ILO-UNESCO-WBG Joint Survey on Technical and Vocational Education and Training (TVET) and Skills Development during the time of COVID-19

The purpose of this joint survey is to gather information on good practices and to allow knowledge sharing, with the aim of helping countries around the world mitigate the effects of the COVID-19 pandemic in the areas of TVET and ensure continuity of skills development. The survey targets:

- providers of initial and continuing technical and vocational education and training
- policy makers (such as Ministries of Labour and Education)
- social partners (employers and workers organisations)

The information gathered through this survey will contribute to stocktaking and sharing knowledge about experiences and good practices, strategies and tools being mobilised in certain contexts that can help policy-makers, social partners, trainers and other TVET stakeholders in different countries mitigate the impact, manage the transitional learning and training processes more effectively, and increase resilience during the pandemic.

**Early results of the on-line survey as of 30 April 2020**

**Section I - Who are the respondents of the survey so far?**

At the end of the fourth week, as on 30 April 2020, the survey has received 719 responses from 106 countries. The distribution of the respondents is shown in Figure 1.

![Figure 1: Distribution of Responses](image-url)
While the respondents represent a wide range of organizations, as can be seen in Figure 2, the highest proportion of responses were received from representatives of both initial and continuing TVET providers.

Figure 2: Respondent Profile

Section II – The immediate effects of the COVID-19 pandemic on TVET provision

- As of 30 April 2020, around 91% of respondents reported complete closure of TVET schools and centres in their countries as a response to the spread of the pandemic. However, partial closure appears more common in some countries in Southeast Asia, such as Brunei Darussalam, Indonesia, Malaysia, Philippines, Thailand and Vietnam, as well as in Ecuador, Iraq, Pakistan, Lebanon, Nigeria, Kazakhstan, Ukraine, Trinidad and Tobago, Egypt, South Africa, Australia and Mozambique. It must be noted here that different respondents have provided different information from the same countries concerning complete or partial closure of TVET institutions, a result that will be clarified as further validation of results is undertaken.¹

- In addition to class and laboratory-based training, the delivery of work-based learning, including apprenticeships, is facing serious disruption from the lock downs imposed on enterprises. In most countries where essential enterprises remain open, on-job training

---

¹ Japan- partial closure but only 1 respondent for now. Honduras- partial closure but only 1 respondent for now Armenia- 1 of 55 respondents state partial closure and remaining state complete closure (so we consider it complete closure) Madagascar- 1 of 17 respondents state partial closure and 4 state complete closure (so we consider complete closure) Malaysia- 33 of 36 respondents state complete closure (so we consider complete closure) Mongolia- 1 of 5 respondents state partial closure and 4 state complete closure (so we consider complete closure) Iceland- 1 of 4 respondents state partial closure and 4 state complete closure (so we consider complete closure) China- 14 of 19 respondents state complete closure but varying answers maybe due to the countries being in progressive recovery phase. ROK- varying answers between no and partial closure maybe due to the countries being in progressive recovery phase and regional differences
activities have either stopped or continue to be conducted in restricted numbers with stricter sanitary measures.

- While TVET providers in many countries are transitioning to implement distance-training measures, they face many challenges with regards to technological infrastructure and internet connectivity, communication and coordination among managers, teachers and students, coverage and quality of training provided, which affect the effectiveness of training programmes. Some country examples from the survey responses have been described below.

**Lack of crisis preparedness**
- Respondents from Uganda and Ukraine noted that the sudden onset of the crisis meant there was little opportunity to develop contingency measures to ensure continuity of training.
- Respondents from Indonesia indicated that no other crisis has affected apprenticeship programmes to this extent before.
- Respondents from Italy, severely affected by the pandemic, also reported a complete rupture of training activities with no clear plan of restarting activities.
- Respondents from Nigeria reported that due to the lockdown, class sizes have reduced drastically, as students are unwilling to come to the centres and communication with students has been significantly affected.
- Respondents from Australia reported that while some workplaces employing apprentices are still operating in the construction, manufacturing, and personal services sectors, there has not yet been a coordinated response to the challenge of how to incorporate work-based learning in distance learning.
- Respondents from DRC and Chad highlight the loss of financial viability of training centres owing to the loss of clients of the centres’ activities, inability of parents to pay fees and thus the cutback of salaries of trainers. This also means less new enrolments.
- The respondent from Burundi reports that despite the fact that training centres remain open the closure of borders has affected the access to necessary materials required for practical classes.
- Respondents from Ecuador reported that some training providers are investing in mobilising platforms, training the trainers and subsequently the learners in using virtual tools.

**Lack of distance learning infrastructure- internet, connectivity, platforms, resources, and capacities of teaching and learning**
- Respondents from India reported that due to lock downs, neither trainees nor staff can come to training centres as they are confined at home. While trainers and trainees are motivated to explore new ways of learning, they have highlighted several challenges related to online learning including poor connectivity, increased costs for students due to data usage, usability of learning platforms, student friendly content and most importantly, regulatory acceptance of online mode of training. In addition, cash flow and financial viability concerns among small TVET providers were mentioned.
Respondents from Morocco report of a lack of preparedness of teachers, students and even parents with regards to distance learning in addition to the lack of access to internet and devices.

Respondents from Ecuador inform of the lack of digital preparedness to allow a smooth transition into a distance mode of training. Lack of an appropriate platform deprives students and teachers of an effective common space to work and leads to errors.

