IMPACT OF COVID-19 ON HIGHER EDUCATION IN UZBEKISTAN

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Abstract

The pandemic and the announced quarantine have made adjustments to the education of undergraduate and graduate students in almost all universities in the world. During the transition to online education, modern Internet technologies were created, which caused certain problems in the higher education system.

The article aims to analyze the impact of COVID-19 on higher education in Uzbekistan. The following research methods are used in the article: empirical methods, theoretical analysis methods, questionnaires, and surveys. The article analyzes approaches to online learning at universities in Uzbekistan.

The results of the article have several important implications for the science and practice of online education and its prospects for the higher education system of Uzbekistan. Prospects for online student learning in the era of COVID-19 are proposed. The main recommendations are as follows: organizing online training courses for teachers; organizing in-depth training courses in online learning methods for non-teaching specialties (including training in interactive online learning methods, the formation of individual educational directions, and the development of online multidisciplinary courses).

Keywords

Higher education, online education, Covid-19, Uzbekistan.

1. Introduction

With the beginning of quarantine, new forms and methods of teaching are becoming increasingly important. The COVID-19 pandemic has led not only to changes in the global architecture and global economic system but also to the transformation of higher education. Recent trends have quickly influenced new educational requirements. In education, soft skills have become more important as they enable future employees to adapt to new challenges, as well as ensure self-discipline and lifelong learning. An additional result of universities' response to the challenges of COVID-19 is the improvement of the digital competence of students and teachers. Online education requires new approaches to organizing lessons,

individual assignments, and an approach to self-education. COVID-19 has had a significant impact on changing the structure of university education in Uzbekistan. There is a need to modernize teaching methods in universities. It was the pandemic that led to rapid and effective changes in the higher education system of Uzbekistan.

2. Methods

The study was conducted at Termez Institute of Engineering and Technology from March 2020 to June 2021. The focus is on the impact of changes in university education due to COVID-19.

The object of the study is the higher education system of Uzbekistan.

The topic of the study is changes in the higher education system in Uzbekistan during the COVID-19 period.

The article aims to analyze the impact of COVID-19 on higher education in Uzbekistan.

The article uses the following research methods:

• empirical methods (educational articles, statistical databases, other publications);

• methods of theoretical analysis (analysis and synthesis; clarification and generalization):

• questionnaire;

• interview.

The questionnaire sample included 5 higher educational institutions (private and public), and representatives of different regions of Uzbekistan. They were randomly selected and recruited through social media. The criteria for participation in the competition will be determined by a representative of the higher education institution. Rectors and vice-rectors of universities in Uzbekistan take part in the interview - 10 participants in total. Among them are 4 state universities and institutes and 1 private university; 1 state university, 1 engineering institute, 1 agricultural institute, 1 pedagogical institute; Four of them have between 5,000 and 10,000 students, and one has more than 10,000 students.

The article was carried out in the following stages:

• study of literature;

• collecting data through questionnaires and interviews;

• data analysis;

• assessing the results of higher education in Uzbekistan and discussing problems.

3. Study of literature

Currently, three developing pedagogical directions have been identified [1]. First, it is a movement to "make learning more convenient and flexible," meaning face-to-face interaction with the teacher in the classroom is no longer the only tool for learning. Encouraging and supporting student independence and increasing student interaction with peers through social media, asynchronous discussions, peer assessment, and feedback. The second trend is closely related to the third trend. support and assistance to students in providing education, as well as new forms of student assessment" [2]. Cognitivism, constructivism, connectivism are the main theories that underlie any online learning strategy and are considered suitable for online courses for adults. As cognitivism suggests, the learner must play an active role in understanding the material and information. Connectivism refers to online learning that supports connections through a social network. Despite the importance of activities in the field of higher education in Uzbekistan, at the time of consideration of this issue, no thorough research has been carried out. Systematic reviews and recommendations on online education in the era of COVID-19 are lacking. Therefore, the topic of this article is relevant, modern, and important. Constructivism as a theory aims to prepare students to solve problems and think creatively. Connectivism adds value to this theoretical approach in terms of understanding learning in the digital age and offers learning tools and technologies such as social networks, Internet searches, and online discussion forums. Connectivism refers to online learning that supports connections through a social network. Social learning is based on online collaboration tools such as blogs, wikis, and social networks and reinforces the concepts and principles of connectivism [3]. The approach to education as a service will help transform the higher education system [4]. In recent months, several articles have been published on the impact of COVID-19 on the education system [5]. These articles discussed the development of higher education during the pandemic, as well as the impact of COVID-19 on the mental health of students, university staff, and teachers. This study reviewed and included in the bibliography some articles on the psychological impact of COVID-19 on higher education participants [6]. The general impact of COVID-19 on education is discussed by O. Chandasiri. The results of the Global Impact Survey showed that only 1% of institutions are open as usual, without special measures to combat COVID-19 (this is a higher education institution (HEI) in Burundi); 10% of institutions are operating as usual, but measures have been taken to prevent the spread of COVID-19 [7; 8]. These facts represent universities' responses to the global context of COVID-19. Since March 15, 2020, kindergartens, secondary

