

TVET Systems' response to COVID-19: Challenges and Opportunities

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This note¹ focuses on the role of Technical and Vocational Education and Training (TVET)² in the response to the COVID-19 pandemic. It provides guidance on reducing the adverse impact of the pandemic on TVET provision and enhancing the contribution TVET can make to mitigating the health, social, and economic impact of COVID-19.

Main messages:

- 1. While facing disruptions, TVET can play a critical role in the different stages of the COVID-19 crisis: (i) in the coping phase, when schools and many businesses are closed and the health emergency is at its peak; (ii) in the intermediate phase, when schools and businesses gradually reopen, ; and (iii) during the recovery period, when opportunities open up to re-imagine, reset and redo workforce training. It is important to recognize that significant uncertainty remains about the timeline for each of these phases, and that this will differ by country and region, as will the ability of the TVET system to implement responses to the crisis.
- 2. TVET can be well-placed to develop important skills needed to mitigate the impacts of the COVID-19 pandemic. The pandemic has emphasized the crucial importance of many practical service sector jobs. These essential workers include, inter alia, health care professionals, child and elder care workers, grocery store employees, logistics workers, and ICT support staff. TVET's focus on practical skills, and its potential to deliver short-term, targeted and modular training can be harnessed to rapidly upskill workers in essential sectors and to reskill individuals to engage in the emergency response. TVET's focus on work-readiness could also imply that TVET students could relatively easily be engaged in the emergency response.
- 3. TVET's focus on practical skills creates certain challenges for distance learning during both the crisis and the gradual re-opening of training centers, but there are also some opportunities to acquire relevant skills via work-based learning during the pandemic. Since most educational institutions, including those in TVET, have closed due to COVID-19 measures, teaching and learning has moved from classrooms to remote means, facilitated by the internet, television, radio, or print materials, but the degree to which learning can still take place outside the classroom is constrained by many factors, which can be most binding in low-income contexts and for vulnerable students. The hallmark of TVET its focus on practical skills and work-readiness makes remote learning particularly challenging,

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² For this note, TVET is defined as the technical/vocational orientation within secondary education (ISCED 2 and 3), post-secondary non-tertiary education (ISCED 4), and also including youth and adult skills training programs and on-the-job training.

- particularly for occupations where remote learning is a weak substitute for hands-on experience. However, in some contexts, work-based learning has continued, either on-site or offline.
- 4. As economies start to recover, TVET can contribute to the economic rebound and build back better programs and skill development systems. As economies recover, workers who lost their livelihood and new labor market entrants will be looking for jobs; moreover, the pandemic is likely to result in structural changes to the labor markets in many countries, with particular skill needs emerging from the crisis (e.g. increased demand for digital skills, technical skills in areas such as public health, and socio-emotional skills that promote adaptability). TVET can contribute to the economic recovery by ensuring that it is prepared to rapidly identify and respond to such skill needs. In many countries, TVET systems face challenges in responding quickly and adequately to changing skill demand. To help address the substantial economic disruptions caused by the pandemic, it will be especially important that bottlenecks preventing demand-responsive training provision are addressed and that training programs and skill development systems are appropriately reimagined, reset and reworked. A great opportunity is opening up that should not be wasted to accelerate TVET system reforms that reinforce the demand-orientation of programs so they can respond quickly to shifting patterns of skill demand. Fortunately, there is a lot of experimentation and learning happening during the COVID-19 crisis, and many investments are taking place in TVET and the overall education system. These investments can trigger a systemic shift and give an extra impetus to strengthening TVET systems. For example, investments in remote learning need to embrace smart strategies to enable learning outside of TVET classrooms (virtual simulations, learning at work, learning at home). This can set the foundation for building more inclusive, effective, resilient, and efficient training systems.

Figure 1 below presents the three main objectives that TVET programs can work towards during and after the COVID-19 pandemic and provides the main actions that can be undertaken in the three potentially overlapping phases of this crisis.

