Distance Education as an Alternative Form of Learning During a Pandemic

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ABSTRACT

The article proposes the development of information technologies, in particular the use of distance learning in higher education. A systematic analysis of the peculiarities of the use of distance education with the disclosure of objective and subjective aspects of participation. Peculiarities of distance learning of disciplines in higher educational establishments are determined. The benefits of distance learning during a global constraint (pandemic) have been identified. Structuring the principles of modern distance education in higher educational institutions of Ukraine using the associative method. **Keywords:** Science Preparation, Higher Education Institution Training, Principle of Clarity, Discipline, Pedagogy

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INTRODUCTION

The global changes taking place today in the information, communication, professional and other spheres of modern society require adjustments to both methodological and technological aspects of education, a revision of value priorities, goals and pedagogical tools used. For many years, the distance learning technology of the educational system of Ukraine has been the most effective for the mass transfer of knowledge, skills and abilities to students of higher educational institutions of Ukraine, etc.

The ongoing changes in social life require the development of new forms of education, pedagogical technologies aimed at individual all-round personal development, the skill of independent movement in information fields, the formation of a student's universal ability to set tasks for himself, and find ways to solve them, contributing to the solution of those that arise in everyday life, namely the problems of professional activity and self-determination. Thus, in connection with the events associated with cardinal changes in the education system around the world and the possibility of full-time education, the restructuring of all education, the ideas of distance learning come to the fore. This problem is relevant and realizable, in connection with the rapid development of informatization tools.

One of the promising directions for the development of education is the extension of its principles to distance education, carried out using social instant messengers such as Zoom, Viber, Skype, Moodle and others.

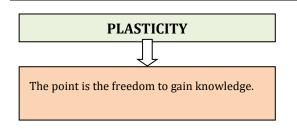
In modern society, distance learning technologies are beginning to play an increasingly important role, which is being successfully implemented in practice in the following forms: distance contests, educational projects, distance courses and so on. The generally accepted understanding of education as a person's assimilation of past experience comes into conflict with his need for self-realization, the need to solve the pressing problems of a rapidly changing world. A modern person is required to act meaningfully in a situation of choice, to correctly set and achieve his own goals, to act productively in personal, educational and professional fields. At the same time, there is a social order for education, the requirements of society for the preparation of its citizens [1-9, 23, 24]. **The purpose of this article is** to define and streamline the use of distance education in higher education institutions in the context of global learning restrictions, namely quarantine.

MAIN TEXT

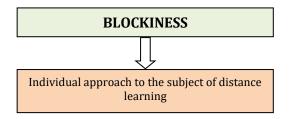
The rapid development of information technology has provided a new, unique opportunity to conduct classes the introduction of distance learning. Firstly, it allows the trainee to choose both time and place for training, secondly, it provides an opportunity to get education for people deprived of traditional education for one reason or another, thirdly, to use new information technologies in training.

On the other hand, distance education enhances the individualization of learning [14-22]. The trend towards non-traditional forms of education is evidenced by the increase in the number of universities teaching these technologies.

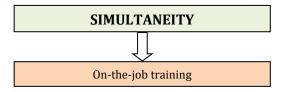
The features of distance learning include:



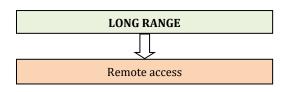
Everyone can study as much as he needs to master the course, discipline and obtain the necessary knowledge in the chosen specialty.



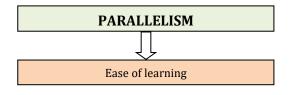
Distance learning programs are based on the modular principle. Each individual discipline or series of disciplines that are mastered by the student creates a holistic view of a particular subject area. This allows you to form a curriculum that meets individual or group needs from a set of independent training courses.



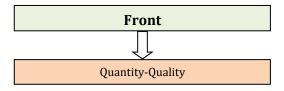
Training can be carried out when combining the main professional activity with study, as well as in conditions associated with world restrictions (pandemics, etc.).



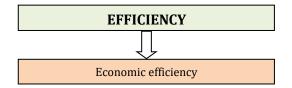
The distance from the student's location to the educational institution (subject to high-quality communication) is not an obstacle to an effective educational process.



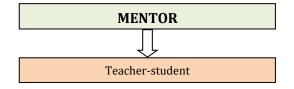
It is understood that, in the learning process, the student and student can implement the technology of teaching and learning independently in time, i.e. according to a schedule convenient for everyone and at a convenient pace.



