INDEPENDENT AGENCY FOR QUALITY ASSURANCE IN EDUCATION

IQAA

THEMATIC ANALYSIS
on the topic
"Impact of the COVID-19 pandemic on higher education in Kazakhstan"

Nur-Sultan, 2021

Content

Introduction

The COVID-19 pandemic has affected all sectors of the economy and changed the way we used to live. The later adopted lockdown unconditionally taught us all to live in a new way. As a result, many public and professional spheres were able not only to withstand, but also to adapt to the new reality during this period of the pandemic. Although the instinct of self-preservation was important in overcoming new difficulties in the pandemic, the collectivity and operational efficiency of decision-making played a more significant role.

The field of higher education was probably one of the areas that was mostly affected by the pandemic. Moreover, it was one of the less prepared spheres to translate its activities into an online format. All measures and activities taken by the world community to support the activities of higher education, obviously, will have an effect that remains to be evaluated. However, at the moment, we can analyze only those measures that have already been taken to strengthen the educational sphere during this tough period.

Distance and online forms of education have already become the main forms of education in many countries. Higher education institutions are actively implementing new methods and innovative approaches to the implementation of digital education. In this regard, it is especially important to consider how Kazakhstani universities coped with the forced changes in the educational process. This can help us highlight the positive practice in this direction and identify problematic issues that need to be solved in the future.

In this regard, in November 2020, IQAA conducted a study among Kazakhstani universities with two focus groups: university employees and teaching staff and students. This thematic research presents the results of the study.

A glance at world practice

We can trace the general vector of the changes: the pandemic has put universities in difficult conditions, forcing them to adapt to the current events in the shortest time, spend significant funds for accelerated digitalization, and often make decisions without taking into account the possible consequences. The pandemic had a negative impact on international cooperation in the field of education and science: international travel was canceled, exchange programs and academic mobility of students and teaching staff were suspended, and many research cooperation programs were suspended.

The impact of the pandemic on the higher education system is specific in different parts of the world and differs from country to country. However, the general vector of these changes can be noticed: all universities had to adapt to the changes very quickly, spend significant financial and human resources to

accelerate digitalization, and often make decisions without taking into account the possible consequences. The form of distance learning, the types of technical equipment for its implementation, the assessment of students' assimilation of the acquired knowledge, the conduct of final exams and the recruitment of applicants for the next academic year turned out to be another type of acute issues that required immediate solutions.

Global transition to distance education

The pandemic has shown that distance education may compete with traditional education quite well. Moreover, it has become a driver of a worldwide shift towards online learning. Despite the fact that distance education was not so popular until 2020, today's reality shows that this form of education is already a necessity. Although no one can prematurely guarantee the consequences and results of online learning, there is no doubt that they will appear in the short term.

Effective implementation of online learning requires a large amount of time and resources, as well as support from key stakeholders interested in the development of quality online education. Consequently, universities will have to cope with the following primary tasks in the current situations:
    • Development of Strategic Planning of HEIs, considering the associated risks to predict the short and long term consequences of the pandemic and the expected economic downturn.
    • Development of a support system for students and teachers: to provide students and teaching staff with the necessary equipment, to organize trainings and seminars in the framework of online education, to create a university platform for exchange of experience between teaching staff, to provide a methodological support in adapting programs to forms of online education.
    • Changing the procedures and criteria for assessing knowledge in accordance with the new teaching format and pedagogical approaches.
    • Close cooperation with other universities at national and international levels to exchange experience and resources.

A regular questionnaire on satisfaction of students and teaching staff with the quality of the implementation of online education plays an important role in solving the aforementioned problems. The results of questionnaires and surveys will help universities to make changes in educational programs and work to improve the quality of the education and services provided. Consequently, the results of this study can serve as valuable information for universities on the state of implementation of distance education and the quality of education during the pandemic. Moreover, they can be a good resource for future research studies.

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Methodology

In the frames of this study the Agency prepared two questionnaires for:

1) university personnel and teaching staff;

2) university students.

Each questionnaire consists of 13 closed and open questions. The questionnaires were compiled on the Google Forms platform, sent to respondents by email addresses and posted on the Agency's official website and pages in social networks.

In total, 348 answers were received from two groups of respondents: university personnel and teaching staff - 240 respondents, students – 108 respondents.

In general, 28 universities participated in the study.

Based on the responses received, general trends in the development of distance and online education were identified and recommendations for further development were developed.

