



The E-Learning on World Epidemic (COVID -19) in Tertiary Institutions in the North East States of Nigeria

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Abstract: *This paper focuses on the e-learning on world epidemic (COVID -19) in tertiary institutions in the north east states of Nigeria. Technology-based e-learning encompasses the use of the internet and other important technologies to produce materials for learning, teach learners, and also regulate courses in an organization. There has been extensive debate about a common definition of the term e-learning. This study proposes a method that will put an end to discontinuity in education that emerged as a result of COVID-19 pandemic lockdown in the North East States and Nigerian at large. The specific objectives of this study are to: 1. Examine how this epidemic (COVI-19) affected e-learning has at a traditional face-to-face learning in the North East States. Examine whether is this changing our knowledge about concepts of e-learning readiness in higher education in the North East States. The following subheadings were discussed in the literature review: 1. Concept of elearning 2. Concept of pandemic 3. Concepts of tertiary institutions. The Implementation framework of elearning are: Google Classroom, Zoom, WhatsApp and Blog. This study concludes that the framework that allows lecturers and students to participate in academic activities during the lockdown session through the use of some open source computer and android applications that also allows the institutional management to monitor ongoing academic activities. The recommends that the Federal Government, state governments of North-East state, as well as private educational institute owners should look into this proposed framework with the e-learning platforms used and practice continued education during the lockdown session.*

Keywords: *E-learning, World Epidemic and Tertiary Institutions*

1. INTRODUCTION

The Internet has become one of the vital ways to make available resources for research and learning for both teachers and students to share and acquire information (Richard and Haya 2009). Technology-based e-learning encompasses the use of the internet and other important technologies to produce materials for learning, teach learners, and also regulate courses in an organization (Fry, 2001). There has been extensive debate about a common definition of the term e-learning. Existing definitions

according to Dublin (2003) tend to reveal the specialization and interest of the researchers. E-learning as a concept covers a range of applications, learning methods and processes (Rossi, 2009). It is therefore difficult to find a commonly accepted definition for the term e-Learning, and according to Oblinger and Hawkins (2005) and Dublin (2003), there is even no common definition for the term. Holmes and Gardner (2006) also made a comment on these inconsistencies by saying that there may be as many definitions of the term e-learning as there are academic papers on the subject Dublin (2003) in trying to find a common meaning of the term e-Learning went on to ask the following questions: Is e-learning an on-line coursework for students at a distance? Does it mean using a virtual learning environment to support the provision of campus based education? Does it refer to an on-line tool to enrich, extend and enhance collaboration? OR is it a totally on-line learning or part of blended learning? (Dublin, 2005). Some of the definitions of the term e-learning as given by different researchers and institutions are reviewed below.

In some definitions e-Learning encompasses more than just the offering of wholly on-line courses. For instance Oblinger and Hawkins (2005) noted that e-Learning has transformed from a fully-online course to using technology to deliver part or all of a course independent of permanent time and place. Also the European Commission (2001) describes, e-Learning as the use of new multimedia technologies and the Internet to increase learning quality by easing access to facilities and services as well as distant exchanges and collaboration. The following are also different definitions of e-learning.

E-learning refers to the use of information and communication technologies to enable the access to online learning/teaching resources. In its broadest sense, Abbad et al (2009), defined E-Learning to mean any learning that is enabled electronically. They however narrowed this definition down to mean learning that is empowered by the use of digital technologies. This definition is further narrowed by some researchers as any learning that is internet-enabled or web-based (LaRose et al, 1998; Keller and Cernerud, 2002).

The COVID-19 pandemic grew quickly from its first emergence to a truly global phenomenon. While the importance for the securitization of face-to-face schooling lies in the social transmission of the virus, a brief review of the rise of the virus provides context. The first reported illness onset date for COVID-19 was December 1, 2019, and the first hospital intake date was December 16, 2019 (Huang et al., [2020](#), p. 499). By December 30, 2019, a cluster of pneumonia patients in Wuhan, China was reported to the World Health Organization's Beijing office (Guarner, [2020](#), p. 420). Clinical presentations indicated a shared viral strain of pneumonia, which was named 2019-nCoV, or 2019 novel coronavirus (Huang et al., [2020](#), p. 497). The following day, an epidemiological alert was raised by local health authorities (Huang et al., [2020](#), p. 498). Exactly one month after the viral pneumonia cluster was recognized—just under two months after the first symptoms ever caused by the virus—the World Health Organization declared a Public Health Emergency of International Concern (Lai et al., [2020](#), p. 2), and on March 11, 2020, a COVID-19 pandemic (World Health Organization, [2020](#)).² The rapidity of this spread can be understood by characteristics of the virus itself.

