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Higher education during the pandemic. An overview of the higher education system in Uzbekistan¹

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ABSTRACT

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The article focuses on the development of the education system in Uzbekistan after the country gained independence. It highlights the obstacles to the development of the education system and changes during the pandemic, particularly in the sphere of higher education. The purpose of this research is to provide an overview of the steps in the development of education within the state. It will also evaluate the present condition of higher education during the pandemic. The conclusion states the findings and recommendations for further development.

Introduction

UNESCO estimates that over 1.5 billion students in 165 countries are out of school due to the COVID-19 pandemic. This pandemic has forced the global academic community to explore new ways of teaching and learning, including distance and online education.

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*This has proven challenging for both students and educators, who must deal with the emotional, physical, and economic difficulties posed by the illness while doing their part to help curb the spread of the virus. The future is uncertain for everyone, particularly for millions of students scheduled to graduate this year, who will face a world crippled economically by the pandemic*². Currently, most universities and schools work remotely. Online courses are provided by hundreds of institutions, but we can discern two main problems. Firstly, from the macro perspective, very little is established regarding the effects and efficacy of online education (McPherson, Bacow, 2015: 135–153). Secondly, the capacity to be successful when teaching digitally is likely to differ based on the wide range of learning goals that guide our instructional and educational priorities. The current pandemic situation may be of particular importance to emerging educational systems. Following the logic of the exception – that extraordinary times call for extraordinary measures – one common trend in education systems around the world has been to respond to the pandemic with “emergency eLearning” protocols, marking the rapid transition of face-to-face classes to online learning systems (Liguori, Winkler, 2020). In order to get a better look at the educational system in Uzbekistan, we need to get to know its main determinants.

Transformation of education system in Uzbekistan after independence

As Ruziev and Burkhanov underlined, “higher education played an important role in the pre-independence period under central planning, as it helped to provide the economy with specialist skills to support the country’s industrialization drive; it also served as a means through which the prevailing ideology was promoted. Higher education plays no less important role in modern market-based economies. In well-functioning meritocratic economic systems, higher education can serve as a catalyst for achieving social mobility and cohesion, matching individual aspirations and societal goals in the process” (Ruziev, Burkhanov, 2018: 435–438).

We have to emphasize that Uzbekistan declared its independence in 1991, and as in many other sectors, there have been reforms in the education system, too. Several educational policies were accepted:

- the fundamental law on education;

² COVID-19 and Higher Education: Education and Science as a Vaccine for the Pandemic, <https://www.un.org/en/academic-impact/covid-19-and-higher-education-education-and-science-vaccine-pandemic>, accessed: 26.11.2020.

- the introduction and development of national educational standards;
- the introduction of enrolment tests and student performance evaluations;
- the introduction of new curriculum, programs;
- the establishment of new types of educational institutions.

In 1997 a presidential decree was adopted on “Fundamental reforms in Education and Personnel Training System”, which included three main stages of the *National Personnel Training Program (NPTP)*:

Stage 1 (1997–2001): Establishing legal, scientific and methodological, financial and material conditions for the reform and development of the system;

Stage 2 (2001–2005): Full implementation of the national program, with adjustments/modifications depending on the labor market and socio-economic conditions;

Stage 3 (2005 and subsequent years): further development and improvement of personnel training based on the experience acquired and an analysis in accordance with the country’s socio-economic development perspectives³.

Pursuant to the Law on Education, tertiary education is provided after graduation from general secondary (11 years) and secondary special and vocational school in Tertiary Education Institutions (TEIs). Tertiary education has two levels: undergraduate [bachelor] (not less than 4 years of studies) and graduate [master] (not less than 2 years of studies) supported by relevant national standard certificates. The Law on Education defines the main national policy-making agencies in the area of tertiary education: the Cabinet of Ministers (CM), authorized public educational management agencies, and TEIs. The Ministry of Labor and Social Protection of Population (MLSPP), Ministry of Finance (MF), Ministry of Justice (MJ), as well as other sectoral ministries and agencies (and associated TEIs) actively participate in policy development of tertiary education⁴.

