

TEACHER'S VIEW ON THE EFFECTIVENESS OF ONLINE TEACHING AND LEARNING DURING COVID-19 PANDEMIC: LESSON FOR PUBLIC ADMINISTRATORS IN POST COVID-19 PERIOD IN NIGERIA

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Abstract

Purpose: The study was carried out to determine teacher's view on the effectiveness of online teaching and learning during COVID-19 pandemic: lesson for public administrators in post COVID-19 period in Nigeria.

Design/Methodology/Approach: the study adopted descriptive design. The entire population of teachers in the Abiding Grace College, Eziani, Nsukka were used. Fifteen questionnaire copies were distributed to the teachers with the aid of the Vice-Principals (Academic and Administration). Retrieval was one hundred percent (100 %). Data was analysed using frequencies and percentages.

Findings: The study found that most of the teachers taught online during the COVID-19 (80%), instructional time in traditional class was more than time allocated in online method (100%). The study also found that the effectiveness of traditional learning over online showed that concentration level of students in traditional learning method was high (100%), overall learning effect was also high in traditional learning (100%). The assessment of performance of students was fairly difficult (53%), technologies used for online lesson were Google, Google classroom, whatsapp, Video, Zoom (80%). The challenges of online learning were inadequate power supply, low voltage, constant power failure (87%), reduced lesson's objective and materials (87%). The study finally identified appropriate measures to enhance effectiveness in online learning in post COVID-19 in Nigeria, such as adequate power supply (87%), completing the lesson objective as stated in curriculum (87%) and proactive action of the public administrators (99).

Implications: For online learning to be effective in the post-COVID-19 in Nigeria, suggestions for improvement raised in the study should be implemented.

Originality/Value: Government and private educational sectors should invest enough financial and material resources to boost online learning in post COVID-19 in Nigeria.

Key words: Online learning, traditional classroom learning, COVID-19 and Pandemic

Paper type. Empirical research.

Background

Educational activities in Nigeria and the world in general were drawn to a halt in the wake of a devastating pandemic called Coronavirus or COVID-19. The COVID-19 did not only adversely affect education, but also on social and economic engagements on the face of the earth. The news about the pandemic kept most people's heart sinking - both the religious, cultural, the rich, the poor, the politicians, the rural masses and those living in glassy houses with high walls, trained militias and soldiers. An elderly man of Igbo extraction in Nigeria, made this expression

during the interview on hearing how people were dying in China, Italy and some other European countries with good medical outfits including India orthodox practices said, "We cannot fold our hands and watch this evil take away our lives! *Tufia kwa* (It can't happen)! We have our core values which our forefathers held so dear and which we would like to bequeath to our children. We must consult our ancestors. Some things must have gone wrong. We may have discredited on the altar of the ancestors" (Ani, 2020).

To reduce the spread of the virus all over the world, there was an order by

the Federal Government of Nigeria, to join the rest of the world to self-defense. Lock down was issued and dutifully complied with on the short run. Nigerian borders where closed, even though its porosity on the land surface was obvious, but the air and sea were intact. Several strategies were adopted by different nations to ensure that the spread of the pandemic was reduced. Nigerian government joined every protocol by closing schools at all levels, market of all kinds, religious worship of all kinds and gathering including burials, weddings, parties, rallies or any kind of gathering. Initially, people where allowed to meet together but must observe social distance. When the spread of the virus increased, there were complete lockdown – no church or religious worship, no opening of market, burials and or weddings. According to UNESCO Director-General, Audrey Azoulay (2020), the world has never seen such obstruction in academic programmes since it began.

In order to ensure the growth in education and to help candidates who registered for various external examinations in schools, on-line learning process was arranged by the school authorities. On-line learning is not a recent innovation. It has historical growth with the internet. At first, most of educationist ignored online learning for teaching with the view that it lacked personal relationship with students; quality of education and learning contents were not as light as in traditional classroom system; particular subjects cannot be taught online (Vivolo 2016) and so on. Most people are familiar with correspondent courses which were enhanced through postal services (Eke and Nzechukwu,, 2001). However, the idea of online learning continued to gather momentum in academic world.

