



► Policy Brief

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► Distance and Online Learning during the time of COVID-19

The COVID-19 crisis is an occasion to reflect, innovate and build

With less than 5 months since the first official reporting of a COVID-19 case, we have almost arrived at a global paralysis of regular education and training provision. This unprecedented situation is affecting all learning at all levels. Basic and secondary education, initial and continuing training and work-based learning have all come to a stop as we know them. It has upturned course schedules and attendance, disrupted teaching and learning, frustrated examinations and assessments, delayed certification and will affect the immediate and future careers of millions of learners. It has also reinforced existing inequalities affecting workers and learners around the globe.

The shift to online or distance learning during the pandemic should be seen first and foremost as an emergency response. However, the crisis also provides an opportunity for the development of more flexible learning solutions that make better use of distance learning and digital solutions. Short term solutions can and have been found. Three important policy issues must be addressed to create long-term positive impacts and develop greater resilience. First: human and financial resources have to be mobilised to ensure universal access to digital infrastructure, tools and modern learning technologies. Second, college managers, teachers, trainers and learners themselves need training and support to engage in distance and online learning. Third, education and training providers have to revise teaching and learning models to make the best use of digital resources and tools.

This article reflects on some innovative solutions being adopted in technical and vocational education and training (TVET) along these three policy streams and discusses how to ensure the lessons learnt will have a lasting and positive effect on TVET, skills development and lifelong learning.

There is substantial disruption to TVET and Skills Development due to the crisis...

Most governments around the world have temporarily closed education and training institutions in an attempt to contain the spread of the pandemic. As of April 14, 2020, nearly 1.6 billion or 91.3% of school students have been affected by system closures in 188 countries. Other countries have also implemented localized closures affecting millions of additional learners. (UNESCO 2020) Whilst these figures may capture TVET students enrolled in secondary education systems, comprehensive international data on the impact on TVET students is not yet available. However, preliminary results from ILO research shows that 30% of TVET institutions have ceased operations completely, whilst in Latin America, 85% are no longer running face to face classes. (ILO 2020a, ILO CINTERFOR 2020)

The impact of these closures is likely to be highest in those countries grappling with poor learning outcomes, low completion rates and low resilience to shocks. In the TVET and skills sector, there is evidence that the major challenge for institutions has been to remain operational, to establish communications with and between teachers and students, and to continue to provide their services to the community, despite having suspended face-to-face classes. (ILO CINTERFOR 2020) Some TVET institutions are also supporting national crisis response measures and are using their workshops to manufacture personal protective equipment and hand sanitizer for healthcare personnel, or to 3D print medical devices. (ILO 2020) In such cases, the increased risk from COVID-19 posed to teachers, trainers and other educational staff who continue to work during the crisis should not be ignored.

In Europe, in addition to the closure of colleges, work based learning is being maintained in very few countries and in sectors where commercial activities continue. This element of TVET programmes is the most affected by the pandemic, and its impact is highest in countries where it is a compulsory part of the curricula (EC 2020). Other impacts include adjustments to the academic calendar, the prioritizing of students for high-stake examinations and assessments, and moving to or expanding the availability of online and offline distance learning. However, whilst the shift to online learning appears to be a general trend, in many systems, both public and private training institutions are not well prepared. (World Bank 2020)

A recent survey by the European Commission found that whilst there is a vast number of online courses and learning modules available, in most cases they have not been developed for technical and vocational education and training. (EC 2020) In other cases, when online TVET content is available, it is restricted to students who will graduate in the current year, such as in Senegal and the Ivory Coast. (ILO 2020) Whilst existing programs based on remote learning or e-learning enable the continued operation of institutions, transferring courses and expanding access to these presents various challenges including teacher preparation, the development of new tools and digital platforms and the creation of new content to name but a few.

Despite recent advances in technology, distance learning, be it online or offline, is not a long-term substitute for face to face teaching and practical skills training. As such, the shift to online or distance learning during the pandemic should be seen first and foremost, as an emergency response and not a permanent migration of programs. (IE 2020) In low and middle-income countries, there are many issues impeding the wider and permanent diffusion of distance and online learning. These include access to affordable digital infrastructure and learning resources, the lack of institutional capacity and resources to migrate programs online and the challenges facing teachers and trainers to develop and implement new teaching and learning methods. They also involve socio-economic and cultural aspects that contribute to the digital divide and access to learning, particularly for girls and women.

While new solutions for teaching and learning could bring much needed innovation to education and training systems, the shifts we are seeing have the potential to exacerbate the existing digital divide and widen inequalities for those who already face disadvantages in trying to access and engage in learning.

