

ADVANTAGES AND DISADVANTAGES OF DISTANCE EDUCATION. LESSONS FROM THE COVID19 PANDEMIC

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Abstract. *The COVID19 pandemic has made changes not only in the health care, in our personal lives, but also in the education system especially. The purpose of the research is based on the analysis of the experience of universities of different countries, as well as a survey of teachers of Uzbekistan universities, that held classes during the quarantine, to identify the advantages and disadvantages of Distance Education(DE), as well as give recommendations for making decisions on development DE during the pandemic. To identify the advantages and disadvantages of distance learning during the COVID19 pandemic, an online survey was conducted among 126 university teachers. Respondents were asked to indicate the most important aspects of the advantages and problems of DE that they encountered during this period. Respondents indicated priorities - factors that had the greatest positive and negative impact on the learning process during the COVID19 pandemic. Analysis of this "short-term" period shows that DE has its pros and cons: Advantages: Saving time and money; Reducing the risk of getting sick; Development of DE technologies; Activating teachers to prepare e-courses; Equality of students to get knowledge. Disadvantages: Lack of direct contact with students; Complexity of individual work and in groups; "Presence Effect" of students; Activity of unscrupulous teachers; Complexity of knowledge assessment; Technological inequality among students; Decrease in the activity of scientific research.*

Keywords: *COVID19 pandemic, distance education, database, e-courses, information technologies.*

Introduction

The emergence of distance learning, which is closely linked to the achievements of information technology, hasn't only provided great opportunities for obtaining knowledge at a distance, but also raised a number of questions and problems, if unanswered, we cannot talk about a civilized transition to advanced forms of education. If distance education (DE) was still questionable in comparison with traditional forms of "face to face" education, then during the COVID19 pandemic, it turned out to be the only means of continuing education in higher

education institutions. Another question raised is how effective a full transition to the DE is and whether it does not reduce the quality of teaching and perception of knowledge.

COVID and DE are the subjects of segregated scientific research. Obviously, in most countries, research teams and schools will study this phenomenon for a long time in different areas of science: pedagogy, technology, psychology, medicine, etc. In recent years, many publications have appeared in which scientists, researchers, teachers and even students share their opinions about education during the pandemic. But at the same time, there are important questions to which there is no definite answer yet:

- How effective is the full transition to DE, does it not reduce the quality of teaching in conditions of real contact with students?
- How fully do students perceive the educational material?
- How well does the teacher assess the students' knowledge?
- How to organize individual work with students correctly?
- How to organize effective scientific work with students, undergraduates, doctoral students?

The purpose of the article is to analyze the experience of universities in different countries and leading universities of Uzbekistan, where classes were held during COVID-19 quarantine, to identify the advantages and disadvantages of DE, as well as to provide recommendations for decision-making on the development of DE during the pandemic.

Research method: development of the questionnaire on topical issues related to the organization and conduct of classes during the pandemic, a survey of teachers, and statistical data processing.

Literature review

Distance learning and DE in higher education institutions have been developed and are being developed in the world without these sad events of 2020. The study of open and DE in Australia, Europe and the Americas, as well as in Asia, Africa and the Middle East in a digital age (Qayyum & Zawacki-Richter, 2018) concludes that the scale of DE has grown and is growing in many parts of the world as more people are being trained in DE offers. For example, in Brazil, the number of students has increased by up to 900% over the past 10-15 years. In Russia and Turkey, almost 50% of all higher education students are enrolled in open or distance education programs (de Oliveira Neto & dos Santos, 2010). The scope of DE is growing both on the supply side and on the demand side. As for the offer, most of the pre-quarantine services are offered by institutions that

traditionally provided them before the quarantine. In some European countries, for example, at Mid Sweden University, where the majority of students (around 80%) study remotely, there were no special problems during the pandemic. (Jandrić, 2020). The teachers already had many years of experience, and they actively used learning management systems and web-based video-conferencing. This made it possible to quickly adapt to new conditions during the quarantine period.

The university management decided to change the policy of conducting classes and student's assessment. If earlier students' knowledge was assessed only on campuses, then it was allowed to do it online. All lectures, seminars, and workshops were allowed to be replaced with online teaching. In such countries as Brazil, Malaysia, and the United States, the growing demand for DE has led to an increase in the number of DE service providers, appropriated software training, and training databases in the private sector. The number and type of institutions are keeping on growing (Qayyum & Zawacki-Richter, 2019). With the advent of the Internet and mobile technologies, the development of various formats has been accelerating. As the world increasingly connects to the Internet via various devices, online education in various formats has captured the interest of students and educational institutions. The wider use of "blended-mixed", "flipped - flipped", "massive-mass", "distributed-distributed", "mobile - mobile", "flexible-flexible" and "nonformal-informal" training or education is often a manifestation for applying different formats of DE.