Later in early 2000s when the number of internet users increased tremendously, many universities and educational institutions started developing online courses. The unique nature of online learning excited educationist and this brought about massive growth and acceptance to the extent of introduction of Massive Open Online Course (MOOCs) in

2012. Though institutions of higher learning embraced online learning system, secondary and primary schools in Nigeria did not welcome this innovation not until during the outbreak of Coronavirus (COVID-19) pandemic in 2020.

The outbreak of COVID-19 created great fear and the only solution to this menace was maintaining social distance. Consequently, social, economic and religious activities which usually warrant people congregating together were grounded to a halt. However, as the menace and lockdown prolonged beyond the expectations of the society, education planners and managers made a recommendation to carry on the education activities online, (Widodo, Nursaptini, Novitasari, Sutisna, and Umar, (2020). Amidst the dreaded COVID-19, teachers were to go back to work using online system. Although many of them are not skilled or prepared for online lesson, but the circumstance forced them to do so since online was the only means to continuing learning during the COVID-19 lockdown period.

It was obvious that the traditional method of teaching and learning could be changed to the new one. The traditional classroom involves teacher and the students being together in a classroom. The teachers' presents the lessons, ask questions, observes active and inactive students, those present in the classroom, those that answers questions or asked for explanations. Chalk boards were used. It involves the teacher, students, teacher's table and seat, student's lockers and seats and a standard classroom. There were high rate of student/teacher participation.

When some primary and secondary schools started the online learning, the questions that bothered the researchers were: what are the preparedness of teachers for online learning?; what are the effectiveness of online learning over traditional learning method?; what are the possibility of students' performance being assessed fairly in online learning; what are the technological tools used for online learning? and what are the problems encountered during the online learning as

against classroom lessons? These questions led the researchers to evaluate the teacher's perception on the effectiveness of online learning over traditional learning methods during COVID-19 pandemic: lesson for post COVID-19 period in Nigeria.

Objectives of the study

The major objective of this study was to evaluate the teacher's perception on the effectiveness of online learning over traditional learning methods during COVID-19 pandemic: lesson for post COVID-19 period in Nigeria. The specific objectives were:

- i. To ascertain the preparedness of teachers for online learning during COVID-19.
- ii. To determine the effectiveness of online learning over traditional learning method
- iii. To ascertain if students performance can be assessed fairly in online learning
- iv. To explore the technological tools used for online learning
- v. To find out the problems encountered during the online learning as against classroom lessons.

Literature Review

Corona viruses (COVID-19) were considered minor pathogens to humans until 2019 December when it became a global threat that requires global response. Within a short time frame, the spread of the virus was over 218 countries and territories around the globe. According to worldometers (2021) the rate at which the virus spread was high. The record of virus attacked cases was growing astronomically with the death tolls on daily basis. The spread of this virus affected every facet of life, education institutions were not left out. Most schools were amid examination when the virus came in fuller force. Lockdown order was issued in Nigeria and other nations, as a result of the COVID-19. The closure of schools, amongst other issues became necessary. Students who

were living in school dormitories were asked to vacate immediately in the light of the wave of corona virus. This created high challenge for the government, managers of schools, parents and students for completing the second term examinations and continuation of the next term of 2019/2020 session (Ravi, 2020).

Decision to maintain social distance as one the major way of preventing increase in transmission (Widodo, et al., 2020) of the virus pose another challenge in continuing learning in fundamental traditional classroom method. Consequently, school managements were forced to find alternative method to be able to deliver lessons to their students. Thus online learning became an alternative to so many schools in Nigeria to teach their students during COVID-19 pandemic lockdown. Online learning according to Singh and Thurman (2019) could be defined as: learning experienced through the internet/online computers in a synchronous classroom where students interact with instructors and other students and are not dependent on their physical location for participating in this online learning experience. Or learning experienced through internet in an asynchronous environment where students engage with instructors and fellow students at a time of their convenience and do not need to be co-present online or in a physical space.