Types and number of higher education institutions

Following the adoption of the national program, the number of Tertiary Education Institutions increased from 46 in 1991 to 61 in 2002 (Majidov et al., 2009: 52). Nowadays there are 115 Higher Educational Institutions, which include 93 local and 22 foreign universities and their branches (branches of universities of the Rus-

³ The Presidential decree “Fundamental Reforms in Education and Personnel Training system”, 6 October 1997, za: World Bank Report (2019), *Higher Education in Central Asia. The Challenges of Modernization*, <http://documents1.worldbank.org/curated/en/266211468235483571/pdf/689260ESW0P0850rnization00200700eng.pdf> i za: <https://www.lex.uz/docs/-4840>, accessed: 23.04.2021

⁴ World Bank Report (2019), *Higher Education in Central Asia. The Challenges of Modernization*, p. 162, <http://documents1.worldbank.org/curated/en/266211468235483571/pdf/689260ESW0P0850rnization00200700eng.pdf>, accessed: 23.04.2021.

sian Federation and the Republic of Turkey; accredited universities of England, USA, Italy, South Korea, India, Singapore)⁵. All of these higher educational institutions, with the exception of foreign universities, are owned and funded by the government.

At present, these institutions are categorized into three groups: **academies, universities and institutes**. Academies have the highest status, as they provide postgraduate degrees and motivate scientific research. One of the most popular academies nowadays is the *Academy of State and Social Construction*, founded in 1995 by the first president of Uzbekistan (Majidov et al., 2009: 53). It was renamed the Academy of Public Administration in 2012 and now offers both degree and non-degree programs to government officials. The academy has successful relations with several international organizations and institutions⁶.

Uzbekistan's universities are like those in other countries, and offer numerous subject areas for both undergraduate and postgraduate students. According to research by UniRank in Uzbekistan, the top 3 universities in Uzbekistan are: "Westminster International University in Tashkent", "Tashkent University of Information Technologies", "Tashkent State University of Pedagogy"⁷.

Institutes focus on one subject area and offer degree programs in different aspects of that specialized field.

Admissions to Higher Educational Institutions

Before independence, admission to tertiary education was secured through oral and/or written exams. However, in 1994, during the early years of reforms, a centralized testing system was introduced in order to fight corruption. Entrance examinations were organized by the State Test Centre (STC), except for foreign universities, foreign branches and higher education institutions specialized in arts and sports. Applicants sat exams on August 1 each year (until 2018) and were tested on three different subjects based on the areas they had applied to study. Each subject consisted of 36 multiple choice questions. If the applicant's chosen field of study was economics, finance or business, he/she was required to take tests in Mathematics, a foreign language (English/French/German) and Native Language and

⁵ Uzreport Information Agency (2020), <https://uzreport.news/society/ozbekistonda-oliy-talim-muassasalari-soni-123-taga-yetdi>, accessed: 25.11.2020.

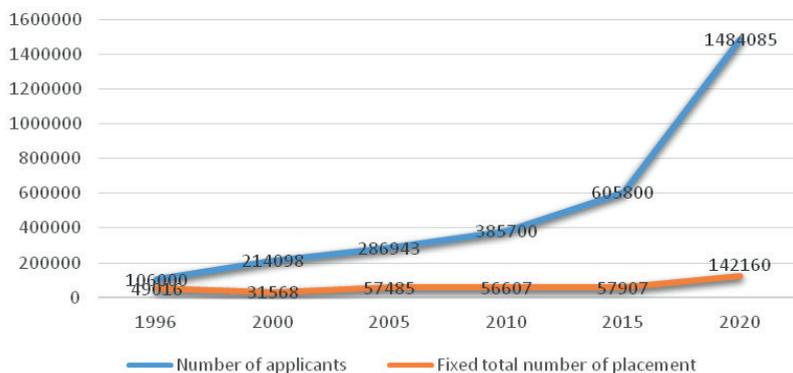
⁶ Academy of Public Administration, <https://dba.uz/en/about-academy/>, accessed: 4.12.2020.

⁷ Research by UniRank, <https://kun.uz/en/news/2020/02/10/unirank-announces-list-of-top-universities-in-uzbekistan-for-2020>, accessed: 3.12.2020.

