Support to VET Reforms Project in Uzbekistan

Assessment of COVID-19 implications on VET 27.11.2021

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Content

	Abbreviations	4
	Introduction	5
1.	Who are the respondents of the survey?	9
	1.1. Shaykhantakhur district Vocational School	9
	1.2. Tashkent Technical School of Information Technologies	10
	1.3. Pedagogical College	11
2.	Survey results	12
	2.1. Crisis management	12
	2.2. Communication during crisis	15
	2.3. Strategy and activities	15
	2.4. Student enrollment	16
	2.5. Financial implications	17
	2.6. Financial support due to the pandemic	17
	2.7. Human resources	17
	2.8. The institutions place in society	19
	2.9. Online teaching and learning	20
	2.10. Curriculum	20
	2.11. Assessment, examination, graduation	21
	2.12. Final open questions	22
3.	Face-to-face interview results with the Head of the VET department at the MHSSE	24
4.	Conclusion	26

Abbreviations

MELR Ministry of Employment and Labour Relations of the Republic of Uzbekistan

MHSSE Ministry of Higher and Secondary Specialized Education of the Republic of Uzbekistan

VET Vocational Education and Training

TTSIT Tashkent Technical School of Information Technologies

ShDVSh Shaykhantakhur district Vocational School

PC Pedagogical College

IAU International Association of Universities

ILO International Labour Organization

WBG World Bank Group

UNESCO United Nations Educational, Scientific and Cultural Organization

Introduction

Early 2020, the COVID-19 virus started spreading globally. On Sunday, March 15, 2020 Uzbekistan's health minister confirmed the country's first case of coronavirus disease (COVID-19). The patient was reportedly an Uzbek national who recently traveled to France. In response, authorities announced that all foreign nationals will be barred from entering the country, while Uzbek nationals will be prohibited from departing. Additionally, schools, universities and colleges will be closed for three weeks, and all public events have been canceled. On Monday, March 23, Uzbekistan's Special Commission for the Control of Coronavirus announced that the country's capital city Tashkent will be locked down starting on Tuesday, March 24, to prevent further spread of coronavirus disease (COVID-19). Only permanent residents of Tashkent will be allowed entry into the city, and all transport, including buses, cars, aircraft, and rail, will be suspended, with the exception of cargo.

On Thursday, March 26, Uzbek authorities announced that the cities of Samarkand, Namangan, and Andijan will be placed on lockdown from Friday, March 27, until further notice to prevent the spread of coronavirus disease (COVID-19). Only permanent residents will be allowed entry into the cities, and all transport, including buses, cars, aircraft, and rail, will be suspended, with the exception of cargo. Those found in violation of the lockdown will be subject to legal action. Other containment measures remain in place as of Thursday, including a lockdown on the capital city of Tashkent.

Enhanced containment measures are in effect in Uzbekistan as of Wednesday, April 1, to prevent further spread of coronavirus (COVID-19) in the country. As of Wednesday, all citizens over the age of 65 are prohibited from leaving their homes. Self-isolation orders continue in Tashkent, Nukus, Samarkand, and other regional centers. All individuals are prohibited from entering or exiting the cities by any mode of transportation, except for those transporting goods or foreign nationals wishing to depart from the country. All land and air borders remain closed to non-Uzbek national and all commercial flights remain suspended. Public transportation services are suspended along with domestic flights. Restaurants, cafes, bars, fitness centers, shopping malls, and entertainment venues are closed, and public events are banned. It is compulsory to wear a facemask while outside and individuals may be fined for violating the measure.

On Saturday, April 18, Uzbek authorities announced the extension of nationwide restrictions until Saturday, May 10, to curb the spread of coronavirus disease (COVID-19). Under the restrictions, citizens are only allowed to leave their homes for essential shopping or work.

Authorities in Uzbekistan announced that certain retailers will be allowed to resume operations from Saturday, April 25, following a shutdown due to the coronavirus disease (COVID-19) outbreak. Shops selling construction materials, car parts, seeds, and seedlings, as well as those providing servicing for agricultural and construction machinery, will be allowed to resume operations. Additionally, insurers, notaries, and dry-cleaning businesses will also be permitted to reopen.

Uzbekistan Airways announced on Wednesday, April 29, that it has suspended ticket sales for domestic and international flights until Tuesday, June 30, due to the coronavirus disease (COVID-19) pandemic. Previously booked passengers will be eligible for a full refund on unused tickets with no refund fee until June 30 or earlier if the suspension is lifted, which will be determined by the Uzbekistan Special Republican Commission.

Previously imposed nationwide restrictions remain in effect until Saturday, May 10, to prevent the spread of the virus. Under the restrictions, citizens are only allowed to leave their homes for essential shopping or work.

On Wednesday, May 13, President Shavkat Mirziyoyev announced that train and air links between the capital and remote regions will resume shortly as measures to combat the coronavirus disease (COVID-19) are relaxed, though no exact date was specified. Flights between Tashkent, Nukus, Urgench, and Termez will resume, as well as rail services between Tashkent, Samarkand, Navoi, Bukhara, Karshi, and the Fergana Valley, including the high-speed Afrosiyob service.

Authorities have begun to gradually ease restrictions since early May; many businesses have been permitted to resume operations and shops selling construction materials, car parts, seeds, and seedlings, as well as those providing services for agricultural and construction machinery, among others, have reopened. Additionally, insurers, notaries, and dry-cleaning businesses have reopened. Authorities have also divided the country into red, yellow, and green zones based on the level of COVID-19 cases present, with fewer restrictions in yellow and green zones. Red zones include Karakalpakstan, Andijan, Namangan, Fergana, Samarkand, Tashkent region, Bukhara, and Syrdarya. Yellow zones include Surkhandarya, Khorezm, and Tashkent city, and green zones include Navoi, Jizzak, and Kashkadarya. Private cars may circulate without restriction in green zones, while in yellow and red zones they may only circulate from 07:00-10:00 (local time) and 17:00-20:00.

Uzbek authorities announced on Friday, May 15, that most of the quarantine measures will be extended until Monday, June 1, to curb the spread of the coronavirus disease (COVID-19) pandemic in the country. Land and air borders remain closed to non-Uzbek nationals, however, train and air links between Tashkent and remote regions will be allowed to partially resume from Monday, May 18. Flights between Tashkent, Nukus, Urgench, and Termez will resume, as well as rail services between Tashkent, Samarkand, Navoi, Bukhara, Karshi, and the Fergana Valley, including the high-speed Afrosiyob service.

On Saturday, May 30, Uzbek authorities announced that, while the quarantine measures in place nationwide to counter the spread of the coronavirus disease (COVID-19) would be extended until June 15, some restrictions would be relaxed in the coming days. Authorities previously eased some restrictions earlier the same month by dividing the country into three zones; green, yellow, and red, on the basis of newly-detected COVID-19 infections. As part of the new measures, those in the green zone will see summer camps, recreational centers, and sports facilities reopen, as well as weddings and other events permitted to take place with up to 30 guests. Additionally, the resumption of domestic tourism and sporting events such as soccer matches has been permitted. Bus tours between provinces will be allowed, with the exception of entering red zones. Many businesses will be permitted to reopen from Monday, June 1, under the new measures.