Online learning and the use of technology in education is one of the fastest growing trends in education that many scholars have written about (Wei and Chou (2020). Batmang, Sultan, Azis, and Gunawan, (2021) affirmed that online learning is an operational process which traditionally takes place not in the classroom but in a synchronous or asynchronous way via the Internet. Online learning is a form of flexible learning or distance learning that uses the computer and the Internet as basic prerequisites tools of learning. In an online class, there are no restricting and limiting confines of the four walls of a traditional classroom. Thompson, (2005) opines that "online

learning is a classroom without walls, engaging in assisted and self-directed learning” In his definition of online learning, Lane, cited in Iwundu (2012) states “that it is the teaching and learning situations in which the instructor and the learner are separated, and therefore rely on computer and the Internet for instructional delivery”. Olasile and Emrah, (2020) described online education during this pandemic as “emergency remote teaching”.

Rayan cited in Iwundu (2012) explained that online learning can take the form of Self-Paced Independent Study where the learner sets the schedule and studies at his/her own pace. He or she can review lecture materials for as long as he/she needs. Feedback from online test takes the form of preprogrammed responses. There is no one to whom the learner can direct questions. This form of study requires the most self-motivation. It could also take asynchronous study mode; where deadlines are set for lessons, assignments and the course completed according to the school schedule, just like in traditional classes. The instructor gives the lectures and assignment online and the student can go online as well anytime to read and participate in the discussion assignments and test may be done offline submitted via e-mail or posted on the site created for the class. Lastly it could take synchronous study mode; Students attend live lectures via computers and in real-time live chat. This format is the most interactive of the three and feels the most like a real classroom.

During COVID-19 lockdown break, most schools in Nigeria adopted the asynchronous mode of online learning because it was more cost effective and close to traditional classroom experience. Secondary school teachers used platform like Google Classroom, Whatsapp, Zoom, Telegram, Video, television, radio, blog, e-mail and so on to deliver lesson material (Rasmitadila et al, 2020). During this period teachers and learner faced many obstacles that impacted on learner’s outcome. Oyediran et al. (2020) opined that the major challenge was the inability to procure ICT facilities required to power

online instruction. Schools are not adequately equipped with functional ICT facilities, some lack funds coupled with closure of outfits where these facilities could be purchased. Students from low income background and those in rural areas lacked smart phones and network to access their online classes. Adarkwah (2020) asserted that power outage and limited supply of electricity were major obstacles. Teacher’s attitude towards online learning can influence their accepting and adopting technology for teaching. They felt that delivering lessons online was too difficult and tasking, owing to lack of basic technological skills, confidence and comfort of using ICT facilities. Adarkwah (2021) affirmed that teachers were not adequately prepared to teach with technology, they lack required skills and competencies. Kopp et al. cited in Olasile & Emrah (2020), study considered accepting change, pace, technology, competences and finance as major hindrances to digital transformation in educational sectors.

Methodology

This study adopted a survey research design. The population of the study was all the teachers (fifteen of them) in the Abiding Grace Collage, Eziani, Nsukka. The area of study was Abiding Grace Collage, Eziani, Nsukka. The choice of this school was predicated on the fact that they were among the first secondary schools in the Nsukka education zone to start online learning for their students during the COVID-19 lockdown. There was no sample since the population was small and manageable. The entire teachers in the Abiding Grace Collage, Eziani, Nsukka were used. Data for this study was sourced through primary and secondary sources. The primary sources were questionnaire and interview. While the secondary sources were by review of related literature in form of books, journals, magazines, newspapers, government gazettes, documented evidence in the area of the study as well as internet sources.

There was an item structured questionnaire with a list of options from

which respondents were asked to choose or insert the correct alternative. It was divided into two parts. Part one was the personal characteristics of the respondents, while part two was questionnaire structured to address the research questions. There was no paid research assistant. The researchers however, requested two Vice-Principals (Academic and Administration) to administer and collect the questionnaires. This was necessary because the researchers could not access the teachers, since the school authority prohibited visitors to the school during the period.

The researchers also made use of the observation method of data collection in this study. In observation (participant) according to Obasi (1999:170) the researchers have participated in the activities that constitute the focus of observation. In this case, the researchers have children of Abiding Grace Collage, Eziani, Nsukka, who participated directly in an online learning. Information that was gathered from these sources enhanced the generalization and conclusion in this study.

To ensure reliability of the instrument, the researchers conducted a pilot test at the University of Nigeria Secondary School, Nsukka, which joined the online learning programme during the COVID-19. Pilot is an experimental activity carried out on a scale to determine how large scale measurement will work (Obasi, 1999:128). Pilot test enables the researcher to see the workability and dictate errors in a questionnaire such as ambiguity, contradictory, questions, poor wording of questions were detected and eliminated.