...but countries are responding to the challenge in innovative ways...

Many countries have turned to distance learning as a means of mitigating the lost time in classrooms and workshops. School programs are being delivered fully online in Italy, France, Germany and Saudi Arabia, with mobile phones and television utilised in Vietnam, Kenya, Mongolia and elsewhere. (World Bank 2020) Measures have been as sophisticated as national cloud platforms, or as simple as radio programming and mobile applications that enable offline use, using a mix of technology and community approaches that respond to local circumstances.

Peru is providing teaching material via TV and radio, translated into 10 indigenous languages to help learners deal with isolation and in Senegal, the Ministry of National Education has launched the 'Apprendre à la maison' (learning from home) initiative. (Time 2020)

In China, 120 million school students were given access to learning materials through live television broadcasts and in Nigeria, schools are working with standard textbooks alongside online learning tools such as Google Classroom, augmented with synchronous face-to-face video instruction. (WEF 2020)

In the TVET sector in Europe, all countries are setting up online environments, ranging from using very simple messaging services such as WhatsApp or Facebook for when learners don't have a computer at home, to more elaborate IT learning platforms. (EC 2020) In Russia, some institutions are recording video lectures or seminars delivered as a webinar, supplementing them with additional materials and links to publicly available materials. Teachers are conducting interactive classes using publicly accessible webinar platforms such as Zoom and MS Teams (ILO 2020). In Bangladesh, a public TV channel is offering distance learning to secondary students and will soon expand the service to TVET students, with lessons also to be made available on Facebook and other social media platforms. (ILO 2020)

In Latin America, 40% of TVET institutions have expanded quotas in their existing distance courses, with 20% now offering new courses through their online training platforms and yet others having contracted external suppliers to provide access to MOOCs, usually free of charge and open to the entire population. (ILO CINTERFOR 2020) In Europe, countries who have shared TVET specific content include Ireland, France, Belgium, Spain, Croatia and Romania. (EC2020)

In most cases, the distance learning options focus exclusively on theoretical knowledge, but in a few cases, demonstrations are included in ad-hoc videos, or step-by-step instructions are given to demonstrate the more practical skills linked to a specific occupation. (EC 2020)

There are also many examples of group challenges assigned to learners, to foster team cooperation and maintain social interaction during periods of isolation, even if observation of their soft skills is often not possible. There are other examples of national TVET agencies contracting the services of commercial online learning companies to deliver dedicated programs of soft skills training to existing students. (ILO CINTERFOR 2020)

For programs with a substantial work based learning component (WBL), there are ongoing deliberations on how to make requirements more flexible or how to reschedule time in the workplace once the situation stabilises. (EC 2020) In other cases, the WBL component of programs will be shortened and integrated into a tutored project module. Spain has extended the calendar for work placements, and rescheduled university entrance exams so as not to disadvantage students who have yet to complete their program of WBL. In Austria, an amendment to the Vocational Training Act will allow casual work for apprentices and some businesses are allowing apprentices to telework from home where possible. (EC 2020) Italy is promoting WBL through simulated enterprises and some institutions have trialled 'distance internship solutions' where students undertake real work experience at distance, executing real tasks under the supervision of staff and with pedagogical support through IT learning infrastructure. (ILO 2020). In Ireland, where most apprentices are supported by a Moodle learning platform, the system is being expanded to increase available resources. (EC 2020)

Clearly though, the development of practical skills will continue to lag during the crisis, placing greater pressure on TVET and skill systems already under pressure to improve the quality and relevance of their programs.

In Latin America, institutions and specialized agencies are also developing innovative examples of how to respond to the challenge of assessment and certification of competences. CONOCER and ChileValora plan to trial novel responses to evaluate and certify using non-face-to-face digital tools, which could perhaps have a long-term impact on the way certification of competencies is undertaken at the global or regional level. (CINTERFOR 2020)

However, in these circumstances there remains the risk that some systems will loosen existing standards and there is evidence of some national systems forgoing final degree exams and basing university admission on current grades. (ILO 2020)

Considering these examples, it is clear that simple, short-term steps can be taken to shift programs online and maintain contact with students. By using widely accessible digital technologies and tools,

even low and middle income countries can continue to deliver training while social distancing measures remain in place. There are numerous examples and resources available to educators and administrators to support the shift to online learning, some of which are referenced at the end of this paper.

It is possible that the current emergency response measures could have a lasting impact on the trajectory of learning innovation and digitization in TVET and skill systems. For example, TVET institutions in Latin America have reported that the new generation of e-learning programs being developed during the pandemic will most likely use more advanced technologies including gamification, augmented reality, virtual learning environments and simulators (CINTERFOR 2020).