schools, colleges, out-of-school educational institutions, universities, pre-university, post-graduate, and postgraduate educational institutions have been closed in Uzbekistan. Education in the country has moved to online forms [9; 10]. Despite the importance of activities in the field of higher education in Uzbekistan, during the period of consideration of this issue, no thorough research has yet been carried out. Systematic reviews and recommendations on online education in the era of COVID-19 are lacking. Therefore, the topic of this article is relevant, modern, and important.

4.   Results

Before the advent of COVID-19, universities and institutes in Uzbekistan mainly used traditional methods of teaching and organizing the educational process. But Uzbekistan has high educational potential, which affects its social development [6]. Since the beginning of the quarantine, higher education institutions have not been fully prepared for online learning; they have only used some elements of online learning. Online learning requires the development of methods and clear regulation. During interviews in May-June 2020, the majority of universities stated that before the quarantine, their institutions used some elements of online learning and mainly relied on the Moodle system (Figure 1).
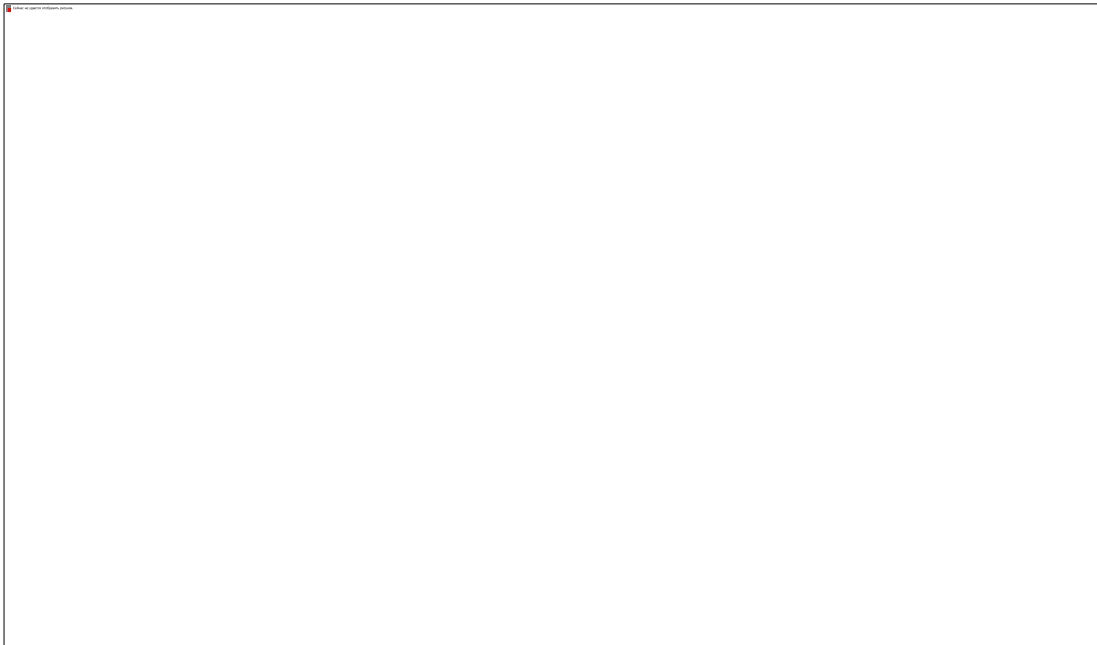

Figure 1. Survey results on respondents' online work experience before quarantine (282 responses).