Literature (Uzbek/Russian/Karakalpak or another). If the chosen field was subject in humanities, then the tests included questions in subjects such as history, a foreign language and Native language. Each correct answer to a multiple choice questions gave scores 3.1; 2.1 and 1.1, respectively. The highest achievable score was **226.8**. The applicants with the highest score were selected for admission.

Each year, the State Test Centre announces the number of fixed placements, which includes both placements funded by the government and those which are contract-based.

The fixed total number of placements for the 2006/2007 academic year was **57.269** but **186.154** applicants submitted their documents to study at HEIs, which means 3.25 applications per placement. In 2017, this index showed 729.094 applications for only 66. 586 (27% funded by the government) fixed placements with 10.95 applicants per place. The following graph illustrates the dynamics in the growth of applicants and fixed placements since 1996⁸.



Dynamics of growth in number of applicants and fixed placements for the last 24 years

Source: Ministry of Higher Education and Committee of Statistics (dtm.uz)

There is strong competition among the applicants for medical degree programs and business, economics, finance, law and IT. Although it is difficult to be accepted for a grant placement at Tashkent Institute of Finance, the University of Economics, the University of World Economy and Diplomacy, Tashkent Institute of Law, and Tashkent University of Information Technologies, the brightest applicants still apply to enter those educational institutions.

⁸ State Test Center, https://dtm.uz/page/ochiq_malumotlar, accessed: 4.12.2020.

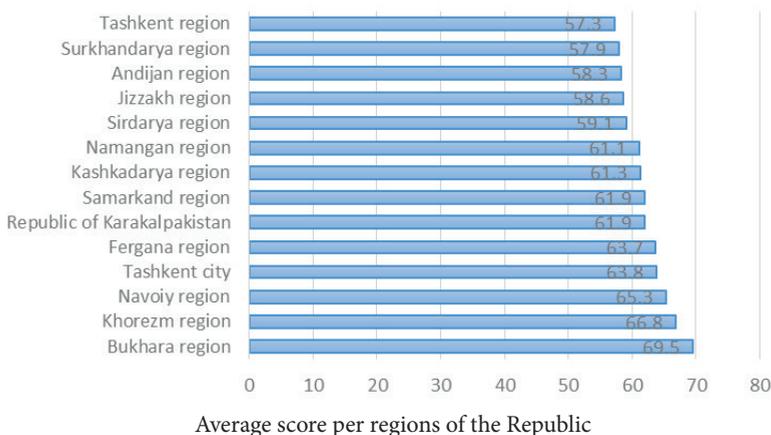
Table 1. Data based on the admission scores in the above-mentioned fields for bachelor's degree courses in 2020

Name of HEI	Minimum acceptance score for grant placement – (government funded placements)
Tashkent Institute of Finance, Faculty of Finance	187.9
University of World Economy and Diplomacy, Faculty of International Economics and Management	189
University of Economics, Faculty of Economics	179.5
Tashkent Institute of Law, Faculty of Jurisprudence	187.9
Medical Academy, Faculty of Therapy	165.3
Tashkent University of Information Technologies, Faculty of Economics and Management in the sphere of information-communication technologies	181.3

Source: Ministry of Higher Education and Committee of Statistics (dtm.uz)

The average admission score for a grant placement was **133.3** and the average admission score for a contract-based placement was **110.6** in the 2020 entrance exams for bachelor's degree courses.

However, the average score that applicants received in entrance exams was **57.3** (25% of total score) and the chart below shows the average score per regions.



Source: Ministry of Higher Education and Committee of Statistics (dtm.uz)

Even though the universities accept applications and these are mainly for the contract-based placement, most applicants are not able to pay high tuition fees. Since 1994, the number of grant-based placements has decreased, creating hardship for low-income and middle-income families. According to the Asian Development

opment Bank, 11% of the Uzbek population lived below the national poverty line in 2018⁹. The State Statistics Committee of Uzbekistan states that in 2019 the average monthly salary before taxation in Uzbekistan stood at 245 USD¹⁰. Moreover, UNICEF reports from 2019 state that 76% of the population lived on less than 2.5 times the minimum wage (UZS 15,700 = 1.5 USD per person per day)¹¹ and the proportion of young people between 18 and 30 years was 24%. Taking into account the economic condition of families in the country, it is obvious that most families will not be able to support their child's higher education. If we look at the cost of an annual tuition at the universities for 2018/2019 academic year, the whole picture will become even clearer¹².