The great interest was exposed to study the experience of the Qatar University, as the main national university of the country. It promptly responded to the situation and uses, according their writings (Ahmed, Hegazy & Malak, 2020), technology-enhanced learning (TEL), having had a positive impact on continuing education and mitigated the adverse consequences. They used advanced software and hardware tools such as Blackboard Collaborate Ultra (BCU) (interactive online lecture support system), integral of the University VLE system (Blackboard 9.1), and conference communication tools such as WebEx, Zoom and Microsoft Teams. These tools allow teachers, staff, and students to host or join online conferences, access virtual classrooms with high-definition (HD) audio and video, and allow app sharing and session recording via any computer, smartphone, or tablet device.

One of the most difficult aspects of the DE is the assessment of student's knowledge. The evaluation strategy has been revised in light of the changes required for distance learning. The knowledge assessment was conducted throughout the spring semester using various online tools such as Blackboard 9.1 (VLE) and Turnitin (plagiarism detection system) to check the completion of assignments.

It is obvious that the quality control of higher education has slowed down during the COVID 19 pandemic. But recently there have been positive trends in addressing this issue both in individual countries and at the international level and cross-border cooperation (Sanchez-Chaparro et al., 2021). According to the management of the university (Hussain, Al-Mannai, & Agouni, 2020), the availability of DE technologies for many years and their widespread use in the Qatar University as a whole facilitated the rapid transition to high-quality distance learning. This experience clearly demonstrates the significance of the readiness of higher education institutions to ensure the continuity of educational activities by introducing educational technologies and introducing them into the curriculum along with traditional teaching methods.

The topic of DE during the COVID-19 pandemic has become the topic of deep scientific research. The experience of the research (Ahmed, Hegazy & Metkal, 2020), which aims to prioritize planning post-COVID for a better balance between distance learning and face-to-face learning, is interesting and instructive. This work implied developing a model for using distance learning using the so-called "Polar Approach for Continuity and Transformation (PACT)", i.e. "Polar approach for continuity and transformation". A virtual mapping session was held involving 79 teachers from 19 countries. They worked in small groups to determine the pros and cons of face-to-face education and DE. An initial polarity map was drawn, identifying five areas of tension: teachers, students, curriculum, social aspects, and logistics. Based on this map, a 63-criteria assessment tool was created, which was tested and then distributed as a self-assessment. The results of this assessment were used for another mapping session to discuss the warning signs and steps to maintain the positives and prevent the negatives of each pole. Results: Participants agreed that face-to-face training allows them to inspire students and make meaningful connections with them. They also agreed that the DE provides a good environment for most students. However, students with financial problems and special needs may not have equal opportunities to access technology. Regarding social issues, the participants agreed that full-time training gives more chances for professionalism, thanks to more effective teamwork. Cognitive, communication, and clinical skills are best achieved through direct contact, i.e., traditional learning.

As the authors point out (Xu & Xu, 2020), although distance education has been gaining momentum in the United States over the past two decades, a number of questions remains about the potential impact of DE on expanding access, reducing costs, and improving student learning outcomes. Are online courses more cost-effective for students? Will technological innovations improve the quality of online education? The authors note that high-quality online courses with a high

degree of teacher interaction and student support are more expensive to develop and administer than full-time courses.

Another source (Jandrić, 2020) is distinguished by its originality and its surprise. This is not even an article, but the collection of short testimonies and photos of the working space received in the period from March 18 to May 5, 2020 in response to the author's questions to university teachers from different countries who are experiencing a pandemic. The collection consists of 81 text testimonials and 80 photographs of the workspace submitted by 84 authors from 19 countries. The collection is unique in that it contains the opinions of professors from different universities and countries on what problems they faced, how they solve them in the midst of a pandemic. For all its simplicity, rawness, honesty, and randomness, this collection is a true snapshot of the challenges facing teachers and students in all countries at the beginning of the first wave of the Covid-19 pandemic. The authors hope that this collection will contribute to understanding our present and developing more informed responses to similar challenges in the future.