The responses to each item on the questionnaire were tallied and the number of frequencies recorded. Simple descriptive statistics such as percentages, frequencies and tables were used to present the data showing the characteristics and responses of the research subjects. The qualitative data generated from the in-depth interview were analysed using contents analysis. The responses were integrated into the quantitative aspect of the study to reach valid conclusion and recommendations.

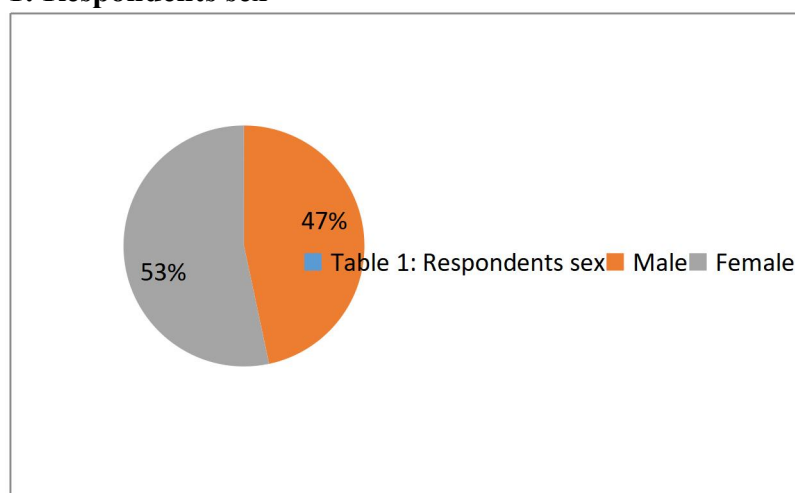
Data Analysis, Results and Discussions

a. Personal characteristics.

Data collected were analysed as follows:

1. Sex?

Table 1: Respondents sex



Items	Number	Percentage (%)
Male	7	47 %
Female	8	53
Total	15	100%

Source: Field survey 2020.

From table 1 above, respondents who are male participants were 47%, while the female was 53%. This shows that both

sexes were involved in the work. There was gender sensitivity.

2. What is your highest academic qualification?

Table 2: Highest Academic Qualification.

Items	No	%
OND/NCE	4	27
HND/B.Ed.	8	53.3
M.A/M.Ed.	2	13
Ph.D	1	6.7
Others	-	-
Total	15	100

Source: Field survey 2020.

Table 2 above shows that 27% of the respondent’s highest academic qualification was OND/NCE, 53% was HND/B.Sc, while 13% was M.A/M. Sc., Ph.D was 6.7% and Others was 0%. These implied

that people of all levels of academic attainments were involved in the study.

3. Marital status?

Table 3: Respondents marital status

Items	No	%
Married	6	40
Single	9	60
Divorced	0	0
Widow	0	0
Total	15	100

Source: Field survey 2020

Table 3 revealed that 40% of the respondents were married, 60% were single. 0% was divorced and 0% was

widow. This implied that all marital categories of population were involved in the exercise.

4. Age?

Table 4: Respondents age

Items	No	%
18 – 28	2	13
29 – 39	6	40
40 – 50	4	27
51 – 61	2	13
62 – Above	1	7
Total	15	100

Source: Field survey 2020

The age of respondents stood at: ages 18-28 was 13%, 29-39 was 40%, 40-50 was 27%, whereas ages 51-61 was 13% and 62

- above was 7%. This showed that the ages involved in voters registration and elections were involved.

Section B: Major Research Questions

Here the researchers presented the tables for the analysis of the data collated from the field survey.

Research question 1: What are the preparedness of teachers for online learning?

Table 5: Preparedness of teachers for online learning

S/No	Items	Yes Freq. (%)	No Freq. (%)
1	Did you teach your subjects online during COVID-19 lockdown?	12 (80%)	3 (20%)
2	Before this period, have you been involved in online teaching plane?	7(46.7%)	8 (53.3)%
3	Were the online lesson arranged according to curriculum and teaching plan?	9 (60%)	6 (40%)
4	Is the instructional time in online class same for traditional offline class?	0 (%)	15(100%)
5	Is time given in traditional class more than online class?	13(86.7%)	2 (13.3%)
6	Is online method of teaching more suitable for your subject than traditional method?	0 (0%)	15(100%)

Source: Field trip2020.