	TVET and COVID-19 Relevant Stages		
	Coping	Managing Continuity	Improving and Accelerating Progress
OBJECTIVE	Reduce learning losses while schools are closed and support the emergency response through skills training	Promote learning recovery as schools and businesses gradually reopen	Build on innovative policy responses and lessons learned during the first two phases and build back better programs
POLICY ACTIONS	 Provide remote TVET learning where possible Continue work-based learning (onsite and/or online) where possible Engage TVET trainers and students in provision of skills for the emergency response (health workers, care services, essential service workers) Where possible, exploit opportunities to skill idle (furloughed or unemployed) workers and train TVET instructors 	Embed hygiene skills in programs Work with employers on adapting work safety conditions for work-based learning Reopen schools and work placements with flexibility to accommodate varying needs and contexts Recognize prior learning obtained during closures Provide psycho-social support to manage mental health impacts of the crisis Provide tailored support for vulnerable students Prepare for rapid assessment and response to emerging skill needs	Design new or expand current programs to address emerging skill needs, in collaboration with employers Invest in providing flexible (modular, part-time, evening) learning Facilitate modular training and micro-credentialing in TVET and life-long learning Work in partnership with employers to provide rapid and modular skills training to idle and unemployed workers Continue to build on remote learning infrastructure and skills Structurally embed successful innovations from stages 1 and 2 in skill development systems

1. TVET during the COVID-19 Coping Phase: Reducing learning losses and supporting the health response

Across the globe, school-based learning has largely stopped. The COVID-19 coping phase has been characterized by severe disruptions of school and work: As of April 30th, more than 1.2 billion students worldwide are affected by school closures due to the lockdowns.³ TVET schools and training facilities are also closed in the vast majority of countries, ⁴ implying that not only learning and assessment, but also school-based social interventions, such as lunch provision or health checks, have been disrupted. Economic activity has also declined substantially across countries due to government policies to contain the pandemic and minimize close human interactions. Against this background, TVET programs and systems need to first and foremost reduce learning losses incurred during school and business closures and support the health response through skills training.

1.1 Reducing learning losses

Many TVET systems turn to remote learning in response to the lockdown. Technologically advanced Israel has been fast in implementing online and digital education and training solutions. In Senegal, the government has developed online distance learning courses for TVET and is working to broadcast courses over television and radio to reach rural youth who do not have access to the internet. EU member states are setting up online environments, ranging from simple messaging services like WhatsApp to TV broadcasts, online video learning channels, video conference systems, and elaborate learning and collaboration platforms. Countries like Azerbaijan, Egypt, Georgia and Turkey are stepping up efforts to provide e-platforms and digital content.

Learning opportunities are extensive for those with creativity and access to remote communication channels, including, inter alia, existing training programs that are continuing online (via MOOCs), television or through phone-based instruction, peer-to-peer learning through webinars or master classes. For instance, in Armenia, the National Centre for Educational Technology Development cooperates with the NGO National Network for Distance Learning to provide remote training to teachers from technical colleges and craftsmanship schools. Low-tech remote training can for example be provided via television, as seen in India's Swayam Prabha Direct-to-Home TV channels with vocational education classes. Basic (non-smart) mobile phones combined with interactive voice response (IVR) technology can also provide a low-tech training solution. Prior to the COVID-19 pandemic, this approach has, for example, been implemented by private providers to train community health workers in Rwanda¹⁰ or to train farmers in India. In

The extent to which remote learning can effectively support learners is likely to be lowest for low-income countries and vulnerable students. Remote learning can take place online and offline, with the support of computers, tablets, phones, radio and television, or printed material. Across countries, those with broad-

³ For updated information on countries and students affected by school closures, see: https://www.worldbank.org/en/data/interactive/2020/03/24/world-bank-education-and-covid-19

⁴ https://www.ilo.org/wcmsp5/groups/public/---ed_emp/documents/genericdocument/wcms_741397.pdf

⁵ Interview with ORT Israel, 27-APR-2020

⁶ Source: Skills GSG audience analysis

⁷ EU VET Survey: https://ec.europa.eu/social/vocational-skills-week/fight-against-covid-19 en?web=1#1

⁸ ETF (2020): https://www.etf.europa.eu/en/news-and-events/news/eu-neighbours-coping-covid-19-education-and-training

⁹ ETF (2020)

¹⁰ This remote training program was implemented via modules delivered using interactive voice calls, SMS and chatbots, and which trainees can access at any time.