Land and air borders remain closed to non-Uzbek nationals. However, rail and air links between Tashkent and remote regions have been allowed to partially resume. Flights between Tashkent, Nukus, Urgench, and Termez have resumed, as well as rail services between Tashkent, Samarkand, Navoi, Bukhara, Karshi, and the Fergana Valley, including the high-speed Afrosiyob service.

On Sunday, June 14, Uzbek authorities announced that they will ease transportation measures amid a decrease in the number of coronavirus disease (COVID-19) cases from Monday, June 15. The Ministry of Transport has stated that certain international flights will resume with restrictions based on the country of departure's epidemic situation. Citizens and those with permanent residency, as well as individuals associated with certain business and diplomatic organizations and their families will be allowed to enter and leave the country at free will.

Furthermore, train service from Tashkent to various other cities throughout the country will resume with schedules based on the epidemiological situation in their respective regions.

Authorities in Uzbekistan have extended the nationwide lockdown measures until August 1 in order to limit the spread of the coronavirus disease (COVID-19). The system of 'green', 'yellow', and 'red' zones will continue, with different measures in place depending on the amount of COVID-19 cases present in each zone. 'Green' and 'yellow' zones are to lift restrictions on schools on Monday, June 15. State kindergartens are to reopen on August 1. On June 15, Uzbek authorities eased transportation measures amid a decrease in the number of COVID-19 cases. The Ministry of Transport stated that certain international flights are to resume with restrictions based on the country of departure's epidemic situation. Citizens and those with permanent residency, as well as individuals associated with certain business and diplomatic organizations and their families, will be allowed to enter and leave the country at free will. Furthermore, train service from Tashkent to various other cities throughout the country has resumed, with schedules based on the epidemiological situation in their respective regions.

Uzbek authorities announced on Tuesday, June 23, that dozens of areas in its capital city, Tashkent, have been placed back under lockdown following a rise in the number of coronavirus disease (COVID-19) cases in the city. Dozens of areas have been temporarily cut off from the rest of the city, in an attempt to halt the spread of the virus. Additionally, Uzbek authorities have extended the nationwide lockdown measures until August 1 in order to limit the spread of COVID-19. The system of 'green', 'yellow', and 'red' zones will continue, with different measures in place depending on the amount of COVID-19 cases present in each zone.

On June 15, Uzbek authorities eased transportation measures amid a decrease in the number of COVID-19 cases. The Ministry of Transport stated that certain international flights are to resume with restrictions based on the country of departure's epidemic situation. Citizens and those with permanent residency, as well as individuals associated with certain business and diplomatic organizations and their families, will be allowed to enter and leave the country at free will.

Authorities in Uzbekistan were to introduce a second lockdown from Friday, July 10, following an increase in coronavirus disease (COVID-19) cases. The new lockdown period will last until August 1, and will be less strict than the first lockdown in place between March and May. Under the new restrictions, travel between regions will be restricted, the movement of vehicles will be limited and large gatherings, including weddings, banned, while funerals will be limited to 15 guests. People are encouraged to work from home if possible. Amusement parks, department stores, sports facilities, restaurants, and hotels will be closed. Flights will be reduced to half capacity and drivers bringing goods from other countries will be required to undergo a COVID-19 test at the border.

Uzbek authorities announced on Sunday, July 26, that the coronavirus disease (COVID-19) lockdown measures will be extended until August 15. Under the restrictions, travel between regions will be restricted, the movement of vehicles will be limited and large gatherings, including weddings, banned, while funerals will be limited to 15 guests. People are encouraged to work from home if possible. Amusement parks, department stores, sports facilities, restaurants, and hotels will also remain closed. Flights will be limited to half capacity and drivers bringing goods from other countries will be required to undergo a COVID-19 test at the border.

Uzbek authorities announced on Wednesday, August 12, that the country will start lifting its second coronavirus disease (COVID-19) lockdown from Saturday, August 15, and promised to restore most services within days. Lockdown measures were reintroduced in July as a surge of new cases left hospitals struggling to cope with the influx of patients.

From Saturday, people will be allowed to drive again and gatherings of up to 30 people will be permitted for ceremonies such as weddings. Businesses such as hotels, outdoor cafes, and barbershops will also be allowed to reopen, while air and rail traffic are scheduled to restart from Saturday. From Monday, August 17, the country plans to open large shops, markets, and gyms.

Uzbek authorities have announced that the country's borders are to reopen from October 1, following a months-long closure due to the coronavirus disease (COVID-19) pandemic. Cross-border traffic and international trains and flights are expected to resume over the course of the month. Countries have been classified under a traffic light system as 'green', 'yellow', or 'red', depending on the levels of COVID-19 infection in each country, with different regulations regarding entry depending on the color. Travelers arriving from 'green' countries, which include China, Thailand, Malaysia, South Korea, Georgia, Hungary, Finland, Latvia, Austria, and Japan, will be able to enter Uzbekistan without restrictions. Those arriving from 'yellow' countries, which consist of Azerbaijan, Belarus, the UAE, and the EU (except for the UK and Spain) may enter provided they have undergone a negative polymerase chain reaction (PCR) test in the 72 hours prior to their arrival. All other countries have been classified as 'red', and arrivals must provide a negative PCR test and undergo a 14-day quarantine to be permitted entry. Most business activity has resumed in Uzbekistan. Gatherings of up to 30 people are permitted, although social distancing measures and the wearing of face masks are mandatory in public spaces.

This report provides an overview of national educational responses to COVID-19 related VET providers closures that may help inform measures and strategies to ensure continuity of learning in different contexts based on the information collected.

This report was consolidated as per the results of a survey on the COVID-19 implications on different actors of VET system of Uzbekistan, conducted within the framework of the "Support to VET Reforms Project in Uzbekistan". The aim of this survey is to monitor not only the impact of the pandemic on VET providers in the country, but also to gain insights about the responses implemented by VET providers at different levels and government institutions to the disruptions caused by the pandemic. The survey questionnaire was developed on the basis of questionnaires practically used among educational institutions, including VET providers, by international organizations such IAU, ILO, WBG and UNESCO. The survey was conducted in three particular VET providers' facilities: Tashkent Technical School of Information Technologies, Shaykhantakhur district Vocational School, and Pedagogical College.

By taking part in the survey, VET providers were able to share how their education institutions have been affected by the pandemic, how they have responded, and also what are the key challenges and opportunities for the future. The survey questions are structured around the following sections: crisis management, communication during crisis, strategy and activities, student enrolment, financial implications, financial support due to the pandemic, human resources, VET provider's place in society, online teaching & learning, curriculum, assessment, examination, graduation. The results of the survey demonstrated the impact of the pandemic on the VET sector at the regional level. This is essential in order to continue to support the VET sector through advocacy and to inform decision-makers. Almost two years into the pandemic, the results of this survey will illustrate the medium-term impact and strategies adopted by VET system in Uzbekistan to respond to the restrictions imposed due to the pandemic and ensuring the continuity of their mission.

