



ASSESSING THE EFFECTIVENESS OF ONLINE LECTURES IN TERTIARY INSTITUTIONS IN NIGERIA DURING COVID–19 PANDEMIC LOCK DOWN - (A STUDY OF ENUGU STATE)

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Abstract: *The commencement of online lectures in Nigerian tertiary institutions during COVID-19 pandemic lockdown was to keep students busy academically. The study aimed at assessing the effectiveness of online lectures in Nigerian tertiary institutions during COVID-19 pandemic lockdown. The study adopted descriptive survey research design, and was carried out in Enugu State. the population of the study was all the students in tertiary institutions in Enugu State. Disproportionate random sampling was used to select three tertiary institutions in Enugu State. 200 students were sampled from each of the three schools making it 600 respondents. Two research questions guided the study. The instrument for data collection was a 19 items researchers' structured questionnaire: The instrument was face-validated by two experts, from Measurement and Evaluation, and Information Communication Technology departments respectively. All from Federal College of Education, Eha-Aufu. Reliability Coefficient of the instrument was 0.76 obtained using Cronbach Alpha reliability method. The statistical tools used to answer the research questions was mean scores and rank order. A 4 point Likert rating scale was used to determine the scores of each item. The results revealed that online lectures during COVID-19 pandemic lock down was not effective due to some challenges which include financial restrictions, lockdown effects in incomes, lack of internet connectivity, these urban and rural disparity in power supply among other. Based on these findings, recommendations were made.*

Keywords: *Coronavirus pandemic, lockdown, online lecture, internet inaccessibility, financial restrictions.*

Introduction:

An online lecture can be referred to as a lecture that is delivered virtually as opposed to in-person or traditional lecture. An online lecture may be asynchronous, in that students can watch a lecture at their own pace or paces. An online lecture may also be synchronous, a situation where students must be present at a specified time to view the lecture in real-time (Top Hat 2020) it can also be defined as a lecture connected to, served by, or available through a computer or telecommunication system such as internet. It is also an educational class that is held online. At this computer age, it has been observed that teaching and learning no longer necessarily have to take place at the same time

students can view a recording, sometimes referred to as a lecture capture so far they have access to wifi.

Online lectures according to Olasunkanmi (2020) allow students to access, submit, and receive grades all through the internet often without stepping their feet to lecture rooms or on campuses at all. Online lectures can take many forms, ranging from videotaped versions of traditional lectures to interactive forms of learning. Some online lectures resemble traditional classroom lectures as some teachers may videotape themselves presenting oral lectures and after, send or upload the lessons so that students can view the video lectures at their own convenient time. Some show presentation to students to watch and read. In some other online lectures, students may have to respond to questions or



prompts either online or over the phone during lectures, while others make the lectures almost like a game where students need to complete assignments to earn points. There are still other online lectures that require virtual class discussion, where students must have substantive conversations about the course contents and materials. All these make online lectures more interactive than others.

In recent time, nearly all the industrialized nations have gained access to Information Communication Technology (ICT) and nearly everyone in those countries is computer literate. In addition, the continuous advances in ICT has paved way for the realization of a more distributed structure of knowledge transfer through the development of online learning. The developing countries including Nigeria have embraced ICT and Online teaching and learning so as to keep pace with unimaginable speed in the area of Technology.

However, the use of ICT in Nigeria has been in increase and is also growing dramatically even in education sector. Online lectures also have been in existence in Nigerian higher institutions though in a skeletal form until the advent of Corona virus in Nigeria. Coronavirus disease (COVID-19) according to World Health Organization - EMRO (WHO) (2020) is an infectious disease caused by a newly discovered coronavirus, that makes the infected people experience mild to moderate respiratory illness and recover without requiring treatment.

Initially, the spread of the coronavirus reached Nigeria in February 28th 2020. By March 2020, with 343 confirmed cases and 19 recovered and 10 deaths, Nigeria was forced to suggest like other counties of the world various strategies to contain the spread of the virus. Hence public places such as schools, markets, religious worshiping centres and offices were shut down. This was to keep people at home and prevent or slow down the spread of the corona virus (COVID-19) with these worries, Federal Government of Nigeria through the Federal Ministry of Education approved the closure of schools across the country on March 19th

2020. The Federal Ministry of Education announced the temporal closure of all schools in Nigeria, which took effect from 23rd March 2020. (World Literacy Foundation (2020)

The Federal Government directed that schools remain closed until the spread of the virus was contained (World Economic Forum 2020, Adedigha 2020) consequently, students of all levels over Nigeria in both public and private schools were unable to attend physical schools due to this temporal lockdown.