COVID-19 has clearly become a catalyst for educational institutions worldwide to search for innovative solutions in a relatively short period. In the secondary school sector in particular, the crisis has also seen the rise of learning consortiums and coalitions with diverse stakeholders including governments, publishers, education professionals, technology providers, and telecom network operators coming together to utilize digital platforms as a temporary solution to the crisis. In China, the ministries of Education, Industry and Information assembled a group of diverse constituents to develop a new cloud-based, online learning and broadcasting platform as well as upgrading the suite of tools and resources available on it. (WEF 2020) The UNESCO led Global Education Coalition is another example of multi-stakeholder public private partnerships, but like most other initiatives of this type, at this stage of the crisis, they appear to focus primarily on general rather than vocational education and training.

...but online learning is not a silver bullet nor a simple solution...

Despite these encouraging responses, there is clearly tremendous regional inequities in digital infrastructure and capacity, possibly more so in the TVET and skill sector where under investment has limited the quality of both face to face and online delivery over the long term in many countries. A recent survey by the World Bank in Central Asia found that 70% of the countries had minimal distance learning capabilities, with no country having universal online curriculum-linked resources for teaching and learning. (World Bank 2020) Even European education systems are underprepared for digitalisation, with 40% of EU citizens lacking basic digital skills and less than 40% of teachers and trainers receiving training on educational technologies during their Initial Teacher Education (ITE). (Solidar 2020)

This digital divide risks widening the gap in academic achievement as low-income households are less able to provide the tools and environment required for effective online learning. Educational achievement will also be affected for those learners who do not engage as well as their peers in online learning, even if digitally skilled. As a result of the widespread restrictions on movement and closure of schools and workplaces, many potential learners are confined to their homes without access to a suitable space from where they can learn. They lack access to basic digital equipment and sufficiently strong internet connections to enable their participation in online learning activities. In many cases, entire families are sharing a single computer with conflicting learning and work schedules.

The impact of the sudden dramatic increase in demand on bandwidth and IT infrastructure within TVET and institutions is a further constraint on their capacity to quickly shift programs online. In Latin America, some TVET institutions have explored the possibility of delivering tablets to disadvantaged populations, or the mass purchases of data packages from internet provider companies to ensure student connectivity. (ILO CINTERFOR 2020)

At the same time, it has become clear that there is also a digital divide in digital skills, especially among older cohorts. Digital skills are also needed by TVET professionals, enterprise mentors and career support professionals who must now plan and facilitate activities in unfamiliar learning environments. Even when learners, teachers and trainers do have the required digital skills, they often do not have the experience to effectively use them to facilitate the planning and delivery of both synchronous and asynchronous training. In some cases, teachers and trainers have also had to make personal investments in ICT equipment and internet access so they can deliver their programs online from their own homes. (ILO 2020)

Teacher and administrator access to and familiarity with the tools and processes of distance and online learning are key factors that need to be addressed. In Uruguay, TVET institutions are purchasing online courses to support trainers in the development and delivery of distance and online learning. (CINTERFOR 2020) and in Australia, the vocational training sector has embarked on a massive upskilling program to train and support their teachers as they migrate and deliver courses in the new learning environments. (Guardian 2020)

Alongside the need for digital skills, attitudes and behaviours regarding digital learning are also proving to be of major importance. Learners may struggle with maintaining engagement in digital courses, due to lack of a supportive context, previous experience and adequate instructional methods. The transition from face-to-face to distance and blended learning

profoundly affects how content is presented, how work based learning is provided, how activities and assessments are structured and how self-directed learning is supported.

The Chinese experience of shifting to online delivery in response to COVID-19 has highlighted the importance of infrastructure, platforms and the preparedness of teachers, students and parents alike. (ADB 2020)

Coordination and cooperation of social partners and stakeholders at local level will need to be continued and strengthened to ensure continued delivery of services during the pandemic. Schools and TVET providers will need to coordinate their learning offer, together with employment service centres to activate virtual learning ecosystems that can help learners choose and successfully complete the learning options most suitable to them. Social dialogue is a key component of this process, ensuring that learning solutions suit the needs of students, workers and employers more broadly.

Given the shift to online learning, the recognition of that learning and the credentials it delivers has become a more significant issue. The trend to increase recognition of badges and other micro-credentials in national qualification systems may accelerate to ensure that the growth in formal and non-formal learning is formally recognised.

...presenting further challenges for those already disadvantaged in the labour market...