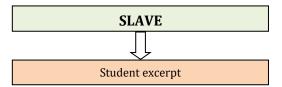
This feature is sometimes called "mass." The number of students is not a critical parameter. They have access to many sources of educational information (electronic libraries, databases), and can also communicate with each other and with the teacher via Internet messengers and other online communication systems.



This feature refers to economic efficiency. An average assessment of foreign and domestic educational systems of distance education shows that they cost about 10-50% cheaper, mainly due to a more efficient use of existing training facilities and technical facilities, as well as the presentation of a more concentrated and unified content of educational materials and technology focus on such training for a large number of students and other factors.



We are talking about the new role of the teacher, when functions are assigned to him, such as coordinating the cognitive process, adjusting the taught course, counselling, managing educational projects, etc. Interaction with students is carried out mainly asynchronously using mail or instant messengers. Fulltime contacts are also allowed and welcome.



More precisely, the new role of the student, or, as is more customary in the distance learning system, the student. In order to undergo distance learning, it requires exceptional self-organization, hard work and a certain starting level of education [5-18].

Features of distance learning technical disciplines in higher education.

The most time-consuming and, moreover, is still not very clear is the task of implementing a laboratory workshop in a distance learning system. This is especially important for technical universities. Possible solutions, except for the trivial one - exceptions of a laboratory workshop, may be: the use of simulation modeling replacing the full-scale experiment; implementation of remote access to the results of the experiment; implementation of remote access to the experiment. Simulation using software products, such as Maple, MatLab, MathCad and others, allows you to simulate almost any laboratory experiment with minimal hardware costs. It may even turn out that the computer implementation of the process studied at the laboratory bench in the methodological sense will be the most successful and complete. However, with all the richness of the possibilities of simulation, besides the psychological sense of the unreality of what is happening, there remain experiments that cannot be replaced by models simply because their results are not calculated in principle in advance.

In these cases, access to a real experiment should be provided. The easiest option is remote access to the results of the experiment. Based on this option, the laboratory work is carried out in the usual (intramural) way, and the experimental data are transferred to a network containing detailed theoretical material, a description of the laboratory stand, control questions, literature, etc.

Such participation in a laboratory workshop can be called the "observation" mode. For the most active participation in the experiment, the ability to remotely control the experiment should be provided.

Given the features of distance learning, we can highlight the main advantages. The benefits of distance learning: the opportunity to learn from anywhere in the world; the ability to reduce or increase training time without reference to the schedule; saving time for combining with other activities; the opportunity to independently and objectively evaluate the knowledge gained; practically applicable tasks; creating conditions for unlocking potential; individual approach taking into account the needs of students; accessibility and openness of training; the possibility of self-realization.

CONCLUSION

Thus, the features are considered and the use of distance learning in higher education is substantiated.

The classification of the features of distance learning has been determined, with the definition of objects and subjects of participation in the process of distance learning. The advantages of using distance learning are found. There are many myths about the downsides of elearning. But the statistics of the annual growth in the number of digital education adherents may dispel each of them. Electronic distance education is not a tribute to fashion. This is our future, which we are shaping today, and we cannot do without it in our difficult time for education.

REFERENCES

- I. Smyrnova (2017). Theoretical Aspects of the Use of Electronic Educational Resources in Professional Activity of Future Teachers of Technology. Journal of Vasyl Stefanyk Precarpathian National University, 4(1), pp. 140-147.
- 2 I. Smyrnova (2017). The requirements for establishing the esm as part of the ivs Izmail state university of humanities. Formation of Knowledge

Economy as the Basis for information society, pp. 141-143.