Thus, the survey results showed that 63.1% of respondents sometimes used online educational tools or their elements (Figure 1). More than 21.3% had no previous Internet experience. Only 13.2% have experience and are undergoing ongoing online training. Thus, most Uzbek teachers do not have experience in

continuous online learning (84%). In addition, during the pandemic, the issue of online accreditation and quality assurance of higher education arose. In 2019, a study by the National Agency for Quality Assurance in Higher Education found that 67 percent of universities have an internal quality assurance system, and 33 percent have parts of this system. [6]. In addition, 74.8% of universities regularly conduct student surveys on the quality of general education programs, and 72.2% on the level of satisfaction with the content of educational programs [5]. This quality assessment tool is important when switching to online education during quarantine. Despite the sudden nationwide lockdown (Figure 2), universities quickly switched to online learning.
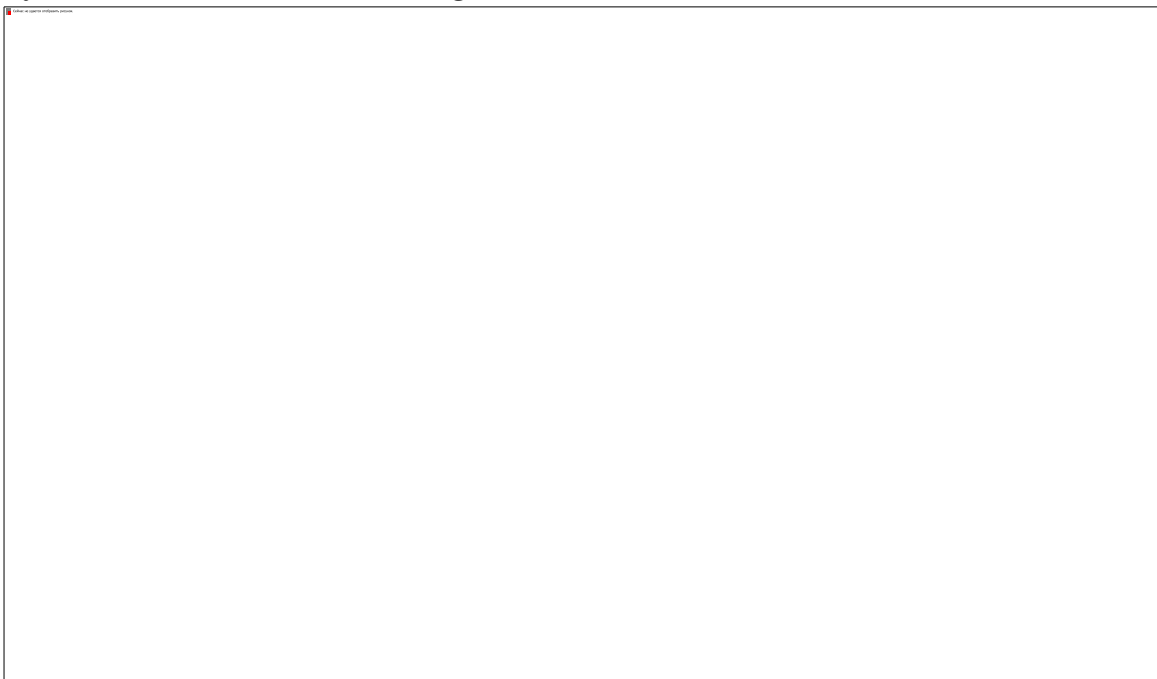

Figure 2. Survey results on respondents' readiness to work online (282 responses).

According to Figure 2, 67% of respondents are ready for online learning, while 18% are not adequately prepared for online work. Thus, despite the teacher's lack of experience, they were willing to provide online training. Online training was conducted using video communication on various online platforms - Moodle, Google Meets, Zoom, etc. Online conferences, debates, discussions, lectures, and seminars. According to the survey results, respondents considered video communication in Zoom most favorably (85%). Universities are also actively using the Moodle platform for onli During quarantine, the institute's management studied existing problems, constantly monitored students, and conducted interviews. As an example, in April 2020, we present the results of a survey