Lack of motivation of students and teachers

Respondents from Canada reported that the motivation of some students, especially in programmes with an emphasis on practical activities in laboratories and workshops was greatly affected due to the increase in more passive methods of engaging with content such as reading, videoconferencing, watching demonstrations, videos, etc. Teachers there also experienced challenges in quickly reorienting their training strategies and this created a great deal of stress, pressure and anxiety. In addition, delays in the completion of studies may result for some students in the need to apply for an extension of the study permit and require additional fees.

Respondents from Kyrgyzstan reported that since adopting different distance learning tools, teachers face a heavy workload with new teaching methodologies and increased messages and questions from students at all hours.

Respondents from China noted that distance learning, both online or offline, affected students’ motivation and engagement. Although most courses continue to be delivered, it takes time for teachers and students to adapt to the new online learning method.

Respondents from Australia report that while remote delivery has commenced for a lot of students, maintaining student engagement has been challenging.

Respondents from Tunisia and Ecuador report that uncertainty regarding the end of the current school year and entry into the labour market is allegedly a cause of anxiety among students affecting their willingness to continue learning.

Postponement of practical training modules

Respondents from Belgium advised that upcoming face-to-face training activities have been postponed until further notice.

Respondents from Madagascar and Kenya raised concerns that the skills acquired in class since the beginning of the school year might be partially forgotten; trainers will be obliged to go back to the courses already completed for a recap and to ensure the completion of the curriculum.

Respondents from Malaysia, Lesotho, Iceland, India and many other countries reported that distance learning is mostly focussing on theoretical classes, while practical modules are being postponed. While this seems to be a logical short-term crisis response, it may not be adequate if lockdowns are prolonged.

Respondents from Indonesia, Eswatini and Malaysia reported that it is hard to monitor learning outcomes and carry out suitable assessments for students.

Respondents from Eswatini reported that employers expressed concerned about the health of their workers and are not willing to take responsibility for additional
'trainee workers'. They also noted that students were affected by their uncertain future. In addition, as both theoretical and practical components in the training have been reduced or cancelled, the practical skills of students was likely to suffer. They also reported that in the longer term these affects were likely to increase non-completion rates.

○ Respondents from Australia report that work placements have been rescheduled and practical components of TVET using industry equipment is currently not permitted.

○ Respondents from Myanmar and Saudi Arabia report the postponement of apprenticeships and internships, while online learning continues.

○ Respondents from the Democratic Republic of Congo report that the lack of a clear strategy with regards to continuity and a general suspension of activity. Internships in enterprises also stand cancelled in many cases.

Postponement of exams and assessments

○ Whilst a number of respondents indicated that certifying exams and assessments have been postponed for TVET trainees and students. It is not the case in some Southeast Asian countries, like Malaysia, Philippines, Indonesia, Vietnam and Thailand, and others like Australia, Ecuador, Egypt, Kazakhstan, and Ukraine as some institutions continue to operate, and in Burundi where training institutions are not closed at all. In other countries with complete closure- India, Armenia, Saudi Arabia, United Arab Emirates, Montenegro, Iceland, Zambia, North Macedonia, Mongolia, Morocco, México, Argentina, Moldova, Russian Federation, Kazakhstan, Jordan, and Lebanon, respondents report that the assessments are being conducted as usual. This could be an exceptional measure for assessment given the challenge of conducting assessments from a distance.

○ In China, where the uptake of distance learning in general education has been strong, respondents report that practical courses could not be delivered online, and the assessment and certification processes, as well as the students’ graduation would be affected.

○ In Guyana, programmes with significant practical modules will reportedly be prolonged as they require some face-to-face assessments. It would also seriously affect training completion timeframe and subsequent entry into the workforce.

○ In the United Kingdom, respondents report the need to extend school years due to the inability of conducting assessments in programmes other than those where it is possible online, for example computer applications, technical drawings, etc.

○ In Saint Lucia, respondents report the general issue of adapting external exams online.

Section III – The response of COVID-19 pandemic on TVET provision

3.1 How is TVET provision being organised before and during the COVID-19 situation?

○ Before the outbreak of the COVID-19, distance learning was not widely used in countries participating in the survey. Around 36% of the respondents did not use distance learning for courses or training at all, and about 35% used it only occasionally. Around 14% used it
regularly and a mere 9% used it very often. Whilst these findings indicate a relatively low use of distance and online learning before the crisis, this survey presents findings that suggest the take-up of distance learning has accelerated during the crisis in the TVET sector like it has in general schooling and universities. Figure 3 overleaf shows that while around 20% of respondents indicated that no online or offline distance learning is being offered, 64% reported that training is now being completely provided remotely by their institutions. 8% of respondents reported that training is being partially provided remotely from Asia (India, Thailand, Vietnam, Malaysia, Philippines, Republic of Korea, Japan, Mongolia, Uzbekistan, Armenia), Africa (South Africa, Democratic Republic of Congo, Mozambique, Nigeria, Lesotho, Egypt, Morocco, Tunisia), North America (the United States, Canada), Europe (Iceland) Central and South America (México, Ecuador), Middle East (Jordan).

