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Distance Education at Universities during the COVID-19 Pandemic (on the Example of the Republic of Kazakhstan)

Liliya Zainiyeva

Al-Farabi Kazakh National University, Almaty, Kazakhstan

Aigul Abzhapparova

Al-Farabi Kazakh National University, Almaty, Kazakhstan

ABSTRACT

Today, there is hardly an area of social life that has not been affected by the consequences of the spread of COVID-19. The impact of the coronavirus pandemic on the higher education system varies from country to country and varies from region to region. Nevertheless, we can trace the general vector of these changes: the pandemic has put universities in difficult conditions, forcing them to adapt to current events as quickly as possible, spend significant funds on accelerated digitalization and often make decisions without taking into account the possible consequences. The pandemic negatively affected international cooperation in the field of education and science: international travel was canceled, exchange and academic mobility programs for students and academic staff were suspended, and many research cooperation programs were suspended.

CCS CONCEPTS

• **General and reference** → Document types; General conference proceedings.

KEYWORDS

Key words: higher education, distance education, universities, Kazakhstan COVID-19

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1 INTRODUCTION

As of early April 2020, more than 3.4 billion people were in isolation in more than 80 countries, accounting for about 43% of the world's population. 170 countries have closed their higher education institutions. About 1.7 billion students and students - 90% of the total student population on the planet - have been unable to attend universities and schools! The localization and social exclusion measures have led to shocks that the higher education system has not experienced since the Second World War [1].

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The closure of colleges and universities had wide individual, organizational, educational and pedagogical consequences for students, teachers, administrators and educational institutions themselves. The initial period of rapid adaptation during 2020 included three main responses to COVID-19: minimal legal response, delayed start of study periods and rapid digitalization of the curriculum. Thoughts about what to do with this situation led to elective study online or in person, depending on what the university declared mandatory [2].

Millions of students are expected to postpone the start of their bachelor's degree studies to a later year due to the pandemic. This will not only negatively affect the future university admission process due to a shortage of available places, but universities around the world are expected to lose billions of US dollars in equivalent due to the number of students who are expected to study at the university in the 2020/2021 academic year. [3].

In addition to the fact that colleges are losing huge amounts of income, undergraduate students themselves have lost a huge amount of compulsory education due to COVID-19. Due to the lack of regular education among all students, learning seems difficult. Before the COVID-19 pandemic, college students would have had full-time classes, full-time work hours, and full-time extracurricular activities. However, the pandemic has created an atmosphere in which students with an idea of their future profession study important information behind the screen. These changes have made it very difficult to focus on classes built around students chosen by specialty, as they do not fully experience what they are passionate about. The result is a loss of passion for specific subjects, an inability to focus on important information, and tainted academic integrity everywhere [4].

2 MATERIALS AND METHODS OF RESEARCH

Distance and online education formats are already the main form of education in many countries. New methods and innovative approaches to the implementation of education in a digital format are being actively implemented by higher educational institutions. In this regard, it is especially important to consider how universities in Kazakhstan coped with forced changes in the educational process in order to note positive practice in this direction and identify problematic issues that should be paid closer attention in the future. However, the coronavirus pandemic has dramatically changed the attitude of schools and universities to distance learning. The paper analyzes the processes of transition of world universities to a distance learning format and the problems that were caused by these processes. For this purpose, the works of Alexander Aristovnik, Damijana Keržič, Dejan Ravšelj, Gamba, L., Marinoni, G., Land, H., Brown, C., Salmi, J. Goldstein D. were studied. The authors also reviewed the research institutes Smart Learning Institute of Beijing Pedagogical University, DUTA survey.

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To study the impact of the pandemic on higher education in Kazakhstan, the consequences of distance learning and the attitude of Kazakhstanis to distance learning, materials from sociological studies of independent research agencies: the Independent Agency for Quality Assurance in Education, Research Institute for Social & Gender Studies, the Center for Research and Consulting, the Bureau of Express Monitoring of Public Opinion DEMOSCOPE, the report of The Organization for Economic Co-operation and Development (OECD), as well as materials from experts of the World Bank, Forbes Kazakhstan magazine, Center for Research and Consulting: Jean-Francois Marteau, B. B.Togaibayeva, A.Akanova, A.O.Issekesheva, A.B.Buranbayeva, K.M. Zhaikova, M.A. Kabdualieva, G.T.Pazylyhairova, S.S.Sadieva.

