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2022

## PUPILS' EXPERIENCE WITH E-LEARNING DURING COVID-19 LOCKDOWN IN DELTA STATE.

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Oyovwe-Tinuoye, Gloria Ogheneghatowho Dr and Adomi, Esharenana E. Prof, "PUPILS' EXPERIENCE WITH E-LEARNING DURING COVID-19 LOCKDOWN IN DELTA STATE." (2022). *Library Philosophy and Practice (e-journal)*. 6855.

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## **Abstract**

This study examined pupils' experience with e-learning during COVID-19 lockdown in Delta State. The study adopted a descriptive survey research design with five (5) research objectives of the study. The questionnaire was constructed after consultation of related literature to ensure that relevant items were included in it. A self-constructed questionnaire entitled "Pupils Experience with E-Learning during COVID- 19 Lockdown Questionnaire (PEELDC19LQ) was designed by the researchers. The population of the study comprised of all pupils in Delta State who participated in e-learning to meet up with the third curriculum and eventually used for promotion for the next class. The researchers used the purposive sampling technique in selecting the sample for the study because of easy accessibility to respondents and schools that participated in e-learning during the lockdown. The questionnaire was administered face to face to pupils in Delta State with the support of six research assistants who were trained on how to distribute the questionnaires to the respondents. Out of the 750 copies of the questionnaire distributed to pupils in Delta State, 703 usable copies (that is, a response rate of 93%).The data collected were analysed using percentages and presented in tables. The findings revealed that International Unity School Edjeba, Edjeba Estate School Edjeba, Alvina High School Effurun, Mother of Redeemer Catholic School, Effurun, Nehemiah International School Okuokoko, James Welch Grammar School, Emevor and St. Theresa Girls Grammar School Ughelli in Delta State participated in e-learning during COVID- 19 lockdown.

The study further reveals that WhatsApp was dominated by schools for e-learning, the majority of participants used their Mothers' phones, video lectures were mostly used so that participants can learn at their free time, pupils were going to school to submit received materials to their teachers for assessment. Finally, the majority of the respondents have problems associated with slow internet signals and the high cost of data. The study recommended that the Federal government of Nigeria should ensure that they liaise with organisations in charge of various networks how to ensure that they boast their signal transmission and how to reduce tariffs during the lockdown era.

**Keywords:** Pupils experience, e-learning, COVID-19, lockdown, Delta State, Nigeria.

## **Introduction**

The year 2020 witnessed a global lockdown due to the pandemic of COVID- 19 in which schools, churches, offices, hotels, clubs, airports among others were shut down. Accordingly, Yechezkel et al (2021) asserted that due to the outbreak of the pandemic, there were bans on large gathering, nonessential business, closure of schools and universities, international and domestic mobility restrictions, physical isolation, total lockdowns of regions and countries. After millions of cases and hundreds of thousands of dead (Johns Hopkins University, 2020), extraordinary strains on health care and medical personnel, national lockdowns, and economic fallouts unseen since the Great Depression of the 1930s, the world has yet to see a viable global

strategy. Okonjo-Iweala (2020) asserted that for developing countries lacking production capabilities, the discovery of a cure or a vaccine is only the first step in a potentially long and difficult process to secure the quantities they need. So the both the federal and state governments of Nigeria issued isolation to all her citizenry to curtail the spread. Pupils were asked to remain home to curtail and eliminate community transmission of the virus until further notice. Kim (2020) stated that in March of 2020 most states in the USA had to close all schools due to coronavirus (COVID-19) in which classes were moved online and remained closed for the rest of the academic year. Thus, the pandemic brought the need for e-learning to fill the gap of pupils' and teachers' content in the physical school environment.

