

FAST-FORWARDING

TECHNICAL AND VOCATIONAL EDUCATION POST-COVID-19:

Face-to-face remains core

Technical-and-vocational-education-and-training colleges might have been worst hit by COVID-19 among educational institutions, according to Prof Joy Papier of the University of the Western Cape. However, despite their limited resources, many of these colleges found innovative ways of shifting from full face-to-face learning to complete online learning in a matter of weeks. At a recent HSRC seminar, Papier and other practitioners discussed how lessons learned from the pandemic could propel a reimagining of technical and vocational education and training. *By Andrea Teagle*

In October, students from technical-and-vocational-education-and-training (TVET) colleges demanded a [revamp](#) of TVET education, which they say suffers from poor infrastructure, [funding issues](#) and outdated curriculums.

Amidst swelling youth unemployment, [historically neglected](#) TVET colleges are charged with producing tech-savvy graduates who can meet the demands of a rapidly evolving market. TVET colleges are considered central to expanding the artisanal and manufacturing sectors of the country and to achieving [sustainable and equitable development](#). Research suggests that this training can also support small and medium enterprises as well as entrepreneurs in the [informal sector](#).

Yet, TVET colleges have been worst affected by the kinds of economic crises against which they might have served as a buffer with better funding and prioritisation.

Emphasising that the basic needs of students and communities [have to be met](#) before education can take place, Papier identified three steps for TVET colleges to capitalise on the lessons learned during the pandemic and to fulfil their mandates.

“First, human and financial resources need to be mobilised to ensure universal access to digital infrastructure, tools and modern learning technologies. Second, 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.”

A different kind of learning

Early in lockdown, in May 2020, Papier conducted a small targeted study of the experiences of TVET college lecturers in the Western Cape, Eastern Cape, KwaZulu-Natal

and Gauteng. Lecturers indicated that students were unprepared for online learning. Most students struggled to interpret information on their own without the basic content being mediated to them by a lecturer, said Papier. The lecturers also reported feeling anxious, lost, confused, unprepared and daunted by technology.

Owing to the practical nature of some of the courses, circumventing in-person teaching poses unique challenges. Additionally, teachers rely on body language to gauge understanding, Papier said. “You need to see that ‘aha’ moment.” How does one do this when the students are miles away, or when video receptive learning is not possible for that learner?

To overcome these challenges, and to grasp opportunities unique to digital learning, learners and teachers need resources and training. Encouragingly, the Department of Higher Education and

Training has signed an agreement with Germany's KfW Development Bank to establish the first [skills development centre](#) in South Africa for TVET college lecturers in the fields of electrical and mechanical engineering.

Additionally, curriculums need to be reimagined, Papier argued. "If you don't have a curriculum that lends itself to flexible approaches to learning, it's very hard to toss everything onto an online platform."

In this sense, education technology needs to be understood as its own medium, not as a direct substitute for in-person learning. A similar point has been made about the failure of simply translating English learning materials into other languages to solve South Africa's primary-education language problem. These attempts miss the fact that the building blocks of these languages are different.


"Is there a way we can develop a module on educational technology? Because it's a whole new world that we discovered that is very, very complicated for experienced teachers and trainers," said seminar participant Helen Brown.

What has worked?

Karin Hendricks, acting principal of False Bay College in the Western Cape, noted that the college has engaged in blended learning since 2008, and has offered solely online programmes since 2012.

Papier suggested that [gaming could be adapted](#) to facilitate group learning and maintain social connection between students. [Virtual reality](#) platforms could be developed to simulate some practical learning components, for example, by creating 3D representations of machinery.

However, widespread agreement emerged among the seminar participants that, while the demands of COVID-19 provided valuable lessons on the potential of digital teaching, practical and face-to-face teaching would remain a core part of TVET.



Kouthar, a 20-year-old marketing student, sits outside her college, 5 November 2020. "I think this year was very hard because we didn't get a lot of time in class... [Online communication] was a WhatsApp group, so they sent us work on WhatsApp... Sometimes the lecturers would explain it but there wasn't a lot of time because they had to deal with different students."

Photo: Andrea Teagle



“Most of the literature in this domain, particularly in vocational education, emphasises that online learning cannot be a permanent solution,” Papier said.

Rather, TVET colleges needed a combination of face-to-face and digital learning — so-called blended learning. The online components would prepare students for an increasingly technological landscape, while face-to-face lecturing facilitates the kind of deep learning that makes skills transferable. The exact ratio of these components, and how to build a curriculum that supports the most vulnerable students, is a matter of vigorous debate among TVET professionals.

“When the dust [of COVID-19] has settled, there will need to be a serious appraisal of the learning that has taken place, how successful or not it has been, what kinds of unintentional learning have taken place, what is possible [and] what is simply not possible,” Papier said.

Blended learning as a social justice tool

Many South African students, particularly in TVET colleges, are from under-resourced backgrounds and cannot easily access the space, the digital resources, or the time to immerse themselves in learning at home. This is particularly so for girls and women, who are often additionally expected to shoulder the bulk of caretaking and domestic

responsibilities.

COVID-19 highlighted the fact that, in addition to practical teaching and resources, campuses provide a physical space which is safe and, at least in theory, conducive to learning. “The Marxist in me has always believed that [blended learning] leads to inequalities, that you need an educator to facilitate learning,” said Dr Lesley Powell of Nelson Mandela University.

On the other hand, Powell pointed out, blended learning could also serve as a tool for social justice in resource-constrained settings. In their book, *Innovation Policy at the Intersection: Global Debates and Local Experiences*, Dr Mlungisi Cele and colleagues argue for a revisiting of South Africa’s current National System of Innovation towards a more [inclusive policy framework](#) that places human welfare at its centre. Access to affordable data, for example, would enable blended learning to reach students who might otherwise not have been able to study.

Digital learning components eliminate travelling fees, allowing young people to engage in certain aspects of the system without the financial and time costs, and to continue working in various ways in their communities, Powell said.

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