Research Findings and Discussion

To identify the advantages and disadvantages of distance learning during the COVID19 pandemic, an online survey was conducted among 126 university teachers in Tashkent (Uzbekistan). All educational institutions have switched to online learning since March 2020. Although in Uzbekistan distance education hasn't yet been accepted as the primary and even alternative mean of obtaining knowledge and diplomas, but technically and organizationally all universities have already been prepared to conduct classes in this mode. Respondents were asked to identify the most important aspects of the benefits and challenges they faced during this period.

Respondents identified priorities, the factors that had the greatest positive and negative impact on the learning process during the COVID19 pandemic.

Priority on positive impact of DE (Fig.1): 1) Save time and money (9% of respondents). 2) Reduce of the risk of infection (52%). 3) Development of DE tools and technologies (8%). 4) Encourage teachers to develop e-courses (27%). 5) Equal conditions for all students of distance learning (4%).

Discussion and conclusions on the Fig.1:

- Teachers and students don't spend money on travel expenses from home to university, which is often a significant cost item;
- The fewer contacts, the less possibility to become infected. The fact that the majority pointed to this indicator is obvious during the pandemic;

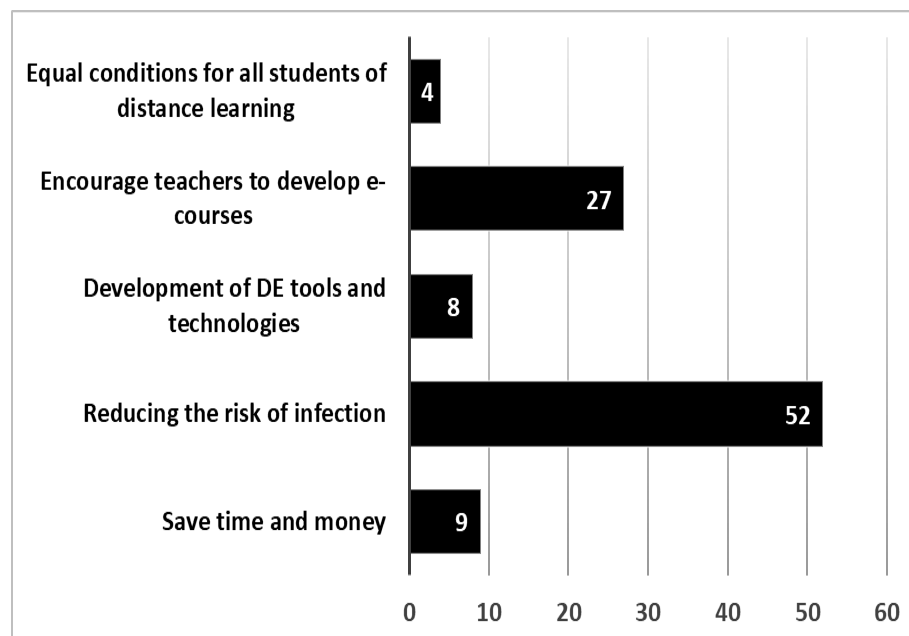


Figure 1 *Evaluation of priorities on positive impact of DE (made by author)*

- The pandemic "forced" universities to step up the use of information technologies, telecommunications for the organization of distance courses. If earlier, they used finished systems, such as MOODLE, MOOC, e-dekanat, DMS and others fully and quite reluctantly, now the managers of many universities actively support the development of software systems for providing DE;

- This is the second most primary result. Before the spread of pandemic, nearly all universities designed databases of electronic educational materials (presentations, video courses, textbooks, manuals, multimedia, etc.). But the transition to a full DE forced teachers to prepare all teaching materials, presentations, to insert them into the databases of their DE systems, and to intensify communication with students online;

- The DE system knows no boundaries or distances. The main state is the availability of the necessary gadgets and the Internet, which can provide the necessary access to resources and online communication. In addition, with the right strategy and organization of the educational process by the university, the DE teaches students independence, creative thinking, which will affect their professional readiness and career.

Priority on negative impact of DE (Fig.2): 1) Lack of immediate contact with students (31%). 2) The complexity of individual work and in groups (15%). 3) The opportunity for students to be present "virtually", to pretend ("effect") to be present (7%). 4) Less knowledge (12%). 5) The complexity of knowledge assessment

(25%). 6) Not all students have technical capabilities (4%). 7) Decrease in the level of scientific research performance (6%).

