# COVID-19:

## A Catalyst for Technology-Enhanced Learning (TEL) – An Empirical Validation of the Efficacy of Learn From Home in Higher Education Students

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## ABSTRACT

The COVID-19 pandemic has been a catalyst for mandatory use of technology to deliver classroom learning to students who have been forced to learn from home (LFH). Learn from home requires technology-enhanced learning (TEL) method if students are to be satisfied with online delivery of lessons. Technology-enhanced learning is used to describe the integration of technology to teaching and learning; the demand for technology-enhanced learning has been increased as a result of the lockdown. The study explores various online teaching platforms, techniques, online examination, and technology-enhanced learning methods needed to be used by university instructors to ensure that educating the students goes on unhindered. The identified variables were empirically tested with the aid of a structured questionnaire. The study concludes that there is a positive relationship between satisfaction with the delivery of online study and the perceived effectiveness of TEL among higher education students.

## KEYWORDS

COVID-19, Lockdown, MOOC, Online Classroom, Technology-Enhanced Learning (TEL), Zoom

## INTRODUCTION

The COVID-19, evolving from the Wuhan city of China in December 2019 (Prem et al., 2020), has become a pandemic disease because it is widening across the whole world (McKibbin & Fernando, 2020). It has forced lots of people around the world to stay at home (Sahu, 2020) because the epidemiologists urged to maintain physical and social distancing to control the spread of this virus (Maital & Barzani, 2020). Accordingly, quarantine and isolation policies as well as lockdown were

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imposed in the infected countries (Ozili & Arun, 2020), leading to the closing down of commercial, industrial, and financial institutions (Ozili & Arun, 2020). However, educational institutions are not out of this closure. To minify this epidemic, many countries around the globe have already announced the vacation of schools, universities for an uncertain period (Domenico et al., 2020; Sahu, 2020). However, the class must not be canceled; this resulted in the use of numerous technologies, such as Massive Open Online Courses (MOOCs) and other online platforms for conducting classes online and several tools (e.g., Test Invite, Moodle, TCExam) for administering online examinations.

Teachers and students are new to the online classes; they don't know the most effective and efficient method to teach and conduct exams during this pandemic. Students also show tardiness to participate in online classes and exams (Levy & Ramim, 2012). As shown in literature, academic researches on this topic are scarce; researches are yet to study online classes and exams platforms, particularly in the context of Nigeria and India. There are no comprehensive studies which have discussed the challenges, tools, and techniques for conducting classes and exams online in the context of Nigeria and India (developing countries) during this pandemic. The study is a descriptive analysis of the various LFH software ha have been used to ensure the continuity of learning, it also seek to empirically validate the effective of LFH. The study targets higher educational students who have been attending classes online, irrespective of their type of study, year of study, course, and type of institution they are enrolled in. The research will fill in this void through the following objectives:

- To examine and describe some of the tools that have been popularly used for conducting online classes and to evaluate students' performance as a result of the enforced online distance learning.
- To identify the factors that affects the perceived effectiveness of online modes of learning during lock down and association of these factors with the perceived effectiveness of online modes of learning.
- To empirically validate the effectiveness of Learn From Home and how it might be improved on the basis of the students preferences.

## LITERATURE REVIEW

Online teaching has become a burning issue for the sake of closure of educational institutions due to COVID-19. During this critical situation, the adoption of Massive Open Online Courses may be effectual enough because anyone from anywhere can partake in free online classes and courses through Massive Open Online Courses (Hoy, 2014). Considering the importance of Massive Open Online Courses, the participation rate in these platforms is heightening in Europe and North America, whereas this rate is poor in Africa and Asia (Liyanagunawardena et al., 2013). Particularly, in Nigeria, the diffusion level of web and online-based learning platforms is scant (Olatubosun et al., 2014) due to lack of technical backing from the institutions, and limited of faculty expertise in using digital tools (Tella et al., 2007). Furthermore, growing number of Nigerian pupils of tertiary institutions quit MOOCs because of the distancing panic and baseless concernment (Wogu et al., 2016). However, teachers and institutions need to combine several channels to teach the students, including e-books, web-based conferencing, social networking sites, and other digital methods. Most importantly, some strategic actions, such as capacity building, faculty training, flexible governance, and building partnerships for resource outsourcing will be needed to bring offline classes online (Tella et al., 2007; Lim et al., 2018).

Several studies on the tools and techniques used for operating online classes were done earlier. For example, O'Flaherty & Phillips (2015) came up with a scoping review on the diffusion of flipped classrooms conducted in the context of the United States, Australia, UK, Malaysia, and Taiwan. This review delineated that flipped classrooms elicited satisfaction among students and staff. Similarly, the average number of students who took the Actuarial Techniques course at the Australian National University (ANU) expressed their positive attitudes as to the flipped classroom

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