3 RESULTS AND DISCUSSION

The emergency transition to distance learning has created a number of interrelated problems. Some countries were unable to switch to online education for various reasons, including the lack of logistical support for universities, lack of widespread Internet access, low standard of living of the population, etc. For example, university classes were suspended in Latin American countries [5]. One of the leading universities in Argentina - the University of Buenos Aires - decided to cancel classes and make changes to the academic calendar instead of switching to online education, believing that only full-time education can guarantee a high level of quality. Zimbabwe's National Institute of Science and Technology, as well as a number of other African universities, have announced their closure until further notice. The Minister of Higher Education of Malaysia suspended the transition to distance learning [6].

Chinese universities were the first to switch to a distance format, and in a limited time. Despite the prevalence of online education in the country (according to the National Ministry of Education, there are 22 educational platforms with more than 24,000 courses in China), many universities were not ready to switch to online. At first, national online conference platforms could not cope with the load. Subsequently, the Ministry reported on the successful transfer of all 30 million students of the country to distance learning. The qualifications of employees for the transition to online training are insufficient: there is no knowledge of existing platforms and services for distance learning, their functionality, effective methods of online learning, etc. The supply of developing countries in no way meets the high standards of online learning and online education [7].

The number of Indian students traveling abroad has steadily increased, hindered only by periods of post-graduation employment restrictions and tighter immigration policies in host countries, economic downturns, and now, possibly, the COVID-19 pandemic [8]. Indian college and university students across the country are massively opposed to conducting exams online. The main reasons: the insufficient level of technical support and the unavailability of the students themselves for exams — due to the early completion

of classes, many did not have time to master the program in the required volume [9].

Considering the impact of the pandemic on higher education in Kazakhstan, as of 2020 in Kazakhstan there are more than 800 colleges - professional educational organizations (PEO) and 131 higher educational institutions that offer citizens the opportunity to receive an official education. As of 2019, 43% of PEO institutions and 43% of higher education institutions are private and have a narrow specialization. Most of these private institutions were opened in the 1990s and 2000s, when it was relatively easy to get a license. Admission to higher education institutions depends on passing the entrance exam - the Unified National Testing (UNT), which is based on the curriculum of secondary school. Non-formal education opportunities are usually offered by private educational institutions and professional development centers. The number of these centers increased dramatically between 2000 and 2015, but Kazakhstan legislated the concept of non-formal education only in 2019. Given this rapidly evolving environment, the quality of non-formal learning opportunities varies greatly depending on training centers and educational service providers, as there is no reliable quality assurance system [10].

The sphere of higher education was most affected by the pandemic, if we take into account the need to improve the quality of distance education in higher educational institutions of Kazakhstan. Moreover, the sphere of higher education was one of the least prepared to translate its activities into an online format. The effect of all the measures taken by the world community to support the activities of higher education, obviously, has yet to be assessed. However, at the moment, it is possible to analyze the measures that have been taken so that the higher education system does not become radically different, but only able to strengthen itself in the conditions of the global crisis.

According to a study by Research Institute for Social & Gender Studies, ZOOM is the most popular among distance education platforms. In addition to ZOOM, universities actively use such platforms as Microsoft Teams, Cisco Webex. It is important to emphasize here that if the above three programs gained their special popularity only because of the pandemic, then Platonus and Moodle were actively used by universities long before the transition to a distance teaching and learning format [11].

It is important to note that a number of universities also use independently developed platforms. Among such universities is Al-Farabi Kazakh National University (dl.kaznu.kz), Caspian University (Caspidot, Bigbluebutton), Karaganda University named after academician E.Buketov (Idl.ksu.kz), International Educational Corporation (Freeconferencecall, Google Class), Satbayev University (Polytechonline, Emtihunter), Toraighyrov University (dot.tou.edu.kz).