¹¹ The program is a holistic model for continuous learning among farmers using ICT, horizontal and vertical learning and networking with stakeholders.

based connectivity among teachers and students, existing platforms for remote learning, and a population with well-developed digital skills will be better able to adjust than those where these prerequisites are not in place. Within countries, already disadvantaged communities are less likely to benefit from remote learning, both due to technical limitations in connectivity, equipment or digital skills, and due to other factors, such as limited learning structure and guidance that can be provided within the household and generally weaker mechanisms to cope with the socio-economic impact of the pandemic. Some students, particularly women and girls, might face additional constraints in terms of time availability due to competing responsibilities, such as caring for children and elderly family members and other household duties.

TVET closures affect many students who, in many countries, tend to be more vulnerable than those in secondary general education or universities. The UNESCO Institute of Statistics (UIS) estimates that, as of 2018, worldwide there were 73.7 million TVET students. Most TVET is provided at the upper-secondary level, where the 57.8 million TVET students make up 22 percent of the total student population. The share of students in TVET compared to general education differs greatly by country. In quite a few countries in Europe, Latin America and Central Asia, TVET students make up (well) over half of the upper-secondary student population. For example, TVET students make up 93 percent of upper-secondary education students in Uzbekistan, 83 percent in Guatemala, and 76 percent in Bosnia and Herzegovina. The share of secondary-level TVET students tends to be relatively small in lower-income countries: UIS estimates that the share of uppersecondary level TVET students is 15 percent in low-income countries, compared to 21 percent and 28 percent in middle- and high-income countries, respectively. 12 While global data does not exist, in many countries, TVET students come from disadvantaged households compared to pupils in similar levels of general education. In Ghana and Kenya, for example, those who attend TVET, compared with those who enter a general education track, tend to come from families with lower socioeconomic status (although they are not among the poorest in the overall population), as measured by educational level of the parents.¹³ This would imply that TVET students are likely to struggle more than their peers in general education with the connectivity that is essential for remote learning and with managing without any social support that is usually provided through schools.

The extent to which remote learning is complicated by TVET's emphasis on practical skills also differs greatly between countries and programs. TVET's strong emphasis on acquiring occupation-specific practical skills creates additional challenges. Practical skills are often acquired through learning-by-doing, which occurs in school-based workshops and laboratories or through gaining hands-on experience in work environments. Remote learning approaches are a weak substitute for practical exercises, when these exercises require the use of equipment or materials that are usually not found inside the home, except where such exercise can be simulated remotely via, for example, virtual or augmented reality experiences. 14 Programs that will struggle most are those that depend heavily on learning-by-doing, and where this "doing" is not usually done via the computer. Programs that can switch to remote learning more easily are those with a stronger emphasis on academic subjects or on work-specific skills that do not require manual activities, and those that rely heavily on computer usage. For example, a post-secondary program on cyber-security will be relatively easy to move online since it already relies heavily on computer use. A training program on financial management or marketing does not require non-digital equipment and could therefore also be moved online. On the other hand, a secondary training program on automobile mechanics requires substantial hands-on practice and will be much more difficult to provide remotely. Again, whether a switch to remote learning can materialize at all also depends substantially on whether there is connectivity and a platform.