Figure 3: Training Delivery Models

- Respondents suggest a number of reasons for the lack of availability of online or offline distance learning. The most common answers include:
  - Lack of/limited access to digital equipment and tools, both private and institutional;
  - Insufficient internet infrastructure (including data packages); network issues especially in rural areas;
  - Limited online educational resources, no effective online learning system and policy in place;
  - Lack of TVET appropriate distance learning platforms that ensure quality and inclusiveness of outreach;
  - Insufficient capacity of teachers and trainers in enterprises and TVET institutions to transfer operations online and introduce distance learning (including the design and delivery of learning courses). This includes insufficient digital skills;
  - Insufficient digital skills of learners and their capacity to use ICT as a means of acquiring knowledge and managing their learning;
  - Challenge of conducting practical training without physical presence of trainers and students
• Lack of time to prepare for a crisis situation of this nature arising from nationwide lockdowns
• No prior experience in delivering training through distance mode and lack of planning for the same

• While a mix of online and offline distance learning appears to be a widespread (32%), A significant proportion of respondents (43%) reported that training now takes place only through online learning platforms. At the same time in countries like Armenia, Bangladesh, Belize, DRC, Jordan, Lebanon, Madagascar, Moldova, Morocco, Nigeria, Pakistan, Philippines, Sudan, South Sudan, Tunisia Ukraine, Yemen Zambia, and Zimbabwe, some respondents report using offline distance learning tools only. This indicates the use of only offline methods in some parts of these countries, if not throughout. It is to be noted that a relatively high number of respondents had no knowledge of what methods were in use (20%).

![Use of Distance Learning](image)

- **Use of Distance Learning**
  - Only online learning platforms (any form of learning conducted over the Internet)  - 43%
  - Only offline distance learning tools (use of written materials, workbook, TV, radio, etc)  - 5%
  - Both (online/offline distance learning)  - 32%
  - I don't know  - 20%

Figure 4: Distance Learning Use

• In many countries, migrants were reported as being able to take part in online and/or offline distance training courses. However, a little less than three in ten respondents indicated that distance courses are not open to migrants. However, it is important to note that a slightly more significant proportion (one-third) did not have a response to this question, which indicates that this may not have been an intentional measure in most respondent institutions.

• Most respondents indicated that they were not providing face-to-face training, and consequently not much information on the preventive measures and special guidelines for face-to-face teaching is available. Nonetheless, those respondents who did report some measures appear to give importance to the governmental and WHO guidelines/advice, such as maintaining physical distance and wearing masks, for example in Madagascar, where partial provision of face-to-face training was reported.

• An institution in Lebanon noted they were progressively moving back to face-to-face training, by taking into account health and distancing measures and lowering the number of students in each class group.
3.2. How is work-based learning, apprenticeships or practical training being provided?

- In the majority of countries, TVET providers are not providing or assessing practical skills training usually developed in workshops/laboratories or through work-based learning and apprenticeships. While in most cases the focus is on continuity of theoretical coursework, the below examples show ways in which the practical aspect of training is being conducted and assessed mostly virtually.

**Face-to-face if possible**

- Respondents from Thailand, Australia and Madagascar indicated that they still provide apprenticeship/ practical training face-to-face but with precautionary measures such as social distancing and protective clothing in place. Respondents from United Arab Emirates indicated the assessment of practical skills has been taking place by allowing small groups of students to come to workshops (providing guidelines on protective measures against COVID-19); respondents from Myanmar indicated they are considering introducing the same measures.

**Online pedagogical resources through online platforms**

- In countries where no face-to-face training is possible virtual platforms and tools are being mobilised where possible:

  - Respondents from Canada, Bangladesh, Mauritius, Indonesia, Malaysia, Trinidad and Tobago, Philippines, the United Kingdom, Madagascar, Mexico, Argentina, Lebanon, Armenia and Kazakhstan indicated that work-based learning, apprenticeship or practical content have been (partially) delivered through online platforms although in most cases it is not clear exactly how. Nigeria and Benin are also developing online training packages for practical skills development. The United Kingdom, Lebanon, Armenia and Kazakhstan indicated the use of video materials; Mexico and Ecuador the use of video tutorials, live video conferences and simulators where possible, while it remains challenging in most cases. Respondents from Armenia and Morocco report the use of existing online platforms like MOOCs and Moodle.
  - Respondents from Chile reported that they are planning to use the Padlet tool to evaluate the results of students' work through video recordings when performing skills, and, where possible, to also use digital simulators.
  - Most respondents from China reported that training continues through online platforms such as video conferencing tools, live broadcasts, virtual reality tools and simulation software. While some respondents suggest that online learning is mainly focused on theoretical knowledge and practical content is suspended, some of them mentioned that students are encouraged to practice by themselves following teachers’ demonstration.
  - In Lebanon, respondents report that in addition to using workshop videos prepared by the instructors, existing videos from YouTube are being curated based on targeted competencies and shared with learners.
Offline tools and platforms (or a mix of offline and online)

- Respondents from DRC, Madagascar and Pakistan reported the use of offline platforms like national television to disseminate practical knowledge.
- Respondents from Canada report that certain practical skills are being taught through end-of-study projects in industrial design, business, ICT and for certain programmes teachers will evaluate practical knowledge through case studies, role-playing, problem-analysis etc.;
- In Kyrgyzstan students draw diagrams and technocards and send them to teachers for evaluation.
- In the Republic of Korea, respondents report the development of video manuals on how to use online content for instructors and users, but no assessment is being carried out.