According to a study by the Independent Quality Assurance Agency in Education (IQAA) conducted in November 2020, the COVID-19 pandemic has the greatest impact on the organization of practice. This may indicate difficulties in organizing distance education in certain specialties – for example, medical, technical and creative. The transition to a distance format in practice-oriented universities may negatively affect the assimilation of some disciplines [12].

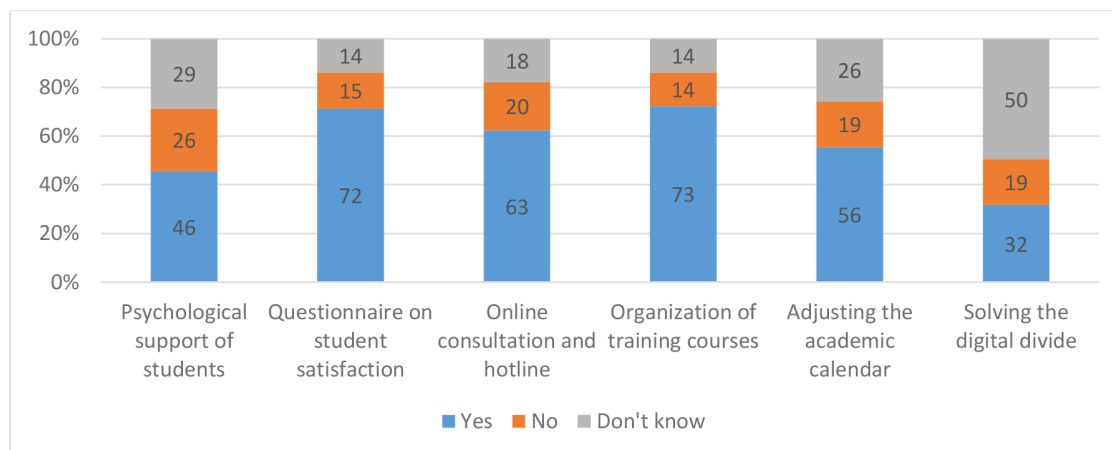


Figure 1: Students' answers to the question "In the context of the COVID-19 pandemic, has your higher education institution implemented the following?". (IQAA, 2021)

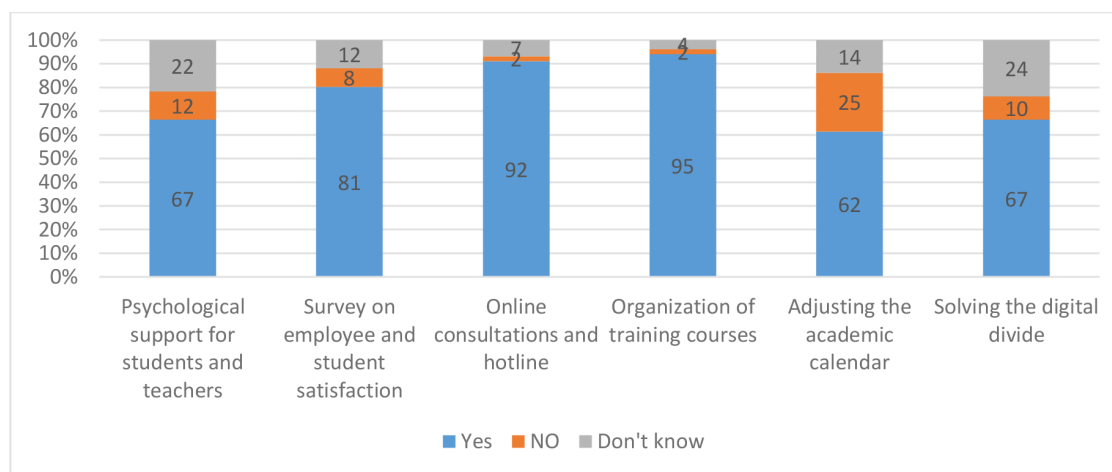


Figure 2: Answers of teaching staff/university staff to the question "In the context of the COVID-19 pandemic, has your higher education institution implemented the following?" (IQAA, 2021)

The rapid adaptation to distance education of employees, teaching staff and students directly depends on the ability and readiness of the university to provide the necessary support. According to IQAA, the greatest support was provided in the organization of training courses for both employees and teaching staff, as well as for students, as evidenced by 95% and 73% of respondents' responses, respectively. 72% of students also note conducting a survey on satisfaction, which is of undoubted value for obtaining up-to-date information and feedback on the innovations included and the measures applied. (Figure 1).