Educational reforms after 2017

In 2017 Shavkat Mirziyoyev became the President of the Republic of Uzbekistan. Since then many reforms have been implemented in different aspects of the Uzbek economy. The Presidential Decree of September 2018 no:UP-5544 approved the *Strategy of innovative development of the Republic of Uzbekistan for 2019–2021*. According to this presidential decree, the main objectives of the strategy for achieving the main goal also included the following educational reforms: – improvement of the quality and scope education at all levels, developing the life-long education system, ensuring the flexibility of the training system, proceeding from the requirements of the economy;

- strengthening the scientific potential and efficiency of scientific research and developments, creating efficient mechanisms for integrating education,

⁹ Uzbekistan and Asian Development Bank (2020), <https://www.adb.org/countries/uzbekistan/poverty#:~:text=In%20Uzbekistan%2C%2011.4%25%20of%20the,day%20in%202019%20is%2019.7%25>, accessed: 9.12.2020.

¹⁰ State Statistics Committee of Uzbekistan, <https://www.gazeta.uz/oz/2020/01/27/salary/>, accessed: 25.11.2020.

¹¹ UNICEF Report (2019), *Building a Better Future, A child-sensitive social protection system for Uzbekistan*, https://www.developmentpathways.co.uk/wp-content/uploads/2020/06/SP_Brief_ENGLISH_FINAL.pdf, accessed: 4.12.2020.

¹² Bachelor's degree: The minimum tuition fees: UZS 8,293,500 (1067 USD as of 2018 July <https://freecurrencyrates.com/>)

The maximum fees: UZS 11,058,000 (1423 USD as of 2018 July <https://freecurrencyrates.com/>)

Master's degree:

The minimum fee: UZS 9,030,700 (1162 USD)

The maximum fee: UZS 12,163,800 (1565 USD)

The cost of tuition depends on the status of the educational institution and the program.

science and entrepreneurship for the widespread introduction of the results of research, developmental and technological works”¹³.

We must point out that since 2017 the following improvements have been made in this area:

- the number of local and foreign universities, as well as their branches, increased from 72 to 115.
- there was an improvement in admission to higher education institutions. In the previous system, applicants could apply only to one institution and one faculty. Now applicants have the opportunity to apply up to five HEIs and may choose different programs in one subject area. Based on the results achieved in the examination, the applicant will be able to choose where to study;
- the number of multiple choice questions was decreased from 36 to 30 and examination venues were changed into huge halls from small rooms of schools. This made the procedure more transparent and parents can also follow the exam procedures online;
- examinations no longer take place on August 1st. Due to the large number of applicants, the examination is held for 15 days in two shifts, morning and evening.
- most of these application procedures and results announcements are now made online. Applicants do not need to visit the premises of the higher educational institution for these procedures.
- the number of fixed placements at HEIs has risen by over 75.000 in the whole republic. Tuition fees can be decreased by a choosing non-funded course, where the student will not receive a monthly allowance from the government.
- the form of studies has also changed. Applicants can now choose from full-time, part-time or evening courses. A part-time course previously existed but the number of fixed placements also grew and evening courses were launched.
- The duration of bachelor’s degree studies was shortened from four years to three years for certain study programs¹⁴.

¹³ The presidential decree, *About approval of Strategy of innovative development of the Republic of Uzbekistan for 2019–2021* (2018), <https://cis-legislation.com/document.fwx?rgn=109926>, accessed: 25.11.2020.

¹⁴ The Ministry of Higher and Secondary Specialized Education, *Higher Education Programs lasting 3 Years Announced*, <https://www.gazeta.uz/oz/2020/01/24/three-year-study>, accessed: 5.11.2020.