- 3 I. Smyrnova, M. Musorina (2016). The formation of technical culture of skippers like experience in the process of qualification. Modern Methodology of Science and Education, 6(10), pp. 17-20.
- 4 I. Smyrnova (2017). System Overview Of The Purpose And Content Of Information Technology Training Of Future Teachers Of Technologies To The Development And Use Of E-Learning Resources. International Scientific and Practical Conference World science, 3(5), pp. 6-12.
- 5 Kuts, M. O. (2016). Problem technologies in foreign languages teaching of higher technical educational establishments students'. Cherkasy University Bulletin: Pedagogical Sciences, 37(370).
- 6 Skliarenko Olesia, Akimova Alina & Svyrydenko Oksana (2019) Psycholinguistic Peculiarities of Contextual Realisation of Concept «MACHT» in Linguistic and Cultural Space of German's. Psycholinguistics. Pereiaslav-Khmelnytskyi Hryhorii Skovoroda State Pedagogikal University. 26 (2). pp. 321-340.
- 7 Shytyk Liudmyla & Akimova Alina (2020) Ways of Transferring the Internal Speech of Characters: Psycholinguistic Projection. Psycholinguistics. Pereiaslav-Khmelnytskyi Hryhorii Skovoroda State Pedagogikal University. 27 (2). pp. 361-384.
- 8 Deyneha, I.O., Akimova, L.M. & Kratt, O.A. Regional features of marketing mix formation in rural green tourism. Actual Problems of Economics. № 9(183). pp. 184-194.
- 9 Klymenko, V.V., Akimova, L.M. & Korzh, M.V. (2016) Regional aspects of middle class development in Ukraine. Actual Problems of Economics. 4(178), pp.178–188.
- 10 Yachina, N. P., Petrova, T. N., Kharitonov, M. G., Nikitin, G. A., & Zhumataeva, E. O. (2016). The method of the content selection for formation of technological culture among students based on ethnological values. International Electronic Journal of Mathematics Education, 11(1), pp.211-219.
- 11 Stukalenko, N. M. (2016). Individual Approach In Teaching Process. European Journal of Natural History, (6), pp.103-107.
- 12 Fayzullina, A. R., & Saglam, F. A. (2015). History and social sciences teacher's professional activity in the context of IT-development of education. Journal of Sustainable Development, 8(7), pp.107.
- 13 Bayanova, A. R., Kuznetsov, V. V., Merculova, L. V., Gorbunova, L. N., Pervozvanskaya, O. A., Shalamova, O. O., & Vorobyova, C. I. (2019). Student Performance Interrelation with Gadget Use at Lessons. Journal of Environmental Treatment Techniques, 7(3), pp. 432-437.
- 14 Kovaleva T.M. (2009). Innovation school: axioms and hypotheses, Pedagogical community of Russia, pp.170.
- 15 Clarin M.V. (2010). Innovation in Learning: Metaphors and Models: An Analysis of Foreign Experience, pp. 300.
- 16 Lazarev, B.C., Martirosyan B.P. (2011). Pedagogical innovation: object, subject and basic concepts, Pedagogy, N 4.
- 17 Solodukhina O.A. (2011). Classification of innovative processes in education. Secondary vocational education, No. 10, pp. 12 13.
- 18 M. Iasechko, M. Kolmykov, V. Larin, S.Bazilo, H. Lyashenko, P. Kravchenko, N. Polianova and I.

Sharapa. (2020). Criteria for performing breakthroughs in the holes of radio electronic means under the influence of electromagnetic radiation, ARPN Journal of Engineering and Applied Sciences, 15(12), pp. 1380 - 1384.

- 19 M. Iasechko, N. Sachaniuk-Kavets'ka, V.Kostrytsia, V.Nikitchenko and S. Iasechko (2020). The results of simulation of the process of occurrence of damages to the semiconductor elements under the influence of multi-frequency signals of short duration, Journal of Critical Reviews, 7(12), pp. 109 - 112. doi:10.31838/jcr.07.13.18.
- 20 M. Iasechko, V. Larin, D. Maksiuta, S.Bazilo and I. Sharapa (2020). The method of determining the probability of affection of the semiconductor elements under the influence of the multifrequency space-time signals, Journal of Critical Reviews, 7(9), pp. 569 571. doi: 10.31838/jcr.07.09.113.
- 21 S. Piskunov, M.Iasechko, N. Minko, Yu. Dolomakin, O. Palagin, M. Musorina (2020). Taking Into Account The Correlated Errors Of Measurements When Estimating Parameters Of Object Trajectory At Mechanical Movement, IJETER, 8(9), , pp. 5603 – 5606. doi: 10.30534/ijeter/2020/112892020.
- 22 M. Iasechko, V. Larin, O. Ochkurenko, S. Salkutsan, L. Mikhailova, and O. Kozak (2019). Formalized Model Descriptions Of Modified Solid-State Plasma-Like Materials To Protect Radio-Electronic Means From The Effects Of Electromagnetic Radiation, IJATCSE. 8(3), pp. 393-398. doi: 10.30534/ijatcse/2019/09832019.
- S. Iasechko. Zaitsev O, Kozhevnykova V, Melnyk K, Kulchii O. Transactions with the Personal Non-Property Right. SRP. 2020; 11(10): 49-52. doi:10.31838/srp.2020.10.10
- S. Iasechko. Haliantych MK, Skomorovskyi VB, Zadorozhnyi V, Obryvkina O, Pohrebniak O. Contractual Relations in the Information Sphere. SRP. 2020; 11(8): 301-303. doi:10.31838/srp.2020.8.46