In addition, according to the responses, 92% of teaching staff and university staff indicated that educational institutions provide online counseling and support hotlines. (Figure 2).

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The main problem of distance education is interruptions in the functioning of the platform. This can be explained by the fact that the platforms were not designed for simultaneous work of thousands of users. Prior to the mass transition to distance learning, platforms were used in the implementation of a small number of courses and modules.

According to the IQAA study, in addition to interruptions in the operation of platforms, there are also problems such as the lack of

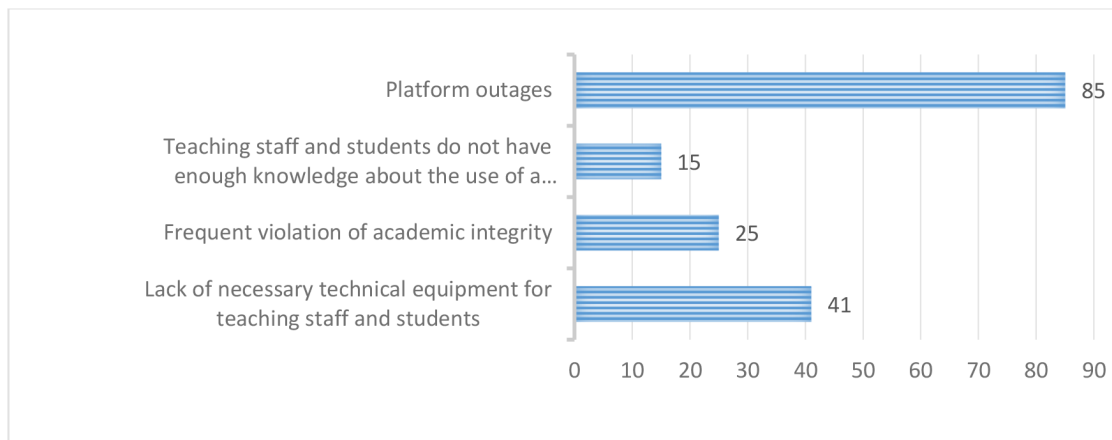


Figure 3: The main problems in the period of distance learning (IQAA, 2021)

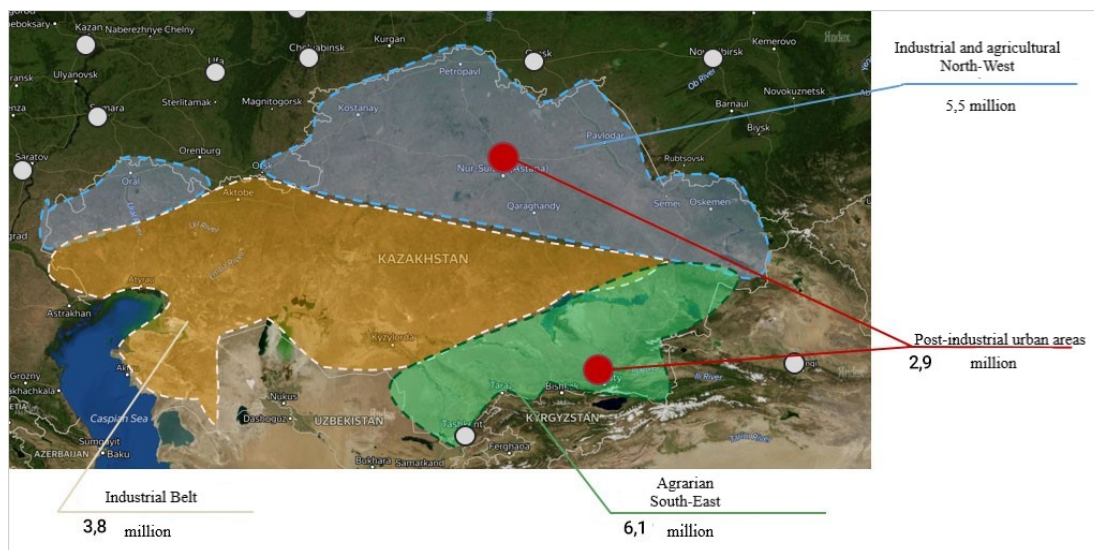


Figure 4: Estimated impact of COVID-19 on the gap between different socio-economic groups of students (Centre of research and consulting, 2020)

