

STRATEGIZING FROM THE COVID-19 PANDEMIC EXPERIENCE ON THE ADVANCEMENT IN VIRTUAL LEARNING IN NIGERIA

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ABSTRACT

Educational systems are faced with modifying and re-modifying activities that foster the improvement of better learning over the years. In-person learning, which requires the physical presence of both the student and teacher in a particular place and at a particular period of time, used to be what was best and most obtainable in most Nigerian public institutions of learning. After the global pandemic in 2020, strategizing and re-strategizing of learning cultures through virtual learning became inevitable. This qualitative study utilized semi-structured interviews to conduct in-depth interviews with 20 students. WhatsApp was the commonly mentioned tool used in virtual learning as found in this study. Poor facilities, poverty, ignorance, incompetency, and inadequate virtual learning training were the indicated hindrances to the advancement of virtual learning in the Nigerian Educational Sector. This study suggested the need for trainings on the use of the internet and other facilities, the upgrading and maintenance of these facilities, funding of the educational sector, and payment of bursary to students to enable them purchase data for virtual learning innovation in institutions of higher learning in Nigeria.

Keywords: *Virtual Learning, Students, Distance learning, Education, Advancement, Nigeria*

Globally, technological advancement has helped in improving lifestyles and making information and learning easily accessible and readily available. The impact of this form of innovation has also benefitted the educational sector in allowing students and lecturers easily exchange knowledge without being confined to a physical building. Virtual learning is becoming increasingly common, and the incident of the COVID-19 pandemic further introduced the need for this form of learning (Adewale & Tahir, 2022). The COVID-19 pandemic impacted the educational system globally and caused several schools and colleges to remain temporarily closed. Many students, ranging from undergraduate to postgraduate students, had to

leave their university campuses, putting an abrupt end to academic activities and disrupting academic calendars across various institutions. As a result of this phenomenon, many universities introduced virtual learning educational programmes to curb the barriers distance poses in obtaining education and this form of learning is becoming increasingly common today (Allen & Seaman, 2017; Ifijeh & Yusuf, 2020; Li & Lalani, 2020; Orijji, & Torunarigha, 2019; Zalat et al., 2021). Virtual learning can be done through online learning management systems such as Canvas, Zoom, Edmodo, Google Classroom, and Microsoft Teams. This form of learning is suddenly becoming a vital option for learning either at the undergraduate or

postgraduate levels (Ebohon et al., 2021; Stepes & Roberts, 2017). However, Eze et al. (2018) argued that most institutions are not able to fully utilize virtual learning or fully get its advantages.

Virtual learning is an advanced platform for conveying knowledge and skills to its learners. Some benefits of virtual learning include affordability, time saving, wider coverage, and the promotion of team learning and collaboration (Eduard & Lucian, 2020). Virtual learning has been identified with diversities of names, amongst which are distance learning, online learning, e-learning, and even remote learning (Harsasi & Sutawijaya, 2018; Shahzad et al., 2020; The Albert Team, 2022). Internet sources such as Google and the internet have made the accessibility and distribution of educational content readily available. It has also assisted in improving virtual learning (Fidalgo et al., 2020). Additional benefits of virtual learning include self-paced study, student-centric modality, time and space flexibility, time saving, encouragement of creativity, easily of accessibility, and cost-effectiveness (Bansal, 2020; Fidalgo et al., 2020; Singh et al., 2019). Virtual learning has also been shown to increase the likelihood of uninterrupted teaching and learning activities (Adewale & Tahir, 2022).

However, it is important to note that migrating to virtual learning can be challenging and pose difficulties, especially in a developing country like Nigeria where advanced technology has not been well integrated into the educational system as a result of impeding problems. Ebohon et al (2021) and Ekwonwune and Oparah (2020) outlined the impending problems existing in tertiary institutions in Nigeria. These problems included a lack of funding, infrastructure, poor maintenance of existing infrastructures/infrastructural decay, a limited number of lecturers/instructors, and many more. Lawal, et al., (2021) also opined that most public universities in Nigeria are still struggling with virtual learning regardless of the attention COVID-19 brought to it.