On March 19th, 2020 a circular from Federal Ministry of Education has granted an approval for the closure of all school for a period of one (1) month commencing from Monday 23rd March 2020 to prevent the spread of the Corona virus (COVID-19). Each State in North-East Nigeria has contextualized this circular. In Borno State, on 20th March 2020,

the Governor appointed the Deputy Governor to head Borno's response team and asked the team to tighten IDP camps and directed that schools close in one week.

Not only will the closure of schools affect close to 46 million students throughout the country, 4.2 million students in BAY States, the most vulnerable groups of children targeted by the education partners through the mechanisms of the HRP are likely to be impacted the most. About 400,000 IDP children attending some form of learning in the camps and host communities will be affected by the stoppage of learning activities. Planned activities for the first and second quarter of 2020 will not be completed as planned. The education system in North East was already stretched before the coronavirus pandemic as a result of multiple crises and population displacements.

The goal of Nigeria Education In Emergencies working Group remains preparedness and response plan 1) Reduce morbidity and mortality due to COVID-19 among school learners, teachers and schools stakeholder in North East Nigeria, (2) mitigate the school closure negative impact on children learning and teacher wellbeing and (3) ensure effective, inclusive and safe return to quality learning for learners, teachers and SBMCs.

2. Statement of the Problem

The aim of learning is knowledge preservation, transmission and creative application, so it is expected that the students memorize the new information during the study process and apply it

Appropriately later. Education gives self-satisfaction and boosts self-confidence as Odim, Annastashia and Solomon (2018) established that education helps a lot in many aspects of life and gives financial stability to people as it is easier to land a good job with a high paying salary. They further stressed that education allow people to learn how to raise money and how to spend or invest it wisely. The benefits of education equip individuals of all ages with the skills and knowledge needed to be productive and successful global citizens. Amadi and Urho (2015) opined that any government that does not encourage education of its citizens is directly compromising the future of the nation but the quality of education offered by higher educational institutions in Nigeria in recent times has deteriorated substantially (Odim, Annastashia and Solomon, 2018). The effect of these repeated closures of schools and academic programs on students' learning effectiveness can better be imagined than described. Education in North-East States of Nigeria has thus suffered serious setbacks as a result of teachers' strike actions (Odim, Annastashia and Solomon, 2018). Now that another form of discontinuity in education emerged that has nothing to do with strike actions, then, there is a need for the Government, Institution managements, lecturers and students alike to corroborate in curbing this menace that leads to future destruction. Thus, this study proposes a method that will put an end to discontinuity in education that emerged as a result of COVID-19 pandemic lockdown in the North East States and Nigerian at large.

3. Objective of the Study

The specific objectives of this study are to:

1. Examine how this epidemic (COVI-19) affected e-learning has at a traditional face-to-face learning in the North East States.
2. Examine whether is this changing our knowledge about concepts of e-learning readiness in higher education in the North East States.

4. Research Questions

In an effort to achieve the objectives of this study, the following research questions were formulated:

1. How has this epidemic affected e-learning at a traditional face-to-face university within the first three weeks?
2. Is this changing our knowledge about concepts of e-learning readiness in higher education?

