Internet space. *SHS Web of conferences 44, 00021 (2018) CC-TESC2018.* doi: 10.1051/shsconf/20184400021

Bylieva, D., Lobatyuk, V., & Rubtsova, A. (2017) Smartmob: evolution from flashmob to smartcity element. *RPTSS 2017 International Conference on Research Paradigms Transformation in Social Sciences, The European Proceedings of Social & Behavioural Sciences EpSBS, Vol. XXXV,* 225-235. doi: 10.15405/epsbs.2018.02.26

Dmitriev, M. E., Dmitrieva, L. M., & Serezhkina, A. E. (2016). Otnoshenie k distantsionnomu obrazovaniyu v pedagogicheskoj srede VUZa [The attitude of higher school teachers towards distance education]. *Science Almanac, 8-1* (22), 113-116. [in Rus.] doi: 10.17117/na.2016.08.01.113.

Floridi, L. (2014) *The fourth revolution. How the infosphere is reshaping human reality*. Oxford: Oxford press. Retrieved from http://readli.net/fourth-revolution-how-the-infosphere-is-reshaping-human-reality/

Grineva, M. I. (2012). Novyj kod epokhi: problema vzaimodejstviya «tsifrovykh immigrantov» i «tsifrovykh s rozhdeniya» [New code of epoch: problem of interaction between "digital

immigrants" and "digital natives"]. *Na Putyakh k Novoj Shkole [On the Ways to a New School], 1,* 25-26. [in Rus.]

Kolomeyzev, I., & Shipunova, O. (2017) Sociotechnical system in the communicative environment: management factors Interactions design in technogenic information and communication environments. *RPTSS 2017 International Conference on Research Paradigms Transformation in Social Sciences, The European Proceedings of Social & Behavioural Sciences EpSBS, Vol. XXXV,* 1233-1241. doi: 10.15405/epsbs.2018.02.145

Kosarchuk, N. A. (2015). O distantsionnom obrazovanii kak chudodejstvennom sredstve ot vsekh boleznej vysshego obrazovaniya [On distance learning as a miraculous remedy for all the illnesses of higher education]. *Sovet Rektorov [Rectors' Council], 1,* 70-75. [in Rus.]

Khuziakhmetov, A. N., & Nasibullov, R. R. (2012). Uchebnaya deyatel'nost' studentov VUZa na ehtape perekhoda k distantsionnomu obrazovaniyu [Academic activity of higher school students and the transition to distance education]. *Obrazovanie i Samorazvitie [Education and Self-development], 1,* (29), 44-50. [in Rus.]

Nikiforova, N., Bylieva, D., Lobatyuk, V., & Petrova, M. (2017). The problem of "sign field" creation for the Russian national technology initiative. *4th International Multidisciplinary Scientific Conference on Social Sciences and Arts SGEM 2017. Book 6, Vol.1,* 117-124. doi: 10.5593/sgemsocial2017/hb61/s7.14

Pozdeeva, E. G., Trostinskaya, I. R., Evseeva, L. I., & Ivanova R. A. (2017). Problems of personality type transformation in current conditions of Russian society. *RPTSS 2017 International Conference on Research Paradigms Transformation in Social Sciences, The European Proceedings of Social & Behavioural Sciences EpSBS, Vol. XXXV,* 1092-1099. doi: 10.15405/epsbs.2018.02.128

Razinkina, E., Pankova, L., Trostinskaya, I., Pozdeeva, E., Evseeva, L., & Tanova, A. (2018). Student satisfaction as an element of education quality monitoring in innovative higher education institution. *E3S Web of Conferences*, *Volume 33, 03043*. doi: 10.1051/e3sconf/20183303043

Sidorova, I. A. (2017). Professional'noe obrazovanie lits s ogranichennymi vozmozhnostyami zdorov'ya: distantsionnoe obrazovanie [Vocational training of people with disabilities in Russia: distance learning]. In Surnina, M. V. (Ed.), *Obrazovanie Lits s Ogranichennymi Vozmozhnostyami Zdorov'ya: Opyt, Problemy, Perspektivy [The Education of People With Disabilities: Experience, Challenges, and Perspectives]: Proceedings of the 2nd Russian National Conference* (pp. 63-64). Barnaul: Altai State Pedagogical University. [in Rus.]

Simakova, S. I. (2017). Klipovizatsiya myshleniya u molodezhi kak sledstvie razvitiya vizual'nykh kommunikatsij v SMI [Collision of thinking in the youth as a consequence of development of visual communications in the media]. *Znak: Problemnoe Pole Mediaobrazovaniya* [*Sign: The Problem Field of Media Education*]*, 2,* (24), 107-118. [in Rus.]

Shipunova, O., Rabosh, V., Soldatov, A., & Deniskov, A. (2017). Interactions design in technogenic information and communication environments. *RPTSS 2017 International Conference on Research Paradigms Transformation in Social Sciences, The European Proceedings of Social & Behavioural Sciences EpSBS, Vol. XXXV,* 1225-1232. doi: 10.15405/epsbs.2018.02.144

Tsai, S., & Machado, P. (2003). E-learning, online learning, web-based learning or distance learning: unveiling the ambiguity in current terminology. *E-learn Magazine, Vol. 3,* 26. Retrieved from http://elearning.org/subpage/sub_page.cfm?section=3&list_item=6&page