Virtual learning has been faulted as a result of some challenges that tends to affect and deprive students from fully participating educationally through virtual learning. For instance, Egielewa et al., (2022) indicated that virtual learning requires basic infrastructure that makes it conceivable for the process to be actualized. In Nigeria, just like

most developing nations, owning digital tools such as laptops, smartphones, and even having access to data is very expensive. Other challenges such as difficulty in adapting to e-learning, issues of poor electricity, lack of bandwidth and connectivity, insufficient information communication technology facilities catering to the virtual learning platform and low level of computer literacy among staff and students affect the adoptability of e-learning in Nigeria (Afolabi & Uhomoibhi, 2017).

The Goal of learning whether in-person or e-learning is the achievement and attainment of productive learning in the educational sector. The justification to show whether learning has actually taken place is in the feedback gotten from the learners. In this scenario, feedback from students is very useful in determining the best learning method. This study addresses students' views on what they think is the best form of learning, especially in terms of the recent increase in virtual learning. Additionally, the results of this research provide some strategies to encourage and support students in advancement in learning.

Egielewa et al. (2022) carried out a study on the COVID-19 pandemic and digitized education. They analyzed online learning in Nigerian higher education. Their study found that students were not satisfied with virtual learning. This current study, however, is of the opinion that virtual learning is a welcome development. Hence, the objective of this study is to investigate the advancement in virtual learning in Nigerian universities in a bid to inform policy. To evaluate this study, four Research Questions (RQ) were formulated. RQ1: To what degree are universities in Nigeria partaking in virtual learning? RQ2: To what extent has virtual learning impacted students in Nigerian universities? RQ3: To what extent are the challenges impeding virtual learning disrupting its advancement? RQ4: What measure can be put in place to improve the advancement of virtual learning and benefits of these learning methods?

METHOD

The study was conducted in University of Port Harcourt (UNIPORT), Rivers State, Nigeria. UNIPORT is among the one hundred and seventy-four (174) Universities in Nigeria (National Universities Commission, 2020). A purposive sampling technique was applied in selecting 20

students from the Department of Social Work, Faculty of Social Sciences, University of Port Harcourt. The researchers, through a simple random sampling technique (hand drawing method without replacement), selected 10 year-two and 10 year-three students each from the undergraduate students in the 2019/2020 session, making a total of 20 participants who willingly participated in this study. The study took place in September to November 2021.

DATA COLLECTION

A qualitative study design using in-depth interviews was adopted in this study. The study participants were recruited based on convenience, and informed consent was obtained before the experiment began. These semi-structured interviews conducted lasted between 45-60 minutes with each participant. The discussions were held at the therapy/counselling room of the Department of Social Work, University of Port Harcourt. Participants were told about the need for electronic recording or taking notes during the study. English was the mode of communication in all interview sessions as all the students involved in this study indicated that they had taken the compulsory English course mandated by the University, meaning they were all fluent in the English language.

DATA ANALYSIS

After transcribing and analyzing audio-recorded data, thematic categories were generated in accordance with the phenomenological approach in qualitative research design (Creswell, 2013). The transcribed and translated interviews were thematically analyzed. Emerging themes were reviewed by the researchers for uniformity and frequency. In forming thematic patterns, major themes emerged, which were used to analyze the study. These themes included: The nature of virtual learning in Nigerian universities, impact of virtual learning among students in Nigeria universities, challenges impeding the advancement of virtual learning, and measures to improve the advancement of virtual learning.

RESULTS

All 20 participants who participated in this study were undergraduate students of Social Work Department, Faculty of Social Sciences, University of Port Harcourt, who gained admission before the COVID-19 pandemic era and took part in the

virtual learning sessions. 10 participants were males while the remaining 10 were females. Their age ranged from 19-27 years old. 12 students indicated that they were sponsored by their parents/guardian while eight students stated that they self-sponsored themselves in the course of gaining a degree. Their responses are displayed in the sub-themes below.