5. LITERATURE REVIEW

The following subheadings were discussed in the literature review:

v. Concept of elearning

According to Maltz et al (2005), the term 'e-learning' is applied in different perspectives, including distributed learning, online-distance learning, as well as hybrid learning. E-learning, according to OECD (2005) is defined as the use of information and communication technologies in diverse processes of education to support and enhance learning in institutions of higher education, and includes the usage of information and communication technology as a complement to traditional classrooms, online learning or mixing the two modes. Also according to Wentling et al (2000) the term e-learning refers to the attainment and use of knowledge that are predominantly facilitated and distributed by electronic means. To them, the e-learning depends on computers and networks, but it is likely it will progress into systems comprising of a variety of channels such as wireless and satellite, and technologies such as cellular phones (Wentling et al., 2000). In their literature review on definitions for e-learning, Liu and Wang (2009) found that the features of e-Learning process are chiefly centered on the internet; global sharing and learning resources; information broadcasts and knowledge flow by way of network courses, and lastly flexibility of learning as computer-generated environment for learning is created to overcome issues of distance and time (Liu and Wang, 2009). Gotschall (2000) argues that the concept of e-learning is proposed based on distance learning, thus a transmission of lectures to distant locations by way of video presentations. Liu and Wang (2009) however claims that the progression of communications technologies, particularly the internet, did transform distance learning into e-learning.

Other researchers also defined e-learning as a revolutionary approach (Jennex, 2005; Twigg, 2002) to enable a workforce with the knowledge and skills needed to turn change into benefit (Jennex, 2005). For instance Twigg (2002) described the e-learning approach as centered on the learner as well as its design as involving a system that is interactive, repetitious, self-paced, and customizable. Welsh et al. (2003) also referred to the term as the use of computer network technology, principally through the internet, to provide information and instruction to individuals.

Liaw and Huang (2003) defined e-learning based on the summaries of its characteristics. In the first place, they propose a multimedia environment. Secondly, they incorporate several kinds of information. Thirdly e-learning systems support collaborative communication, whereby users have total control over their own situations of learning. In the fourth place, e-learning support networks for accessing information. And fifth, e-learning allows for the systems to be implemented freely on various kinds of computer operating systems.

Advantages or Benefits of E-learning

The adoption of E-learning in education, especially for higher educational institutions has several benefits, and given its several advantages and benefits, e-learning is considered among the best methods of education. Several studies and authors have

provided benefits and advantages derived from the adoption of e-learning technologies into schools (Klein and Ware, 2003; Algahtani, 2011; Hameed et al, 2008; Marc, 2002; Wentling et al. 2000; Nichols, 2003).

Some studies give advantage of e-learning as its ability to focus on the needs of individual learners. For example Marc (2000) in his book review on e-learning strategies for delivering knowledge in digital age noted that one of the advantages of e-learning in education is its focus on the needs of individual learners as an important factor in the process of education rather than on the instructors', or educational institutions' needs. Some of the advantages that the adoption of e-Learning in education, obtained from review of literature includes the following:

1. It is flexible when issues of time and place are taken into consideration. Every student has the luxury of choosing the place and time that suits him/her. According to Smedley (2010), the adoption of e-learning provides the institutions as well as their students or learners the much flexibility of time and place of delivery or receipt of according to learning information.
2. E-learning enhances the efficacy of knowledge and qualifications via ease of access to a huge amount of information.
3. It is able to provide opportunities for relations between learners by the use of discussion forums. Through this, e-learning helps eliminate barriers that have the potential of hindering participation including the fear of talking to other learners. E-learning motivates students to interact with other, as well as exchange and respect different point of views. E-Learning eases communication and also improves the relationships that sustain learning. Wagner et al (2008) note that e-Learning makes available extra prospects for interactivity between students and teachers during content delivery.
4. E-learning is cost effective in the sense that there is no need for the students or learners to travel. It is also cost effective in the sense that it offers opportunities for learning for maximum number of learners with no need for many buildings.
5. E-learning always takes into consideration the individual learners differences. Some learners, for instance prefer to concentrate on certain parts of the course, while others are prepared to review the entire course.
6. E-learning helps compensate for scarcities of academic staff, including instructors or teachers as well as facilitators, lab technicians etc.
7. The use of e-Learning allows self-pacing. For instance the asynchronous way permits each student to study at his or her own pace and speed whether slow or quick. It therefore increases satisfaction and decreases stress (Codone, 2001; Amer, 2007; Urdan and Weggen, 2000; Algahtani, 2011; Marc, 2002; Klein and Ware, 2003).