Assessment of practical knowledge and skills

- Respondents from Mauritania and Mexico report that motivated trainers are trying to maintain continuity by using communication tools and virtual meeting platforms at their disposal- WhatsApp, Microsoft Teams, etc.
- Respondents from New Zealand and Trinidad and Tobago report that practical skills are being assessed based on portfolios of past work compiled by learners and submitted online. In the UAE, these assessments are being complemented by additional professional discussions between learners and assessors.

3.3. Additional resources that are being committed by TVET organizations to create new materials, deploy new technologies and/or expand the use of online and offline distance learning?

- As of 30 April 2020, 44% respondents indicated that additional human and financial resources are being committed in their organisations to create new materials, deploy new technologies and/or expand the use of online and offline distance learning. The survey does not gather more detailed information in this regard.

- For developing and enhancing online learning, the most common tools or resources used are for video conferencing (such as Zoom), videos (including YouTube) blogs, discussion forums or platforms (like Microsoft Teams) and virtual learning environments (like Google Classroom). Some respondents also reported the use of simulations like STR, Opera and Amadeus, 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. Tools or resources for offline distance learning are also being developed or expanded, and include new written resources such as self-paced learning guides and learner notes. A number of respondents from countries like Italy, Ukraine and Kazakhstan are reportedly using locally developed platforms, which provide distance-learning solutions in local languages.
Other specific examples include:

- Indonesia: existing online training platforms developed earlier for regular courses are now being accelerated for immediate wider use.
- Malaysia: home-grown learning management system is being deployed to support distance learning.
- El Salvador: Platforms and programmes have been developed for students in the areas of software and health.
- Egypt: enterprises and TVET institutions are developing the capabilities of their trainers and teachers to modify face-to-face courses for the delivery through distance learning, or recruiting, via short-term contracts, online/distance learning experts/advisers.
- Philippines: A TVET school has a virtual classroom – an online platform for teachers and students, where they can design and implement the modules, activities and assessments. Students can take examinations, read online books and use relevant links. The platform also features Google applications.
- Mexico: a call centre /hotline was set up through which teachers can support students.
- Myanmar: the development of a platform for skills development is reportedly underway.
- Madagascar: the use of TV and radio as offline media is reportedly widespread in the country where connectivity is a real issue.

- Many other countries present examples of developing new or mobilising existing platforms, for example skills gateways, to reach out to learners and ensure continuity of training as much as possible. A list of such national level platforms in national languages has been provided in the last section of the report.

![Figure 5: The Use of New Tools and Resources](image-url)
It is very often the case that the new online or offline distance learning arrangements are restricted to existing students and not open to newly enrolled students. As shown in Figure 6, approximately only one in three respondents indicated the availability of such arrangements to newly enrolled students.

![Figure 6: Distance Learning Enrolment](image)

3.4 Measures developed to address skills shortages in occupations and sectors affected by the COVID-19

Around 1 in 5 respondents suggested that the new or expanded online or offline distance learning materials or technologies have been used to address skill shortages in occupations or sectors affected by the COVID-19 pandemic. For example,

- In the United States of America, virtual reality is being introduced to a nursing programme.
- A respondent from India reported that new resources are used to develop healthcare related skills and raise awareness related to health and hygiene.
- A respondent from Malaysia reported about having access to learning contents on ventilator machines.
- In Indonesia, a respondent noted efforts to initiate trainings for medical equipment technicians, other healthcare workers as well as garment factory workers and call centre workers given the urgent need of the hour for skills in these domains.
- A respondent from the United Kingdom reported on learning materials for infection control and prevention at the workplace.
- In Lebanon, new learning materials are used for occupations in diverse economic activities including sewing of masks, cooking for poor families, and mental health support.
- In Austria, a respondent reported many new courses not only for health workers but also for other professional groups that are concerned with safety regulations.
• A respondent from Iraq reported on online courses that were given by health department personnel on technical tests for the COVID-19.
• In Canada, on-line training programmes were introduced for volunteers in the healthcare network in support of attendants and nurses.
• In Uzbekistan, a call center was created to explain questions related to video lessons and online assessment systems for parents and students, and a special Telegram bot was developed to automatically answer the most frequently asked questions. A respondent from Mexico also reported about new video materials for teachers.
• In New Zealand, Industry Training Organisations working with health care and other essential occupations, are supporting short-term training and retraining of workers to redeploy them in support of the pandemic response (for example with hygiene and infection control methods).
• In the Republic of Korea, some sectors facing employment emergency have been prioritized to receive subsidies for their training expenses.
• In Trinidad and Tobago, a course on Patient Care Assistance has been promptly converted into an online format.
• In Colombia, some training centers are reorienting towards manufacturing protective facemasks, protective clothing for medical workers, medical machinery and respirators;
• In Ecuador, various practical courses are being developed in the areas of health, from personal hygiene to the transfer of critically ill patients
• In Mexico, new nursing courses are being launched to increase the outreach

However, there are challenges in developing new learning materials due to limitation of movement and high cost of data, as pointed out by a respondent from Ghana.

It must be noted that 34% of respondents were not aware of any such measures taken in their country.

3.5 Main lessons learned and obstacles for TVET provision

A range of observations were made by respondents regarding the lessons learned since the beginning of the crisis.