In addition to the survey results, presented general and concise analysis was made after studying legislative documents issued as immediate measures on COVID-19 response, received during a face-to-face interview with the heads of VET providers mentioned above as well as government officials at the MHSSE.

Source: https://www.garda.com/crisis24/news-alerts/326801/uzbekistan-government-to-lock-down-samarkand-namangan-and-andijan-from-march-27-due-to-covid-19-update-4

1. Who are the respondents of the survey?

The survey was held at three VET providers' facilities: Shaykhantakhur district Vocational School, Tashkent Technical School of Information Technologies, and Pedagogical College.

1.1. Shaykhantakhur district Vocational School

As per the Decree of the President of the Republic of Uzbekistan dated September 6, 2019 No PF 5812 "On additional measures to further improve the system of vocational education", Shaykhantakhur district Vocational School was established on the basis of Shayhantakhur district Transportation Professional College to implement the initial stage of the vocational education system, identified by the VET reforms. The school is located at the following address: Tashkent city, Shaykhantakhur district, Beltepa district, house 10.

Shaykhantakhur district Vocational School, initially was founded in 2008 (Shaykhantakhur Transportation Professional College) and has a total capacity of 540 seats, 23 classrooms, including 10 special science rooms such as 2 "Traffic rules and traffic safety", 4 "Automobile structure", 2 "Car maintenance" classrooms and 2 "Sewing" classrooms as well as 6 training workshops - welding workshops, car repair shops, tire repair shops. Training workshops are equipped as per the current trends and designs at the expense of the local budget. The library computers of the vocational school are connected to the ZiyoNET network. The library has a total of 33,492 publications, of which 3,092 are fiction. The number of electronic publications is 900. Shaykhantakhur district Vocational School comprised 598 9th grade graduates for the 2021-2022 academic year in 7 educational directions.

- 1)"Automobile repair technician"; (Car repair technician, and "B" or "BS" category driver)
- 2)"Maintenance technician on electrical parts of an automobile"; (Maintenance technician on electrical parts of an automobile, and "B" or "BS" category driver)
 - 3)"Technician of automobile parts disassembly and assembly"; (Technician of automobile parts disassembly and assembly, and "B" or "BS" category driver)
 - 4) "Construction machinery operator", (Road construction machinery and tractor repair technician, Electric gas welder and "B" or "BS" category driver)
 - 5)"Automobile body repair technician" (driver and "B" or "BS" category driver)
 - 6) "Bank controller"; (Cashier and Bank controller)
 - 7)"Tailor" (Women's tailor and Children's tailor)

As of November, 2021, the total number of 1st and 2nd year students is 1052 including 692 male and 360 female students. Total number of freshman year students is 598, including 360 male and 238 female students. Total number of the second year students is 454, including 332 male and 122 female students. The school harbors 44 teachers with higher education degrees, 5 masters of industrial education with higher education degrees and 4 masters of industrial education with secondary special education degrees. In order to educate spiritually and professionally developed and healthy young generation and to contribute to the

development of science and education, Shaykhantakhur district Vocational School cooperates with 3 universities such as Tashkent State Technical University named after Islam Karimov, Turin Polytechnic University and Tashkent Institute of Irrigation and Agricultural Mechanization Engineers as well as with the Samarkand Automobile Plant located in Samarkand. In order to organize practical training for students, cooperation agreements have been signed with "Maxsustrans", 18, 7,8 - bus palaces, "Chukursoy avtokorkhonasi" LLC, "Inter trans servis", LLC "ARROW GREEN LOGISTIK". From 2020, short-term training courses have been implemented in the vocational school with the purpose of providing an employment and reducing the poverty. As per the order of the Minister of Higher and Secondary Specialized Education of the Republic of Uzbekistan, funds have been allocated for the development of short-term courses in vocational schools and special classrooms have been equipped.

1.2. Tashkent Technical School of Information Technologies

Tashkent Technical School of Information Technologies initially was organized as school of telecommunication operators in 1940. In 1941, during the 1st World War, it was reorganized to Urban Vocational School №1. In 1955, it was renamed to Urban Vocational Technic School №4, preparing personnel for the communication sphere. Beginning from 1967 UVTC №4, one of the first in Uzbekistan started to graduate young specialists with secondary education degree. In 1997, as per the resolution of the Cabinet of Ministers of Uzbekistan, dated December 11, 1996 and a decision of the Tashkent city mayor from January 7, 1997, UVTC №4 was renamed to Business school №3. While training specialists in the communication sphere, the Business School was also preparing specialists such as a computer operator, an accountant, an assistant secretary, a manager of small and medium enterprises. In 2002, as per the resolution of the Cabinet of Ministers of the Republic of Uzbekistan №253, dated June 12, 2001, «On renaming secondary education institutions to vocational colleges and academic lyceums», Business school №3, was renamed to Tashkent Professional College of IT. In 2020, as per the Presidential Decree No. 5812 dated September 6, 2019 "On additional measures to further improve the vocational education system" and the order No. 765 dated July 1, 2020 of the Tashkent Institute of Information Technologies, Tashkent Professional College of Information Technologies was renamed into Tashkent Technical School of Information Technologies.

Currently, TTSIT aims at expanding the list of areas for training mid-level specialists, taking into account the interests of individuals, the needs of the labor market, the prospects for the development of the economy and the social sphere. TTSIT provides training in the following areas: i) Computer Science and Information Technologies, preparing specialists in the programming engineering and computer engineering fields of studies; ii) Telecommunication Technologies. Also, training is provided through joint international projects with Bucheon University and University College of Ulsan. Annually, TTSIT enrolls from 500 to 1000 students. As the VET reforms started rolling out from 2019, only full-time education has been offered in 2020 and part time and evening classes are being offered from 2021. 346 students have been enrolled for the 2020-2021 education year. For 2021-2022 educational year, TTSIT has admitted the total of 316 students, including 228 male and 88 female students.

It is worth mentioning the following TTSIT's international cooperation in the field of VET development:

• Joint Uzbek-German project "Vocational and technical education in the field of ICT, focused on the needs of the labor market."

