

# Issues and Challenges Facing The Teaching and Learning of Tvet in The Covid-19 Pandemic Era

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## ABSTRACT

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This manuscript aims at discussing the issues and challenges facing the teaching and learning of Technical and Vocational Education and Training (TVET) in the COVID-19 pandemic era. Next, the manuscript discussed how stakeholders (e.g. governments, parents as well as TVET managers, lecturers and students can seize the opportunity to revamp TVET programme in the post COVID-19 era. Finally, the manuscript discussed the possible ways to overcome the issues and challenges facing TVET programmes in the COVID-19 pandemic era. Consequently, the authors drew logical conclusions on the discussions arising from the subject matter.

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## Introduction

On 31 December 2019, an obscure infection surfaced in Wuhan, China (WHO, 2020). Tragically, the coronavirus disease (prevalently alluded to as COVID-19) entered Nigeria through a contaminated Italian resident who interacted with a Nigerian resident who was tainted with the infection (WHO, 2020). COVID-19 at that point spread to different residents in Lagos and different states of the nation, including Edo State (Council on Foreign Relations, 2020; The Conversation, 2020). To check the spread of COVID-19, the Presidential Task Force on COVID-19 along with the Federal Ministry of Health (FMH) and Centre for Disease Control (NCDC) embraced lockdown, school closure and social distancing measures. These measures employed to curtail the spread of the disease have great implications for teaching and learning in technical and vocational education and training (TVET) programmes because of their practical-oriented nature.

The process of effective teaching and learning in TVET will be drastically hindered because of the difficulty teachers may face in providing practical training virtually, and delivering lectures under limited access to the internet and devices. Today, TVET teachers and students have been

struggling with virtual and distance instructional delivery processes, which was introduced suddenly under the new norm of lockdown and social distancing. The implication is that TVET programmes would face a significant challenge of providing practical skills training using tools and machines through virtual training. The challenge on how to integrate hands-on practical training into Online Learning Management Platforms (OLMPs) that will provide the chances for students to acquire useful skills to confidently pursue entrepreneurial careers and lifelong learning appear to be a common concern.

The issues and challenges facing teaching and learning of TVET in Nigeria because of the COVID-19 outbreak have necessitated the need for all major stakeholders of TVET to collaboratively invest a sufficient amount of resources (financially and otherwise) in the TVET programme. Despite all the issues and challenges, as exemplified above, the emergence of the COVID-19 has brought new opportunities for TVET programmes, especially in the integration of new technologies into teaching and learning. Specifically, these trying times have provided the opportunity for governments to turn their promises into actions and to evolve TVET programmes into something fit for the 21st century.

The need to embrace online teaching and learning in TVET due to the coronavirus disease outbreak may account for why the Association of Vocational and Technical Educators of Nigeria (AVTEN) adopted the theme “TVET in the pandemic era: Issues, challenges, opportunities and way forward” for this conference. The recommendations for future practice proffered by TVET practitioners and scholars could be utilized by the governments for policy formulation and implementation. But we all must remember that without continued efforts to revamp the TVET programme, policies and programmes that will be formulated and implemented would not stand the test of time. In this context, this paper focuses on the issues and challenges facing the teaching and learning of TVET in the COVID-19 pandemic era. The paper also focused on the opportunities to revamp the TVET programme in the post COVID-19 era. The paper also focuses on the possible ways to overcome the issues and challenges facing TVET programmes in the COVID-19 era. Finally, logical conclusions will be drawn based on the discussions arising from the subject matter.

### **Issues and Challenges**

The COVID-19 outbreak has raised great issues and challenges related to effective teaching and learning of TVET. Many of these challenges and obstacles are discussed below with examples: TVET lecturers and students are not likely to be prepared for the unexpected transition to online learning, given lack of necessary skills and infrastructure to accommodate online teaching and learning approaches. In Nigeria, challenges related to electricity supply, internet connectivity, low

data transfer capacity and lack of network capacity to cope with increased data usage appear to hinder the implementation of teaching and learning in TVET programmes in the coronavirus era.

The COVID-19 crisis has highlighted the fact that effective OLMPs and the quality of instructional resources to support virtual instruction are generally lacking in TVET programmes, especially when they are required to be deployed on a large scale (International Labour Organization, 2020; United Nations, 2020). This may be attributed to the fact that these OLMPs are not fully integrated into regular programmes and as such their quality and capacity would not be adequately monitored, which may hinder smooth transition to an online mode of learning. Lack of appropriate OLMPs and other technological facilities could hinder students from effectively learn and lecturers to effectively teaching, which may further lead to ineffective or a less effective learning experiences.