It is especially important to note that a Department of Innovation and Research was created in each higher educational institution. Research has become an area of importance and is supported more than in previous years. Based on the Scopus bibliometric and the best researchers of the country, the Ministry of Higher and Secondary Specialized Education, together with Elsevier (Netherlands), announced the winners of the “Scopus award-2019”¹⁵.

Moreover, a new form of payment for tuition fees, named a “super-contract”, was opened up for applicants achieving lower scores, but with an opportunity to pay higher amount of fees. For instance, if the applicant was 1–2 points short of the admission score, he/she pays twice as much of the contract-based tuition fee. This amount is valid only for the first year, and starting from the second year, the student pays the fixed price of the contract payment. This was one of the strategies to fight corruption in the higher education system¹⁶. Banks also improved the system of educational loans provision¹⁷.

Application of distance education during the pandemic

The outbreak of COVID-19 impacted the whole world and changed people’s lifestyles. The first case of this virus was observed in Uzbekistan in March 2020. During the lockdown caused by the Covid-19 pandemic, traditional face-to-face teaching methods in schools were not available. Schooling in Uzbekistan was in a stressful situation due to various circumstances, both temporary and structural, stemming from problems in the development of the country’s economy as a whole. However, in a short time, it was possible to transform the entire system of education, switch over to a distance learning form in schools and, ultimately, complete the school year¹⁸. Within a few weeks, all educational institutions started working remotely.

¹⁵ Westminster International University in Tashkent (2020), <http://www.wiut.uz/uz/news/item/59-top-researchers-of-uzbekistan-2019>, accessed: 30.11.2020.

¹⁶ *Applicant Admission for Contract-Based Placements, Amount of Tuition Fee and Payment order*, <https://www.abt.uz/blog/abituriyentlarni-tolov-kontrakt-asosida-qabul-qilish-oqish-uchun-tolov-tartibi-va-miqdori>, accessed: 20.11.2020.

¹⁷ *How to Apply for Educational Loans?* (2018), <https://www.abt.uz/blog/talim-kredit-haqida-batafsil>, accessed: 20.11.2020.

¹⁸ Khusanov K. (2020), *Distance Education in Uzbekistan During the Pandemic of Covid-19*, https://www.researchgate.net/profile/Kasim_Khusanov/publication/342515299_Distance_Education_in_Uzbekistan_during_the_pandemic_of_Covid-19/links/5ef8f834299bf18816ee59ec/Distance-Education-in-Uzbekistan-during-the-pandemic-of-Covid-19.pdf, accessed: 30.11.2020.

Education is an important aspect of human development and it may not be paused or terminated because of the pandemic. While the students of primary, secondary and high schools joined classes delivered on TV channels and based on a certain schedule, students in higher education attempted to use mobile applications, such as Zoom and Telegram.

Was Uzbekistan ready for this dramatic change? Were there sufficient conditions to shift studies onto distance/online methods?

In order to deliver and attend distance classes, both lecturers and students need resources: equipment such as a personal computer, laptop, tablet, or at least mobile phones to connect to the internet and access to a high-speed internet connection.

Based on the Statistics of the Ministry for Development of Information Technologies and Communications, in 2020 22.5 million of Uzbekistan's population of 33,660,543 had access to the internet. This means nearly 67% of the whole nation had access to internet connections¹⁹. Moreover, the State Statistics Committee reports that: "There was an average of 55 computers for every 100 families in Uzbekistan in 2019"²⁰. The number of mobile internet users also escalated to 19 million in 2019. However, the mobile internet connection speed was 113rd in the world ranking as of 2020 (Zufarova, Shakirova 2020: 6).

During the first months of online teaching mode, both academic staff members and students, especially those who live in rural areas, suffered due to a lack of resources. They had to search for locations in their areas with better internet access, which most of the time were very inconvenient places to teach or study²¹. Moreover, we had to remember that to achieve the best learning outcome, it is desirable to have an understanding of students' learning styles, and their own preferences, not only hardware conditions. Online students' learning styles can be unclear, and this has implications for how academics develop their teaching material. Some students learn through interacting, while some prefer learning through visual presentations, and some by listening to instructions and using written notes. This challenge has implications for learning outcomes and poses a serious issue for academics seeking to understand the learning styles of their students in an e-learning environment (Islam, Beer, Slack, 2015).