Results

Distance education programs

As it is illustrated in Figure 1, 79% of teaching staff and personnel and 82% of students chose ZOOM as the most popular distance education platform. In addition to ZOOM, universities are actively using platforms such as Microsoft Teams, Webex Cisco. It is important to emphasize that if these three programs gained their particular popularity only because of the pandemic, the platforms such as Platonus and Moodle were actively used by Kazakhstani universities before the transition to the distance education.

It is important to note that a number of universities also use their self-developed platforms: Caspian University (Caspidot, Bigbluebutton), E. A. Buketov University of Karaganda (Idl.ksu.kz), International Educational Corporation (Freeconferencecall, Google Class), Satbayev University (PolytechOnline, Emtihunter), Toraigyrov University (dot.tou.edu.kz).

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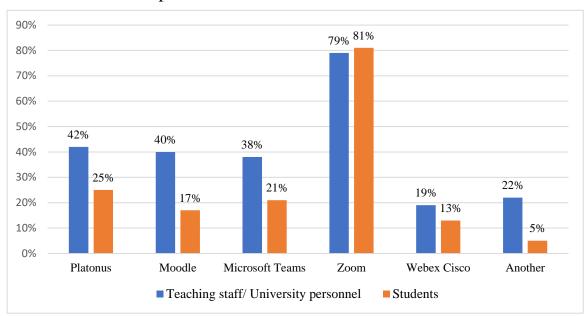

Figure 1. Question: «What programs and platforms did your university use in the distance education process?»

Impact of the Covid-19 pandemic on various fields of teaching and learning

Tables 1 and 2 show the respondents' responses to the question about the impact of the COVID-19 crisis on each of the points. (Scale: 1 – lowest impact; 10-highest impact).

Table 1. Answers of teaching staff / university personnel

Points / Activity	1	2	3	4	5	6	7	8	9	10
Teaching	12%	6%	8%	6%	20%	6%	9%	14%	7%	16%
Learning	7%	8%	8%	10%	17%	5%	8%	12%	8%	21%
Assessment (current)	11%	8%	12%	6%	23%	7%	12%	10%	6%	10%
Final grades (exams)	13%	9%	10%	7%	21%	6%	11%	10%	9%	8%
Student support	10%	11%	10%	7%	19%	8%	9%	10%	7%	11%
Research activity	12%	9%	14%	7%	16%	7%	11%	10%	6%	12%
Creative activity	15%	7%	10%	7%	17%	10%	10%	9%	7%	13%
Defense of the dissertation/final projects of graduates	9%	6%	12%	9%	18%	7%	10%	11%	8%	14%
Organization of practice	5%	7%	7%	8%	12%	5%	8%	9%	13%	30%

Admission of new students	16%	10%	9%	4%	19%	9%	8%	7%	6%	15%
Hiring new employees	22%	9%	16%	7%	20%	6%	5%	7%	4%	7%

Table 2. Answers of students

Points / Activity	1	2	3	4	5	6	7	8	9	10
Teaching	19%	10%	9%	6%	14%	6%	9%	14%	4%	13%
Learning	19%	4%	7%	11%	15%	7%	10%	12%	7%	13%
Assessment (current)	25%	16%	7%	4%	18%	6%	5%	2%	9%	12%
Final grades (exams)	24%	14%	9%	6%	15%	6%	3%	5%	9%	12%
Student support	29%	8%	8%	7%	17%	4%	4%	10%	6%	12%
Research activity	18%	7%	14%	8%	21%	8%	2%	6%	8%	12%
Creative activity	24%	7%	9%	7%	17%	6%	5%	9%	5%	16%
Defense of the dissertation/final projects of graduates	20%	6%	10%	4%	21%	14%	10%	2%	8%	10%
Organization of practice	19%	3%	7%	0%	28%	1%	6%	9%	9%	17%
Admission of new students	39%	7%	7%	6%	20%	2%	5%	2%	8%	8%

According to the data obtained, teachers indicated that the COVID-19 crisis has had the greatest impact on areas as teaching, learning, and organization of practice while the least impact was on art activity.

At the same time, students are generally more tolerant of the impact of the pandemic on their learning. Students, as well as teachers, answer that the greatest influence was exerted on the organization of practice.

The vast majority of respondents, both among teaching staff and students, said that the Covid-19 pandemic has the greatest impact on the organization of practice. This may indicate the difficulties of organizing distance education in certain specialties – for example, medical, technical and art. The transition to a distance learning format in practice-oriented universities may have a negative impact on the understanding of some disciplines.