NATURE OF VIRTUAL LEARNING IN NIGERIAN UNIVERSITIES

All the study participants had knowledge of virtual learning; they were aware that any form of learning which takes place outside the physical building but through technological devices is virtual learning. Eight participants, however, preferred to call it online learning, six participants preferred to tag it as distance learning, while the remaining six went with the name virtual learning. This demonstrates that virtual learning may take on different names, but the nature still remains the same. According to these participants, virtual learning is done through Zoom, WhatsApp, Emails, Google Classroom, YouTube, and Skype. To them, these technological tools and applications help students get properly informed and educated on what a particular course entails. Specifically, a participant aged 21-years old stated thus:

I know that virtual learning can take any form and shape it just depends on the availability of data to access the internet. When you don't get to physically see your lecturer or your students but you still end up getting the course content and lecture notes of some pre-recorded or live video through WhatsApp, Google Classroom or even YouTube then I think that is virtual learning. This means that you are learning quite alright but in a different form
(Female, SP1).

A 24-year-old participant also mentioned:

Virtual Learning keeps you informed anywhere and anytime... Any type of learning or knowledge transfer that is done outside a physical building say a classroom is termed virtual learning. This type of learning requires good electricity, data and gadgets such as a smart phone or a

computer. With this type of learning you can get informed anywhere and at any time (**Female, SP18**).

In regard to what was the best form of virtual learning, the majority of the participants mentioned WhatsApp group chats. A 25-year-old respondent narrated his experience:

To me I think WhatsApp group chat is better, faster, cheaper and more reliable. During the pandemic our lecturer created a particular WhatsApp group just for her course and it made it easy for everyone to access her phone number and send a private message just in case we didn't get what she sent through voice notes or the pre-recorded videos. But we still used Zoom but that one takes more data and with our bad network most of us didn't fully enjoy using it (**Male, SP2**).

Additionally, another participant had this to say:

If I am to choose the best type of facility suitable for online classes, then I will say it is WhatsApp because of its affordability than maybe getting notes through emails. Even though we explored Zoom, Google Classroom and YouTube to study and get our lectures but I think WhatsApp is still the best (**Male, SP3**).

IMPACT OF VIRTUAL LEARNING AMONG STUDENTS IN NIGERIA UNIVERSITIES

All participants agreed that virtual learning impacts the educational sector positively. In their view, good internet and a technologically-competent lecturer will do justice to any lecture. In turn, the students will learn and even pass their examination with flying colours. Some participants also stated that virtual learning saves time, and feel that it is cheaper and faster to deliver. A participant narrated his experience: "In my own view I think virtual learning is more valuable and time saving than physically going to class" (**Male, SP4**). Another participant said that: "Virtual learning helps you have the world at your feet. For instance, with your phone and data you can browse the internet for any information" (**Female, SP5**). To further buttress these points are the views of other participants, displayed below:

Virtual learning has impacted me greatly. I used to be afraid of using the internet. I had this type of phobia for android phones and I just used this other type of small phones that is purely for answering calls but when it was compulsory to get lecture materials and lectures itself online I had no choice than to kill that fear and learn how to use the internet and today I can boast of knowing how to use these online applications to learn. I also went to the village and taught my friends who are yet to get admission how to use the internet and even opened Email account for them so that they won't have such fears when they finally get admitted (**Female, SP6**).

Virtual learning is cheaper and less toxic especially for someone like me that is afraid of a clustered place and you know most of our classrooms are too clustered. I think this virtual leaning helped me love learning the more. I don't know how best to put it but I fell in love with education the more through virtual learning it really had a positive impact on me. I was no longer shy to ask questions and even respond to question (**Male, SP2**).

In the words of this particular participant, the impact of virtual leaning on his academics has thrilled him:

Virtual learning improves a student's ability to form notes and comprehend what a lecturer is saying. After every virtual class, I go back to the internet to browse on that particular topic taught to gather more information and this has really helped my reading pattern and even improved the way I answer my exam questions. Now I am topping my class and I am really thrilled (**Male, SP8**).

CHALLENGES IMPEDING THE ADVANCEMENT OF VIRTUAL LEARNING

Participants in this study have identified some challenges impeding the advancement of virtual learning in institutions of learning. Most participants mentioned poor facilities as a major factor impeding the advancement of virtual learning. Some others mentioned poverty and ignorance on the use of some virtual learning tools. Also, some

of them were of the view that most lecturers were incompetent on the use of virtual learning tools while some others stated that these lecturers and even students lacked the required training to fully embark on virtual learning. Additionally, while some participants mentioned how ignorance on the use of these virtual learning facilities impede its advancement, some others stated that lack of motivation goes a long way in hindering the advancement of virtual learning. To buttress these points raised, responses from the study participants are displayed under the subthemes below:

IGNORANCE

Ignorance, according to this study's participants, has a major influence on the use or disuse of a virtual learning facility even when available. Some participants mentioned that the high level of ignorance impedes the advancement of virtual learning. A female participant stated thus: "When a person lacks good knowledge on how to access and utilize the internet it discourages them from using the tool for any purpose and in this regard, I mean not only learning" (**Female, SP16**).