The shift to digital learning has reinforced existing inequalities and created new ones, a situation recognised in the growing debates around when schools and colleges should reopen. The closure of education and training institutions places additional pressure on families to provide support to children and youth learning at home and may also accentuate gender disparities and increase the risk of domestic violence, exacerbating cultural codes that influence access to education. If the shift to distance learning only relies on digital technologies rather than integrating traditional text based resources, many learners with limited internet access and other restrictions on their ability to learn in a digital environment will also be disadvantaged.

Digital platforms should comply with the Web Content Accessibility Guidelines (WCAG) and targeted outreach should be provided to persons with disabilities using information and communications that are accessible, including sign language interpretation, video subtitles, Braille and accessible digital file formats. These approaches need to be incorporated in the shift to distance learning, and partnerships should

be developed with disability-focussed NGOs and organisations of persons with disabilities to make this happen.

While some government services and corporate business are more likely to have ready-made online learning solutions for their employees, small and medium enterprises (SMEs) typically will not. SMEs require specific support from service providers and local employment services to promote up-skilling and re-skilling of their employees during this period. The already important role of employment services has thus taken on greater significance as the number of people who have lost their jobs continues to grow. The importance of social dialogue in these circumstances cannot be stressed enough.

As laid off workers face the risk of prolonged unemployment and skills obsolescence, it is important that social protection arrangements are supported by activation measures that provide upskilling and reskilling options for precarious workers and those in transition. Online training and retraining on core and employability skills will also be needed, alongside intensified counselling, to maintain employability during the expected economic downturn that is likely to follow.

People in isolated rural areas and refugee camps will face greater risks, in part due to the disruption of the activity of civil society organisations (CSOs). Outreach strategies need to adapt to the new reality and deploy digital tools to ensure continuity of activities to these groups. The most vulnerable groups will continue to require holistic support, which includes psychological counselling, health support and advice and support to administrative and legal issues. Many of these services can be implemented at a distance using digital tools but the cost and time to develop these solutions may be overwhelming for many support services.

...so what can we take away now from where we stand?

We know the effects of the current crisis are profound and potentially long lasting. All forms of learning have been affected, particularly in low-income countries and amongst the most vulnerable social groups. Short-term responses have been found and emphasised mobilisation and expansion of existing digital resources, particularly online courses. However, we must not overlook the fact that TVET and skills programs do not easily migrate to distance and online learning, and the new programs being developed in response to the crisis cannot be considered permanent replacements for face-to-face learning.

We cannot ignore the digital divide and the uneven access to equipment, tools and skills it implies and we cannot allow the rush to go online to widen existing inequalities. If we want to ensure that the shift to distance and online learning both meets immediate learning needs and prepares us for more effective systems in the future, a number of key measures need to be taken now and in the months ahead:

- improve internet infrastructure and affordable access to the internet;
- expand access for learners to online digital application and platforms and learning spaces where they can be accessed;
- utilise inclusive digital and analogue technologies for distance learning and support;
- support teachers and trainers to operate in the new environment;
- provide support, career guidance and digital skills development for learners;
- increase distance and short course learning options for core, entrepreneurial and employability skills to vulnerable groups and individuals;
- strengthen systems for the recognition and validation of digital learning;
- increase investment in digital solutions for practical skills development; and
- improve social dialogue and coordination amongst education and training institutions, employment services and local authorities.

...and how can the ILO provide support?

The ILO has a long tradition of supporting its constituents to strengthen their TVET and skill systems, efforts that are being redoubled during these difficult times.

Over the coming months, the Skills for Employment Knowledge Sharing Platform will hold e-discussions and add key references and tools on distance learning and skills development during the pandemic to its collection, acting as a vital resource for constituents around the world. (www.skillsforemployment.org)

At the country level, we are supporting national TVET systems and agencies to migrate programs to distance and online learning modes, providing advice on available tools and platforms and providing examples of how countries are responding to the challenge.

Working with our social partners, we are supporting and encouraging social dialogue as a key tool to

develop programmes and channel resources to distance and online learning for TVET and skills development. Not simply as measures to continue the operation of education and training systems, but as inclusive measures to supplement employment retention programmes and as a conditional feature of cash transfers or unemployment benefits, through stimulus packages and expanded social protection measures.

Through the [International Training Centre](#) in Turin, we are in the process of expanding our online learning programs in response to the crisis and will use that shift to move towards a more permanent model of blended learning.

With our international partners UNESCO, the World Bank and the Global Apprenticeship Network, we are convening webinars and conducting international research on the impacts of the COVID-19 crisis on TVET and skills development around the globe.

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