Yates et al (2020) stated that we need to know how to serve students better during such disruptions, and what we learn from the COVID-19 situation could inform schooling in the future. Hodges et al. (2020) asserted that the situation created by COVID-19 has been proposed as 'emergency remote teaching' to distinguish it from high-quality online education. According to Kharve and Gogia (2016), e-learning is a process of learning by electronic means which involves the use of computers, mobile phones or other electronic devices and accessing the internet. E-learning is an educational process which takes place over the internet, social media among others. Kim (2020); Singh and Thurman (2019); Yilmaz (2019) asserted that it is a form of distance education to provide learning experiences for pupils, students, both children and adults, to access education from remote locations or geographical distance or who, for various reasons, cannot attend a school, vocational college, or university with the use of digital technologies. Digital technologies have been introduced into schooling and are changing the context of teaching and learning with increasing access to devices, the internet, online learning environment and collaboration tools (Selwyn et al., 2017) resulting in varying degrees of integration or infusion of digital technology within schooling systems (Starkey, 2020).

Moreover, e-learning can be a convenient means for communicating among participants as well as instructors because participants do not have to meet in person (Kim, 2020). E-learning experiences through distance education can be either asynchronous or synchronous (Kim, 2020). Asynchronous learning occurs when a pupil chooses his/her own time for participation in learning through different media tools such as e-mail, WhatsApp, YouTube or discussion boards. Pupils can log-in to communicate and complete activities at times of their own choosing and learn at their own pace. In contrast, Hrastinski (2008) stated that synchronous learning activities occur through live video and/or audio conferencing with immediate feedback. Anderson (2011) asserted that most pupils enjoy the freedom to choose the time and pace of study in e-learning. Collaborative interaction with the e-learning environment helped enhance peer sharing (Fontanillas et al, 2016). Rasmitadila et al (2020) asserted that online classes will be successful only if internet facility is provided to all by making it equitable and affordable.

Delta State is an oil producing state in Nigeria, where the majority of the oil companies in Southern Nigeria are located and has its state capital at Asaba with twenty –one local government's Area. The major populated places in Delta State are as follows: Abraka, Agbara-Otor, Agbarho, Aladja, Bomadi, Burutu, Egini, Eku, Forcados, Koko, Obiaruku, Ogbe-Ijo, Ogwashi-Uku, Orerokpe, Orhuwhorun, Osubi, Otor- Udu, Ozoro, Patani, Sapele, Ughelli, Warri among others (Wikipedia, 2020). The pandemic issue has made most primary and post-primary schools in Delta State to get alternative means on how to impact knowledge to pupils

in order to facilitate learning environment during the COVID-19 period because pupils and teachers in practicum courses also had to discontinue teaching in schools. Starkey (2020) opined that e- learning has created a range of practices from schools that have infused digital technologies across aspects of teacher professional practice, to others where access is limited. Kim (2020) asserted that it does not depend on being in the same physical location and can thus increase participation rates.

In light of the foregoing, this study will focus on pupils' experience with e-learning during COVID-19 lockdown in Delta State, Nigeria. There have been several studies that have focused on COVID-19; however, none has been done on pupils' experience with e-learning during COVID-19 lockdown in Delta State, Nigeria. This study is intended to fill this research gap.

### **Statement of the problem**

Access to learning among pupils' is important in this time of the outbreak of disease especially with this current pandemic. Pupils need to have access to learning during this pandemic period to keep abreast of their curriculum and not to lose any term or session. However, the lockdown imposed globally to stem the spread of the virus may affect access to learning on pupils' and teachers' context. Learning among pupils' in Delta State is tied to the development and general wellbeing of her citizenry. Adequate learning curbs illiteracy and ignorant in our society and learning during COVID- 19 requires technological gadgets. The question is: Do the pupils' in Delta State participated in e-learning during COVID-19 lockdown. This study was intended to address this issue.

### **Purpose of the study**

The purpose of the study was to examine the pupils' experience with e-learning during COVID-19 lockdown in Delta State, Nigeria.