General comments included:

• It appears to be quite difficult, and in some cases unrealistic, to have a quick transition from face-to-face to online learning. A careful planning, preparation, adaptation and an appropriate learning space are required.
• Infrastructure proved to be a major bottleneck for effective e-learning. Those training providers that were infrastructure-ready, proved to be able to transit smoothly to distance learning. Consequently, investments in IT (including IT platforms for e-learning and tools, and IT trained professionals) should be considered in future.
• Countries also need to pay attention to the broadband, infrastructure and connectivity issues. Lack of internet and electricity are recurrent problems mentioned. Moreover,
in many countries, and especially in rural areas, internet access is expensive and data access through mobile phones is low.

- Infrastructural gaps further deepen inequality in access to education and training among young people within a country and internationally.
- More collaborative initiatives are required to develop training materials and facilitate distance learning among institutions, IT professionals, private sector, social partners, internet providers and governments.
- There might be a resistance to change and the adaptation might be difficult for users of online learning. It is also important to keep in mind that work-life balance is difficult while teaching or learning at home. Furthermore, parents do not always have the capacity to support their children in learning at home.

**Teachers:**

- While the current COVID-19 situation has helped many teachers to become more creative, responsible and committed, it is also important for teachers to be more flexible to create new methods and materials.
- Teachers should be empowered, fully equipped and trained to develop their own e-learning materials. Continuous training and technical support should be provided to teachers to facilitate the development and delivery of their online sessions.
- The role of teachers as moderators and facilitators for e-learning was highlighted.
- The importance of online training pedagogy was highlighted as well as the importance of peer-to-peer learning for teachers.

**For students and trainees:**

- Students should be prepared to become independent learners. It is crucial to develop skills such as learning to learn, independent learning and personal development.
- Motivation and self-discipline play an important role for e-learning provision. Effective e-learning requires strong commitment by teachers and students.
- Continuous communication and engagement with students is important to avoid dropouts. In addition, it is important to identify and recognise the differences in learning outcomes between face-to-face and online learning.
- It is important to take into account that family issues and violence affect learning outcomes during the lockdown.

**Tools**

- E-learning materials should to be developed in different languages and should be constantly updated as per the different programmes.
- There is a need in more and adapted online training resources, platforms and tools for instruction and learning, including communication tools.
A number of existing platforms can be mobilised in order to strengthen the blended learning formats on a regular basis by TVET providers.

Laboratory tools for the development of practical skills are lacking and should be developed.

Robust communication tool and mechanisms between managers, teachers and students to be ensured.

Aftermath of the COVID-19 pandemic

- System contingency and disaster recovery plans should be put in place.
- Risk mitigation measures should be added to skills development strategies; where such strategies do not exist, their formulation should be prioritized.
- Online learning must be taken into account in curriculum/modular training development.
- Better more flexible assessment tools and methodologies should be put in place.
- The serious lack of connectivity and digital skills among teachers as well as learners needs to be addressed to ensure effective preparedness of training systems. For teachers, relevant digital should be embedded in their continuing training programmes.

3.6 Supporting measures being provided for teachers and trainers

- Many countries are providing diverse support measures to teachers and trainers through online training, workshops and seminars. These aim to upgrade the ICT skills of teachers and trainers and to assist with the preparation of e-learning materials. The support measures also aim to assist with the preparation and delivery of online sessions as well as with the use of online platforms. Some examples are provided below:

Online teacher training platforms

- A number of countries use a free and open-source learning management system (LMS) such as Moodle “Modular Object-Oriented Dynamic Learning Environment” - a learning platform devised to provide teachers, trainers, supervisors, and learners to generate customized learning settings (Egypt, USA). In other countries, free access to learning platforms are offered by governments (China, Belgium, Lebanon) and by private companies (Malaysia) for the period of the crisis.
- Coaching (India, Lebanon), through accompaniment of teachers at an accelerated pace (Tunisia) and through video blogs and individual counselling (Uzbekistan).
- Support measures also include video resources (the USA, Honduras), 24/7 tech support by the learning management system (LMS) (the USA); other online tools, IT labs, good quality Internet (Mexico, Chile and Myanmar), montage and movie
production technicians (Egypt, Thailand), and technological upgrading and related continuous technical support (Canada).

- Management and technical support from the authorities is provided for the use of online platforms for carrying out teaching, evaluation and getting feedback from their students through surveys (El Salvador, Mexico, Chile). It also maintains stable access for teachers and students to the platforms.
- ICT technical support to teachers and trainers is provided through telephone, WhatsApp, Webinars, and Zoom (Sri Lanka, Israel, Trinidad and Tobago).
- In the UK, the Ministry is reportedly conducting online sessions for teachers in the use of online platforms for upcoming terms.
- In Ethiopia, respondents report digital skilling has reportedly been done for teachers conducted in collaboration with Google.
- In Tunisia, video tutorials are being reportedly provided to teachers concerning online training.

**Support to develop pedagogical resources**

- Other countries provide support on how to develop online materials/how to conduct online sessions/how to use online platforms training and tutorial materials (Lebanon, Philippines, Benin, Burkina Faso, Mexico, Chile, Iraq, Armenia), through mentoring.
- In New Zealand, respondents share an online platform where pedagogical resources are being shared. Some of the online providers have reportedly launched advice and information for trainers on their websites.