The temporal closure of schools was not only in Nigeria as coronavirus pandemic has affected educational system worldwide, leading to the near total closure of schools, universities and colleges by most governments around the globe in attempt to contain the spread of COVID-19. According to Nairametrics (2020), as at July 2020, approximately 1.75 billion learners were currently affected due to school closures in response to the pandemic, while 106 countries implemented nationwide closures, impacting about 98.6 per cent of the world's student population, and 55 countries implemented local closures. These students were locked down in their homes idly with a lot of uncertainties about their academic work, education and future generally. In response to these problems. UNESCO recommended the use of distance learning programmes and open education applications and platforms that schools and teachers could use to reach learners remotely and limit the disruption of education. In respond to this, many countries started doing something to help their education system. China government for instance provided computers to students who are from low income households and offered mobile data packages and telecommunication subsidies. In France, efforts were made to lend devices to students who did not have access to computers. Portugal on her own partnered with postal services to deliver working sheets to students who did not have access to the internet at home (World Literacy Foundation 2020).

In Nigeria partially in response to UNESCO recommendations and partially to ensure that Nigeria education system especially tertiary education was not



totally shut down, and that Nigerian students were not left idle, efforts were made to keep students busy with academic activities as long as the lockdown would last (HOT Courses Abroad 2020) consequently, the Federal government through the Federal Ministry of Education according to Nwanmereni (2020) on 10th April 2020 directed the authorities of Nigerian tertiary institutions to commence online lectures in all tertiary institutions in Nigeria both public and private schools. The online lectures were supposed to engage students in academic exercise while the lockdown and restrictions lasted. The Federal Ministry of Education directed authorities in both public and private schools to immediately arrange and start online lectures to ensure that students were kept busy academically. Each institution was to work out the online learning platforms and schedules for online lectures. Unfortunately, this abrupt switch over to online lectures while many schools were not prepared resulted that only a few schools have been able to offer online learning immediately.

Many reports and literature review argue that online lecture has some advantages as a shift in education means that more opportunities are arising and becoming available to students. An emphasis is being put on online and distance education, making affordable programmes more relevant and known to the public. Students who are currently making a switch from frontal classes to online lectures may find that a remote education actually works well for them, and may choose to take further education or degrees online. It will be possible for such students to earn a degree from anywhere in the world with varying schedules due to work or family (University of the people (2020)).

Nevertheless, online lectures might not have favoured many students in Nigerian tertiary institutions during the COVID-19 pandemic lockdown especially the disadvantaged group which is in majority due to many challenges that have been discussed in the following sub-headings.

Financial restrictions:

Children in higher end of the socio-economic spectrum might experience less disruption on their learning

because most of them study in private schools which are well equipped with ICT infrastructure. Such students may also have computer devices in their homes for easy remote learning. However, school children in this group are minority among other poor and disadvantaged group. According to Akin, Toyin , Zhehui, and Oye (2017) the higher socio-economic group in Nigeria constitute about 18% while low socio-economic group is about 82%. To Central bank of Nigeria (2011), 70% of Nigerian population are in abject poverty and live on less than 1.25 dollars per day. These assertions suggest that the majority of Nigerian students are from poor families who cannot feed on three square meals a day and let alone procuring online facilities for their children. It then means that majority of the students that would be left struggling are students from poor, vulnerable and disadvantaged backgrounds. This group is likely not to have had access to computer and other devices outside school to help them in the online lecturers during COVID-19 lockdown.

Delays in academic programmes

The Federal Ministry of Education's directives was to switch over to online lectures without delay. This abrupt switch over to online lectures while many schools were not ready resulted that only a few schools responded immediately. Furthermore, in response to demands of online learning protocols, staff and students from many other schools that were not ready immediately became involved in acclimating to new online platforms and tried to switch their materials to a new teaching style. This involved learning how to use online tools, figuring out how to convert hands on learning or discussion-based classes to the new platforms, and possibly changing the whole learning plans based on the inability to switch over to an online platforms. As a result, classes and semesters were being delayed, giving rise to crash programmes that may leave students half-baked in their academic fields and in low productivity generally. This leads to another challenge in educational system which may last for generations to come. (University of the people 2020).



Lockdown effect on incomes:

The general lockdown has not only affected schools, but also incomes and the businesses of the day. As the shutdown commenced, almost all businesses and production companies were affected adversely. Consequently, many families especially the middle class who are in business and who survive on daily income were forced to sit at home. Such families found it hard to put food on the table, let alone procuring online devices for their children. Furthermore, due to the lockdown, a lot of employers according to Mamza (2020) laid off their workers, or made their salaries cut down to 80 or 70%. Those who were laid off were not able to fend for themselves and their dependants including students. The laying off of some workers and the cutting down of salaries of the employees have affected at least 10% of the Nigerian population from immediate to extended family members and friends. Even those who are on steady income might have had the number of dependants increased. As a result, many families were economically sapped and could not afford the devices for their children's participation in remote learning at home. The affected children were left out and unable to access online lectures during the period.