Replacing practical classes with video demonstrations does not solve the problem of developing practical skills. Thus, we may assume that the transition to distance learning will have the greatest impact on universities that teach specialists in the field of engineering, medicine and art.

University Support

Quick adaptation of personnel, teaching staff and students to distance education directly depends to the ability and willingness of the university to provide the necessary support. Figures 3 and 4 show the level of support that has been provided in various directions.

The greatest support was provided in the organization of training courses both for university personnel and teaching staff and for students, as evidenced by 95% and 73% of responses, respectively.

72% of students also indicated that their universities conduct satisfaction surveys, which is also very important for obtaining up-to-date information and feedback on the innovations introduced and the measures applied.

Moreover, 92% of university personnel and teaching staff stated that universities provide online consulting and support hotlines.
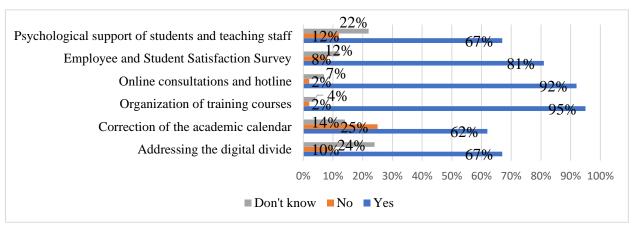

Figure 3. Answers of the teaching staff / university staff to the question "In the context of the COVID-19 pandemic, has your higher education institution implemented the following?"
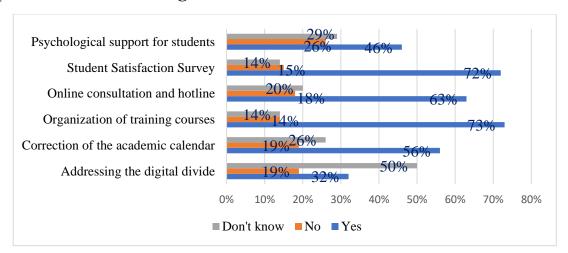

Figure 4. Students' answers to the question "In the context of the COVID-19 pandemic, has your institution of higher education implemented the following?"

Salary and tuition fees

An important issue in the context of the pandemic was the financial issue since quarantine and forced self-isolation had a colossal impact on all service sectors and economics of countries.

Thus, 48% of teaching staff and university employees note an increase in wages, while 7% of respondents in this group indicated that wages have decreased. As for the cost of training, in most cases, it has not changed with the transition to a distance learning format, as indicated by the responses of the prevailing number of students (87%). However, 8% of students say that the cost of tuition has increased and 5% say that tuition fees have decreased.
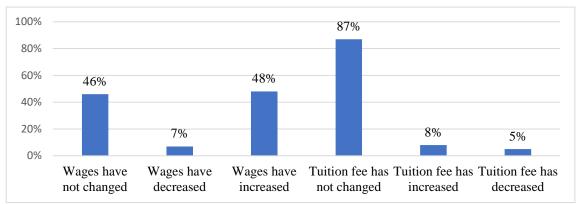

Figure 5. Respondents' answers to the questions "Have the salaries of teachers and staff in your educational institution changed?" and "Has the tuition fee for students at your institution changed?"

Difficulties in the implementation of distance education

The next question in the questionnaire asked respondents to indicate the problems that were discovered during the transition to the remote format.

Overall, both groups of respondents highlight platform outages as the biggest problem (85% of faculty/personnel and 62% of students). This can be explained by the fact that the platforms were not designed for the simultaneous work of thousands of users. Until the mass transition to distance learning, the platforms were used in the implementation of a small number of courses and modules.

41% of teaching staff and university personnel also pointed to the lack of the necessary technical equipment among teaching staff and students.

Since distance education requires more freedom from students, full access to various information sources during teaching and assessment, as well as decreases the possibility of direct supervision from teachers, the question of academic integrity is very important in providing quality education. Therefore, the violation of academic integrity was noted as a problem by 25% of teachers.