**Organisational support**

- Some countries provide support to teachers and trainers for exchanging their strategies and practices through mentorship programmes by teachers who have more experience and can support their colleagues (Canada), and through communication networks among teachers using videoconferences, chat groups and emails (Mexico).
- In Madagascar, the support was not only through providing materials and internet connections, but also on motivating teachers and trainers in further delivering their courses and training resources as well as on solicitation of all public-private teachers to offer courses or simulations online or on TV.
- In Philippines, teachers are receiving material support in the form of equipment the lack of which poses a major challenge for distance learning. Additionally, support for teachers is coming from telecom providers in the form of reduced tariff for data bandwidth. Capacity building programs are planned for trainers by the National TVET trainer academy to conduct of online/blended/distance learning and webinars are being organised by national institutions.
In India, respondents refer to guidance provided to teachers with regards to the usage of existing virtual tools like Zoom, WhatsApp groups, Google classroom, YouTube, etc.

In Canada, respondents report of workshops being provided on testing and assessment and introductory guidance was provided to use different software.

In Armenia (and Mexico), respondents report that TVET directors communicate regularly with teachers to keep them motivated and help them find solutions through appropriate platforms like Moodle etc. Methodologies and tools are reportedly being shared to develop online exercises, materials, tests etc. Teachers are reportedly also receiving financial and material support including full salary and provision of equipment.

In Croatia, the Ministry of Education is reportedly engaging with directors and trainers to guide them in the process of moving training online.

In Russia reportedly, managers are working continuously to solve technical and organisational problems.

In Moldova reportedly, psychological support as well as training seminars are being organised for teachers.

In Armenia, teacher communities have been created to discuss strategies and exchange experiences in terms of what works with regards to online training.

**Financial support**

- In some cases, financial support is provided to use online courses (Cambodia, Argentina) and personal development grant applications are offered to teachers and trainers for deployment of online training to complement their support on the use of digital tools and on providing best practices for teaching remotely (Nigeria).
- A respondent from Armenia reported that teachers were receiving financial and material support including full salary and provision of equipment.
- In the Republic of Korea, respondents report of guidelines developed to conduct remote training, and relevant reimbursements and subsidies are being provided in relation to remote training expenses.
- In China, respondents report that unemployment insurance funds is being used to support training for teachers.

**Infrastructural support**

- In Kyrgyzstan, the operator Megacom provided free SIM cards to all teachers of the lyceum for 2 months with free Internet and data (up to 60 GB) and free conversations within the network. Internet vouchers are also used in other countries (Mexico).
- In Afghanistan, while the government is encouraging schools and universities to provide online classes, the major challenge is proper access to the internet.
In countries such as UK, Chile, Myanmar, Morocco, and Madagascar, teachers and trainers are receiving laptops and tablets. In Kazakhstan, those who did not have computers are provided with computers. A respondent from Mexico reported that loans of equipment are available for teachers and trainers.

- Despite the various types of support provided to teachers and trainers, some expressed their concerns about the cost of accessing the internet being borne by teachers and trainers.
- In addition, a number of respondents stated that not only support was no support being provided to teachers they were also undergoing salary cuts.
- Some respondents reported having no knowledge of any such measures being taken.

3.7 Policy and institutional measures to encourage or to manage initial or continuing vocational training in response to the crisis

- The number of countries which are developing TVET based measures seems to be steadily increasing as the crisis develops and in most countries governments have issued at least general guidelines for the adaptation of education and training. Responses appears to have been quicker in general education than TVET. Most common responses include deployment of online courses and public private partnerships for the development of learning platforms.
- Nevertheless, there are growing and encouraging examples of targeted responses.
  - In Nigeria an online digital platform for youth training has been developed in a collaboration between IBM and the Federal Ministry of Youth And Sports Development.
  - In Senegal, peer groups of learners have been developed utilising WhatsApp, for mutual support.
  - In Egypt a number of organizations have started to recruit distance learning experts via short-term contracts to work and advise on transfer from face-to-face courses into a distance learning.
  - In Thailand, the Ministry of Education as officially signalled to colleges the need to prepare for online learning with the support of central administration services.
  - In Chile, the Ministry of Education has created a Contingency Action Plan (Plan de Acción para enfrentar la contingencia) for higher education which includes measures to assure quality of provisions, provision of the learning platform Google suite for institutions without distance learning tools, dedicated funding for online learning reinforcement and diffusion of good practices for capacitation of teachers for online learning.
  - In Malaysia, respondents report on policy measures for financial and food related assistance being announces to students under the Malaysia Movement Control Order 2020 to support the students and continuity of training.
  - In China, the Ministry of Education has introduced a number of guidance for schools, TVET and higher education institutions in response to the pandemic. Respondents have also mentioned that school’s management and services has been strengthened during the pandemic, such as requiring students to report their
body temperature daily, giving advice to students regarding personal hygiene and social distancing in compliance prevention measures.

- Face-to-face training has, in many instances, been replaced by distance learning modalities. In Mexico synchronous e-learning has been adopted in post-secondary education and incentives have been established to encourage teaching staff to correspondingly develop their skills. The COSDAC portal makes resources available to teaching staff. Students receive online support and Microsoft Teams is being regularly used to enable collaborative work, including tutorship. Both in Mexico and Madagascar, the Ministry for Education has implemented distance learning using TV broadcasts.

- In many countries, access to digital equipment and internet is limited. To address this issue in Malaysia financial aid is being provided to students, alongside free internet access up to 1GB per day for online teaching and learning. In countries with strong IT infrastructures, transition to distance digital learning has been easier. In the United Arab Emirates, for instance TVET institutes have maintained high levels of activity through online learning.