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¹² http://data.uis.unesco.org/index.aspx?queryid=128

¹³ Arias, Evans and Santos (2019): http://documents.worldbank.org/curated/en/558991560840574354/The-Skills-Balancing-Act-in-Sub-Saharan-Africa-Investing-in-Skills-for-Productivity-Inclusivity-and-Adaptability

¹⁴ https://www.geteducated.com/healthcare-a-nursing/339-online-nursing-degree-programs-teach-using-second-life-virtual-simulation/

In some countries and for some occupations, work-based learning (WBL) continues even while schools are closed. According to the available data, apprenticeships and other forms of work-based learning have continued in some contexts even in the midst of the COVID-19 pandemic. In France, if the school-based part of the curriculum cannot be taught remotely, apprentices can temporarily switch to full-time firm-based practical learning, presuming that they would catch up on the school-based elements once schools reopen. Work-based learning also continues in Australia and quite a few EU member states, including among others Belgium, France, Germany, and Ireland. In the Netherlands, WBL activities of students in secondary-level TVET programs can continue, unless government or sectoral guidelines prevent it or the TVET provider or student decide to pause the work placement. In Switzerland, some apprenticeships in the service sector continue remotely. This concerns apprentices in, for example, finance, programming and marketing, whose work already took place largely online.

Initially, remote training provision is likely to be ad hoc except in the best-prepared environments. In countries where reasonably well-established mechanisms for remote learning are in place, quick-fix measures can be implemented to continue a minimum level of training for students who are staying at home. Satisfactory measures will be difficult to implement, however, for the large shares of the TVET student population in low- and middle-income countries where such mechanisms do not exist, and for TVET students in disadvantaged households in higher-income countries who will struggle with connectivity. This can imply that instructors need to quickly develop approaches to reach as many students as possible and to effectively use remote learning resources. TVET providers (or students) can also decide to use existing off-the-shelf packages from third parties that come close (enough) to intended program content. There is scope for remote TVET to borrow from available content and approaches that are developed for general and higher education. This will be certainly the case for those parts of TVET programs that focus on academic subjects and even some parts that focus on work-specific skills for which there is overlap with, for example, university education. A recent survey on VET provision in EU countries highlighted that only a small part of the program that is currently taught remotely has vocational-specific material; some stakeholders voiced concern that TVET learners will be disadvantaged because more efforts are put into general school subjects, and less in typical vocational content.19

If closures continue for an extended period, more sophisticated approaches to remote learning in TVET are likely to emerge. With time, learning approaches can gradually become more targeted, sophisticated and inclusive. Ideally, employers would be engaged in developing these approaches to ensure their relevance to labor market needs. Depending on financial resources and implementation capacity of the TVET system, teachers could be better prepared, training packages and assessment mechanisms could better match the new remote delivery method, and access of trainees to remote learning could increase. In Armenia, for example, the National Centre for Educational Technology Development is providing online training for teachers. In Kazakhstan, the development of 2,000 remote VET lessons is under way.²⁰ Virtual work-based learning possibilities can be expanded to capture more programs and more students. With some creativity, and where this does not pose safety risks, practical activities for some TVET programs can possibly be carried out in and around the house, for example programs related to catering and hospitality, childcare, or horticulture.

¹⁵ Source: GoF websites, via WB staff.

¹⁶ EC (2020): https://ec.europa.eu/social/vocational-skills-week/fight-against-covid-19 en?web=1#1

¹⁷ https://www.mboraad.nl/nieuws/servicedocument-20-en-fags-aanpak-corona-mbo-beschikbaar

¹⁸ www.gan-global.org

¹⁹ EC (2020)

²⁰ ETF (2020).

Prolonged closures may also present opportunities for remote skill development of idle workers – including TVET instructors. While economic activities are limited or halted, many in the workforce will fully or partially stop working. This includes workers who are unable to continue their regular activities and are also unable to work remotely; workers who are temporarily furloughed; workers who are dismissed; workers in the informal sector and with flexible or zero-hours contracts who are not called to work; and self-employed unable to work. These "idle" workers can use their time to upskill or reskill. Some learning platforms are offering solutions for taking advantage of this opportunity. For example, Mexico's Capacítate Para El Empleo online portal is currently offering free access to its hundreds of courses and several diploma degrees for technical occupations and has developed partnerships with organizations to expand this access to several Central American countries. Private providers of online courses have also launched initiatives to allow governments access to their online courses to benefit skill development of unemployed during the pandemic. In addition, idle workers can be engaged as alternative instructors to TVET students. Where TVET trainers cannot remotely provide training to their students, TVET trainers themselves can be connected (remotely) with idle workers in relevant fields, to help update their knowledge on work-floor practices.