Another participant also said that:

I know a lot of my colleagues not just from this department alone that found it unpleasant navigating through the virtual learning route. Some students struggled for weeks before some could even pick up and follow-up with the virtual learning stuff. A lot of students are ignorant about this online learning. Some said it is too difficult to understand while others said they are not interested (**Male, SP8**).

Another astute participant said:

I have some colleagues who do not know how to use the internet. So, during our virtual learning classes some found it difficult to cope while some others relied on just the physical textbook. So, I can say a lot of students and even lecturers are not knowledgeable on what online learning entails and I think if this continues people like that would prefer to do the analogue style which is physical learning or in-person style (**Male, SP20**).

POOR INFRASTRUCTURE AND INADEQUATE INTERNET FACILITIES

Some participants decried the poor state of most internet facilities and infrastructures in most institutions of learning. According to some participants, most universities have outdated computer laboratories and most internet connections are poor and this can affect the advancement of virtual learning. Some of them were of the view that the poor state of university infrastructures makes it impossible for Nigeria's educational system to compete with their counterparts globally. To further buttress these opinions are responses from other participants displayed below:

You cannot compare what we have in most of the citadel of learning in Nigeria and this makes it difficult for us to continue in virtual learning. Although some private Universities are doing well in terms of technology and its incorporation to the educational system but sincerely most Institutions in Nigeria suffer from deplorable infrastructures and inadequate internet facilities (**Female, SP18**).

It is true that virtual learning has some major advantages but just like in-person learning this virtual learning faces some challenges that requires quick solutions. Although we have an E-library here in our department but the number of computers there cannot contain the number of students in my class. Also, there's no internet to connect with and I think this is a setback to the idea of the E-library (**Male, SP8**).

Not everyone can afford the huge amount involved in purchasing data and this has been a major setback when one talks about online learning. To use Google or any other online platform you must subscribe enough as it consumes too much data. I think something should be done to help both the students and even the lecturers in this regard (**Male, SP8**).

INCOMPETENCY IN THE USE OF INTERNET FACILITIES/ LACK OF TRAINING ON THE USE OF THESE FACILITIES

Some participants mentioned that most people lack the right skills, knowledge, and competency in the use of internet facilities, especially as it relates to virtual learning. Some other participants also mentioned that those who use the internet to teach should be trained, and most of the students and lecturers lack proper trainings on the use of

modern facilities to teach. According to a participant: “Some students here do not know how to use their smart phones properly. A lot of students think you must have a laptop first before you can connect online with your studies” (**Female, SP13**). Another participant also said that: “We are not trained as students early enough to know how to connect to these online classes. So many people did learning on the job while others self-taught themselves” (**Male, SP8**). Additionally, one participant mentioned:

How do you advance in what you do not even know how to use? During post UTME some students failed because they didn't know how to use the computer systems while others complained that the computer they used was faulty. Most internet facilities require good maintenance and most times to save cost they are not maintained regularly as it should be (**Male, SP4**).

MEASURES TO IMPROVE THE ADVANCEMENT OF VIRTUAL LEARNING.

All participants mentioned that some measures can be put in place to improve virtual learning. Some other participants mentioned the need for blended-learning, which involves both virtual and in-person learning. Specifically, a participant said that: “The best form of learning is blended-learning where you use both virtual learning and in-person learning to exchange knowledge” (**Female, SP13**). Another participant stated that: “Government should fund the educational system properly and also pay students bursary to enable us buy data” (**Male, SP2**). Some participants also suggested that these internet facilities be upgraded and maintained to fit the modern-day use.

Another participant stated:

I think if our computers and infrastructures are upgraded and maintained it would help us enjoy using the internet to learn. I am suggesting that government should provide adequate facilities in our universities and they should also set up a good maintenance team to check-mate these activities (**Female, SP5**).