necessary technical equipment for teaching staff and students, and their insufficient knowledge of PCs. (Figure 3).

The pandemic has also revealed geographical inequality, which often exacerbates social inequality. The uneven and unequal landscape of human capital development in Kazakhstan was presented by the Center for Research and Consulting during the discussion of the Human Capital Index organized by the Kazakhstan Institute for Strategic Studies under the President of the Republic of Kazakhstan in early October 2020 [13].

According to the Center's analysts, "four Kazakhstanis" coexist in the country, each with different levels of income, fertility and life expectancy and other indicators that affect the Index. This also affects access to the Internet and a personal computer, which are necessary for distance learning of students [14] (Figure 4).

If we consider the main advantages and disadvantages of distance learning, then the advantages include:

- Development of students' ability to think and increase their independence.
- Training in digital skills of digital literacy.
- The opportunity to engage in creativity and self-development by increasing free time.
- Improving the quality of the material, using modern software and hardware.
- Development of independence and responsibility for the results of their studies, increasing free time and access to an online library.
- No need to waste time on the way to the university.

According to the study, IQAA teaching staff is often noted as a lack of distance education, the lack of personal communication and

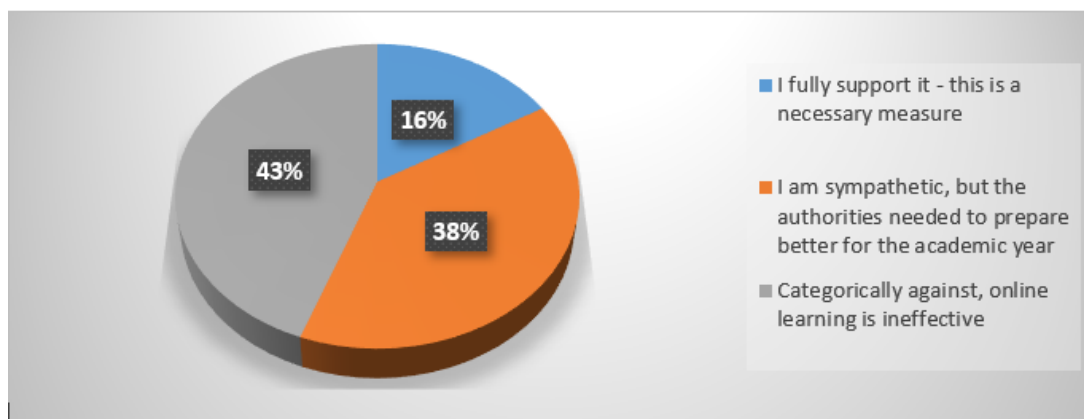


Figure 5: How Kazakhstanis react to online distance learning (DEMOSCOPE, 2020)