¹⁹ *Mobile network coverage reached 96% in Uzbekistan last year – ICT Development Ministry* (2020), <https://kun.uz/en/news/2020/02/05/mobile-network-coverage-reached-96-in-uzbekistan-last-year-ict-development-ministry>, accessed: 20.11.2020.

²⁰ *Uzbek Families Have Three Times Less Computers Than TVs* (2020), <https://uzreport.news/society/uzbek-families-have-three-times-less-computers-than-tvs>, accessed: 26.11.2020.

²¹ *A teacher conducted a lesson on the roof of her house* (2020), https://daryo.uz/2020/05/08/fargonada-internet-tezligi-pastligi-sababli-oqituvchi-uyining-tomida-otirib-onlayn-dars-otmoqda-video/?fb_comment_id=2866895030059381_2866992026716348/ accessed: 3.11.2020.

Unfortunately, most local universities had not run distance/remote classes before the pandemic. Moreover, as noted above, in addition to internet and technology issues, there was also the question of teaching methods and platforms. Interaction with students became another complication. Students from regions who came to study in capital cities were requested to return home and abide by the quarantine regulations. This made education even more challenging.

All these issues created the need to improve remote teaching and learning. Institutions of higher education started generating their platform and uploading numerous videos on their areas of specialization. MediaPortal tube.edu.uz, a portal where all Uzbekistan's universities can share specialized videos, started functioning²². Academic staff members began gaining experience in using different applications and platforms.

What was the situation like in the farthest regions of Uzbekistan? An interview with the Deputy Dean on Student Affairs at Termez State University's²³ Faculty of Economics and Tourism indicated that there was satisfactory growth in the practice of online education within the university, too. Notable achievements in the field were as follows: a stable internet connection was set up within the premises of the university; academic staff members were trained to use the online platform, create their own video lessons and conduct lessons through the Zoom application; for students living in rural areas who do not have resources, conditions with computers and internet connection were prepared in schools and colleges in the central areas so that they could attend online lessons there.

Nowadays, various webinars and online sessions are being held by the administration of local and foreign universities in Uzbekistan and their partner universities. Representatives of local universities in Uzbekistan, such as Tashkent Institute of Law, along with the State Institute of Art and Culture in Tashkent, explained that even though it was initially very demanding, they now see more opportunities for the operation and development of distance teaching and learning. Academics at universities started attending and participating in more online sessions than before to discuss the challenges and opportunities of online education, and also exchanged experiences. Thus, during the period of lockdowns in Uzbekistan, lecturers at educational institutions strengthened their collaboration with foreign colleagues in Russia, Kazakhstan, France, Israel, etc; they started new partnerships with foreign universities abroad; they also inspired lecturers and students initiated start-ups. Educational institutions increased the number of lectures delivered by

²² See: MediaPortal: <https://tube.edu.uz/>, accessed: 9.12.2020.

²³ Termez – the capital of the region in the south of Uzbekistan neighboring Afghanistan.

foreign partner universities during the pandemic²⁴. Although switching over to distance learning was rather complicated at the beginning of the pandemic in Uzbekistan, the situation subsequently improved in terms of the quality of education at academies, universities and institutions. The following improvements have been observed in the 2020/2021 academic year:

- New teaching techniques started to be implemented by the academic staff at educational institutions;
- The operation of Learning Management Systems such as MOODLE was improved;
- International relations with other higher educational institutions abroad developed;
- Both academic members and students turned out to be more inspired and came up with new ideas.

During the pandemic, foreign universities or branches of foreign universities in Uzbekistan did not have many obstacles to the distance mode of education due to the fact that those educational institutions had already been using own learning management system actively, applying blended learning in the education system by offering some lectures and holding various online discussions on the platform. Some international universities even launched their own applications created by their IT departments with success. In order to ensure the smooth operation of the system, teaching resources have also been uploaded to the cloud.

The next plan to enable more students to enjoy online education is to create “Centers of digital opportunities” with Tashkent’s IT Park²⁵.

