

## Virtual Learning in Selected Nigerian Universities during the Coronavirus Pandemic: A Situation Analysis

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### ABSTRACT

Educational institutions in Nigeria use traditional methods of teaching and learning which is centred on face-to-face interactions. However, the recent outbreak of the deadly disease COVID-9 globally imposed a shift in teaching and learning processes in many institutions of higher learning in Nigeria. It is upon this situation that this study considered it necessary to examine virtual learning in selected universities in Nigeria amid the Coronavirus pandemic. The objectives of the study were to examine some selected universities on how they are keeping their students engaged academically during the Covid-19 pandemic and what challenges lecturers and students faced using virtual platforms. The study adopted a descriptive qualitative design. The study population was eleven (11) academic staff representing eleven selected institutions and 165 students across the eleven institutions. Purposive sampling was used in selecting 11 tertiary universities and telephone interview was used for data collection. Thematic content analysis was used in analyzing responses and direct quotes were used when necessary. The findings from the study revealed that universities in Nigeria use online platforms such as Google classroom, Google meet, Google hangout, WhatsApp, Moodle, Telegram, Edmodo, Office 365, Teams, Learning Management systems and zoom in teaching, lecturing and assessing students by giving them quizzes and assignments during COVID-19 pandemic. It was also revealed that some of the challenges faced by lecturers and students include poor internet connectivity, little or low skills and knowledge about virtual platforms, irregular power supply, lack of smartphones, and high cost of browsing data. The study concluded that to effectively operate in a virtual environment, both teachers and learners need space, a computer, a smartphone, a good telecommunication network and the necessary skills etc. It was recommended that the federal government of Nigeria should endeavor to put in place infrastructure that will help universities to easily migrate from traditional classrooms to the electronic or virtual environment.

**Keywords:** Coronavirus, Universities, Virtual Learning, Virtual Platforms, Nigeria

### Introduction

Learning involves the process through which individuals can develop abilities and competencies for their wellbeing and to effectively contribute to society. Human capital is a veritable tool to the development of any nation and as such, this human capital needs to be equipped mentally and otherwise. Therefore, the development and sustainability of a nation is dependent on the education of their human resource. Education is thus the foundation of all developed nations and the starting point for reducing poverty, inequality, creating and spreading knowledge (Oseghale & Adeyomoye, 2011). Over the years, education

in Nigeria has been faced with many challenges ranging from lack of resources, inadequate funding, bad leadership, cult clashes and riots by students, recurrent strikes by members of the academic communities, labour disputes and the outbreak of diseases.

The outbreak of Coronavirus also known as COVID- 19 that led to the closure of educational institutions all over the world has caused a huge setback in students' learning, disruption of the current academic session, cancellation of semester's examinations, postponement of graduation for final year students and even death of some staff in various academic institutions. The Coronavirus pandemic, affected the world in almost all ramifications. According to Lawal (2020,

March 26), school closures in response to COVID-19 has uncovered social and economic issues, as well as student debt, digital learning, food insecurity, and homelessness, access to childcare, healthcare, housing, internet, and disability services. It was reported that over a billion learners globally were unable to attend school or university in a bid to stop the widespread of COVID-19. According to UNESCO (2020), 1,379,344,914 students or 80 percent of the world's learners are now being kept out of educational institutions due to the closure of schools and universities worldwide. As of 29<sup>th</sup> July 2020, 16:08GMT, there were 16,998,775 confirmed Coronavirus cases globally, 665,599 deaths and 10,528,793 have been reported to have recovered from Coronavirus ([https://www.worldometers.info/coronavirus/?utm\\_campaign=homeAdUOA?Si](https://www.worldometers.info/coronavirus/?utm_campaign=homeAdUOA?Si)). In Nigeria, as of Wednesday, July 29<sup>th</sup>, 2020, Nigeria Centre for Disease Control (NCDC) reported a total of 41,804 confirmed cases of Coronavirus, 868 deaths and 18,764 recovered from the virus (NCDC, 2020, <https://covid19.ncdc.gov.ng/>).

The federal ministry of Education shut down all schools in Nigeria on the 23rd of March, 2020 due to the outbreak of the COVID 19 pandemic. This means that pupils and students in tertiary institutions will not attend classes, thereby disrupting the academic calendar. It is worthy to note that, members of the Academic Staff Union of Universities (ASUU) have been on strike even before the outbreak of COVID-19 till July 2020. This, in essence, means that all federal universities across Nigeria have been closed even before the Coronavirus pandemic. Hence, it is not out of place to conclude that almost all federal universities in Nigeria have not been able to adopt virtual or electronic learning platforms in teaching students during the COVID-19 pandemic with exception to some universities who ensure students remain engaged academically even in the face of COVID-19.

