Actualization of Distance Learning in Comparison with Traditional Forms of Education in Conditions of Quarantine Security Measures

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Abstract: Currently, in the context of severe quarantine restrictions, one of the promising areas of the formation and development of the higher education system is the problem of its comprehensive informatization, which is based, first of all, on improving the information and educational environment for learning and the development of distance learning. Therefore, serious attention is paid to the development and implementation of modern information technologies in teaching practice. All this fully applies to the development of distance learning, which allows each person to improve their educational level with a minimum interruption from production, in their free time and according to an individual training program. Taking this into account, at the present stage of reforming the higher education system in the world, it is becoming more and more difficult to look for effective directions for training highly qualified specialists using traditional teaching aids, to respond promptly and promptly to the emerging needs of the labor market without understanding a large amount of relevant and accurate information. The article carried out a theoretical and methodological study of the very essence of distance education, and also investigated the main methods for assessing this type of education in a pandemic situation. The novelty of the article lies in the acquisition of the development of theoretical and methodological aspects of methods for assessing distance education in COVID-19 conditions.

Keywords: *higher education system, distance learning, information and communication technologies, traditional teaching aids, evaluation system.*

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1. Introduction

Now there are significant changes in the ways of disseminating and using information, which determine the evolution of educational technologies that contribute to the active introduction of modern information technologies in the learning process. Thanks to this, it becomes possible to organize the educational process in a new way and develop such systems that could adequately and flexibly respond to the needs of society and ensure the implementation of the constitutional right to education of every citizen of the country (Yunus, 2007).

Distance learning is understood as the organization of the educational process, in which there is a purposeful direct or indirect interaction between an amateur and a teacher, separated in space or time, is carried out on the basis of modern information technologies, primarily using telecommunications and the Internet (Prensky, 2001). The introduction of distance learning is becoming the basis for the system of lifelong education, in which technical means and information educational technologies allow not only to change the methodology for mastering an ever-growing amount of knowledge, but also to conduct detailed control of the assessment and self-assessment of the learning process, and increase the self-educational activity of a person (Becker, 2000).

Many educators believe that today the learning process should be such that it develops and deepens independent, critical and creative thinking. This requires a wide informational field of activity, different sources of information, and different views on the same problem, prompting those who wish to study both to independent thinking and to search for their own reasoned position. The need for informatization of higher education based on the wide experience of using distance learning forms makes it urgent to comprehensively study the educational process of many domestic and foreign educational institutions, their practical, as well as theoretical developments of scientists in this direction. The problem of the formation and development of distance learning forms integrates the knowledge of such diverse sciences as psychology and pedagogy, philosophy and mathematics, automation and computer science, organization and management, etc., and the psychological and pedagogical block is decisive in this integration (Buabeng-Andoh, 2015).

The main goal of the article is to update distance education in quarantine conditions and study methods for its assessment through a theoretical and methodological study of its main aspects and principles.

2. Main Reaserch

2.1. Relevance and problems of introducing a system for assessing the effectiveness of distance learning

Due to the spread of the COVID-19, all countries began to introduce quarantine measures, which led to the closure of all educational institutions indefinitely. They were forced to switch to a distance learning process in a short time. The readiness for this process was different, purely technical problems arose - the lack of the Internet, computers, educational materials on the network. And most importantly, the teachers are not ready for distance learning. The IT industry was the first to respond to the needs of teachers and students: the power of channels was increased, a large number of services and tools for training appeared (Ali, 2020). For video conferencing, the ZOOM tool turned out to be very popular, a large number of blogs with training recommendations were published on social networks, and distance courses on the development of training resources and the organization of training were conducted. After the weakening of quarantine in the world, it became clear that humanity has entered a new stage of development, where distance learning will play a big role. Therefore, it is important to analyze the results of the distance learning process and determine the priority ways of developing online education (Ertmer & Ottenbreit-Leftwich, 2019).

When organizing and introducing distance learning in the higher education system in different countries, the problem arose of assessing the effectiveness of this concept in comparison with traditional education. As studies, which have been going on for more than a decade, show that the problem of evaluating the effectiveness is quite complex and multifaceted, and today does not have a final solution, since the concept of distance learning has both a large number of supporters and obvious opponents (Hennessy et al., 2006). Therefore, it is relevant to consider the existing problem of the effectiveness of distance education and analyze the main elements of the theory of evaluating the process of functioning of such a teaching method. The need for informatization of higher education based on the widespread use of distance learning forms makes it relevant to comprehensive study of educational institutions, their practical experience, as well as theoretical developments of scientists and teachers. The problem of the formation and development of distance learning forms integrates the knowledge of such branches of science as psychology and pedagogy, philosophy and mathematics, automation and computer science,

organization and management, etc., and the psychological and pedagogical block is decisive in this integration (Ali, 2019).