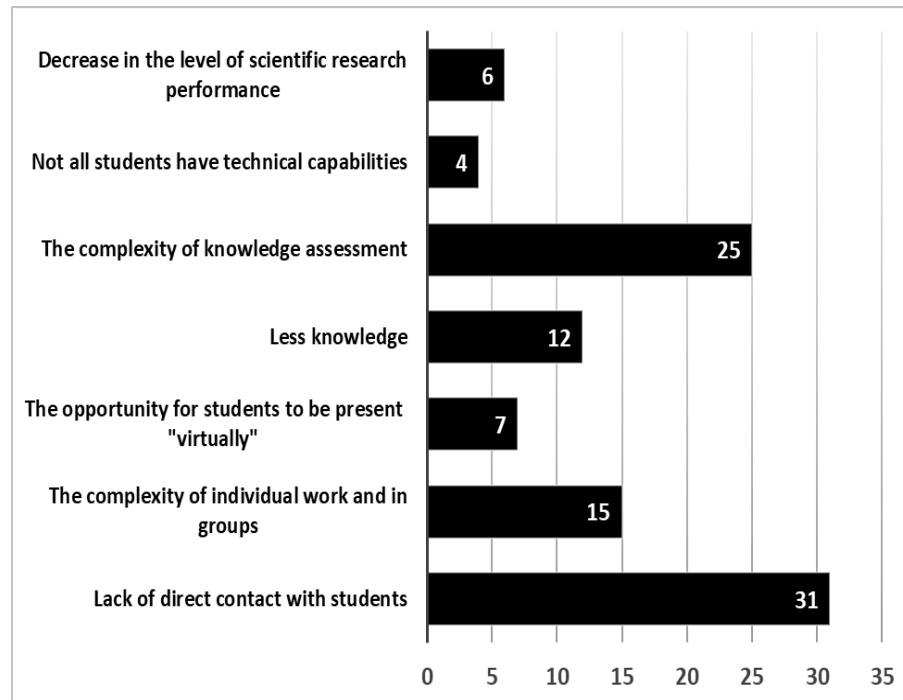


Figure 2 Evaluation of priorities on negative impact of DE (made by author)

Discussion and conclusions on the Fig.2:

- Some teachers (including me), having a lot of teaching experience, can evaluate the student, his aspiration to learn, to get knowledge, or, conversely, passivity, unwillingness to study the subject. Therefore, direct, live contact between the teacher and the student is of great importance for changing the tactics of teaching. Often, an experienced teacher can unexpectedly change the style of presentation of the material, depending on the mood and behavior of a group of students. This is a kind of teacher's finesse;

- Many disciplines require classes with the division of a group into subgroups, apply of business games and other methods that increase the independent work of students. In DE, the decomposition, organization of students' work in subgroups, and evaluation of their activities are quite complex;

- There are students who have got the hang of doing their work simultaneously with doing business, studying at the university, listening to lectures, driving a car, etc. They only need a "crust" (diploma) and knowledge doesn't play a big role in his career and material well-being. No matter what conditions we create for learning, there will be a category of students who will look for a "loophole" to

imitate the presence in the classroom, write off control, laboratory and diploma works. Successful online learning requires a high level of independent learning skills, which often creates additional challenges for students who are academically less prepared;

- Often, in the special conditions (technical, software, methodological not readiness) of higher education institutions, students on average receive less knowledge in online courses compared to similar students in full-time classes. Research shows that online learning can even exacerbate the educational disparity between different demographic groups that already exist in traditional face-to-face classes. However, administrative data suggests that high-quality online courses with a high degree of interaction with teachers and student support are more expensive to develop and administer than full-time courses (Rakhmatullaev, 2020);

- Objective assessment of students' knowledge becomes a rather difficult task, because we don't know what conditions the student is in: whether he performs the task independently or a "helper" sits next to him, whether he writes off from different sources or everything that he presented is the results of his independent work, etc;

- Unfortunately, not all students have computers connected to the Internet. Most often, students use cell phones to participate in distance courses, which significantly reduces the effectiveness of knowledge perception;

- This is especially true for those universities and departments where scientific research depends entirely on specialized technical equipment, chemicals, etc., which requires performing experiments directly in laboratories.