The outbreak of Coronavirus has brought about a change in the way and manner educational institutions deliver lectures to students. Before the outbreak of COVID-19, face-to-face learning is the most used medium of teaching, learning and research. However, the COVID-

19pandemic has made many universities settle for online learning methods in delivering lectures to students. The closure of all primary, secondary schools and tertiary institutions disrupted the academic sessions. The only way to salvage this situation is to engage in virtual or online learning. This is an indication that virtual learning has replaced the traditional classroom especially for universities that do not run online distance learning. Forcing many institutions to use online environment that allows students and lecturers to collaborate without physical presence.

In Nigeria however, this is not the case. According to Jibril and Ogunbamowo (2020, May 16), the state of digital education in Nigeria is not encouraging because many students are yet to understand the new learning platform This study will therefore examine some selected universities on how they engaged their students academically amid COVID-19pandemic and the challenges lecturers and students faced using virtual platforms.

### **Objectives of the Study**

The following research objectives guided the study and they are:

1. To examine the various online platform used by universities in Nigeria to lecture students during COVID-19pandemic;
2. To determine the challenges faced by students and lecturers in the online or virtual environment.

### **Literature Review**

#### **The Concept of Virtual Learning**

Virtual learning is concerned with education which takes place in an online environment. This type of learning is achieved using computers, mobile phones and the internet within and outside the educational institutions. The instruction and teaching activities are carried out in an online environment where the teacher and learners are physically separated in terms of place, time, or both. Beek (2011) emphasized that virtual learning uses computer software, the internet or both to deliver instruction to students.

Virtual learning environments may be grouped into three, namely fully web-based, blended and traditional courses using web-based supplements (Gilbert, 2015). The fully web-based courses are solely based on the use of internet and computers with no face-to-face interaction with the teachers and learners; while blended course combines both the web-based and traditional classroom sessions with different time allocated to each. Lastly, the traditional course using a web-based supplement indicates that online technology is used as supplemental material for teaching in traditional classroom learning. This study will only look at a fully web-based virtual environment.

Virtual learning has many benefits on students learning progress such as classroom environment are made interactive for both the teachers and students; allows each student to learn in their space because you can record and replay the teaching. Also, with virtual learning, you can access the coursework from anywhere and at any time and help in effective time management as stated by Thomson (2010 p.36) that a secondary teacher once said that, "I don't miss the huge vistas of wasted time that inevitably become a reality in a face-to-face school context"; meaning that there is no schedule restriction. They met and stay as long as needed in the virtual environment. Above all, virtual education facilitates asynchronous discussions with classmates through forming group classmate discussions and guarantees immediate feedback and assessment on tests from the participants.

### **Types of Virtual Learning Platforms**

There are several online or virtual learning platforms used by tertiary institutions for teaching students during COVID 19 pandemic. Some of these platforms are;

- ❖ **Zoom:** This is web conferencing software that allows students and lecturers to join in at a specific time using their iPad, tablets, smartphones, and laptops to access online class sessions. With zoom, lecturers can divide a large class into smaller groups and give group assignments and quizzes to students. Students can see their lecturers, raise hands to ask

questions, comments and give presentations like in a face-to-face environment. Lecturers can also get the total number of students that attended a lecture.

- ❖ **Google Meet:** This is another online learning platform that is used for learning. It allows lecturers to video chat call or send messages to students. It is useful for large classes and allows lecturers to break larger classes into smaller groups, track attendance, allow students to raise hands and share their opinion.
- ❖ **Google Classroom:** This is an online class that is based on a two-way discussion platform that allows students to interact with their lecturers. It enables lecturers to store the content of course materials, announcements, events on Google drive.
- ❖ **Blackboard Collaborate:** This is software that allows lecturers and students to interact in an online environment. According to Nelson (2017), blackboard collaborate enables audio and video conferencing and presentations using interactive whiteboard screen sharing. Students can interact among themselves and also post assignments.
- ❖ **Edmodo:** This is another online classroom used by lecturers to engage students remotely. According to Bolaji (2020), Edmodo allows teachers to share notes, articles, and quizzes and send private messages. It also enables students to access content remotely.