- Joint project of the British Council in Uzbekistan "Social partnership of employers in improving the curricula and programs of vocational institutions."
- A 4-party memorandum of partnership was signed between the Tashkent Technical School of Information Technologies and the Ulsan Scientific Technical University (Republic of Korea), Korea Telecom and the Education Center of the Republic of Korea in Tashkent. The purpose of this memorandum is a cooperation in VET with the aim of developing science and society in the field of ICT and further employment. In accordance with the mutual exchange agreement between the parties, graduates have the opportunity to get professional education at Ulsan University. After completing their studies, if they have the appropriate level of knowledge, they are granted privileges in employment with Korea Telecom in Uzbekistan.
- A memorandum of cooperation in the field of vocational education was signed between the Yeoju Institute of the Republic of Korea and the Tashkent Technical School of Information Technologies.
- A memorandum of cooperation in the field of vocational education was signed between the CSM College of New Zealand and the Tashkent Technical School of Information Technologies. The purpose of this cooperation in the field of education is to contribute to the development of society through mutual cooperation and exchange between partners through strengthening the vocational education system, educating highly qualified personnel who will meet the requirements of the 21st century, the century of knowledge and information.
- An agreement on cooperation in the field of educational and scientific activities was signed between the Moscow Technical University of Communications and Informatics (Russian Federation) and the Tashkent Technical School of Information Technologies.
- Cooperation with the International Society KOICA Republic of Korea. The technical school participates in the volunteer referral program. In the field of
 computer science (system programming, creating an electronic library) and education (studying the Korean language). Through the volunteer program,
 assistance is provided to ensure sustainable development in education, informatics and communication, through the transfer of knowledge, technology and
 experience.
- Samsung Innovative Service Academy was opened within the framework of the Memorandum on its establishment at the Tashkent Technical School of Information Technologies. Samsung Innovative Service Academy is a strategic social project of Samsung Electronics aimed at providing additional education for students, helping to solve youth employment problems and promoting new standards for training qualified personnel in the country's service industry.
- Collaboration on dual education with the University of South Korea Ulsan College.

1.3. Pedagogical College

As per the order # 192 of the Ministry of Higher and Secondary Special Education of the Republic of Uzbekistan dated July 16, 1998, on the basis of the Law "On Education" and the "National Training Program on the Preparation of Personnel ", Tashkent Pedagogical College was established on the basis of the Tashkent Pedagogical School. Tashkent Pedagogical College was transferred to the Ministry of Preschool Education on the basis of the Decree of the Cabinet of Ministers of the Republic of Uzbekistan #418 "On measures to further improve the training of personnel for the system of preschool education" dated May 18, 2019.

Tashkent Pedagogical College has a total of 3 buildings (2 educational buildings and 1 dormitory). The total capacity of the college is 1050 seats. Currently for the 2021-2022 educational year, 453 students were admitted, including 5 male and 448 female students. The capacity of the dormitory is 160 seats. The educational institution is located at 184, 186 Muqumi Street, Chilanzar district, Tashkent, Uzbekistan. A total of 33 teachers currently works at the educational institution. Of these: 29 are full time teachers and 4 freelance teachers. All of the teachers have higher education degrees, including 1 head teacher, 8 leading teachers, 9 senior teachers and 11 higher education teachers from the main full-time staff. One of the teachers working in the educational institution was awarded the honorary title of "Shukhrat" medal. The total number of students currently studying at the educational institution is 430, of which: 395 in the field of preschool education, 15 in the field of music education, 11 in the field of physical education, 9 in the field of librarianship.

The educational institution is a basic educational institution in the field of preschool education in the republic, teachers of this educational institution participated in the development of state educational standards in the field of pedagogical education, qualification requirements for 5 professions, curricula and study programs.

2. Survey results

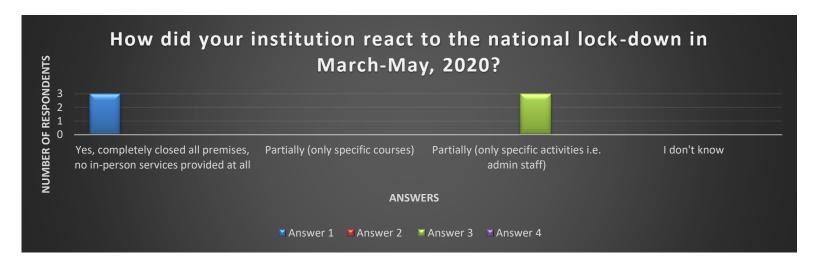
The following sections highlight the survey results in order in which the questionnaire was presented to respondents.

2.1. Crisis management

Crisis management section of the questionnaire focused on five specific questions. Below each question is presented with the survey results from the respondents.

1. How did your institution react to the national lock-down in ,,, March-May, 2020? (exact dates?)

Figure 1



- All of the respondents reacted instantly to the national lock-down in March-May, 2020 and completely closed all premises of their educational institutions. No physical presence of students was allowed during the lock-down period. All interactions between students and academic staff were transferred to online communication channels such as Telegram messenger or/and Zoom virtual meeting platform.
- Since during the national lock-down public transportation was stopped, management and administrative staff worked during specific hours and specific duration i.e., 1-2 hrs in the evenings or when/if commute permitted their physical presence in the premises. However, all of the respondents conveyed that management including administrative personnel kept a tight communication going, allowing to coordinate turns in visiting premises of their educational institutions to ensure the sound maintenance of facilities and equipment.
- Observing the pandemic's global spread and its advance into neighboring countries, TTSIT had been actively preparing to the national lock-down prior to its coming into force in Uzbekistan on March 16,2020, by upgrading the TTSIT's master server, increasing the server bandwidth, practically applying Google Classroom online tool into day-to-day educational process, remodeling and dividing a classroom into 5 special rooms so that teachers could teach in privacy on computers provided by the TTSIT. This specific remodeling was organized and finalized within 20 days period as a cautionary measure and came very handy during the lock-down and after the lock-down restrictions were officially lifted.
- 2. When the lock-down was lifted, did you return to "normal education" or did you continue with restrictions?
 - None of the respondents returned to "normal education" right away after the lock-down restrictions were officially lifted. Options of online and offline return to work were provided to choose from.
- 3. How often online and/or distance learning was used for courses and trainings before the outbreak of the COVID-19 in the scope of your institution?