The above-mentioned advantages of e-learning has been summed up by Holmes and Gardner (2006) by noting that the ability of e-learning to assess the students or learners as they learn, and at the same time increasing their experiences in education, by way of interactivity suitable to community education, cultural diversity and globalization, and eradicating boundaries of place and time. To them the most vital characteristics as well as advantage of e-learning in education is that it centres on the students or learners (Holmes and Gardner, 2006).

Through e-learning, according to Raba (2005), objectives can be accomplished in the shortest time with least amount of effort. Both learners and instructors can be able to

accomplish and keep up with development as they obtain experience that is provided by numerous specialists in the various fields of knowledge. The impacts of e-learning on educational ethics according to Khan (2005) are ensured. This is because the environments for e-learning are tolerant, so they are a good ways of offering equal access to the information world irrespective of the locations of the users, their ages as well as ethnic origins, and races (Khan, 2005). The environment for e-learning also aids learners or students to depend on themselves for the reason that instructors are no longer the solitary knowledge source. They instead become advisors and guides (Alsalem, 2004). E-learning also aids in the preparation of the society to globally communicate and to dialogue with others (Zeitoun, 2008). However according to Algahtani (2011), the likely benefits of e-learning are greater than the benefits of traditional learning if e-learning is used and applied in proper ways.

- vi. Implementation of elearning
- vii. Concept of pandemic
- viii. Concepts of tertiary institutions

6. METHODOLOGY

This study reveals that, despite the fact that COVID-19 pandemic has led to partial and complete lockdown of many countries, yet, academic activities can still be going on despite the lockdown. Many studies have established the importance of distance learning programmes, though; distance learning programme does not solely depend on the use of computer technologies but also involved physical administrative activities. Thus, this study proposed a framework (see Figure 1) that will allow lecturers and students to participate in academic activities through the use of some open source computer and android applications.

Using these computer and android applications do not cost the lecturers and the students any additional monetary implication other than data subscription charges from their respective data network providers. Moreover, this framework also allows the institutional management to monitor these academic activities. The framework indicates that the lecturers will upload the courseware and lecture notes to the Elearning zones, while the students will also access the e-learning zones to attend their various classes as scheduled by the lecturers or as directed by the school management. Thus, the e-learning zone serves as the meeting point or lecture room for the students and the lecturers alike. Also, the e-learning zone allows the students to take and submit assignments; the lecturers can as well assess the students by the use of various technical functions embedded in the e-learning zones.

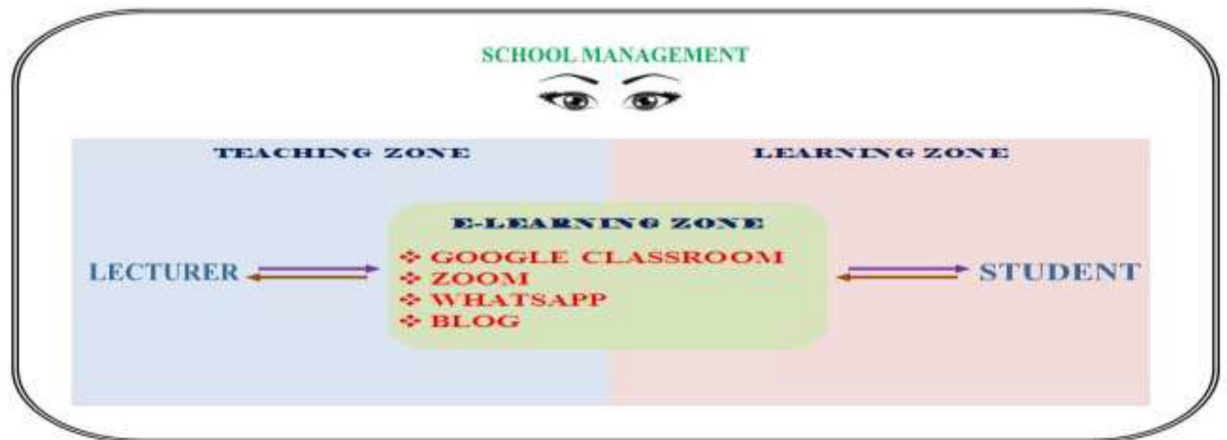


Figure 1: The Proposed Framework

7. IMPLEMENTATION OF E-EARNING

What Is Google Classroom?