From table 5, research question one above on the preparedness of teachers for online learning during COVID-19, 80% of the respondents (teachers) were of the opinion that they taught their subjects online during COVID-19 lockdown, while 20% did not teach online. Again, 53.3% of the teachers have been involved in online teaching, while 46.7% have been involved in online teaching. It was also agreed that the online lesson were arranged according

to curriculum and teaching plan (60%), while 40% said no. 0% of the teachers believed that the instructional time in online class same for traditional offline class. 86.7% of the respondents also accepted that more time are given in traditional class more than online (86.7). The respondents did not agree that online method of teaching was more suitable for their subject than traditional method (100%)

Research question 2: What are the effectiveness of online learning over traditional learning method?

Table 6: Determine the effectiveness of online learning over traditional learning method

S/No.	Item	Traditional Learning (%)	Online Learning (%)
7	Comfort and convenience level of class.	13 (86.7)	2 (13.3%)
8	Concentration level of students during lesson.	15(100%)	0(0%)
9	Interference of external environment while class is on.	5(33.3%)	10(66.7%)
10	Promptness of answering questions and doing assignments	12(80%)	3(20%)
11	Enrichment of the content/learning material delivered to the students	15(100%)	0(0%)
12	Explanations given to clarify the content delivered	15(100%)	0(0%)

13	Clarity of drawings in the learning content/ learning material	13(86.7%)	2(13.3%)
14	Frequency of teachers and students interaction	15(100%)	0(0%)
15	Students' diligence level during online lesson	8(53.3%)	7(46.7%)
16	Overall learning effect	15(100%)	0(0%)

Source: 2020 field trip.

From research question 2, table 6, respondent’s opinion of the effectiveness of online learning over traditional learning method was: comfort and convenience level of class was 86.7% for traditional and 13.3% for online teaching method. In concentration level of students during lesson, traditional was 100% while online was 0%. In interference of external environment while class is on, the traditional was 33.3% while online 66.7%. Also, in promptness of answering questions and doing assignments, traditional was 80% and online was 20%. Enrichment of the content/learning

material delivered to the students, traditional was 100% and online was 0%. In the explanations given to clarify the content delivered, traditional was 100% while online was 0%. Clarity of drawings in the learning content/ learning material, traditional was 86.7% while online was 13.3%. Frequency of teachers and students interaction, traditional was 100% while online was 0%. In students' diligence level during online lesson, traditional was 53.3% while online was 46.7%. The overall learning effect revealed that traditional was 100% and online was 33.3%.

Research question 3: What are the possibilities of students’ performance being assessed fairly in online learning?

Table 7: Ascertain if students’ performance can be assessed fairly in online method

S/No.	Item	Yes (Freq. %)	No (Freq. %)
17	When your students returned to school after COVID-19 lockdown did you assess their performance in the online lessons	7(46.7%)	8 (53.3%)
18	Is it possible to assess students' attitude to learning in online environment?	7 (46.7%)	8 (53.3%)
19	As a teacher can you fairly conduct assessments in an online environment to describe a student understanding of the lesson in online lesson?	7 (46.7%)	8 (53.3%)

Source: 2020 field trip.

From table three (7) above, respondent’s views of whether students’ performance could be assessed fairly in online lessons were ascertained: When your students returned to school after COVID-19 lockdown did you assess their performance in the online lessons 46.7%. Is it possible

to assess students' attitude to learning in online environment was 46.7% and as a teacher can you fairly conduct assessments in an online environment to describe a student understanding of the lesson in online lesson was 46.7%.

Research question four (4): What are the technological tools used for online learning?

Table 8: Technological tools used for online learning.

S/No	Item	Frequency	Percentage (%)
20	Google Form	1	6.7
21	Google Classroom	1	6.7

22	Whatsapp	7	46.7
23	Video Created by Teachers	2	13.3
24	Zoom	1	6.7
25	None	3	20.0

Source: 2020 field trip.