- Among all of the respondents, only one respondent-TTSIT had been practicing online open-source tools for digital and distance learning such as Google Classroom. Since the latter has commercial features, the technicum and its academic and administrative staff and students were utilizing Google classrooms' free of charge features for distance learning and monitoring activities of teachers and students.
- TTSIT has started developing its own software on the basis of open-source
- For instance, Pedagogical College conveyed that prior to the pandemic there was not a necessity for digital/distance learning and an education level provided by the college was part of the compulsory education as per the previous VET system.
- 4. How was training being provided in this period of the COVID-19 pandemic?
 - All of the respondents answered that classes were conducted fully remotely during the national lock-down with no physical presence of students and academic personnel at the premises of the VET providers.
 - TTSIT emphasized that students' participation was solely online. However, teachers who lacked the privacy for conducting online classes from their homes or who lacked an internet connection or a computer could come to the technicum and use the specially created 5 rooms, allowing teachers conduct high quality classes.
 - Pedagogical College conducted all classes online via Zoom virtual meeting platform. College's students and academic personnel were encouraged to practice theory gained and shared via online classes on their children or relatives of small age or teachers' grandchildren in order to maintain theoretical and practical parts of the education in the most possible sustainable condition.
 - Shaykhantakhur district Vocational School also conducted classes online via Zoom virtual meeting platform or via Telegram messenger. For those students who could not participate in online classes immediately after the lock-down was announced, due to the absence of internet connection or any other related reasons, teachers would record online classes and deliver them to students either in person, following all the precautionary measures, or via the courier on means of transferring an information such as flash drive or CD/DVD.
 - As result of the VET providers' closure, many respondents indicated disruptions in the provision of practical training. Practical part of the educational process had to be put on hold till the partner companies could accommodate students as per their contractual agreements.
- 5. How would you evaluate the Covid-19 crisis management at your institution?
 - All of the respondents highly evaluated the COVID-19 crisis management at their educational institution. Financial assistance was provided within the VET providers' permittable budget to those in need during the crisis. Besides, Pedagogical College emphasized a governmental and a civil adequate reaction in terms of assisting most vulnerable population in adapting to a less-in-person-interaction mode during the most sensitive times of the pandemic by voluntarily distributing food and necessary consumer goods.
 - TTSIT with a humble sense of joy and pride conveyed that fully converting into a digital/distance learning was the easiest part in times of the COVID-19 crisis management.

2.2. Communication during crisis

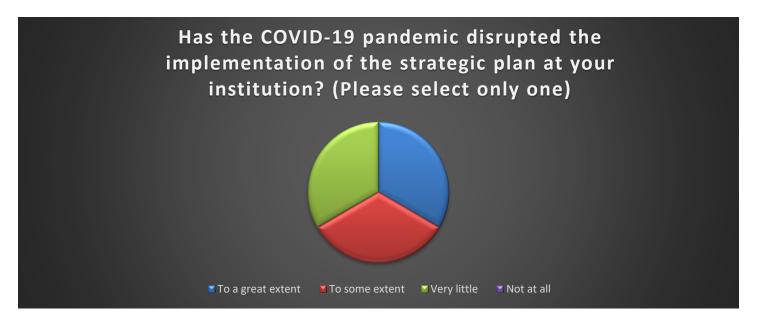
In this section of the survey respondents were invited to share their experiences on the most challenging parts of keeping in contact with students during the crisis as well as to analyze the level of effectiveness of communication kept among and between all staff and students (academic and administrative) during the pandemic.

- The most challenging part of keeping in contact with students was the lack of internet access among poor or low-income-family students.
- Shaykhantakhur district Vocational School had to transfer the director's responsibilities to deputy directors accordingly as the director got infected and hospitalized during the first spike of the pandemic. As per the school, it was not challenging to manage for the director because of the well-established prior communication with/among the deputies, academic and administrative personnel.
- TTSIT had no physical communication with students during the lock-down. Google-classroom ensured the effectiveness of the communication and monitoring between academic personnel and students. Internal networks such as TAS-IX worked well to ensure an uninterrupted communication. Note that TAS-IX is a traffic exchange point. It was created on December 24, 2004, when five large internet providers in Uzbekistan agreed to exchange traffic within the Uzbek segment of the Global Network. With TAS-IX, telecom operators avoid exchanging information over costly international channels. Thus, it was a very useful tool for students as majority of them stayed connected via TAS-IX.
- TTSIT started developing its own communication platform as the pandemic hit the country. The new platform was developed on the basis of an open-source software, and aimed to combine best features of commonly used well-rounded systems like Google classroom or Moodle to train students online. It was finished in the peak of the study process in May and was fully operational during 2020. Pedagogical councils and meeting between academic and administrative personnel usually held in person were carried out via the newly developed platform.
- Some respondents also reported the use of discussion forums or platforms (like Microsoft Teams), as well as social media platforms and communication tools such as Facebook, Instagram, WhatsApp and email to facilitate interaction and coordination between trainers and students.

2.3. Strategy and activities

Figure 2 shows almost an equal distribution of responses received from the respondents to the question of the COVID-19 pandemic's effects on the institutions' strategies.

Figure 2



- Shaykhantakhur district Vocational School prior to the pandemic was training specialists at the MSCO's 3rd level, and was planning to reopen as a vocational school in September, 2020 according to a new VET reform. However, as most of the activities were negatively affected, preparation to an opening process slowed down and initial opening strategy and activities had to be altered to some extent.
- TTSIT strategy and activities were affected to a great extent. The technicums development strategy had a big share of international cooperation with foreign partners like educational division of Alibaba Group. For instance, issuance of international certificates for students successfully graduating within the framework of international cooperation projects had to be postponed. Another example is TTSIT had a strategy of becoming an educational hub in the ICT and converting into an institution offering a higher education as the result of the international collaboration with foreign partner universities. All negotiations stopped due to the pandemic.
- Pedagogical College's strategy and activities were affected to a very little extent.

2.4. Student enrollment

Student enrollment section of the survey focused on two main tendencies in the enrollment process: increase and decrease caused by the pandemic. Also, respondents were asked if the drop out levels increased as the result of the pandemic.

- All of the respondents agreed that the student enrollment decreased due to the pandemic. Main reasons being that the majority of population's job loss or fear of letting a child to study in the classical, pre-pandemic regimen. For instance, Pedagogical College stated that out of 750 applications received for the education year 2020 2021 only 436 students are currently studying as 255 applicants could not make it to the admission test because of various reasons.
- Another major reason that decreased the enrollment of students into TTSIT and Pedagogical College is insolvency of parents to pay for a child's education. This tendency was not observed in the Shaykhantakhur district Vocational School as it is a fully government funded school.
- Drop out initiated by the VET providers didn't have a drastic change as the providers considered all conditions under which students had to complete their education and online assessments didn't allow to objectively evaluate students' knowledge and/or skills. However, drop out initiated by students during the educational year increased due to main reasons like change in a financial situation or inability to catch up with studies caused by the workload increase.

2.5. Financial implications

This section of the survey inquired on the financial implications of the pandemic i.e. how it has effected the VET providers' incomes and expenditures.

- TTSIT's income levels decreased since the technicum sustains itself mainly from the income generated by students' self-sponsored enrollments and commercial ICT services provided by the personnel. The latter services in high demand during the pandemic, which in turn, assisted the technicum in balancing their financial expenditures. Pedagogical College's income levels remained not much changed since the college was almost fully government sponsored with a minor % of income generated by students' self-sponsored enrollments when the pandemic hit. Shaykhantakhur district Vocational School's income levels remained unchanged since the school is fully government sponsored.
- Expenditures increased drastically at TTSIT since it had to supply and maintain health and safety measures such as disinfection of learning spaces, use of masks and gloves during training, reorganization of training cabinets. Increase of teacher's salaries was another reason to the increased levels of expenditures.