Conclusions

The pandemic has created new circumstances and challenges for both teaching and learning. But advanced information technologies allow us tackle these problems, taking into account the existing experience of software development and creating effective organizational measures. As the analysis of the survey shows, the criterion "Lack of direct contact with students" is the "bottleneck" of the DE. Since the bottom line of the DE involves working with students remotely, new pedagogical methods and tools are needed to improve the effectiveness of communication with students online. We also need effective mechanisms, techniques, and ways to objectively evaluate students' knowledge. As noted by the respondents, this criterion is the second significant one in the terms of DE. Although only 12% of respondents claimed that students receive less knowledge in the DE mode than in the campus mode, this factor is no less alarming than the above. Therefore, a thorough analysis of the reasons for the insufficient acquisition

of the necessary knowledge by students and improving the effectiveness of teaching is in demand.

DE may also be considered as a tool for continuing education during the COVID19 pandemic, as well as a form of education that may soon be adopted by all world universities, excluding the traditional format. In any case, we must be prepared and know the advantages and disadvantages of DE in order to respond in time and develop our education in accordance with the requirements of the time. DE lessons are particularly helpful for universities that didn't use distance learning tools at all before the COVID19 pandemic. The study of excellence, state and methods of DE displays that successful implementation of distance education in universities is more complicated process than just the introduction of distance learning.

The COVID19 pandemic is still far from over and there is no doubt that the educational sciences will analyze this sudden global shift in teaching and learning online for many years to come. Regardless of the conditions, DE is a growing industry, and students are choosing it in increasing numbers in all over the world. But is DE just a substitute for traditional education (TE), or is it an important tool for helping TE or a combination of "TE+DE"? A review of existing research on this topic provides strong evidence that DE has certainly the potential to increase access to knowledge. The convenience of DE is especially valuable for the category of people who need additional knowledge that they didn't get earlier. In all countries of the world, to a large extent, the effectiveness of the DE depends on the attitude of the student to study and the teacher to teaching. The responsibility of the management and teachers of higher education institutions is increasing. They must find the most effective methods of online teaching and knowledge control to get as close as possible to traditional education, and in some cases even surpass it. The teacher, especially in the context of the COVID 19 pandemic, should look for new effective methods and approaches to encourage students to gain knowledge, teach them to work independently, and think creatively. Therefore, the whole process of education is a systemic phenomenon that requires a serious approach in all aspects.

Summary

The COVID-19 pandemic has made changes not only in health care, and in our personal lives but also in the education system especially. On the one hand, the desire to preserve the health of students and teaching staff, on the other hand, to maintain the quality level of teaching and learning. To solve the problem, more than ever, we need the means and methods of distance learning and education. Although COVID-19 and DE become an important subject of scientific research,

there are still many unresolved problems. It is necessary to develop scientifically based methods to determine the advantages and disadvantages of mass transition to distance education, especially during the pandemic period. The purpose of the article is to analyze the experience of universities in different countries and leading universities of Uzbekistan, where classes were held during COVID-19 quarantine, to identify the advantages and disadvantages of DE, as well as to provide recommendations for decision-making on the development of DE during the pandemic. Research method: development of the questionnaire on topical issues related to the organization and conduct of classes during the pandemic, a survey of teachers, and statistical data processing. To identify the advantages and disadvantages of distance learning during the COVID-19 pandemic, an online survey was conducted among 126 university teachers. Respondents were asked to indicate the most important aspects of the advantages and problems of DE that they encountered during this period. Respondents indicated priorities - factors that had the greatest positive and negative impact on the learning process during the COVID-19 pandemic. Analysis of this "short-term" period shows that DE has its pros and cons: Advantages: Saving time and money; Reducing the risk of getting sick; Development of DE technologies; Activating teachers to prepare e-courses; Equality of students to get knowledge. Disadvantages: Lack of direct contact with students; Complexity of individual work and in groups; "Presence Effect" of students; Activity of unscrupulous teachers; Complexity of knowledge assessment; Technological inequality among students; Decrease in the activity of scientific research. Statistical processing of these data showed which indicators more or less affect the quality of education during the pandemic. The study of experience shows that many teachers call this period a special one, which will make them reconsider their attitude to distance learning and to the distance education system as a whole. The lessons are particularly useful for universities that did not use distance learning tools at all before the COVID19 pandemic. The study of best practices, state and methods of DE shows that the successful implementation of DE is a more complex process than just the introduction of distance learning. This article will be useful for University managers and teachers who organize and conduct DE lessons during the pandemic and make plans for the development of DE for the future.

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