Apart from these platforms, there are other applications used by lecturers they are; Skype, WhatsApp, Wechat, Webex, Moodle, Office 365, and Microsoft Teams etc.

### **Global Situation of Virtual Learning during COVID 19 Pandemic**

Globally academic calendar has been thrown into a state of confusion and many schools basic/ primary; secondary and higher education institutions were closed down due to the

outbreak of Coronavirus (Demuyakor, 2020). According to UNESCO (2020), schools from basic to universities have been shut down and students returned to their parents to be self-quarantined. Many activities ranging from classwork, examinations, graduations, face to face conferencing and seminars have been postponed indefinitely. Since the schools are closed due to COVID 19, UNESCO encouraged countries to migrate to virtual learning to remedy the effect of closures of schools and facilitate the continuity of education for all (UNESCO, 2019).

Many teachers and students have been excited by the move to embark on the online delivery mode of learning (Shahu, 2020). The outbreak of COVID 19 has adversely affected the educational program worldwide. One thing is to introduce virtual learning but is there a planned procedure for administering exams, assignments, and projects to evaluate the students' performances. Clear indication shows that many institutions of higher learning engage their learners in virtual learning programs without adequate training for the teachers and the learners. This situation has thrown many teachers and learners into fear and confusion.

In Iran, the spread of the COVID 19 pandemic led to the closure of face-to-face courses in schools and universities. The use of virtual learning was adopted to provide access to learning from anywhere at any given time. This situation exposed students to online interaction with the teachers and their classmates. According to Ahmady, Shahbazi and Mohammad (2020), in Iran, virtual learning is carried out through television and mobile technology using social media for grade-school students while higher institutions use mobile messenger systems and learning management systems as VESTA, MOODLE and NAVID.

Schools in Iraq uses Google classroom to uploading study materials for students while Turkey, uses virtual learning applications such as Teams and Zoom as stated by Khan and Raad (2020). The Google classroom helps the students to find their study materials related to their subjects easily and study them at home.

In the country, some schools package and delivered printed textbooks and other reading materials to their students at their various homes (Reimers and Schleicher, 2020). The World Bank also provided links for remote resources and platforms for virtual learning which included television and interactive radio instructions which are group by country and language. All these are done to ensure improve the diversity of channels to deliver educational resources and guidance to students and teachers (World Bank's Edtech Team, 2020).

In China, all students from kindergarten to doctorate level in the mainland were asked to stay at home and embark on online learning. Students now access virtual education by logging in to the virtual learning platform from the comfort of their homes to continue with their learning process (Bao, 2020). Vegas (2020) opined that "cases of Coronavirus (COVID-19) in the United States rise, more states have adopted shelter-in-place orders to curtail the pandemic and the disruption to most Americans', daily lives has been drastic and sudden, and perhaps one of the most dramatic shifts was moving education to the virtual setting". According to the Dean faculty of the Harvard graduate school of Education (Bridget Terry Long), in an interview as stated in Vegas (2020) that "the reasons for moving students to the virtual environment were for the health and safety of the students;" in addition, the movement was for the continuation and consistency in the education of these students.

In Nigeria, reports have shown that some universities have taken bold steps in conducting virtual learning to keep students academically engaged during COVID 19 lockdown. For example, National Open University of Nigeria (NOUN) is a federal university in Nigeria licensed to run open and distance learning (ODL). During the pandemic, NOUN students attended the online facilitation and carried out their Tutor Marked Assignments (TMAs) online. Idris (2020) reported that Lagos State University (LASU), University of Nigeria, Nsukka (UNN) and Ahmadu Bello University (ABU) were two other universities that operated eLearning for undergraduate students. Although the UNN platform was limited to selected one-off courses, at the post-graduate

level, EduPlatform was developed to allow students to learn remotely. Akinpelu (2020) researched how Nigeria tertiary institutions were keeping up with classes during a pandemic. The result of the study showed that Elizade University, American University of Nigeria and Ayo Afe Babalola University and some others are using the remote medium for learning. In as much as some universities in Nigeria have migrated to the virtual environment, they are not immune to challenges. Adeoye, Adanikin and Adanikin (2020) highlighted some challenges confronting electronic learning in Nigeria to include epileptic power supply, high cost of internet data services, high cost of laptops, computers, poverty situation in Nigeria which has hindered many students from affording the necessary devices that they need to get connected to electronic learning. In addition, Adedigba (2020) reported that many Nigerian students do not have smartphones which have made the possibility of online learning difficult.