Lack of Internet connectivity:

Many Nigerian students live in rural areas or communities with poor or non-existent internet connectivity Hussain 2020 laments that this poor or lack of internet connectivity has resulted to poor access to computers and other devices services thereby limiting the students' chance to participate actively in online lectures at home. The inaccessibility to digital tools means that these students were not able to follow the curriculum online during COVID-19 crisis. However one major issue that might stem from this failure to follow the curriculum is that these students who could not keep up with their peers because of inaccessibility to digital tools might never catch up with them and will continue to feel the effect of this gap long after the pandemic is over (World Economic Forum 2020).

Lack of clear-cut policy measures to address the problems of poor and rural students:

Unlike other countries of the world such as China who provided computers, offered mobile data packages and telecommunication subsidies, to students from low-income families, France who made efforts to lend devices to students who did not have access to computers and Portugal who partnered with postal agencies to deliver working sheets to students who have no access to internet at home, (World Literacy Foundations 2020).

Nigeria Federal Ministry of Education's school closure effective did not come with any clear-cut policy measure address how to mitigate learning disruptions for students to access online. This lack of clear-cut policy or failure to address the problems of poor and rural students created a wider digital divide among Nigerian students in tertiary institutions. For instance, this failure to address the issue seems as if education is not paramount to the Nigerian government at this time. The only well documented response was the Nigeria Education in Emergency Working Group (EIEWG) strategy published in April 2020. The objective of the strategy is to mitigate the negative impact of school closure in students and teachers in North Eastern Nigeria. Some states like Ogun and Lagos adopted local media channels such as radio programmes to reach out to students in remote places. Unfortunately, these programmes did not reach other states in Nigeria (Hussain 2020).

Poor technical Infrastructure

The technical infrastructure in developing countries, Nigeria inclusive is not highly developed, so phone-lines and internet connections are unreliable or slow due to narrow bandwidth. Schools need access to fast and reliable internet. Unfortunately there is slow or unreliable internet which might restrict teachers from delivering online lectures, students' completing online tests in the classroom (Office of the Auditor General 2016).

Students' learning outcome:



School closure had adversely impacted students' learning outcome. Schooling provides essential learning and when schools close, school children are deprived of opportunity for growth and intellectual development. This is because children's knowledge slows down during school closure, compared to when they are in session, and students are actively learning as schools are hubs of social and intellectual activities. In school closure, students engage in other activities other than academic and so play away their times on games, FaceBook and watching of films. So when schools closed during COVID-19 lockdown, students' knowledge slowed down. Some of them even hated the situation and developed depression, while many others hated going back to school when lockdown ended (UNESCO 2020). As a result, student's dropout rate tended to increase as disadvantaged or at risk were likely not to return to school after lockdown ended. This according to UNESCO would often be a life-long disadvantages from lost opportunities.

Urban and rural disparity in power supply:

In Nigeria, electricity supply is in abundance in urban areas and cities, but very scarce or absent in rural areas. Most rural villages have no access to electricity supply. Worse still, most ICT equipment are electricity power based and so cannot function in places where there is no electricity. Secondly, due to poor telecommunication and electricity infrastructure, internet cafes are increasing in number in Nigerian cities, while they are almost running out of existence in rural areas. Consequently, students in rural areas were adversely affected as they could not have access to online lectures during the COVID-19 pandemic lockdown.

There is also poor power supply in Nigeria. There is constant inconsistency in power supply which renders online lecture useless in Nigeria. Online teaching demands that learning be available to students without any disruption at any place, any time or session. Unfortunately, the epileptic nature of power supply in Nigeria according Oguniola and Okusaga (2016) makes any online programme a mirage. So even when students are ready for online lectures with their smart phones

and computers, there might not be power supply where those their computers and smart phones could be charged or empowered electrically.