The COVID-19 pandemic outbreak and the effect of consistent lockdown and physical distancing measures have led to challenges related to financial resource viability and cash flow of TVET providers. This can be attributed to sudden loss of income from sources, such as tuition fees and all other income-generating revenues of TVET programmes. For instance, TVET providers in Nigeria have been experiencing diminished financial viability owing to students' attrition and parents' inability to pay fees. This is likely to lead students dropping out of TVET programmes. This unpleasant circumstance will surely affect the ability of TVET providers to invest time and money in the development of virtual learning infrastructure, and in some cases to pay lecturers' salaries.

From the foregoing, the problematic outcomes of the coronavirus disease outbreak may result in a drop in access to quality and affordability of TVET programmes, difficulties with TVET students' academic engagement and quality assurance, an increase in the opportunity cost of completing TVET programme, lack of motivation among teachers and students and an increase in the dropout rate.

Given the important role lecturers and instructors play in ensuring that an optimal learning environment exist, all these issues and challenges, exemplified above, if not adequately checked, may severely affect access to quality and affordable TVET programmes. However, the anticipation that the COVID-19 pandemic would lead to widespread utilization of online technology (or referred to as OLMP) in TVET may lead to significant issues and challenges for the marginalized and may increase inequality. Specifically, TVET students in rural areas are likely to be disadvantaged due to limitations of availability and affordability of data for internet connectivity.

#### Opportunities

Despite all the issues and challenges, as exemplified above, the COVID-19 outbreak has provided new opportunities for education and training systems, particularly in the integration of technology (alternatively referred to as OLMP) into the teaching and learning processes in TVET

programmes. The COVID-19 crisis has also allowed the government to transform their manifestos into activities and to implement TVET into a programme that is fit for the 21st century. This can be achieved via effective interactions between governments and the broad population; between government institutions and lecturers; between institutions, lecturers, parents and students. The involvement of the private sector can be of considerable benefit in several instances. For instance, the government can seize the opportunity to work with various telecommunications companies to provide free data access to TVET sites, together with radio and television programmes. Effective distribution of paper materials will be an effective combination. Specific online learning platforms or technologies such as WhatsApp, Zoom, Facebook, and Moodle would also be useful.

Online technologies seem to offer new opportunities to understand what TVET students learn, how TVET students learn, and where and when TVET students learn: Online technology would enable TVET lecturers and students to access specialized online materials that go beyond textbooks in multiple formats and ways that can bridge time and space. OLMP do not just teach TVET students the principles of science and technology, but can simultaneously observe how they study, the kind of tasks and thinking that interest them, and the kind of problems that they find boring or difficult. Similarly, virtual workshops or laboratories can provide TVET students with the chance to design, conduct and learn from practical or experiments, rather than learning about them (theoretically).

## **Method**

Discussions concerning the possibilities of overcoming the issues and challenges facing TVET programme in the COVID-19 era should be built on the lessons learned during the COVID-19 pandemic. While acknowledging the considerable number of measures and actions that could be taken by the governments, civil societies, and development partners, several gaps need to be addressed to deal with the issues and challenges of the COVID-19 crisis with regards to effective and efficient teaching and learning of TVET. Below is a list of the possible ways of overcoming the issues and challenges facing teaching and learning in TVET programme in the COVID-19 pandemic era. This, however, not exhaustive, but may address at least most of the issues and challenges facing the teaching and learning in TVET programme.

## **Result and Discussion**

### ***Information Technology Gadgets and Infrastructure***

TVET is still experiencing inadequate supply of information technology (IT) gadgets and infrastructure to address the issues and challenges facing teaching and learning in the programme. An immediate provision of huge financial resource outlay to procure the IT gadgets and ensure the availability of internet connectivity will help TVET students and lecturers to have full access to the online classroom. The provision of large scale financial capital is challenging. Thus, there is need for

a broader alliance among international donors, international financial institutions, captains of industries, civil societies, TVET providers and practitioners, parents/families, the governments which in turn, help in ensuring the optimization of financial resources to procure latest IT gadgets for effective instructional delivery (Edokpolor, Edokpolor & Olupayimo, 2016; Edokpolor & Imafidon, 2019; Edokpolor & Abusomwan, 2020). The creation of online TVET classrooms with IT gadgets is important to ensure that what is learned virtually is applied to the real world. The adoption of OLMPs by TVET institutions and schools is a way to make teaching and learning in TVET programmes more organized, collaborative and transparent.

#### ***TVET Lecturers' Capability to Apply ICT***

The supply of IT gadgets and internet access should be allied with appropriate adoption of online learning facilities and strengthening the capabilities of all lecturers and students of TVET to maximize learning under these conditions. TVET lecturers should be furnished with knowledge and the latest technologies to implement the curriculum, monitor students' progress and adequately assess or track performances. A mechanism of coordination between and among TVET lecturers as regards the curricula and learning tasks to optimize the volume of learning tasks given to students each day will balance the well-being of both TVET students and lecturers.