Countries also need to decide how to handle the assessments and examinations involved in the certification of acquired skills during the COVID-19 pandemic. Conducting assessments and examinations promotes the internal efficiency of the TVET system and allows students who are near graduation to enter the labor market. During times of school closures, countries may postpone theoretical and practical exams, and either rely on past results to determine grades or assume that assessment can take place after COVID-19 measures are relaxed. In France, final exams, which were previously scheduled for June for TVET students, have been cancelled. As much as possible, students' grades will be based on continuous assessments; where this is not possible, exams have been postponed to September.²² In Austria, apprentices in their third year who finished the last year on the theoretical side with good marks will not have to do a theoretical exam this year. To the extent possible, practical work will be done during the summer, and some vocational examinations may be postponed.²³ Moldova is preparing an online examination system.²⁴ In Israel, the TVET system has started preparing to conduct face-to-face assessments of post-secondary TVET students, which includes preparing for external practical examinations by private sector representatives as these are required for graduates to be licensed to work in their professions.²⁵

From a governance perspective, specific efforts may be needed to ensure that TVET is included in an overall education response to the COVID-19 pandemic. In various countries, the public mandate for TVET is with a different ministry than the mandate for primary, secondary and higher education. This means that some extra effort may be needed to ensure that TVET is included in the public response to mitigate the impact of the pandemic on the education system. It is important to exploit synergies because, a part of the platforms and materials that are used for general education can also be relevant for TVET students. However, the capacity and resources of TVET institutions to develop and implement mitigation strategies may be weaker than that of, e.g. universities. Such limitations are important to acknowledge and address when formulating a response.

²¹ E.g. Honduras (http://www.guatemala.com/noticias/sociedad/inscripcion-para-cursos-virtuales-gratuitos-capacitate-para-empleo-2020.html).

²² Informal WB notes from COVID-19 Education Response Webinar 4 - Managing High-stakes Exams and Assessments during the Covid-19 Pandemic; Thursday 9 April 2020.

 $^{^{23}}$ Informal WB notes on press conference of the Austrian Minister of Education, April 8, 2020

²⁵ Interview with ORT Israel (27-APR-2020).

1.2 Supporting emergency response

While many challenges to continue TVET provision exist, a distinctive feature of TVET is that, when well-articulated within an overall lifelong learning system, it could be provide the skills needed to mitigate the negative impact of the pandemic. There may be possibilities for the TVET system to quickly address the urgent skill needs emerging from the COVID-19 response. In the coping phase, the training system can contribute to addressing skill needs for health care workers, those engaged in producing medical equipment, those who provide childcare and eldercare services, and those who engage in provision of other essential services during the pandemic, so they can reduce the risks to their own and others' health and safety. This could be done through a combination of formal and informal TVET and the adult learning ecosystem more generally. It may also be possible to effectively engage current TVET students and instructors in the COVID-19 response. For example, in the Netherlands, under certain conditions, students in essential sectors can contribute to the COVID-19 response as "student volunteers" in case their work placement is cancelled. Considering TVET's emphasis on work-readiness and its shorter cycle of education compared to tertiary education programs (with shorter and possibly modular training programs), it may be particularly well positioned to support the quick reskilling/upskilling of workers in critical sectors.