The development and expansion of the possibility of using educational information technologies for teaching directly face the problem of introducing effective teaching methods. The effectiveness of any method, technology or approach to learning contains a methodology for assessing the achieved result, the cost of material and pedagogical resources, as well as the time to achieve it.

One or another indicator of the effectiveness of the learning process is determined either by the results of control or coursework in points, or by the results of the current or final testing as a percentage of correctly solved problems. At the same time, they usually compare groups of students who have used and did not use computer-based learning support (Geng et al., 2019). The effectiveness of teaching methods using information technology is usually compared with the so-called traditional teaching methods and is limited to identifying similar learning outcomes, sometimes not taking into account the time spent by students in libraries, sitting in lectures and laboratory classes, and usually not taking into account transport time losses (Scruggs et al., 2020).

Therefore, the question is relevant: is it possible to apply traditional criteria for the quality of education in key moments of distance learning in an information and educational environment? The application of this approach to the assessment of information technology learning implies that they do not introduce anything new into the main goals and objectives of the learning process. In our opinion, the introduction of information and educational learning technologies affects only the quality and content of the process of acquiring knowledge.

2.2. Formation of a system for assessing the quality of distance learning in a quarantine environment

Many experts believe that modern information technologies of teaching make it possible to increase the efficiency of practical and laboratory classes in the cycle of disciplines of humanitarian and socio-economic training by 10-15%, natural science training - by 20-25%, professional and practical training - by 13 -18%, and the objectivity of monitoring students' knowledge - by 10-20%.

Success in the control groups of students using educational information technologies of teaching is, as a rule, higher by an average of 8-10 points (with a hundred-point assessment system). In particular, the speed

of vocabulary accumulation in computer learning of foreign languages increases by 2-3 times.

At the same time, there is an approach that involves the use of traditional criteria for assessing the quality and effectiveness of the educational information learning environment.

The key aspects here are considered to be (Huang et al., 2020):

- 1) the degree of qualification of the teaching staff (absence or presence of an academic degree - candidate or doctor of science);
- 2) the level of his pedagogical skills (absence or presence of an academic title - associate professor or professor)
- 3) the number of academic disciplines where information technologies are used;
- 4) the presence of computer classes or laboratories;
- 5) the presence of an electronic library;
- 6) the presence of an internal network with Internet access.

D. Guller and G. Rumble made an important contribution to the development of the theory for assessing the results of distance learning. For example, D. Guller proposes to use the following criteria for evaluating distance learning programs (Thomas & Israel, 2013):

- free access to educational services (first of all, this concerns the provision of opportunities for some groups of the working-age population, whose specialty is not in demand in the labor market, to acquire the new knowledge they need);
- correspondence of programs of the concept of distance learning to the national, state or regional interests and needs of individual citizens;
- the quality of the offered training programs that are in demand in the labor market in modern employers;
- degree of achievement of the set goals in comparison with traditional forms of education;
- the cost component of distance learning in comparison with the obtained efficiency;
- the relationship of distance learning curricula with society, other state and commercial institutions and educational institutions, the needs of individual citizens;
- the amount of new knowledge that is planned to be acquired by students and teachers using information technologies of education.

The Greville Rambla model for assessing the effectiveness of distance learning is based on four indicators: the duration of the educational process, that is, the time spent on training a graduate; the share of distance

learning graduates from the total number of students accepted for training; the correspondence of the number of graduates and the level of their training to the goals of the educational institution, the needs of society in educational and working environments, social needs in the higher education system and the needs of the underprivileged segments of the population (Zhang et al., 2020).

Most often, the distance learning system focuses on the following aspects of the educational process: the importance of creating a unified national concept of distance learning; the need for standardization of distance learning courses; certification of educational institutions of the concept of distance learning in the higher education system. Evaluation of the process of functioning of distance learning or an individual educational institution can be carried out on the basis of developed criteria or on the existing regulatory framework.

Assessment based on developed criteria requires that qualitative and quantitative indicators follow from the real state of affairs and are compared with some "ideal" (educational standard), which must be defined and used as an educational standard by which the assessment is carried out. A regulatory assessment methodology is an alternative approach. The norms adopted for assessing the effectiveness of teaching in open universities often resemble the norms for evaluating the process of the functioning of traditional universities.

The COVID-19 crisis has shown educational institutions that the integration of blended and distance learning into the educational process of the institution is a long process that requires qualified teachers. The training of such a specialist requires hard work on the development of a distance course for more than two months. To help educators, consider simplified approaches to course design. Distance course planning (Zhu et al., 2019):

It is necessary to determine the method of conducting distance learning:

- meetings in real time (explanation of the material, answers to questions);
- distance learning through interactive teaching materials (videos, interactive videos, text, pictures). For students' questions, it is necessary to create a chat for communication so that, when faced with difficulties, they continue to complete the assignments.
- to plan the work of students in the academic subject in a holistic manner, starting from the educational results that students should achieve.