#### ***Diversifying Teaching and Learning Options***

It is necessary to remember that a systemic instructional approach to the curriculum would further enhance the diversification of TVET delivery beyond traditional teaching and learning approaches. Virtual learning, via OLMPs is certainly the most advocated choice in the COVID-19 era. Therefore, online learning content should be accompanied by other types of instructional aids or materials such as TV, radio and social media to reach out to all TVET students including those lacking resources to access virtual learning environments and afford data for internet connectivity.

#### ***TVET Students' Assessment***

Appropriate instructional methods should be employed to evaluate and validate learning outcomes in the TVET programme. Based on the resources and TVET courses to be offered virtually, there is the need to integrate evaluation at different levels: immediate, relevant and constructive feedback to learners; formative evaluation based on observations, interactions, creative projects, group discussions, strategic questioning and other stimulating evaluation activities for TVET students; graded evaluations; and summative evaluations such as end-of-semester exams.

#### ***Fostering Skills Development among TVET Students***

Concerted effort should be made to equip TVET students with skills that go beyond those related to IT, but also equip them with skills to manage time, adopt healthy and safe behaviours, deal with stress, isolation and anxiety. Without addressing these issues, learning cannot be effective or last.

#### ***The Need for the Effective Coordination of TVET Programme***

There seems to be a limited capacity to curb issues and challenges in times of crisis such as the existing and that has ravaged the whole world. Response systems and coordination measures that have largely been embraced to curtail the issues and challenges at a smaller scale, now need to be strengthened to ensure that they are able and fully empowered to deal with such unexpected crisis and even possible emerging large scale crisis in the future. Further guidance and support to reduce the issues and challenges facing teaching and learning in TVET are key, as these issues and challenges might continue to increase daily while measures and strategies to curtail the spread of the COVID-19 pandemic such as facial masking and social distancing need to be adhered to. There need to be strategies and plans to recover loss of knowledge, and ensure effective transition, completion, assessments of TVET programme, among others. This issue is even more complex in the case of students with intellectual, psychosocial and sensory disabilities. This implies that TVET students in Nigeria who are experiencing any form of disabilities require special attention.

***The Need to Effectively Implement the COVID-19 Measures***

Addressing issues of staff and students' safety, protection against COVID-19, strengthening hygiene practices, improving testing and school protocols and standards are essential. It is also very important to note that protocols and norms are dependent, among others on infrastructure and WASH conditions in educational institutions. In the context of the pandemic, when more than ever, sanitation and hygienic conditions are crucial, it is the right moment to invest in adapting at least basic standards in toilets and washing facilities in educational institutions in the country.

***The Need to Strengthen the Alliance between TVET Programme and Parents' Community***

The emergence of the COVID-19 crisis is providing opportunities for TVET programmes to strengthen their relationships with parents, and for lecturers to also enhance communication and cooperation with parents in the interest of students. The emergence of COVID-19 crisis means that lecturers and parents may become more involved in decisions regarding curriculum development and appropriateness. A close tie between and among TVET institutions, lecturers, parents and communities is important for ensuring that the needs of students and their parents are understood. This can support the development of learner-centred, participative and inclusive learning approach that takes into account the interests of TVET students and their environments and aspirations. There are very limited resources and support mechanisms for parents, to equip them and empower them to manage the current crisis and effectively deal with school protocols. Therefore, strategies to ensure closer cooperation between TVET programme and parents' should be in place. This is especially true for parents of TVET students with disabilities, parents of students in vulnerable situations and families with many students.

There is need to protect parents financially during the COVID-19 crisis as a strategy to reduce pressure on parents and guardians and prevent the increase in the incidence of domestic violence

and abuse which typically become rampant in difficult economic times. The dependence of most Nigerians on monthly salaries presents an additional issue, as it is well-known that most parents have lost their jobs due to the COVID-19 crisis, which contributes to the rising unemployment. This issue can be addressed through strengthening social protection mechanisms for families, through the improvement of labour laws and support to employers who retain their workforce.

## **Conclusion**

In conclusion, measures employed to curtail the spread of the COVID-19 has affected teaching and learning processes, especially in the TVET programme due to its practical-oriented nature. The response by governments, civil societies and the private sector actors has been effective and resolute, but there are still issues and challenges to be addressed. Issues and challenges such as inadequate provision of financial resources to procure online gadgets, epileptic power supply, lack of data for internet connectivity, lack of access to OLMPs and lack of network capacity have hindered effective teaching and learning of TVET in the COVID-19 pandemic era. Online learning experiences so far have provided valuable models, especially in private universities, including the criticality of the TVET programmes to be able to quickly adapt to the unexpected outbreak of the COVID-19 pandemic. The traditional teaching and learning approach should not only be adapted and reformed but this reform process should embrace opportunities to innovate, and thereby become more open to responding to the current needs of students, youths including those from vulnerable groups and society at large. The current unpleasant situation brought by the COVID-19 outbreak could become an opportunity to upgrade the TVET curriculum, teaching-learning-assessment processes and develop students' competencies to strengthen the e-learning skills and sustain their motivation.

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