2.6. Financial support due to the pandemic

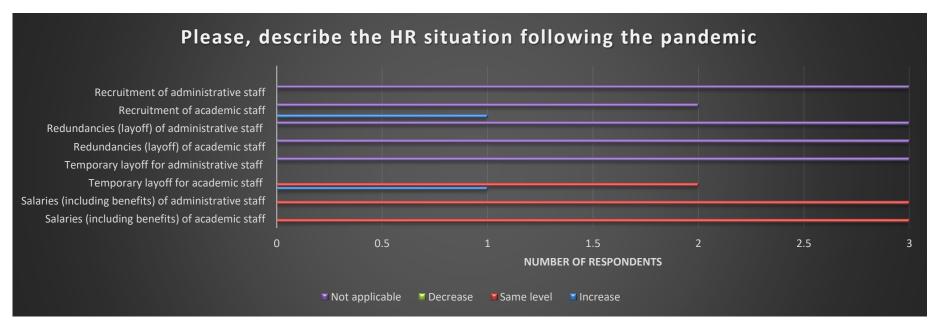
The respondents were asked if any governmental scheme providing emergency/special funding for VET in the context of the COVID-19 pandemic was in place. In addition, it was inquired if they benefited from any external non-governmental funding to address COVID-19 pandemic related issues.

ShdVSh received 64 UZS million only dedicated to purchase masks, antiseptics and gloves for the school. PC also conveyed that the purchase of all necessary precautionary means during the pandemic was implemented as part of the governmental support to fully government funded VET providers. No external financial support or funding was present. However, TTSIT didn't receive any funding neither from the government nor from any external non-governmental funding except one-time shipment of masks, received from South Korean Bucheon university as a token of partnership support in time of crisis.

2.7. Human resources

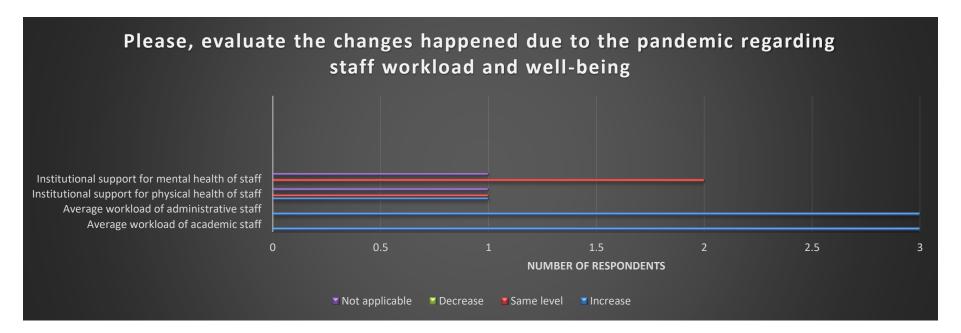
Figure 3 demonstrates the survey responses on the human resources activities among the respondents.

Figure 3



• Overall tendency in the HR activities remained unchanged. However, described in the Figure 3, an increase in the temporary layoff for academic staff was related to the Shaykhantakhur district Vocational School's change of an organizational structure. An increase in the recruitment of academic staff was related to TTSIT's 1.5-2% new hires increase aimed at providing larger number of teachers for distance/digital learning during the pandemic.

Figure 4



- As illustrated in the Figure 4, overall average workload for academic and administrative staff increased as digital learning was a completely new area, requiring additional hours for lessons' preparations, self-study and self-education, for some of the respondents. Institutional support for physical health in the shape of financial support of staff in some cases increased as the pandemic caused losses in the families of personnel. At the same time, institutional support for mental health of staff remained unchanged for those respondents that already had psychologists in the premises.
- This section of the survey also looked into the methods the respondents used to deal with students and teachers' lack of motivation during the pandemic. To keep the high spirits among teachers and students, physiologists on premises were intensively involved, bonding sessions were held via Zoom or/and Telegram chatrooms. Leading teachers shared their best experiences on maintaining high motivations among students. Music teachers organized live performances via Zoom or Telegram. Students exchanged the best practices, learned from their peers studying abroad, on how this issue is being addressed in various foreign countries.
- No recruitment of differently skilled (academic and administrative) staff was required. In some cases, doctors were invited to participate in the informational sessions, conducted online to increase the awareness among students.

2.8. The institutions place in society

The survey inquired about the respondents' place in society and how the pandemic effected it.

• Collaboration with national, local and foreign authorities remained unchanged for the most of the respondents. Exception is a case of TTSIT's decreased collaboration with South Korean embassy in Uzbekistan due to the international border closures. As part of the governmental agreements between South Korea and Uzbekistan, annually South Korean Bucheon University accommodates a number of TTSIT's students for a one-year education program.

2.9. Online teaching and learning

This section of the survey asked one specific but comprehensive question: How does your institution support students without the necessary access to remote teaching and learning?

Pedagogical College approached this issue by allowing students and teachers borrow college computers free of charge for those who didn't own computers.
 Lack of internet access was approached attentively as well. All of the respondents approached this issue by identifying priority groups among students, who didn't have an internet access, personal computers or an ability to come to the campus, and by delivering study materials in person, following all precautionary measures. National telecommunication provider Uztelecom instantly started offering optimal packages with reasonable prices, specially crafted for the needs of teachers and students.

2.10. Curriculum

The survey respondents were asked if the course content had to be altered or adapted to the pandemic realities. How did the pandemic affect students' practical training placements offers and what's the current situation with work-based learning, apprenticeships or practical training?

- Pedagogical College had to change technological maps, conventionally developed and used by their academic staff during classes in pre-pandemic times. This measure was initiated in order to focus on the most important parts of the lessons and to keep the quality of online classes on the highest level. The biggest impact of the pandemic was on the practical training of students from Pedagogical College. This was due to the closure of all kindergartens. On the contrary, Shaykhantakhur district Vocational School didn't attempt any major, special changes into their curricula. However, the school focused mainly on strengthening the theoretical part of trainings since the practical was delayed due to the pandemic. As per a usual schedule, industrial practical training starts in April and ends in June. Besides, Shyakhantakhur district Vocational School possesses its own fully equipped training workshops to conduct educational practical trainings on campus. TTSIT didn't make any changes to the curricula but the approach was changed as all the classes were taught digitally or online. Practical training workshops to conduct educational practical training on campus.
- Once the national lock-down restrictions were fully lifted, all of the respondents returned to regular regime and currently educational and industrial practical training is being provided in a classical format.