Experiences with past epidemics provide useful examples of TVET responding quickly to skills needs. During the 2014/15 Ebola outbreak in Sierra Leone, a National Ebola Training Academy was set up to offer a platform of clinical training modules for frontline Ebola health care workers. The intensive short-term training provided through the Academy was found to have contributed to controlling the outbreak.²⁷ Recent articles published in the Lancet and by the World Economic Forum call for the rapid training of community health workers to contribute to the COVID-19 health response in the USA and the UK.28 In addition to providing skills, TVET providers can also contribute to the COVID-19 response in other ways. For example, in Turkey, vocational schools are reported to collaborate with the private sector on the design and production of materials, such as surgical masks and disinfectants.²⁹ Some respondents to the ILO-UNESCO-WB TVET Provider survey have reported similar TVET contributions to the emergency response.³⁰ A respondent from **Thailand** reported that TVET institutions have been asked to produce and distribute hand sanitizer among local communities; a respondent in Malaysia obtained access to training material on ventilator machines; and a respondent in Indonesia listed efforts to initiate trainings for medical equipment technicians, other healthcare workers as well as garment factory workers and call center workers. Given the prevalence of practical skills training taking place in TVET workshops and labs, TVET institutions could even transfer their supplies of equipment to hospitals and other institutions on the frontlines of the COVID-19 response.

2. Managing Continuity: Promoting learning recovery as schools and businesses gradually reopen

As rules around social distancing are gradually relaxed and schools and businesses start to reopen, systems need to ensure that schools reopen safely, student dropouts are minimized, and learning recovery starts.

²⁶ https://www.mboraad.nl/nieuws/servicedocument-20-en-fags-aanpak-corona-mbo-beschikbaar

²⁷ https://www.jstage.jst.go.jp/article/tjem/243/2/243 101/ article

²⁸ https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)30735-2/fulltext; https://www.weforum.org/agenda/2020/03/retraining-unemployed-fight-covid-19/

²⁹ ETF (2020).

³⁰ https://www.ilo.org/wcmsp5/groups/public/---ed_emp/---mp_ent/documents/genericdocument/wcms_742817.pdf

Given constraints on remote learning, learning gaps are likely to emerge as a result of closures, possibly even more than for general education students due to the specific nature of TVET and the composition of its students. As schools are reopening, the main objective is to reverse these learning losses and reduce the possibility of temporary closures resulting in permanent disengagement from education and training. This is also the time to make sure that the TVET system is ready to support the economic recovery, especially in terms of being able to identify any changes in skills needs and to start thinking of possible responses to these needs.

Opening schools safely requires introducing physical distancing and hygiene and sanitation procedures that allow for students and teachers to interact while limiting health risks. Countries are already putting in place such measures, including, for example, reducing class sizes by creating sub-groups and reducing the number of hours and/or days that each group has face-to-face classes.³¹ That said, some of the least urgent training may also be postponed or continued remotely. Some training that has proven to be well-suited for distance learning could also continue virtually, not in the least because distant learning can contribute to acquiring digital skills and socioemotional skills such as the ability to work independently. Reopening schools safely also entails providing necessary psychosocial support to students, especially those from vulnerable backgrounds, to manage eventual mental health impacts of the crisis.

Where possible, countries can continue and expand on-site and remote work-based learning. As mentioned above, in some contexts, apprenticeships and other forms of WBL have continue uninterrupted on-site or have been moved quickly online. As business activity restarts, possibilities for WBL could further expand. This can happen once more work environments can safely offer work placements, when economic activity resumes and when employers adapt production processes to comply with social distancing guidelines. Measures that are being implemented in reopening workplaces would apply to trainees engaged in work-based learning, including the use of masks and physical distancing measures depending on the profession. The timing at which students can resume their work-based learning will likely depend on a combination of government approaches to allowing economic activity; firm-specific arrangements to comply with safety measures; and perceptions of TVET providers and students about student safety in the workplace. In some cases, work-based learning might resume before schools reopen; in other cases, schools could start before WBL activities.

While schools may start to reopen, many students—especially the most vulnerable— may not return. After a significant period of closure, and given economic pressures associated with deteriorating labor markets, income losses and overall economic downturn, many students may not return to the school system, at least not right away. In anticipation of this issue, it is important to try to identify *ex ante* students or types of students who may be at particular risk of dropping out in order to reach out as soon as possible, identify their needs and constraints, and offer tailored support. For some students, reassurance of safety and motivational messages may be sufficient to bring them back, but for others, more significant support may be needed. A package of financial (scholarships or tuition delays) and psychosocial support, for example, could be provided to those in need.