From table eight (8) above, respondent's views of the technologies used for the online lesson were stated. Google Form frequency was 1 (6.7%), Google Classroom 1 (6.7%), Google Classroom 7 (46.7%), Video Created by Teachers 2 (13.3%), Zoom 1 (6.7%) and None 3 (20%).

Research question five (5): What are the challenges faced during the online learning?

Table 9: The challenges faced during the online learning.

S/No	Item	Yes (Freq. %)	No (Freq. %)
26	Inadequate power supply, low voltage, constant power failure	13 (87%)	2 (13%)
27	It was difficult to assess student's performance because parents and relations were at home to provide answer to questions.	9 (60%)	6 (40%)
28	Lack of internet access and breaking transmission due to network problem	11 (73)	4 (27)
29	Inadequate funds to buy data in order to participate in the online learning programme.	12 (80%)	3 (20%)
30	Reduced lesson's objective and materials	13 (87%)	2 (13%)
31	Students seemed to have lost interest after many weeks of school in activities.	8 (53%)	7 (47)
32	There were no institutional arrangements or government plan to boost online learning both for the teachers and students.	9 (60%)	6 (40%)
33	Students were distracted by the events in the homes since all household members were available.	10 (67%)	5 (33%)
34	The lesson period per subject was small. Some of the student's reactions were not addressed due to time management.	10 (67%)	5 (33%)
35	Teachers lacked adequate skills and competence to deliver online lessons.	14 (93%)	1 (7%)
36	Inability of teachers in accepting the new technologies in online lessons.	13 (87%)	2 (13%)

Source: 2020 field trip.

Table 9 above revealed the challenges faced by teachers during the COVID-19 online learning, such as inadequate power supply, low voltage, constant power failure (87%); It was difficult to assess student's performance because parents and relations were at home to provide answer to questions (60%); Lack of internet access and breaking transmission due to network problem (73%); Inadequate funds to buy data in order to participate in the online learning programme (80%); Reduced

lesson's objective and materials (87%); Students seemed to have lost interest after many weeks of school in activities (53%); There were no institutional arrangements or government plan to boost online learning both for the teachers and students (60%); Students were distracted by the events in the homes since all household members were available (67%); The lesson period per subject was small. Some of the student's reactions were not addressed due to time management (67%); Teachers

lacked adequate skills and competence to deliver online lessons (93%) and Inability of teachers in accepting the new technologies in online lessons (87%).

Discussions

This study made use of both male and female respondents. This means that there was gender sensitive among the respondents. The highest academic qualification of respondents ranges from OND/NCE to Ph.D. This also means that the respondents were literate. There were married and unmarried persons among the respondents. The age group of respondents ranges from 18-28 to 62 and above. This means that there were young and old among the respondents.

In the research question 1, the study found the preparedness of teachers for online learning. It found that respondents were not prepared but taught their subjects during COVID-19, (80%), greater numbers of the respondents were not involved in an online teaching before COVID-19, (53.3%), online lessons were arranged according to curriculum and teaching plan, (60%), instructional time in online class was not the same for traditional offline class, (100%), time given in traditional class was more than online class, (86%) and online method of teaching was more suitable for some subject than traditional method, (100%). These findings conformed to scholar's opinion. Thus, Guo & Li (2020) and Kaup et al. (2020), asserts that the readiness of the teachers should be paramount, while considering online learning in any situation. Also Adarkwah (2021) affirmed that teachers were not adequately prepared to teach with technology, they lack required skills and competencies. This implied that adequate preparation is necessary for any innovation, especially with respite to technological issues which required training and retraining.

From research question 2, table 6, respondent's opinion of the effectiveness of online learning over traditional learning method was: comfort and convenience level of class was 86.7% for traditional and 13.3% for online teaching method. In

concentration level of students during lesson, traditional was 100% while online was 0%. In interference of external environment while class is on, the traditional was 33.3% while online 66.7%. Also, in promptness of answering questions and doing assignments, traditional was 80% and online was 20%. Enrichment of the content/learning material delivered to the students, traditional was 100% and online was 0%. In the explanations given to clarify the content delivered, traditional was 100% while online was 0%. Clarity of drawings in the learning content/ learning material, traditional was 86.7% while online was 13.3%. Frequency of teachers and students interaction, traditional was 100% while online was 0%. In students' diligence level during online lesson, traditional was 53.3% while online was 46.7%. The overall learning effect revealed that traditional was 100% and online was 33.3%. These results also conformed to the view of scholars, such as Dutta (2020), Duleck (2020) and Soltero, Lopez and Lopez (2020), who stated that traditional (classroom) learning was superior to online learning in terms of communications, clarity in examples, student's interaction, observing students diligence, enrichment of the content/learning material and enrichment of the content/learning material. The results therefore mean that traditional learning method offered more benefits when compared with online learning.