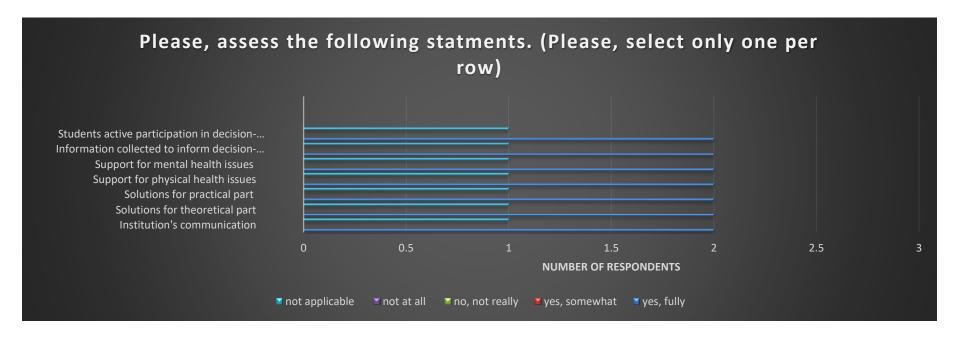
2.11. Assessment, examination, graduation

This part of the survey focused on the following 5 questions:

- 1. Was your institution able to carry out exams as planned for the past semester/academic year?
- All of the respondents were able to carry out final exams of students as planned. Pedagogical College developed a schedule for timed final exams to be
 conducted online during certain hours. Shaykhantakhur district Vocational School conducted final exams online via Zoom as per the scheduled developed
 by the school. TTSIT fully conducted final exams online and upgraded servers helped in providing an uninterrupted internet access for teachers to monitor
 the exams.
- 2. Have assessment measures changed?
- All of the respondents' final assessment exams consist of two parts: theory and practice. Thus, Pedagogical College had to change assessment measures and conduct final exams in the form of a test with multiple answer options for a complex of professional subjects. However, practical professional exam's assessment measures didn't change and were held online via Zoom. Shaykhantakhur district Vocational School didn't change any of the assessment measures. TTSIT changed the assessment measures and developed new methods to conduct the theoretical part of the exam online in the form of a test with multiple answer options as opposed to previous method of question cards. Practical part of exams had to be downsized in order for students to be able to take the test at home as many of the tasks in the classical set of questions required a special environment.
- 3. Was your institution able to graduate last year's cohort of students?
- All of the respondents successfully graduated all of the 2019-year students.
- 4. Has your institution conducted a student evaluation during the time of the pandemic?
- Pedagogical College was not able to run a survey among students due to the lack of time. Shaykhantakhur district Vocational School regularly run the
 student's satisfaction survey via Telegram messenger when the national lock-down was in force. TTSIT run the survey constantly to gather constructive
 criticism or feedback, which was analyzed and applied towards the improvement of measures implemented in combating negative effects of the pandemic.
 Survey run among respondents' students also focused on the evaluation of teachers' performances.
- 5. Figure 5 illustrates the respondents' answers to the section's final survey question such as: Were students satisfied with the institution's communication in response to the pandemic? Were students satisfied with solutions for theoretic courses offered? Were students satisfied with solutions for the practical

courses offered? Were students satisfied with support for physical health issues? Were students satisfied with support for mental health? Is the information collected from students used to inform decision-making? Are students actively participating in decision-making?

Figure 5



2.12. Final open questions

This section of the survey focused on final 4 open questions such as:

- 1. What are the most important changes in VET triggered by the pandemic that you believe are for the better and that are here to stay beyond the pandemic?
- Opinions of the respondents to this question were very similar in the nature as all of them agreed that the pandemic taught a big deal of time-management and time-appreciation as teachers and students learned new ICT skills and learned to solve problems via online means. They also fully understood an importance of ICT in day-to-day interactions. One very important lesson learned was a possibility of conducting mandatory teachers' advancement training online, which saves a great deal of time and effort, allowing teachers more attentively concentrate on their professional advancement. Another great

example is the introduction of digital/distance learning to those VET providers that previously never had a chance to explore it. This triggered a desire and a curiosity among teachers and students to become keenly interested in alternative methods of education as prior to the pandemic majority of them were mainly interested in classical or conventional methods of education. This also impacted a desire to develop and invent more interactive solutions in digital/distance learning, leading to a discovery of a huge variety of open-source educational resources available online.

- 2. What are the most important changes in VET triggered by the pandemic that you believe are and will affect VET negatively beyond the pandemic?
- Respondents expressed concerns on digital/distance learning's one big negative effect, which is laziness or procrastination that naturally develops in students and teachers as classical monitoring decreases or reliance on the permanent availability of study materials online becomes a factor that slows down students reaction, for instance. Another crucial and very negative change triggered by the pandemic is drastic decline in a quality of the education. For instance, once the admission process fully converted into an online one, it was not possible to gather a bigger picture of applicants' backgrounds i.e. what social and economic class they belong, who their parents are, are they applying because they truly and independently selected this VET because they fully aware of the subjects taught and those subjects aligned with applicants interests in education. The latter caused a vague profile in terms of assessing the soundness of applicants' decision-making thought process since no physical interaction took place between the VET providers and applicants as it usually would during pre-pandemic times. One more major negative change caused by the pandemic is an increase of physical and mental health issues among teachers and students. Due to this negative effect, students' academic attendance dramatically fell and it will take a long time to return to the pre-pandemic levels given a long mental recovery process.
- 3. What has your institution learned from the pandemic that you think can be institutionalized and be widely applied by others?
 - Pedagogical college has learned that online data base of academic study materials has to be created and has to be accessible for teachers and/or students
 in all VET institutions. Internet connection has to be installed and to be widely accessible in VET facilities. Dual system of teachers' professional advancement
 trainings has to be widely institutionalized.
 - Shaykhantakhur district Vocational School gave a great example of a lesson learned from their experience, when a new position of a Financier was introduced as per the new VET reform but yet was not implemented successfully. This is due to the lack of VET system knowledge of finance specialists being recruited and hired by VET providers. Since the position was introduced on a national level, it would be useful to organize information sessions on the fundamental knowledge of VET system of Uzbekistan for finance specialist joining VET institutions as full-time staff members. ICT literacy has to be increased on a national level, requiring a minimum teaching ICT knowledge for all academic personnel in VET institutions as modern technologies help a great deal in optimizing all processes of education.
- 4. What support would you need to offer good quality education to your students if the pandemic continues (or new lock-downs are announced)?

• Respondents agreed that to be able to offer a good quality education, solid material and technical base or sound (digital?) infrastructure for digital education has to be available in VET institutions. Income generated from self-sponsored students' tuitions is not enough to cover a gap in the infrastructure that has been widening for years now. Exchange of knowledge and experience among VET providers is also a good way to gain confidence in providing a quality education. This can apply beyond national level and involve international experts or counterparts from VET providers worldwide. If a regular and sustainable social support of the country's population would be a national priority by the government, it would be very positively reflected on a quality level of education provided by VET institutions and received by its students.

3. Face-to-face interview results with the Head of the VET department at the MHSSE

As part of the assessment of COVID-19 implications on VET in Uzbekistan, Head of the VET department of the MHSSE was interviewed as well. This interview was conducted in order to gain complete and comprehensive understanding of measures initiated and implemented by the VET governing body in overcoming negative effects of COVID-19.