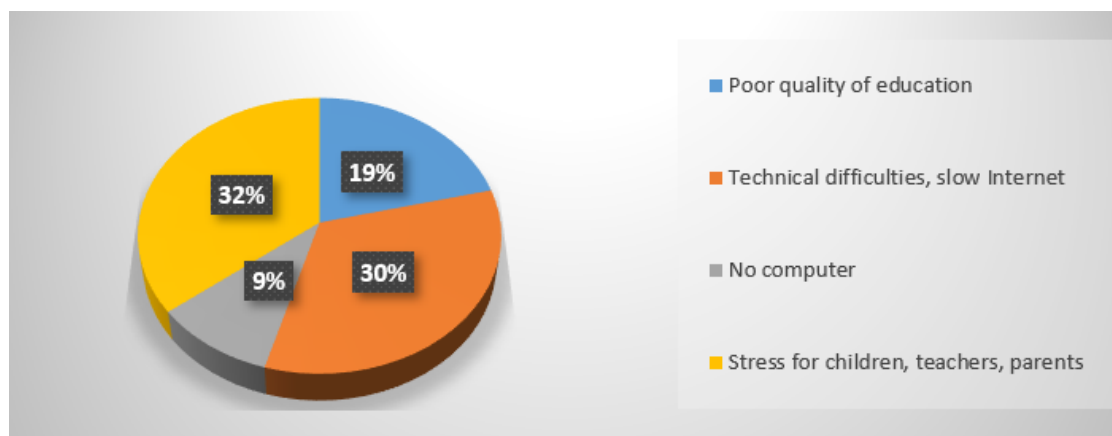


Figure 6: The main disadvantage of distance learning in Kazakhstan (DEMOSCOPE)

social interaction, which is one of the most important competencies of the human-human sciences. In particular, educational functions do not work, emotionality disappears, which negatively affects communicative competencies. In addition, the faculty noted a decrease in opportunities for practice-oriented training and experimental work for the faculties of natural sciences.

A separate point indicates technical issues: some teachers are not satisfied with the quality of the Internet and proctoring, the increase in computer work time, the lack of the possibility of monitoring all those present in real time in the classroom with a large flow of students.

Students also note as a disadvantage the physical discomfort from being in front of the computer for a long time and the lack of live contact with teachers, the difficulty of participating in general discussions and involving all students in the educational process. Some students emphasize the difficulties of self-expression, lack of creative activity. As the main drawback of the transition to distance learning, many students note the lack of social life.

Considering the attitude of citizens of Kazakhstan to distance education, the Bureau of Express monitoring of public opinion

DEMOSCOPE conducted a social study on the topic "Distance education in Kazakhstan" in October 2020 [15]. It showed that the majority of respondents - 43% - are categorically against online distance learning. 38% of Kazakhstanis are sympathetic to distance learning, but believe that the authorities needed to prepare better for the 2020-2021 academic year. 16% of respondents fully support the online format, considering it a necessary measure. According to the survey, the vast majority of citizens rate the effectiveness of online learning on average (41%) and below average (42%). In total, only 12% of respondents highly appreciated the new form of education. (Figure 5).

Probably, such a low assessment of distance learning in the country is associated with general unpreparedness for a new form of education and logistical difficulties. DEMOSCOPE survey data showed that a third of respondents (30%) believe that the main disadvantage of distance learning is stress for children, teachers, parents. 28% of the survey participants said that learning is mainly hindered by technical difficulties and slow Internet.

42% of citizens rated the work of state bodies in the field of distance education at an average level. In their opinion, some of the problems remained unresolved. 13% of respondents believe that the

authorities have coped "perfectly". A third of Kazakhstanis (36%) opposes them.

An important indicator of public mood is the attitude of citizens to the measures taken by the government. Interestingly, in the question of which form of education citizens consider the most optimal in the context of the global coronavirus pandemic, respondents' opinions were divided approximately equally. 35% believe that it is necessary to give people the right to choose a convenient form of education; 33% of Kazakhstanis are for online education, as this is a forced measure; 29% expressed skepticism about the online format. In their opinion, it is better to go to school and university as before. Illiteracy is scarier than coronavirus.

4 CONCLUSION

In general, it can be noted that all universities in Kazakhstan have adapted to the forced changes and the rapid transition to distance education due to the fact that most universities have already provided such a service to certain groups of students. It is also important to emphasize that the actually developed platforms of universities existed before the pandemic, which, in turn, only pushed universities to even more rapid innovations.

In order to increase human capital, Kazakhstan plans to increase funding for education from the current 3.4% to 7% of GDP by 2025 [16]. This is a welcome initiative that will allow the country to approach the OECD average in education spending. However, it is important to ensure that these investments are effective and benefit all students. In order to smooth the impact of the pandemic on education, commitment and continuous monitoring at the government level will be required. Systematic performance monitoring, objective evaluation, mentoring and accountability can help the education system achieve positive results.

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