Like other types of education, when face-to-face learning becomes possible again, the TVET system will also need to address learning losses that may have developed during closures, recognizing that the extent of these problems will differ between learners. A first step here is devising ways to recognize any learning that occurred during the school closures, be it via online platforms, television programs, or via formal or informal work-based learning, including not only for technical skills but also for socioemotional and higher-order cognitive competencies. Schools would also need to identify students who may have fallen behind and design and implement remedial measures, including, for example, training instructors to provide more differentiated

³¹ https://www.unicef.org/media/68366/file/Framework-for-reopening-schools-2020.pdf

instruction in the classroom, holding additional tutoring sessions, and developing individual learning plans for catching up that does not put at risk the continuation of the education.³²

In this phase, hence, it is important to offer flexible options to complete or initiate training with special attention to vulnerable groups. Students could receive modular training to fill existing gaps, and part-time training so they can combine training with income-generating activities. Inclusion of socioemotional skills in the training can address both students' and employers' needs for greater resilience, adaptability, and other highly valued workplace competencies in the post-crisis context. Recognition of prior learning, including through traditional and remote work-based learning, could be an efficient approach to allow deserving trainees to graduate. For the most vulnerable students, skill development opportunities could be combined with social protection interventions such as stipends, cash transfers, or public works.

Finally, for the skill development system to contribute to the economic rebound, it will be important that the system can begin to rapidly assess emerging skills needs as early as possible. Otherwise, these needs may become bottlenecks for the revival of economies and reduce opportunities for (higher) earnings, especially for the poorest in the population. Preparing labor market information systems to carry out rapid skills demand surveys and creation of an engagement strategy with employers and professional associations might be a first step in this process. Governments, TVET providers, and social partners might also consider the most appropriate mechanisms to ensure that their training supply can adapt to emerging demands without facing unnecessary regulatory constraints, whereby training content cannot be changed without lengthy procedures or when labor legislation prevents work-based learning.

3. Building Back Better: Contributing to the Economic Rebound and Accelerating Improvements in TVET and Lifelong Learning

In the improving and accelerating phase, TVET face-to-face training and economic activity will resume, possibly with continued periods of interruption. There could be a strong increase in demand for training to cater both to the cohort whose training was interrupted by COVID-19, and to demand from pupils who were unable to finish general education. In addition, there is likely to be increased demand for training services to support workers who have lost their livelihood during the pandemic. For laid-off formal workers who receive unemployment benefits, participation in training is often mandatory during longer unemployment spells. For students whose families lost income sources due to COVID-19, part-time training may be needed to allow them to generate an income while continuing training. This also includes the many households that need to compensate the income lost from interrupted remittances, as international migrant workers are restricted from travelling or working abroad.

Despite its many challenges, the current situation also offers potential opportunities to improve skills and skills development systems, that is, to "build back better." The time will be ripe to accelerate TVET system reforms that reinforce the demand-orientation of programs so they can respond quickly to shifting patterns of skill demand, including stronger partnerships with the private sector throughout the delivery chain, clear incentives for service providers to place students in jobs and more use of work-based learning. "Building back better" in TVET and adult learning requires thinking at the systemic level in ways that support a coherent lifelong learning ecosystem. In doing this, countries will want to refocus on priority reform agenda items predating COVID-19 while re-evaluating TVET design and implementation in ways that build on the innovations

³² https://openknowledge.worldbank.org/handle/10986/31593

introduced in response to the COVID-19 crisis, particularly around inclusion and resilience. These three goals are, of course, interrelated, and need to be paired with adequate resources to support these investments.³³