Google Classroom is a free web-based platform that integrates your G Suite for Education account with all your G Suite services, including Google Docs, Gmail, and Google Calendar. Classroom saves time and paper, and makes it easy to create classes, distribute assignments, communicate, and stay organized. Teachers can quickly see who has or hasn't completed the work, and provide direct, real-time feedback and grades right in Classroom.

Creating a Class and Adding Students

Google Classroom allows you to create a unique class for every class that you teach. In just three mouse clicks and a few keystrokes you can create a class. Google Classrooms are divided into different sections... for the purpose of this article, I will cover Students and the Stream.

What is Zoom?

Zoom is a cloud-based video conferencing service you can use to virtually meet with others - either by video or audio-only or both, all while conducting live chats - and it lets you record those sessions to view later. Over half of Fortune 500 companies reportedly used Zoom in 2019. When people are talking about Zoom, you'll usually hear the following phrases: Zoom Meeting and Zoom Room. A Zoom Meeting refers to a video conferencing meeting that's hosted using Zoom. You can join these meetings via a [webcam](#) or phone. Meanwhile, a Zoom Room is the physical hardware setup that lets companies schedule and launch Zoom Meetings from their conference rooms.

Here are Zoom's core features:

1. **One-on-one meetings:** Host unlimited one-on-one meetings even with the free plan.
2. **Group video conferences:** Host up to 500 participants (if you purchase the "large meeting" add-on). The free plan, however, allows you to host video conferences of up to 40 minutes and up to 100 participants.
3. **Screen sharing:** Meet one-on-one or with large groups and share your screen with them so they can see what you see.

WhatsApp is platform agnostic. You do not need to own the same brand of phone as your call recipient or be on a specific platform — the app works with iPhone, Android, and Windows phones, and Mac or Windows desktop or laptop computers, which you can use to

send and receive messages, but not make calls. Like any other SMS messenger, you can initiate a conversation with an individual or a group and video chat with up to four people. The OS version also has in-app support for video playback from both Instagram and Facebook. You can also share your location, broadcast your status to your contacts, share contacts, set customized wallpapers and notification alerts, email chat history, use the camera to shoot photos and videos from within the app, and simultaneously broadcast messages to multiple contacts.

What is a Blog?

A blog (a shortened version of “weblog”) is an online journal or informational website displaying information in the reverse chronological order, with the latest posts appearing first, at the top. It is a platform where a writer or a group of writers share their views on an individual subject.

Blogging is a collection of skills that one needs to run and supervise a blog. This entails equipping a web page with tools to make the [process of writing](#), posting, linking, and sharing content easier on the internet.

8. CONCLUSION

E-Learning involves the use of digital tools for teaching and learning. It makes use of technological tools to enable learners study anytime and anywhere. It involves the training, delivery of knowledge and motivates students to interact with each other, as well as exchange and respect different point of views. It eases communication and improves the relationships that sustain learning. Education is the panacea that liberates an individual from slavery while the tertiary Institution is the brain box of a nation as it plays a lead role in ensuring the transformation of countries from developing to a developed nation. This study proposed a framework that allows lecturers and students to participate in academic activities during the lockdown session through the use of some open source computer and android applications that also allows the institutional management to monitor ongoing academic activities. The framework indicates that the lecturers will upload the courseware and lecture notes to the E-learning zones and interact with the students while the students will access the e-learning zones to attend their various classes as scheduled by the lecturers or as directed by the school management. Thus, the e-learning zone serves as the meeting point or lecture room for the students and the lecturers alike, in the tertiary institutions in North-eastern Nigeria.

9. RECOMMENDATIONS

This paper made the following recommendations: This study, therefore, recommends that the Federal Government, state governments of North-East state, as well as private educational institute owners should look into this proposed framework with the e-learning platforms used and practice continued education during the lockdown session and can also come up with other e-learning platforms that might have not been included here to achieve effective and continued education despite the ongoing global pandemic lockdown.

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