During the interview the following was identified:

- 190 000 students from year 2019, belonging to the previous VET system, successfully graduated in 2020 during the pandemic.
- No death among VET students in Uzbekistan was recorded from the start of pandemic in March, 2020 up until November, 2021.
- Servers were purchased and installed for colleges in 14 regions of Uzbekistan, immediately after the pandemic hit in March, 2021, in order to provide uninterrupted internet access for conducting digital/distance learning.
- When the national lock-down was lifted in August, 2020, online survey was conducted, initiated by the members of the parliament of the country, among the population to find out opinions of respondents on readiness and willingness of parents of/and students to return to classical in-person method of education.
- Issuance of diplomas to graduates was organized in a scheduled manner during specific hours and days with allocation of specific time to each graduate by all of the country's VET providers with precautionary measure kept.
- International organizations such as UNESCO organized a number of online seminars and workshops for VET providers of Uzbekistan on methods of adaptations to providing continuous high-quality education during COVID-19 pandemic.
- Financial support of VET personnel was kept sound as financial help was extended to those in need during the pandemic.
- Infographics poster was developed and distributed in all of the VET institutions, highlighting WHO's recommendations on following precautionary measures during the pandemic.

- Students' sittings in classrooms in all of the VET institutions were arranged after the lock-down was lifted, considering the safety distance between classroom desks. Thus, one student can occupy only one desk. (is this still the practice? What about use of laboratories, practical training halls, keeping equipment cleaned....)
- Supply of thermometers, disinfecting solutions, antiseptics, masks and gloves is being maintained continuously throughout the pandemic.
- All classes for each group were conducted in the same classroom in order to stop the spread of the virus.
- Temperatures of all students were measured before they could enter the VET facilities.
- Movement of students in the VET buildings was organized in one-way direction. One-way movement of students and teachers was organized in all VET facilities. Thus, entrance and exit were located on different floors. The movement scheme had to be placed in all buildings of VET providers.
- Some of the classes were divided into two parts and taught in sequence.
- Parents entrance to the VET buildings was prohibited.
- Classrooms were ventilated with fresh air every 30 minutes. Buildings including all classrooms, hallways and restrooms mandatorily were disinfected prior and after the class.
- In order to keep students' presence in the VET facilities, 40 minute-academic class was introduced. Students were obliged to leave the premises as soon as their classes were finished.
- Full time position of a nurse was introduced in most of the vocational schools.

The following orders, to address the negative effects of COVID-19 pandemic, were issued by the MHSSE, and served as a basis for all the activities related to organizing an educational process and final state assessments in the VET institutions of the country.

- On April 4, 2020 MHSSE issued an order # 87-01-300, providing detailed instructions on the organization of VET students' final state assessments in order of exception, (i)allowing students to take the final state assessment in a form of a test with multiple answers options; (ii) allowing students to take the final assessment test online; (iii) grading graduates who completed their qualifying works on the basis of their presentation demonstrated online to VET providers; (iv) allowing those students not able to submit their final state assessment tests online to take the test by visiting their VET facilities individually during allocated time slots dedicated to them; (v) issuing diplomas to graduates successfully passing the final state assessments as per the specific scheduled during allocated time slots and following precautionary measures.
- On September 17, 2020 MHSSE issued an order # 87-05-548, providing detailed instructions on the preparation of a start to a new education year (i) by establishment a working group and staff in vocational schools to organize the educational process in a pandemic environment; (ii) by submission of analytical data to the working group and staff of the Ministry of Higher and Secondary Special Education on the organization and coordination of the educational process in pandemic conditions in vocational schools (as per the annexes); (iii) by organizing necessary works required to start the 2020/2021 educational years by establishing a regional working group given the positive feedback on the readiness of vocational schools to start the educational process provided by meeting the requirements of Sanitation and Epidemiology Monitoring Agency as well as receiving positive feedback from parents and MPs on the questionnaire on readiness to start the educational process in vocational schools; (iv) by holding a discussion of the district (city) Council of People's Deputies

in order to start the educational process in vocational schools that are ready to start the new school year in a traditional manner; (v) by drafting a report on the organization of the educational process in vocational schools in a pandemic environment and the preparation for the new academic year; (vi) by organizing a survey to determine the timing and form of the start of the educational process, by studying the views of parents whose children are enrolled in school; (vii) by analyzing the summary of the questionnaire; (viii) by ensuring the registration of the minutes of the group meeting based on the results of the survey conducted in vocational schools; (ix) by organizing training together with the centers of sanitary services for the staff of vocational schools on the organization of the educational process in a pandemic environment and the introduction of sanitary requirements; (x) by ensuring the delivery of notes on the actions of teachers and students in the educational process to vocational schools; (xi) by analyzing the information table on the readiness of vocational schools for the start of the educational process and on the provision of the necessary medical facilities and equipment; (xiii) by controlling the installation of infographics on the stands in the entrances and lobbies of vocational schools, reflecting the rules of organization of the educational process in a pandemic environment; (xiii) by collecting vocational school principals' letters of guarantee and acts of the working group on the and readiness for the start of the new educational year; (xiv) by submitting to the Ministry on a weekly basis information on the results of the work done to start the new educational year and a list of vocational schools that will start operating in the traditional way.

• On December 18, 2020, MHSSE issued an order # 87-05-775, providing detailed instructions on coordination of the following: (i) fulfillment of the requirements of the Ministry's letter No. 87-05-657 dated November 23, 2020 on the preparation for the beginning of the new academic year in colleges and technical schools; (ii) provision of educational and normative documents on relevant professions and specialties; (iii) registration of recruitment of teachers and masters of industrial education on the basis of labor legislation from the 2020-2021 academic year; (iv) development of tariffs for hired teachers and their approval in the prescribed manner; (v) approval of individual annual work plans of teachers and masters of industrial education; (vi) development and approval of lesson schedules in the prescribed manner; (vii) creation of sufficient conditions for theoretical and practical training; (viii) establishment of contacts with accepted students; (ix) implementation of measures taken to provide training journals; (x) development of a set of teaching materials for all subjects (xi) It is recommended to start the educational process in colleges and technical schools, which fully meet the established requirements and formed study groups, in traditional or online form from December 21, 2021 (xii) directors are personally responsible for the organization of colleges and technical schools in the new academic year in the prescribed manner.

4. Conclusion

The purpose of this report is to demonstrate good practices applied by VET providers in Uzbekistan to allow knowledge sharing and to ensure continued skills development.

As countries are recovering from COVID-19 pandemic's negative effects, it's important to reflect on the role of educational systems, and in particular vocational education, in fostering resilient societies. The global health crisis and the lockdown that followed have brought to the fore professions that have often been taken for granted, renewing our awareness of their value to society.

From the conversations and interviews conducted within the framework of the assessment, all of the respondents have agreed on one conclusion with a solid confidence that through their role in developing the competencies and skills needed for tomorrow's society, education systems will need to be at the heart of the crisis response planning. In this sense, the pandemic is also a call to renew the commitment to the Sustainable Development Goals. Ensuring that all young people have the opportunity to succeed at school and develop the knowledge, skills, attitudes and values that will allow them to contribute to society is at the heart of the global agenda and education's promise to our future society.