From table three (7) above, respondent's views of whether students' performance could be assessed fairly in online lessons were ascertained. In the items listed in the table, 46.7% was central in the respondent's responses. This means a disagreement to the statement. It maintained that traditional learning method was preferable to online as stated in table 3 above. This views conformed to the opinion of some scholars. For example, Khairuddin et al. (2019), Lemay & Doleck (2020) and Sikirit (2020), states that the assessment of students performance in online lesson, attitude to learning and students understanding during the online

learning could be difficult. They attributed this to the fact that traditional methods help the teacher to be in control of the learning environment than in online, thereby taking charge of learner's attitude, and performance.

From table eight (8), respondent's views of the technologies used for the online lesson were stated. Google Form frequency was 1 (6.7%), Google Classroom 1 (6.7%), Google Classroom 7 (46.7%), Video Created by Teachers 2 (13.3%), Zoom 1 (6.7%) and None 3 (20%). Scholars were of the opinion that secondary school teachers used platform like Google Classroom, Whatsapp, Zoom, Telegram, Video, television, radio, blog, e-mail and so on to deliver lesson material (Rasmitadila et al, 2020, Dutta, 2020. Lemay & Doleck 2020). This means that technologies were available for use and each school used the one that available and convenience to them.

Table 9 revealed the challenges faced by teachers during the COVID-19 online learning, such as inadequate power supply, low voltage, constant power failure (87%); It was difficult to assess student's performance because parents and relations were at home to provide answer to questions (60%); Lack of internet access and breaking transmission due to network problem (73%); Inadequate funds to buy data in order to participate in the online learning programme (80%); Reduced lesson's objective and materials (87%); Students seemed to have lost interest after many weeks of school in activities (53%); There were no institutional arrangements or government plan to boost online learning both for the teachers and students (60%); Students were distracted by the events in the homes since all household members were available (67%); The lesson period per subject was small. Some of the student's reactions were not addressed due to time management (67%); Teachers lacked adequate skills and competence to deliver online lessons (93%) and Inability of teachers in accepting the new technologies in online lessons (87%).

These results conformed to scholars view. For example, Sikirit (2020), saw the challenge from the angle of unavailability of internet access and electronic devices. Alrefaie et al. (2020), looked at the challenge from the angle of poor competence arising from training of the teachers in the use of technology and designing or monitoring online learning. Mh (2020), there were poor institutional arrangements or government plan to boost online learning both for the teachers and students. From these, the study therefore showed that the effectiveness of online learning during COVID-19 was not too satisfactory due to the number factors mentioned.

Summary

This study determined teacher's view on the effectiveness of online teaching and learning during COVID-19 pandemic: lesson for post COVID-19 period in Nigeria. From the findings of the study, it was verified that the teachers were not prepared for the online learning, hence it was a remedial measure to contend with the COVID-19 pandemic in Nigeria. It was also evidently noted from the study that traditional learning method was more effective than the online learning. The comparison in table 6 was glaring enough to support the views of respondents. The performance of the students in an online learning, attitude and understanding could not be adequately verified, due to the fact that teachers were unable to conduct assessment of students online. Google Classroom, Whatsapp, Zoom, Telegram, Video, television, radio, blog and e-mail were the technologies constantly used by teachers in online lesson. Some of the challenges of the online learning includes but not limited to inadequate power supply, low voltage, constant power failure, parents and relations were at home to provide answer to questions, poor internet access, inadequate funds to buy data in order to participate in the online learning programme and there were no institutional arrangements or government plan to boost

online learning both for the teachers and students.