34% of students stated that no significant problems were noticed. The lack digital literacy is considered as the least problem.
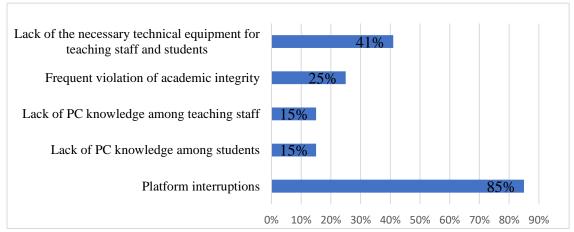

Figure 6. Answers of teaching staff / university staff to the question "What are the main problems faced by your educational institution?»
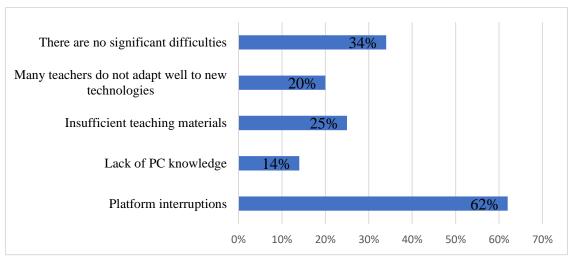

Figure 7. Students' answers to the question "What are the main problems faced by your educational institution?"

Load change

The majority of respondents (62% of faculty/personnel and 51% of students) indicated an increase in workload. In general, this is not surprising, since the transition to a distance format demanded from all participants in this process the ability to adapt quickly, explore new ways and approaches in teaching and learning, work on time management and increase responsibility for their results.

On the other hand, 37% of faculty/personnel and 36% of students pointed that the workload has remained unchanged.
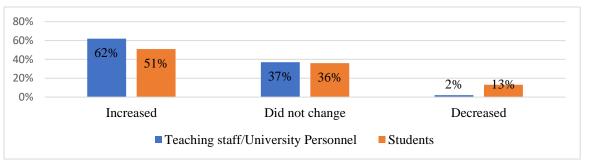

Figure 8. Answers of teaching staff/university personnel and students to the question "How do you assess the change in the load on teachers/students along with the transition to distance teaching?"

The increase in the workload of teaching staff may be associated with the need to develop electronic resources to support all types of educational activities of students and regularly monitor their learning outcomes.

Distance learning opportunities

Students were asked an open question regarding the opportunities that became available to them. 74% of students noted the possibility of maintaining constant communication with teachers. In addition, attending video seminars, watching live lectures and monitoring progress in a personal account are considered on average by 62% of respondents among students.

According to the data obtained, it can be concluded that, despite the undeniable impact of the pandemic on the learning and teaching process, many other opportunities have also become available to students.
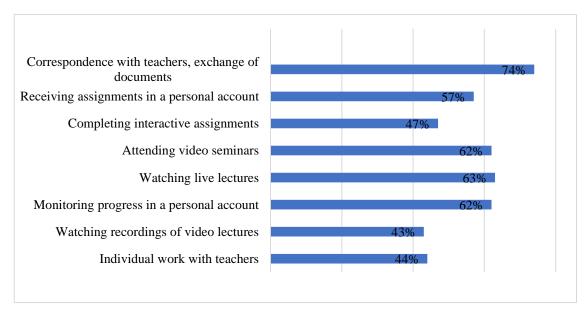

Figure 9. Students' answers to the question "What distance learning opportunities are available to you?"

Opinion of respondents

All respondents were also asked a number of open questions requiring a more extensive and detailed answer. The received answers demonstrate the general attitude towards distance education.

The main advantages of distance teaching/learning

The university teaching staff and personnel stated that the development of students' ability to think and an increase in their independence are the main advantages of the transition to distance education.

In terms of personal and professional development, teaching staff highlighted training of digital skills and digital literacy, the opportunity to engage in creativity and self-development because of increase of free time.

Regarding the quality and content of teaching, teaching staff stated that the quality of the educational material has become higher, and the use of modern software and hardware makes e-education more effective. New technologies enable to make visual information vivid and dynamic, taking into account the active interaction of the student with the training system.

Students stated the increasing independence and responsibility for the results of their learning, as well as free time and access to the online library.

Both groups of respondents note the absence of the need to spend time on travelling to the university as a positive side of the distance education.

The main disadvantages of distance teaching/learning

The lack of personal communication and social interaction are noted as the main disadvantage of the distance education by the teaching staff. In particular, educational functions do not work and emotionality disappears, which negatively affect communicative competencies.

The teaching staff also noted that the opportunities for practice-oriented learning and experimental work for science faculties have decreased.

A separate point was noted for technical issues – some representatives of the teaching staff are not satisfied with the quality of the Internet and proctoring, an increase of working hours at the computer, a large cohort of students, the lack of the ability to control students in the classroom.