### **Methodology**

This study applied the qualitative research approach. The qualitative research made use of interviews in carrying out the research investigation. The mobile instant messaging interview (MIMI) was employed. The use of qualitative mobile instant messaging interview (MIMI) research approach is imperative in research in this era of the COVID-19 pandemic where face-to-face interaction is restricted. Taylor, Kermode and Roberts (2007) noted that interview research is very useful as it helps to unveil thoughts that could have been difficult to understand ordinarily but through sharing of experiences and views problems are solved. It is a very good tool of data collection from respondents because the researcher will have a first hand and broad view regarding the understanding of the phenomenon under investigation especially when respondents share their thoughts and feelings of what is being discussed. The justification of the use of a mobile instant messaging interview (MIMI) was not only because of the COVID-19 pandemic but also to see how this kind of research is carried coupled with the fact that the researcher could not travel out from their work environment. Importantly, there is no need for the researchers and the respondents to

share a geographical location even when the research can still be carried out based on the support of internet connectivity. The mobile instant messaging interview (MIMI) was supported with content analysis of literature harvested from databases of Scopus and Web of Science to support the results and argument raised in the discussion part of the study. The use of content analysis of documents is vital as it helps in the triangulation of scholar's views to draw an inference or make reference to results obtained (Vaismoradi, Turunen and Bondas, 2013). It also helps to support or contradict what the author finds out during the research investigation (Vaismoradi, Turunen and Bondas, 2013). The study population consists of eleven (11) academic selected institutions and 165 students across the eleven institutions. Purposive and accidental sampling was used in selecting the eleven (11) tertiary universities where the telephonic interview was used for data collection. Before the telephonic interview was carried, the researcher designed the interview questions which they need to ask the respondents and it was given to two experts at the National Open University library Abuja for scrutinizing and corrections. The corrections made were used to rework the interview questions. The researchers sought the respondents' consent for the participant in line with the ethical considerations from their institutions before participation. The researcher also discussed with the respondents when it is most suited for them to be interviewed considering the nature of their busy schedule and they all agreed before the interview were carried out. The interview with the respondents took ten to twenty minutes with each interviewee, depending on the nature of the questions that were asked. This type of interview ensures homogeneity and is useful to get firsthand information on issues under investigation. The gap between the participant and the interviewer helps the participant to share their opinions more freely and openly, leading to more considered responses. The interviews and the entire research process took two months before the results obtained from respondents were collated and transcribed for the correctness and validity of the construct. Thematic content analysis was used in analyzing responses and direct quotes were used when necessary. The following were the eleven selected universities for this study;

**Table 1. List of Sampled Universities**

S/N	List of Sampled Universities
1.	Adeleke university, Ede Osun State Nigeria
2.	Babcock University, Ilishan Remo Ogun State, Nigeria
3.	Bells University, Ota Ogun State, Nigeria
4.	Bingham University, Karu-Abuja
5.	Bowen University, Iwo Osun State, Nigeria
6.	Chrisland University, Abeokuta Ogun State Nigeria
7.	Covenant University, Ota Ogun State, Nigeria
8.	Delta State University, Abraka Delta State, Nigeria
9.	Joseph Ayo Babalola University, Ikeji ara-Keji Osun, State Nigeria
10.	Lead City University, Ibadan Oyo State, Nigeria
11.	National Open University of Nigeria, Jabi-Abuja, Nigeria

## Findings

Analysis was based on the interviews conducted with staff. Ten interviews were conducted through phone calls and WhatsApp and the results were organized and discussed according to the objectives of the study. The following are the findings of this study;

1. Universities under investigation use online platforms like Google meet, Google classroom, Google hangout, Telegram, Moodle, Edmodo, Office 365, Teams, and Zoom in teaching and learning during COVID 19 pandemic.
2. Some of the universities conducted examinations virtually using Learning Management System, Classera, XXUP, Moodle, and Premier software.
3. The lecturers and students were faced with some challenges relating to the high cost of data, poor internet connectivity, high cost of laptops and computers, and poor technology

## Virtual or Online Platforms used by Universities in Nigeria

Universities around the world have adopted virtual learning during COVID 19 pandemic to keep students engaged academically. According to Khan and Raad (2020), schools in Iraq and turkey uses virtual platforms such as Google classroom, teams and zoom to teach students.