- In a growing number of countries, the crisis provides an opportunity to unite work-based learning with production of social value, especially in technical learning linked to the health sector. In Thailand, for example, TVET colleges have been mandated to produce to distribute hand sanitizer among local communities.

- Growingly, also, public authorities are searching for effective ways to assess and certify acquired knowledge and competences. In Northern Ireland, colleges are working with the Qualifications Regulator towards developing solutions to the assessment and award of qualifications and a shared approach to co-ordinating with Awarding organisations across the whole of the United Kingdom.

- In New Zealand, immediate policy responses have focused on preserving employment for on-job trainees, including wage subsidies for all employers and government-supported loans for small businesses to maintain business viability during the crisis.

- In Lebanon, incentives were reportedly paid for teachers who were keen to prepare and deliver on line courses

- In Ecuador, the national system of professional qualifications in charge of training and certifications is moving to adapt to the virtual modality mode.

- In Philippines, the national skills development authority is advocating the use of its Online Program, through tri media and other the social media platforms, as an additional learning resource.

- In Mexico, teaching stimulus is reportedly planned for teachers who are working to serve their students online.

- In Moldova, the Distance Learning Regulation was reportedly adopted in March 2020.

3.8 Support to help enterprises make use of online and/or offline distance learning
As shown in Figure 7, only 24% of respondents reported that support was delivered to enterprises for the use of distance learning. This figure includes 6% respondents, who report that this support is only focused on MSMEs. There is still limited evidence of targeted initiatives to support learning in enterprises, but measures seem to be growing. In a number of countries, access by enterprises to online courses and publicly supported learning platforms is being facilitated.

- In Mexico enterprises can have access to online courses through the National College for Technical Education (CONALEP) website.
- In Israel efforts are being made so that companies are being supported to manage their employees training making use of CamusIL, the learning management system from the Ministry of Social Equality and the Council for Higher Education. An employer needs identification platform linked to training delivery is also in development.
- In Trinidad and Tobago, universities are providing courses to enterprise managers on how to deal with the COVID 19 situation from a business management perspective.
- In the Republic of Korea, the online technical training platform - Smart Training Education Platform (STEP) provides an online classroom to businesses to access training that can be monitored.

While only 6% of the respondents reported targeted initiatives to support MSMEs, there are targeted initiatives under development in Egypt, Bangladesh, Philippines, Nigeria, Tunisia, Canada, Malaysia, Viet Nam, Indonesia, Ukraine, Kyrgyzstan. In some cases, they are making use of e-government programmes and strategies, such as the a2i programme in Bangladesh. Support in the form of free access to internet is being offered in some cases in Kyrgyzstan.

It must be noted that a significant 40% of the respondents were not aware of any such support measures taken by their institution or in their country.
3.9. Suggested additional measures

- Respondents suggested a large number of additional measures which can be implemented:

**Access to infrastructure**
- Improve access of teachers, students, people in rural areas and disadvantaged groups to internet, bandwidth, digital equipment and online resources, with the cooperation of telecommunications suppliers
- Access of learners and trainers to inexpensive or free digital equipment such as computers and tablets
- Incentivised aid to support the transition towards digitalisation of training and purchase of supporting equipment

**Online/offline platforms adapted to training needs**
- Develop and make available free learning platforms, video conferencing and VR tools
- Combine several distance learning channels, including television and radio
- Learning platforms should be responsive to learners' needs and capacities as well as to TVET providers' requests
- Creation of single points of access for school resources online with screening and curation of contents
- Introduction of practical training in online courses
- Alignment of online provision with skills assessments and forecasts
- Support enrolment processes and costs for learners and facilitates assessments/examinations
- Making better use of social networks and youth shows (online, TV) in learning processes and combining them with other media
- Provide financial support for the development of learning platforms

**Adapted pedagogical resources for distance learning**
- Development of learning modules in local languages with telecommunication industry support
- Associate online learning to entitlements and universal rights to education, through practical policies
- Expand online learning technologies, software and resources through content and learning management systems
- Increase online learning offer focusing on technical and practical skills, with online tutorials and syllabus and occupational specificity
- Improving distance learning design, methodologies and online flexible assessments
- Reducing obligation of attendance in online courses and improving pedagogic delivery
- Expanding existing online resources in general education to cover TVET
- Standardisation of best practices of online assessment during the pandemic
- Government support to "digitalization" of companies in terms of subsidizing/promoting the development of online services (e-learning platforms, e-commerce etc.)
Crisis anticipation and management
- Create a regulatory framework for blended learning in TVET
- Plan for the post COVID-19 world, instead of just providing reactive measures
- Target online free skills training for all furloughed or recently unemployed persons
- Establish cooperative, multi-stakeholder planning for post-COVID 19 period, taking into account economic and social impacts
- Introduction of regulatory and funding policy changes to improve access to flexible, short cycle education training options including micro-credentials.
- Providing more support to distance learning, supporting infrastructures for trainers, trainees and be more rigorous in applying the learning activities with continuous formative assessment, asking for reflection from trainers and trainees.
- Needs assessment among employers regarding their new entrepreneurial activities in Covid-19 times and reorientation of the workers.
- Greater coordination among actors and support needed to transition applied courses into virtual platforms.

Student preparedness and support
- Maximize the effectiveness of online learning through strengthening students’ self-learning and self-management skills.
- Intensify outreach initiatives for young people and mental and physical support to both learners and teachers
- Transition to virtual learning to be done with the poorer sections of society in mind.