- to form the following questions for the organizers of the distance learning system: "How will they achieve educational results? How can the teacher support them in this? "

Based on the answers, make a work plan for yourself and your students (Lynch, 2019):

- it is necessary to determine what will be the connection with students;

- it is necessary to start creating educational materials, because organizing educational work remotely is to help the student independently figure out what he does not know and cannot do. Work instructions should be added to the training materials, indicate the time it takes to work on the task, and to study the materials needed for strategy, guidance and advice.

A prerequisite is accounting for the challenges that may be encountered (Ferlazzo, 2020).

Challenge 1. Students who have not worked before may not start working remotely.

Challenge 2. Creation of educational material takes a certain amount of time.

Challenge 3. You need to think about the work that students will do for the assessment.

Challenge 4. It is necessary to decide what digital services will be used.

Comparison of traditional forms of education with distance learning does not provide real value for three reasons (Silva et al., 2020):

1. Any medium is simply a way of delivering information: one medium is inherently no better or worse than any other medium.

2. You need to better understand different media and how people learn from different media in order to conduct effective research.

3. Even the best media comparison study has too many confounding variables for the results to be reliable and meaningful.

Learning success can be measured in a variety of ways, depending on how "success" is defined from the perspective of a given stakeholder. From a faculty perspective, student learning outcomes will be of primary interest. Have they achieved the planned knowledge, skills and / or attitudes that were at the center of the learning experience? Potential results may also be of interest to students and teachers. For students, issues such as interest, motivation, and attraction are directly related to success and thus will be possible focus points of assessment. For educators, attitudes towards online

learning and everything related to it can influence the perception of success (Zhernova, 2018).

Recommended Assessment Areas are for well-planned distance courses and may not be appropriate for emergency distance courses. Assessing them requires broader questions, especially during initial implementation. Evaluation should focus on context, inputs, process and products.

Context assessment. Needs, challenges, assets and opportunities, as well as related contextual conditions and dynamics (Smith & Judd, 2020):

- internal and external resources were needed to support this transition? which aspects of the context (institutional, social, government) influenced the feasibility and effectiveness of the transition?

- how did the university's interaction with students, families, staff, local and national stakeholders influence the perception of the reaction to the transition to emergency distance learning?

Input estimates. Program strategy, action plan, staffing and budget for feasibility and potential cost-effectiveness to meet targeted needs and achieve goals:

- was the technological infrastructure sufficient to meet the emergency distance learning needs?

- are there enough university support staff to meet the emergency distance learning needs?

- was the continuing professional development of teachers sufficient to provide emergency distance learning? how can opportunities be expanded for immediate and flexible learning requirements associated with alternative learning approaches?

Process evaluation. Track, document, evaluate and report on the implementation of plans:

- where have faculty, students, support staff, and administration struggled more with emergency distance learning? How can we adapt our processes to meet these operational challenges in the future? Product evaluation. Identify and measure costs and benefits (predictable and unintentional, short-term and long-term):

- what were the programmatic results of the Emergency Distance Learning Initiative? how can the problems associated with these results be addressed in support of students and teachers disturbed by these problems?;

- How can feedback from students, teachers and support groups inform about the need for emergency distance learning in the future?

Evaluation of emergency distance learning should be more focused on context, inputs and process elements than on product (training). The most important elements to assess during this crisis will be the urgency of emergency distance learning and whatever it takes to make it happen in a short time frame.

3. Conclusions

Thus, the theory of evaluating the results of distance learning gives us the opportunity to analyze the qualitative and quantitative indicators of the real learning process of a particular educational institution and compare them with the established educational standard, allows us to identify differences and quickly eliminate them.

Therefore, all of this work should be done with the understanding that the transition to distance learning in Karant is likely not to be a priority for everyone involved. The possible need for distance learning should be part of the instructor's skill set as well as professional development programs for any staff involved in the learning mission of colleges and universities.

While this situation is stressful, once it ends, it will be possible for educational institutions to assess how well they have been able to implement emergency distance learning to maintain continuity of learning. During these assessments, it is important to avoid the temptation to equate distance learning under quarantine conditions with traditional forms of education. With careful planning, officials at each educational institution can assess their efforts, allowing stakeholders to highlight strengths and identify weaknesses to better prepare for future distance learning needs in a quarantined environment.

The international significance of the study is that today distance learning has become almost the only means of continuing full-fledged learning both at the level of school and university education around the world. And only a comprehensive study of all aspects of distance learning will allow maintaining the standards of education both in the middle of each country and at the international level.

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