Statement of Problem:

The commencement of online lectures in Nigerian tertiary institutions during COVID-19 pandemic lockdown as directed by the Federal Ministry of Education was aimed at partially responding to recommendations of UNESCO, and partially to ensure that Nigerian tertiary institutions were not totally shut down and that the students were kept busy with academic activities pending the time the lockdown would end. The Federal Ministry of Education directed that each school was to work out the online teaching platforms and schedules for the online lectures with the students. However, the online lectures might not be effective as the programme faced a lot of challenges as many poor and disadvantaged schools were not able to access the online lectures from the comfort of their homes. This work therefore tries to assess the effectiveness of online lectures in Nigerian tertiary institutions during the COVID-19 pandemic lockdown. The purpose of the study generally was to ascertain the effectiveness of online lectures in Nigerian tertiary institutions during the COVID-19 pandemic lockdown. Specifically, the study sought to:

1. Find out whether online lecturers in Nigerian tertiary institutions during the COVID-19 pandemic lockdown was effective.
2. Find out the extent of the effectiveness of online lectures in Nigerian tertiary institutions during the COVID-19 pandemic lockdown.

The following research questions guided the study:

1. What was the effectiveness of online lectures in Nigerian tertiary institutions during the COVID-19 pandemic lockdown?
2. How effective was online lectures in Nigerian tertiary institutions during the COVID-19 pandemic lockdown?

Methodology

The study adopted descriptive survey research design. The area of the study was Enugu State. The population



of the study was the entire students in the tertiary institutions in Enugu state. 600 students from three selected tertiary institutions in Enugu State were sampled using disproportionate random sampling technique. Out of these 200, students were sampled from each of the three schools – (200x3 = 600). Data, collection instrument was researchers’ 19 items- self structured questionnaire titled “The Effectiveness of Online Lectures in Nigerian Tertiary Institution Questionnaire TEOLNTIQ”. The instrument was face-validated by two professional lecturers, one from Measurement and Evaluation, and the other from Information Communication Technology (ICT), all from Federal College of Education, Eha-Afmufu. The reliability Coefficient of the instrument was 0.76

obtained using Cronbach Alpha Reliability method. The statistical tools used to answer the research questions was mean with ranking order scores. A 4 point Likert rating scale of Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD) with numerical value of 4, 3, 2 and 1 respectively was used to determine scores for each item. The decision rule was that any item with 2.50 and above mean scores were regarded as agree, while mean score below 2.50 was regarded as “disagree”.

Research question 1:

What is the effectiveness of online lectures in Nigerian tertiary institutions during the COVID-19 pandemic lockdown?

Table 1: Mean scores and rank order of the respondents in the effectiveness on online lectures in Nigerian tertiary institutions during COVID-19 lockdown.

S/N	Items	X	Rank	Dec
	The effectiveness of online lectures in tertiary institutions during COVID-19 pandemic lockdown (592 respondents)			
1	* During the COVID-19 lockdown; Students in Nigerian tertiary institutions studied hard using online lectures.	1.55	7 th	D
2	Lecturers and students were actively involved in online lecturers	1.67	6 th	D
3	The objectives of online lectures were adequately met	1.53	8 th	D
4	Students both in rural and urban areas had adequate access to online lectures	2.02	3 rd	D
5	Majority of students in rural and urban areas did not experience internet disruptions as they engage in online lectures.	2.14	2 nd	D
6	Students in both rural and urban communities had full access to digital tools.	1.27	10 th	D
7	Majority of students in rural and urban areas were able to follow their curriculum using online lectures	1.98	4 th	D
8	Majority of students had access to computers and other digital devices in their homes	1.32	9 th	D
9	Students drop out rate did not increase after COVID-19 lockdown.	2.94	1 st	A
10	Majority of students were able to complete online tests and assignments in the classroom.	1.85	5 th	D
	Cluster mean	1.85		D

Results: The results of the study are presented below in accordance with the research question.

Results of data analysis presented in table 1 indicated that the respondents disagreed that online lectures in

Nigerian tertiary institutions were effective during the COVID-19 pandemic lockdown. This was observed from the overall cluster mean of which falls to 1.85. Looking through the individual items, it can be



observed that means scores in items 1, 2, 3, 4, 5, 6, 7, 8 and 10 showed that respondents disagree that online lecturers were effective during COVID-19 lockdown with items ranking highest and lowest.

Research question 2

How effective was online lecturers in Nigerian tertiary institutions during COVID-19 pandemic lockdown?

Table 2: Mean scores and rank order of the respondents on how effective was online lectures during COVID19 pandemic lockdown.