Before the pandemic, several studies were conducted on distance education and the benefits it might bring produce. A project such as opening the first distance mode educational institution has been planned and an agreement has been signed by the Ministry of Innovation and by foreign investors such as CityU MOOK (Hong Kong), UdacityX (USA), MOOC Iversity (Netherlands), and Open Polytechnics (New Zealand). This “Future University” will follow the distance learning system and experience of New Zealand. The tuition fees will be around 1.5 mln soums (145 USD), which is significantly more affordable compared to full-time programs at other universities. The implementation of the “Future University” will contribute to tackling some of the problems in Uzbekistan’s education system.

²⁴ Online discussion about the Prospects and Challenges of Online Education in Uzbekistan with high ranking officials initiated by HIT Holon Institute of Technology with GEW 2020 and Israeli Ministry of Foreign Affairs (2020).

²⁵ The Ministry for Development of Information Technologies and Communications of the Republic of Uzbekistan report (2020), <https://mitc.uz/en/news/view/1186>, accessed: 25.11.2020.

At present, the State Inspectorate of Education Quality is working on improvements to the education system by eliciting recommendations and suggestions from international experts on creating a distance education system, and on increasing its quality and effectiveness. The form of distance education was not mentioned in the Law on Education of 1997²⁶. Due to the reforms in the education system within the country, a new draft of this Law has recently been submitted to the Legislative Chamber of the Republic. This new edition also includes the establishment and adoption of distance education²⁷.

Further plans for the improvement of Uzbekistan higher education system

Uzbekistan's modern society lives and develops in a rapidly changing world. Continuous improvement of economic industries and the social sector has become a prerequisite for the country's progress. The Republic of Uzbekistan is confidently and dynamically moving towards achieving its main goal of joining the group of developed democratic states. A higher education system built on the processes of systematization, creative processing and using the experience of previous generations is the main mechanism for achieving such aspirations. In the new conditions, higher education is one of the priority tasks for the state (Abdurakhmanov et al., 2019: 15). In 2019, the Concept for the Development of the Public Education System until 2030 was developed and accepted. Under this Concept, the main development goals can be noted: "the entry of the Republic of Uzbekistan by 2030 into the number of the first 30 leading countries of the world in the rating of the PISA (The Program for International Student Assessment); high-quality updating of the content of the system for further education, as well as training, retraining and advanced training of professional personnel; improving teaching methods, phased implementation of the principles of individualization in the educational process; introduction of modern information and communication technologies and innovative projects in the field of public education. Within the framework of the concept, it is planned to introduce a new wage system in the field of public education, with the use of incentive allowances for teachers and managers that

²⁶ The Law *About education* as of 1997, <https://cis-legislation.com/document.fwx?rgn=846>, accessed: 21.11.2020.

²⁷ *Innovational and Effective Methods of Teaching, Prospects of Distance Education*, Interview with the Head of State Inspection – Ulugbek Toshkenboev (2020), <https://yuz.uz/news/oqitishning-innovatsion-va-samarali-shakliyoxud-masofaviy-talim-istiqbollari>, accessed: 4.11.2020.

take into account how they perform their activities and the effectiveness of using modern educational technologies.

A system of partnerships of educational and industrial complexes with business entities will be formed to study the labor market and create an inclusive education system for teaching children with disabilities, including the establishment of special devices in educational institutions (lifting devices, ramps, handrails, etc.), also providing the appropriate human resources (teachers-defectologists, specialists in psychological and pedagogical support of children). Measures will also be taken to improve the quality of resource support for educational institutions, especially those located in remote rural areas²⁸.