Teacher training and support
- Training teachers and trainer on digital tools and adequate methods
- More focus needed on psychosocial support in parallel with the learning activities

Section IV – TVET related online training that could be useful for other countries
Highlights of information provided about online materials that can be useful for VET providers:

General online learning resources and tools
- Moodle: https://moodle.org/
- Google classroom: https://classroom.google.com/
- Common Wealth of Learning: www.Col.org
- Scientific Animation Without Borders (SAWBO): https://sawbo-animations.org/home/
- Thinkific: https://www.thinkific.com/blog/low-cost-tools-create-online-course/
- Canvas: https://canvas.instructure.com/login/canvas
- Zoom: https://zoom.us/
- Skype: https://www.skype.com/en/
- Google Hangouts: https://hangouts.google.com/
- Schoology: https://www.schoology.com/
- Blackboard (requires subscription): [https://www.blackboard.com](https://www.blackboard.com)
- Padlet: [https://fr.padlet.com/](https://fr.padlet.com/)
- Google Meet: [https://meet.google.com/](https://meet.google.com/) (soon to become a free platform)
- Telegram: https://telegram.org/

**Guides for training providers and teachers on distance learning**

- Joint Education Trust (JET): [https://www.jet.org.za/research-bootcamp](https://www.jet.org.za/research-bootcamp)
- UNESCO-UNEVOC [https://unevoc.unesco.org/home/COVID-19+disruptions](https://unevoc.unesco.org/home/COVID-19+disruptions)

**Global/Regional level - Contents for Online and/or offline distance learning**

- Khan Academy: [https://www.khanacademy.org/](https://www.khanacademy.org/)
- OSM Maritime Leaders Academy (MLA): [https://mla-ilearn.osm.no/](https://mla-ilearn.osm.no/)
- Regional platform (in Spanish): [https://www.aprendoencasa.org/](https://www.aprendoencasa.org/)

**National/local level - Contents for Online and/or offline distance learning**

- Educational contents provided by Ministry of Labour, TVET and Handicraft (in French): [https://e-jang.sec.gouv.sn/](https://e-jang.sec.gouv.sn/) (Senegal)
- Online courses by South African TVET colleges: [https://online.tvetcolleges.co.za/home](https://online.tvetcolleges.co.za/home) (South Africa)
- XuetangX, online learning platform by Tsinghua University (in English): [https://next.xuetangx.com/](https://next.xuetangx.com/) (China)
- TESDA Online Programme: [https://www.e-tesda.gov.ph/](https://www.e-tesda.gov.ph/) (Philippines)
- CeLT (Center for eLearning and Teaching): [http://cidos.edu.my/](http://cidos.edu.my/) (Malaysia)
- Polyteknik Learning Management System: [http://psmza.cidos.edu.my/](http://psmza.cidos.edu.my/) (Malaysia)
- Pravo Academy (in Arabic): [www.pravo.academy](http://www.pravo.academy) (Jordan)
- Contents for basic and secondary education provided by the Austrian Ministry of Education (in German): [https://eduthek.at/schulmaterialien](https://eduthek.at/schulmaterialien) (Austria)
- Belfast Met: [www.belfastmet.ac.uk](http://www.belfastmet.ac.uk) (Northern Ireland)
- Honduras Educational Portal: [https://www.youtube.com/channel/UCUgEDDVzvtkMMWoGhFppA6Q/featured](https://www.youtube.com/channel/UCUgEDDVzvtkMMWoGhFppA6Q/featured) (Honduras)
- Online learning material (basic and secondary education) provided by Chilean Ministry of Education (in Spanish): [https://curriculumnacional.mineduc.cl/estudiante/621/w3-propertyname-822.html](https://curriculumnacional.mineduc.cl/estudiante/621/w3-propertyname-822.html) (Chile)
- INTECAP Guatemala (Productivity and Technical Training Institution) (in Spanish) - [https://intecap.edu.gt/](https://intecap.edu.gt/) (Guatemala)
- Online learning material (Fundación Carlos Slim) (in Spanish): [https://capacitateparaelempleo.org/](https://capacitateparaelempleo.org/) (Mexico)
- MOOC platform “MéxicoX” by the Mexican Secretariat of Public Education (in Spanish): [https://www.mexicox.gob.mx/](https://www.mexicox.gob.mx/) (Mexico)
- Aula Central: [https://mi.aulacentral.rocks](https://mi.aulacentral.rocks) (Mexico)
- Conalep: [https://cursos.conalep.edu.mx/](https://cursos.conalep.edu.mx/) (Mexico)
- BHARAT SKILLS: [https://bharatskills.gov.in/](https://bharatskills.gov.in/) (India)
- Sovorir: [https://sovorir.am/](https://sovorir.am/) (Armenia)
- TESDA online program [https://www.e-tesda.gov.ph/](https://www.e-tesda.gov.ph/) (Philippines)
- Online skills platform [https://www.confederationcollege.ca/](https://www.confederationcollege.ca/) (Canada)
- Skills gateway [https://idan.is/um-okkur/english/](https://idan.is/um-okkur/english/) (Iceland)
- Ucidoma [https://www.ucidoma.me/](https://www.ucidoma.me/) (Montenegro)
- Virtual professional learning [https://nastava.asoo.hr/](https://nastava.asoo.hr/) (North Macedonia)
- Skills gateway [https://www.rea.ru/](https://www.rea.ru/) (Russia)