As one of the objectives of this study, the researchers wanted to find out the various virtual platforms used by some universities in Nigeria to teach students. Interviews were conducted with academic staff of the eleven universities, the result revealed that they use online platforms such as Google classroom, Google meet, Google hangout, WhatsApp, Moodle, Telegram, Edmodo, Office 365, Teams, Learning Management systems and zoom in teaching and learning. Students were given quizzes and assignments amid COVID 19 pandemic using the various online platforms.

When asked about the virtual learning platforms used in conducting students' examinations, findings revealed that some universities like National Open University of Nigeria (NOUN), Adeleke University and The Redeemer's university used Learning Management System (LMS) in conducting virtual examinations for students. While the National Open University of Nigeria (NOUN) had successfully conducted virtual examinations for their students using Learning Management System (LMS) as, at the time of this study, Adeleke University and The Redeemer's university were yet to conduct the semester's examinations using LMS. Other universities like Chrisland University, Bowen, Covenant, Bells, and Mountain Top University as at the time of this study intend to use other digital platforms like Classera, XXUP, Moodle, and Premier software respectively for conducting the forthcoming semester's examinations. The respondent from Leadcity University, Joseph Ayo Babalola University and Bingham University said they have no idea of the virtual platform that their respective institutions intend to use in conducting the semester's examinations.

### **Challenges Faced by lecturers and students in Virtual Environment**

To effectively operate in the virtual environment, students and lecturers need space, smartphones, personal computers and internet connectivity. A respondent from Babcock University said that "Babcock University provides 10GB data for individual lecturers combined with the university's network". While Ten (10) respondents representing 10 universities responded that their university management did not provide data for lecturers as such they spend too much money purchasing data to lecture and interact with their students coupled with slow telecommunication network in Nigeria.

As regard challenges facing students, students complained about poor internet connectivity, little or low skills and lack of knowledge about virtual platforms, irregular power supply, lack of smartphones, and high cost of browsing data. The findings of this study are in line with Adeoye, Adanikin and Adanikin (2020) who researched on COVID 19 and e-learning in Nigeria tertiary institutions. They reported some challenges faced by students and lecturers in the virtual environment to include epileptic power supply, high cost of internet data services, high cost of laptops and computers, poor internet connectivity, and lack of the required skill set needed to effectively operate in a virtual environment. Many students in Nigeria do not have smartphones which made the possibility of online learning difficult (Adedigba 2020).

### **Conclusion**

To operate in a virtual environment, both teachers and learners need space, a computer, a smartphone, a good telecommunication network and the necessary skills sets. The use of virtual learning technologies in teaching and learning at home is a difficult task for many teachers and learners because of the level of ICT compliance skills of the teachers and learners. Also, many learners do not have laptops and mobile technology to participate and access these online teaching. The question then is what will be the faith of these students who do not have access to laptops and internet

facilities at home? Is it possible to teach practical subjects like mathematics through audio/ voice media without virtual demonstrations? Also, how can the courses taught online be evaluated or assessed where many of these students do not have access to computers, poor power supply; high cost of internet connectivity and poor internet bandwidth? The quality of online education is a critical issue that needs proper attention. Although some private universities and government-owned universities in Nigeria have taken a bold step in ensuring that their academic session is not disrupted. This they have done by embracing various types of e-learning platforms in teaching, research and conducting examinations for students. Some of the Nigerian teachers have become "digital teachers" since the closure of schools and with the introduction of virtual teaching modalities, they have been sharing guidance on how to make use of the WhatsApp groups, Zoom and other online platforms for teaching and assessing students.

### **Recommendations**

Based on the findings and conclusion of the study, the following were recommendations were made;

1. The federal government of Nigeria should endeavour to put in place infrastructure that will help universities to easily migrate from traditional classrooms to an electronic or virtual environment.
2. The management of the institutions of higher learning should train and retrain the lecturers and the learners on how to use the virtual learning platforms for teaching and learning for easy access and use.
3. Preparedness on the part of students and lecturers is important and this can be done by training and retraining, workshops, seminars and conferences to acquire the necessary skill set to effectively operate in an online environment.

4. The management of the institutions of higher learning should motivate the lecturers through the provision of token for the acquisition of data or pay the allowances for participating in the online lectures.
5. The federal government of Nigeria should endeavour to increase the budgetary allocation of the educational sector to meet the demand of the Academic Staff Union of Universities (ASUU) and enable the smooth running of all government-owned institutions.

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