In addition, the teaching staff also complained about the psychological discomfort that the listeners can be not only students, but also other people, the lack of an audience atmosphere necessary to establish contact with students.

Students also noted 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 as the disadvantages of the distance education.

Some students emphasized the difficulty in self-expression in distance learning and the lack of creative activity.

Many students cited the lack of social life as the main disadvantage of moving to the distance learning.

The main changes associated with the transition to a distance form of teaching and learning within the universities

In general, speaking about the changes that have taken place in the universities, there are mobility of all structural units, an increase in the digital and computer literacy of teachers, staff and students, a decrease in the number of meetings, an increase in the teachers and students' workload.

Distance education has also significantly expanded the opportunities for teaching staff and personnel and students to undergo additional training on distance courses and improve their qualifications in various directions.

Recommendations for the further development of distance education from the respondents

The teaching staff recommended to increase the academic freedom of teachers, to introduce modern technologies, to strengthen the proctoring system to contribute increasing the effectiveness of control.

The teaching staff emphasized the need to develop regulatory requirements at the state level in order to create a single standard of a Kazakhstani distance education system.

Students, in turn, recommend more extensive use of interactive teaching methods in order to engage them in the learning process.

Recommendations for future research

The conducted research has certain limitations, which at the same time represent promising directions for studying this issue in the future.

First, the survey on the impact of the Covid-19 pandemic on various areas of education and training did not take into account the training direction of the respondents. Therefore, we can only assume that the difficulties in organizing the practice were experienced primarily by students of medical, technical, and creative specialties.

Secondly, the survey on the problems faced by students during distance learning did not assess the socio-economic status of the respondents. Students from socially vulnerable groups may have limited access to technical facilities, which may subsequently affect their learning outcomes.

Third, the survey results were not leveled. The respondents of some universities were more represented in the survey, while other universities are not represented at all or are insufficiently represented. We did not take into account these biases in this study, so our samples characterize the entire population of Kazakhstani students.

Conclusion

The pandemic has forced the global academic community to recognize distance and online education as the main form of education. All teachers and university students from around the world had to overcome difficulties in a relatively new direction for them while helping to combat the spread of the virus. This study demonstrated how Kazakhstani universities have adapted to the new form of education and what difficulties they encountered in its implementation.

During the pandemic, distance education platforms have become a key tool in the implementation of the educational process. As the results show, the Kazakhstani universities actively used platforms such as Platonus and Moodle before the pandemic. During the pandemic, some universities developed their own platforms while others used well-known platforms as ZOOM, Microsoft Teams, Webex Cisco and others.

According to the results of the respondents, the greatest impact of the covid crisis was on areas such as teaching, learning and organization of practice. However, the creative activity of teaching staff and students was the least influenced. It should be noted that universities provided the greatest support in organizing training courses both for personnel and teaching staff, and for students. Moreover, universities regularly conducted student satisfaction surveys and provided online counseling.

Since the pandemic caused significant damage to the country's economics as a whole, some universities had to reduce the wages of faculty and staff. However, as the results of this study show, many universities have retained the salaries of their employees, and in some institutions, there has been an increase. The students also noted that the tuition fees did not change with the transition to distance learning.

Regarding the difficulties in implementing distance education, most of the respondents noted that the platform outages were as one of the important problems. Lack of the necessary technical equipment and violation of academic integrity were also noted as types of difficulties faced by teaching staff. Moreover, the respondents emphasized the importance of social interaction and that the lack of personal communication negatively affects the communicative competencies. In general, the distant format not only caused difficulties, but also required from all participants in this process the ability to adapt quickly, which significantly influenced the increase in the workload.

Despite the difficulties that the pandemic has presented in the education sector, it is still important to highlight the possibilities of distance learning. The students of this survey noted that they had more opportunities to keep in touch with their teachers, review lectures and regularly monitor progress in their personal account. They stated that they have become more independent in planning their daily routine and have begun to engage in creativity and self-development owing to free time. Teachers

highlighted that the use of modern technology makes the presentation of materials and teaching effective.

In general, this study shows that distance education in Kazakhstani universities has adapted with certain difficulties. However, as the results show, it also had positive aspects. If we take into account the recommendations and wishes of the teaching staff and university personnel as increasing the academic freedom of teachers, teaching modern technologies, strengthening the proctoring system and the extensive use of interactive teaching methods, we can say that the effective and successful implementation of educational programs in a distance format is quite possible.

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