- 1. Ensuring a better alignment of TVET and adult skilling programs with labor market needs. In many countries, the TVET system is currently contributing to the emergency response necessitated by the COVID-19 pandemic, and in the process, it is building new (or strengthening existing) channels for engagement with different stakeholders, such as essential services employers who may need to draw on TVET students or local government officials who may request the use of TVET supplies and facilities. Maintaining and deepening these engagements after the crisis can help TVET systems address the ever-present challenge of engaging private and public sector employers in order to ensure relevance of program design and quality of implementation. Indeed, in some contexts, as industries are developing their post-COVID-19 sector recovery strategies, TVET stakeholders can be involved in elaborating the plans for delivering on skills demands implicit in the recovery plans and for reskilling those who have lost jobs in hardest-hit sectors, such as tourism and hospitality. Likewise, having to address widespread learning losses and learning gaps that are expected to emerge between students during the COVID-19 school closures may help TVET providers rethink and revise the curricula and the competencies expected to be acquired through in their training programs. This is a valuable opportunity to ensure that these programs facilitate acquisition and development of foundational cognitive, socioemotional, and digital skills that are likely to be increasingly valued in the post-COVID-19 workplace. As skills needs during and after the pandemic require an urgent response, there is likely to be increased demand for shorter and more modular training with stacked micro-credentials, particularly for students who need to compensate for family income loss and for firms that need to scale up very quickly. Such practices can be adopted not only for pre-service TVET but also in training offerings for adults more generally.
- 2. Enabling inclusive TVET and skills training. The TVET system has the potential to engage with new groups of learners and to re-engage those whose training has been interrupted due to the pandemic. In particular, youth who might have dropped out of the education system during COVID-19 school closures might be attracted by the shorter and more applied nature of training. Workers who were furloughed or laid off during COVID-19 business shutdowns may also look towards TVET for reskilling or upskilling opportunities to support transitions to new jobs. Early identification of students' needs, guidance on available learning pathways towards career aspirations, and tailored support based on students' circumstances will enhance TVET ability to serve a more diverse population of learners. Provision of psychosocial support and guidance counseling services to vulnerable students will be key in ensuring their reintegration or engagement in training. Development of a flexible menu of options for learning schedules, modalities, and pathways can help to better align TVET programs with work and/or care responsibilities of students, with the latter also addressing gender gaps. While incorporation of digital technologies can help in this process, TVET programs need to consider strategies to address the digital divide, perhaps via partnerships among TVET institutions or with private sector stakeholders.

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³³ For example, the European Investment Fund (EIF) and European Commission have launched a Skills & Education Guarantee Pilot (S&E Pilot), which is a debt financing initiative dedicated to stimulating investments in education, training and skills (https://ec.europa.eu/commission/presscorner/detail/en/ip_20_694). The United States Congress is considering Relaunching America's Workforce Act, which would invest in workforce training infrastructure as well as career and technical education (<a href="https://edlabor.house.gov/media/press-releases/in-response-to-rising-unemployment-democrats-introduce-legislation-to-invest-15-billion-in-workforce-training-needed-to-relaunch-the-economy).

3. Building more robust and resilient training systems. The COVID-19 crisis demonstrated the need to strengthen the preparedness and resilience of all education institutions, including those in the TVET system. TVET providers can invest in several areas take to ensure that they are prepared for future crises that can threaten to disrupt teaching and learning. First, investment in smart technologies, such as development of content for online learning platforms, incorporation of virtual and augmented reality tools in training, and e-portfolio skills accreditation tools, can enhance the learning experience and make it more flexible during regular periods, but also facilitate transition to crisis mode in case of future disruptions to face-to-face teaching. Investment in capacity-building for TVET instructors to ensure that their knowledge and skills are updated based on industry practice and that they have the skills needed to switch from face-to-face to remote instruction will make it easier to manage continuity during future crises. Regular collection of data on student engagement in learning, be it face-to-face or remote, and investment in instructional design based on that data can help TVET to deliver on the promises made to students and employers on the quality and relevance of provided training. Finally, elaboration of comprehensive contingency plans that incorporate lessons learned from the COVID-19 pandemic can facilitate a more efficient response to unexpected events in the future.

The actions suggested above are aimed to enable TVET systems' contribution to the economic recovery from the COVID-19 crisis. A great opportunity is opening up to reimagine, re-set, and rework TVET and skills development systems, and there are concrete steps to make sure this opportunity is not wasted.