conducted among students of the Termiz Institute of Engineering and Technology (Uzbekistan) on the quality of online education (Figure 3).ne learning.
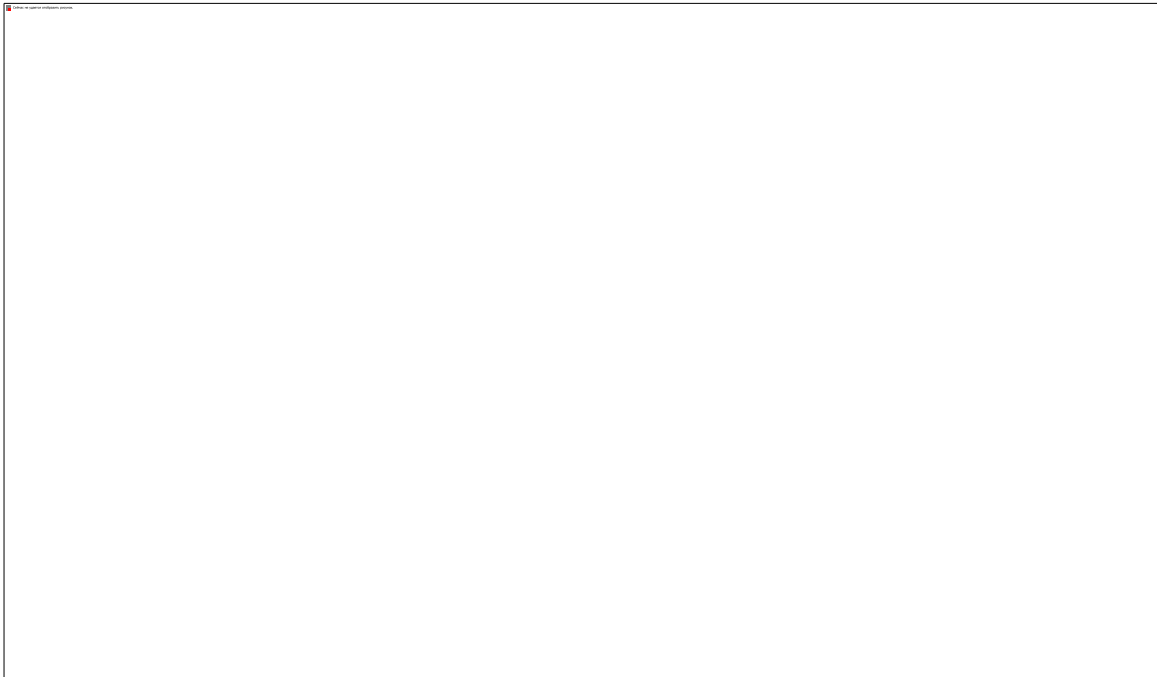

Figure 3. Results of student satisfaction with online learning at Termiz Institute of Engineering and Technology, Uzbekistan, April 2020.

More than 1,700 students, including international students, took part in the survey. The results of the anonymous survey showed that more than 70% of students are satisfied with the quality of online learning at the university, although there are some difficulties and problems (Figure 3). Often, students during COVID-19 times need live communication, video speakers, and seminars. Also, 22 percent of students were dissatisfied with online learning. The main reason is that 18% of teachers are not adequately prepared for online teaching (Figure 2). Surveying students during quarantine is an important aspect since the traditional relationship between the dean's office and the student is lost. There have been changes in educational attitudes. In this regard, online surveys among students became necessary as they allowed problems to be quickly identified and answered.

Online education has shown problems associated with providing the population of Uzbekistan with the Internet (not available in all villages and cities); all participants in the educational process do not have the necessary computers to participate in online learning and other gadgets.

However, there are also positive aspects of online learning:

•access to the Internet during lectures and seminars from anywhere in the country (80% of students who applied to the Termez Institute of Engineering and Technology);

- the ability to complete homework at an individual pace;
- transparency of student assessments.

5. Discussion

During our research, we achieved three main results:

1)   Before the COVID-19 pandemic, 86% of Uzbek teachers did not have much experience in online teaching.

2)   80% of teachers in Uzbekistan consider themselves ready for online teaching.

3)   70 percent of students are satisfied with the quality of online learning at the university, although there are some difficulties and problems.

Student activity, innovative approaches, effective learning, transparent assessment, consistency, systematicity, and transparency are among the main pedagogical principles that create the quality foundations of online education [20]. For effective online learning, the teacher must have appropriate competence and skills in using pedagogical and andrological teaching models. Online learning needs to motivate and engage students. On the one hand, they need to feel supported, but on the other hand, they need to be active and independent learners. Effective online learning is also based on the principles of digitalization and innovation in education and can be demonstrated through personalization, evidence-based approach, promotion of metacognitive thinking, and authentic learning.

6. Conclusions

Thus, Uzbek teachers did not have much experience with online teaching but quickly adapted to the changes. This also applies to the management of higher education institutions. Recommendations and proposals for the online transformation of higher education in Uzbekistan include: organizing advanced training courses for teachers on online teaching methods; organization of in-depth training courses in online learning methods for teachers of non-teaching specialties (including training in interactive methods of online learning, the formation of an individual educational direction, the development of online multidisciplinary courses); University management must ensure constant monitoring of student and teacher satisfaction with the online educational organization by collecting statistical data over time. The purpose of this study is to collect statistical data and develop a regulatory framework for online education in Uzbekistan.

Gratitude

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