However, despite the reforms introduced, legislators still have a great deal to do in terms of higher education and adjusting it to the current economic conditions. As Eshchanov et al. note, “knowledge and skills of the local university graduates do not always meet the national requirements of present-day employers. Moreover, the current pedagogic systems have clear individual shortcomings, including:

1. Lack of lifelong learning;
2. Secondary education is 11 years in Uzbekistan compared to an average of 12 years in most developed countries;
3. Unnecessarily extensive curricula and hence pedagogic load for teachers and learners (due to Soviet-style curricula development, where ideological education of students was the principal learning objective);
4. One-sidedness of pedagogic processes, which offers strong theoretical knowledge loosely linking it with practice;
5. Inconsistency of human capacity building program with the practical market economy requirements (the majority of university staff do not possess practical experience in their own fields);
6. Barriers in foreign language learning, which would otherwise facilitate independent learning; this limits the access to much intelligence and information, as well as lessons learned from elsewhere;
7. More emphasis is given to theoretical rather than practical knowledge, loosely linking the former knowledge with the actual demands from practice;
8. Physical and technical limitations of the learners’ independent learning abilities (low student-to-textbook ratio, limited access to online article databases and almost no subscription to prestigious international journals);

²⁸ The Presidential Decree, *The Concept of Development of the Public Education System until 2030* (2019), <https://www.uzdaily.uz/en/post/49506>, accessed: 25.11.2020.

9. Limitations linked with using information technologies due to the lack of equipment and applications;
10. A constant decrease in the reputation of the teaching profession and teachers' real wages, which is hindering the engagement of highly skilled pedagogical personnel with the required knowledge;
11. Student performance evaluation systems have been amended frequently during the last 20 Years but the lack of transparency remains, which has a negative impact on the quality of higher education;
12. Creating the wrong impression among the youth, parents and society that becoming a student guarantees possession of a degree diploma, due to relaxed requirements to some students at some higher education facilities and courses, which in turn arguably impacts on the prestige and reputation of some higher education facilities" (Eshchanov et al., 2019: 95).

Recommendations to improve the higher education system of Uzbekistan

According to the Ministry of Finance, the general government expenditure on education (pre-school, public, secondary specialized and higher education) rose from 23% in 2017 to over 26% in 2020²⁹. Although numerous reforms have been accomplished in recent years, the government of Uzbekistan still needs to invest heavily in education. One of the solutions to this challenge is to review the avenues of implementing an education cluster system following the example of other countries leading in terms of innovative education systems, such as the US and Germany. It includes developing national methodologies for the creation of education cluster systems and implementing these systems. To this end, one way could be to establish an inter-ministerial pilot "higher education facilities-secondary specialized in education facilities-schools" education cluster for addressing and solving current challenges based on best-practices obtained during the testing in practice of this pilot cluster (Eshchanov et al., 2019: 95).

In conclusion, in our opinion, the areas that should be priorities for higher education in Uzbekistan are:

²⁹ The Ministry of Finance of the Republic of Uzbekistan report, Budget allocation for 2020, <http://xs.uz/uz/post/2020-jil-uchun-byudzh-et-taqsimoti-qajsi-tashkilotga-qancha-pul-beriladi>, accessed: 4.12.2020.

- fighting corruption, which will lead to hire better qualified specialists for the institutions and will ensure the admission of applicants with stronger knowledge;
- ensuring administrative and financial independence at HEIs, which will generate healthier competition among institutions;
- decreasing the amount of paperwork performed by the administrative and academic staff members in these institutions. This will allow them to improve the quality of their job;
- supporting both administrative and academic staff members of higher educational institutions to acquire better qualifications;
- reconstructing exam questions based on the material covered at secondary schools so that applicants have no need to attend extra classes and spend considerable sums in order to be able to enter educational institutions;
- increasing the results of research work in higher educational institutions, involving young people in scientific activities, and in forming an innovative science infrastructure;
- actively involving personnel clients in the process of training highly qualified specialists (Zufarova, Shakirova, 2020: 8);
- increasing the number of local and foreign higher educational institutions present in Uzbekistan;
- approving the online learning mode in the national education system and accepting the diplomas issued by such institutions. This will allow more applicants to enter universities and acquire knowledge.

In the current situation with the Covid-19 pandemic, we must certainly add other measures to the current list of priorities for Uzbekistan's educational policy, such as measures to improve the quality of the remote education system (not only in its technological dimension, but also taking into account the human factor, as we have explained above)³⁰.

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³⁰ See: More recent polling from College Reaction/Axios in April 2020, showed that 77% of more than 800 college students surveyed said they felt distance learning is worse or much worse than in-person classes.

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