S/N	Items	X	Rank	Dec
	The nature of the effectiveness of online lectures in Nigerian tertiary institutions during COVID-19 pandemic lockdown (592 respondents)			
1	* During the COVID-19 lockdown; All schools provided internet facilities for students.	1.60	9 th	D
2	Nigerian Federal and state governments had clear-cut policy measures on how rural and disadvantaged children would have access to online lectures.	1.99	7 th	D
3	All Nigerian tertiary institutions were adequately delivering online lecture to their students	2.3	1 st	D
4	There was adequate internet connectivity for children in rural areas for online teaching.	1.72	8 th	D
5	Every family provided online facilities for their school children	2.00	6 th	D
6	Internet connectivity was reliable for online lectures in all locations in Nigeria	2.06	5 th	D
7	Technical infrastructures in Nigeria is highly developed for easy access to fast and reliable internet connections	2.20	4 th	D
8	There was constant power supply that made online lecturers successful.	2.25	3 rd	D
9	Online lectures did not create digital divide among students.	2.30	2 nd	D
	Cluster mean	2.00		D

In table 2, data analysis showed that the respondents felt that the effectiveness of online lectures in Nigerian tertiary institutions during COVID-19 pandemic lockdown was too poor. In other words, the effectiveness was nothing to write home about. The overall cluster mean which is 2.00 falls below 2.50 value which is the bench mark for acceptance. Placing the items in rank order, in all the items 3^{1st}, 9^{2nd} 8^{3rd}, 7^{4th}, 6^{5th}, 5^{6th}, 2^{7th}, 4^{8th} and, 1^{9th}, the respondents disagreed that the online lectures were effective in any way.

Discussion of findings:

The result which was derived from 592 respondents in three tertiary institutions in Enugu State of Nigeria revealed that online lectures in tertiary institutions in Nigeria during the COVID-19 pandemic lockdown was

not effective. Nine items of ten were not accepted as their mean scores were less than 2.50 which is the bench mark for acceptance. The conclusion is that online lectures in Nigerian tertiary institutions during the COVID-19 pandemic lockdown was not effective. The result is in line with University of the People (2020) Oleh, & Dirujuk (2020) and Ifiok (2020), who agreed that online lectures in Nigeria did not work due to many challenges of poor and disadvantaged children. In answer to research question two, the data revealed that the respondents felt that the online lectures effectiveness was too poor and below pass mark. All the nine items were not accepted by the respondents which showed that the online lectures did not succeed. None of the items scored up to 2.5 which was the criteria for acceptance of an item. The outcome of the



result agreed with the findings of Nwanmereni (2020) which revealed that online lectures in Nigerian Universities did not succeed due to many challenges faced by both students and lecturers.

Summary of the Findings

From the analysis of the finding, the following findings were made.

1. Online lectures' objectives during COVID-19 lockdown were not attained due to many challenges that faced both schools and students.
2. COVID-19 Pandemic lockdown adversely affected educational system in Nigeria especially the education of children from poor and disadvantaged backgrounds who could not participate fully in online lecture that was used as a measure to keep students busy academically during the lockdown.
3. Poverty is a major factor that mitigated against the use of online lectures in Nigeria tertiary institutions during COVID-19 lockdown.
4. COVID-19 magnified the education inequity in Nigeria as only the students with access to digital learning resources were able to learn while those majority without access to digital tools were left behind during the lockdown, thereby exacerbating digital divide in Nigerian education system.

5. The Nigerian government, both federal and states were not prepared for online teaching and learning as no concrete arrangement was made to equip schools with ICT infrastructure, and the problems of inaccessibility of internet by poor and disadvantaged students were not addressed before the abrupt commencement of the online lectures.

Conclusion

Online lecture has been in existence in Nigerian tertiary institutions on a skeletal form, but took a dramatic change during COVID-19 lockdown, when Federal Ministry of Education directed for the commencement of online lectures in Nigerian tertiary institutions in order to engage students in academic exercise while the lockdown lasted. However, the online lecture did not attain its objectives as majority of students could not

access the learning due to some challenges which include financial restrictions, lack of internet connectivity, poor technical infrastructure, among others. Nevertheless, online lecture is a welcome innovation in education if the Nigerian government will equip schools and students with requisite online facilities, and make all staff both academic and non academic acquire technical know-how.

Recommendations

Based on the findings in the study, the following recommendations were made;

1. Education should be viewed as high government priority. Therefore governments both federal and states should have a clear-cut policy on how to help students in rural areas to access online teaching and learning by addressing the problems of poor and disadvantaged children since online learning has come to stay.
2. Federal Ministry of Education should provide online technological equipment for online interactions for both staff and students. The burden of choosing and providing online facilities for online lectures should not be left for individual schools in case of another lockdown.
3. The problem of poor electricity supply in Nigeria is an old story. It should be aggressively tackled once and for all so that rural students can access internet at home.
4. Poverty reduction through employment, job opportunities and sustainable agriculture should be provided to help poor families come out of poverty and hunger. When this is done, poverty will be reduced and families will be able to procure online facilities for their children.

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