Recommendation

Based on the challenges of this study, the following recommendations were made:

- Adequate power supply should be a priority of the government to the nation, especially, in school environments.
- In assess student's performance, parents and relations should not interfere with the children's assignment at home.
- Adequate internet should be provided to access the online lesson.
- Adequate funds should be set aside to buy data in order to participate in the online learning programme.
- Lesson's objective and materials should be accurate and complete to satisfy the purpose.
- There should be a well fashioned institutional arrangement and government plan to boost online learning both for the teachers and students
- Conducive atmosphere should be created for the online learning so that students should not be distracted by the events in the homes.
- The lesson period per subject should be the same time and format with the traditional learning programme.
- Training and retraining of teachers should be made possible so as to increase their skills and competence to deliver online lessons.
- Teachers should be apt in accepting challenges and new technologies that could assist them in online lessons and overall teaching.

Implications and conclusion

Having gone through this study, noting the hindrances to its effectiveness, the recommendations therefore, should be considered by the respective authorities, stake holders and the general public in order to give the nation – Nigeria (and other nations), the readiness she deserved in any emergency situation, such as COVID-19.

The study concludes with caution that learning should not be a stereo-typed. Online learning had been in existence, but has not been introduced in teaching primary and secondary levels. With the advent of COVID-19 and its antecedents, government should incorporate online learning in the curriculum of education in Nigeria. University, secondary and primary schools (private and public) should be encouraged to incorporate online programme in the teaching and learning in the future.

References

- Adarkwah, M. A. (2020). "I'm not against online teaching, but what about us?": ICT in Ghana post COVID-19. *Education and Information Technologies*,1-21. doi:10.1007/s10639- 020-10331-z
- Adarkwah, M. A. (2021). An Outbreak of Online Learning in the COVID-19 Outbreak in Sub-Saharan Africa: Prospects and Challenges. *Global Journal of Computer Science and Technology: Information and Technology* Vol. 21(2).
- Adedoyin O. B and Soykan, E. (2020). COVID-19 pandemic and online learning: the challenges and opportunities. *Interactive Learning Environments*. Retrived from <https://doi.org/10.1080/10494820.2020.1813180>
- Ani, K. W. (2020). Coronavirus pandemic is a universal problem. An interview response during the field enquiry.
- Audrey Azoulay (2020) in Demuyakor, J. (2020). Coronavirus (COVID-19) and Online Learning in Higher Institutions of

Education: A Survey of the Perceptions of Ghanaian International Students in China. *Online Journal of Communication and Media Technologies*, 10(3), e202018.

<https://doi.org/10.29333/ojcm/8286>

Batmang, B., Sultan, M., Azis, A., & Gunawan, F. (2021). Perceptions of pre-service teachers on online learning during the COVID-19 pandemic. *International Journal of Education in Mathematics, Science, and Technology (IJEMST)*, 9(3), 449-461. Retrieved from

<https://doi.org/10.46328/ijemst.159>

5

Eke, W. and Nzechukwu K. (2001). Developing foreign and international students curricular.

Journal of Business Studies, Vol. 2, No.iii.pp.87-91. Accessed on 2/12/2020 from: <http://business/studiesjournal/2/0000/3j/>.

Iwundu, N.E. (2012). Online registration, admission and learning portal for postgraduate students. "Master Degree project, Department of Electronics Engineering, University of Nigeria, Nsukka".

Oyediran, W. O., Omoare, A. M., Owoyemi, M. A., Adejobi, A. O., & Fasasi, R. B. (2020). Prospects and limitations of e-learning application in private tertiary institutions amidst COVID-19 lockdown in Nigeria. *Heliyon*, 6(11). doi:10.1016/j.heliyon.2020.e05457.

Rasmitadila, etal (2020). The Perceptions of Primary School Teachers of Online Learning during the COVID-19 Pandemic Period: A Case Study in Indonesia. *Journal of Ethnic and Cultural Studies* Vol 7, No2, 90-109

Widodo, A., Nursaptini, N., Novitasari, S., Sutisna, O. and Umar, U. (2020). From face – to –

face learning to web base learning: how are student readiness? *Premiere Educandum: journal Pendidikan Dasar dan Pembelajaran*; 10 (2), 149-160. Doi.org/10.25273/pe.v/oi2.680/

Vivolo, J. (2016). Understanding and Combating Resistance to Online Learning. *Science*

Progress (2016), 99(4), 399-412.

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