Another participant also stated:

Students and lecturers should be trained

and retrained on the uses of these internet facilities especially in improving learning. Most students do not know how to use their phones especially those who came directly from the village so I think the student union government should inculcate this form of training in their student week activities (**Male, SP15**).

DISCUSSION

Virtual learning is a form of learning which takes place outside the physical building through the use of technological devices and internet facilities. Findings highlight that virtual learning is often interchanged with words or referred to as online learning or distance learning. The knowledge of the nature of virtual learning is well known in this study. Shahzad et al., (2020) stated that online learning or distance learning tend to mean the same thing. This means that virtual learning may be known by other names, but its nature still remains the same. Virtual learning requires access to the internet and data, and it keeps the student informed anywhere and anytime. Findings also stressed that virtual learning is done through Zoom, WhatsApp, Emails, Google Classroom, YouTube, and Skype. However, WhatsApp was the commonly mentioned internet tool used in disseminating information as regards distance learning.

Technology promotes deep learning and allows schools to respond better to the varying needs of the students (Andreas, 2020). Arvidsson and Delfanti (2019) also emphasized the role of digital media and student academic engagement. This current study showed that virtual learning impacts the educational sector positively. Good electricity, internet, and technological competency is required for virtual learning to create a positive impact on students. This study has emphasized that virtual learning is time saving, cheaper, and faster to deliver as opposed to face-to-face learning. Virtual learning, as expressed in this study, is more valuable and time saving than physically going to a classroom. These benefits have made learning more meaningful, easier, and cheaper to get.

Challenges impeding the advancement of virtual learning in institutions of learning were acknowledged in this study. Poor facilities, poverty, ignorance, incompetency, lack of virtual learning training, and a lack of motivation were some

indicated hindrances to the advancement of virtual learning in the Nigerian educational sector. Afolabi and Uhomobhi (2017) identified challenges such as the reluctance in settling to e-learning, issues of poor electricity, lack of bandwidth and connectivity, insufficient facilities catering to the virtual learning platform, and a low level of computer literacy among staff and students to be the major challenges of virtual learning. Specifically, some students complained about the difficulty of navigating through virtual learning in that most persons lack the right skills, knowledge, and competency in the use of internet facilities, especially as it relates to virtual learning. Also, most learning institutions have poor internet facilities and infrastructures, outdated computer laboratories, and poor internet connectivity. These challenges make it difficult for the Nigeria educational system to compete favourably with their counterparts outside the country.

This study has suggested the need for training on the use of internet and other facilities in virtual learning since most students and lecturers lack proper trainings on the use of modern facilities to teach and learn. It also recommends that internet facilities be upgraded and maintained to fit the modern-day use. Additionally, there should be provision for adequate facilities in universities as well as the set-up of a good maintenance team for these facilities. The government is also encouraged to fund the educational system properly and pay students bursary to enable the purchase of data to be seamless. When these measures are put in place, virtual learning will be improved upon, leading to its advancement in the Nigerian educational sector. Additional findings from this study have shown the need for a blended learning approach in Nigeria. The investment in digital facilities and the shift to blended learning dramatically changed Nigeria's educational system's learning and teaching approaches (Falola et al., 2022). This could be why this current study found that blended learning will positively influence learning. Kituyi and Tusubira (2013) found out that, most students believe that neither the virtual or in-person method is as effective as when both methods are combined. Atayero (2020) also suggested that some universities are already thinking of adopting a hybrid teaching methodology, which involves a combination of traditional and online methods.

Some highlighted limitations have been

observed in this particular study. For example, this study was a qualitative one that had a sample size of 20 students. The sample size poses as a limitation, as only responses from a public federal government university was employed. This particular limitation requires restraint for the generalization of the findings from this study. This study suggests a revalidation across a wider population and, if possible, the utilization of quantitative and qualitative mixed methods. In addition, future research is required in this same vein, but from the lecturers' point of view.

In conclusion, virtual learning has come to stay, and its impact and benefits are enormous. These benefits outweigh the difficulties in implementing measures that promotes its advancement, and must be introduced and duly followed-up on to improve learning in the educational sector.

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