### **Objectives**

The core objective of the study is to explore pupils' experience with e-learning during COVID-19 lockdown in Delta State, Nigeria. The precise objectives are to:

1. identify the media in which the pupils' participate in e-learning during COVID-19 lockdown;
2. find out the gadgets they use to participate in e-learning during COVID-19 lockdown;
3. find out the learning materials they received from their teachers in e-learning during COVID-19 lockdown;
4. identify the format of materials through which they received learning from their teachers' during COVID-19 lockdown;
5. find out how they respond to teachers' assignments/seek explanations for the lessons they are not cleared with e-learning during COVID-19 lockdown; and
6. find out what constitutes barriers to e-learning during COVID-19 lockdown.

### **Literature review**

#### **Media In Which The Pupils' Participate In E-Learning During COVID-19 Lockdown**

There are various media that pupils used to participate in e-learning during COVID-19 lockdown these include WhatsApp, Zoom, Facebook, Instagram, Google, Webinars, YouTube Edmodo among others. Muthuprasad et al (2021) examined Students' perception and preference for online education in India during COVID -19 pandemic. Their finding reveals that the majority of the respondents (62%) agreed that WhatsApp was the best way to communicate class updates. In the same vein Fontanillas, Carbonell and Catusus (2016) asserted that the use of technological applications such as WhatsApp, Webinars, Youtube, Facebook among others will enable schools to establish the active process of e-learning. Yakes et al (2020) asserted that digital technologies were used as a representation of authentic experiences in which a virtual frog dissection for biology, using Zoom for a debate and using the computer camera to set the stage size for a solo drama performance. Yang and Durrington (2010) examined students' perceptions of online course quality. They discovered that group discussion, criticism from lecturers, scheme of course work and support from fellow students were the deciding features that led to the student's conclusion of online learning.

### **Gadgets That Use To Participate In E-Learning During COVID-19 Lockdown**

There are several means through which pupils participate in the e-learning during COVID -19 these include phones, tablets, laptops among others. Khan et al (2021) asserted that the majority of the students (86%) use mobile phones for taking online classes. Similarly, Rasmitadila et al (2020) asserted that the availability of learning facilities such as mobile phones/laptops and Internet data quotas from parents is crucial in the implementation of e-learning. Kearney et al. (2012) asserted that students were using mobile devices such as smartphones, tablets and laptops for e-learning which provides three pedagogical characteristics that influence learners' experiences when using such devices: personalisation, authenticity and collaboration. Chea et al (2020) are of the opinion that smartphones enable students to access lessons and learning materials, complete assignments, and take exams. Similarly, Yakes et al (2020) stated that COVID-19 pushed New Zealand students into learning through digital devices. Asoro and Osunade (2020) examined attitudes of Nigerian students to e-Learning during the COVID-19 Pandemic. Their finding reveals that smartphone has enabled respondents to connect to resources using services reserved for the computer system.

### **Format Of Materials Through Which They Receive Learning From Their Teachers' During COVID-19 Lockdown**

There are several formats through which pupils received learning materials from their teachers during COVID-19 lockdown these include recorded voice teaching, recorded video teaching, teachers' handwritten notes/assignments, typed lecture notes/assignments, plain social media, pictorial/images among others. Kim (2020) asserted that they are different functions and tools of many video communication platforms which children's can benefit e-learning when teachers use them appropriately. Rasmitadila et al (2020) asserted that some

teachers said that instructional videos were one of the most accessible media to use because the teacher already had time, and students could easily understand the subject matter.

### **How They Respond To Teachers' assignments/Seek Explanations For Lessons They Are Not Cleared With In E-Learning During COVID-19 Lockdown**

There are several ways pupils respond to teachers' assignments/seek explanations for clarification such as calling teachers on the phone for an explanation, going to the school to deliver/receive materials/responses among others. E-learning has several advantages, such as encouraging students to self-directed learning through giving further explanations through phones (Huynh, 2017) and updating the curricula (Iwai, 2020). Kim (2020) asserted that learning materials they received from their teachers during COVID-19 lockdown in such platforms allow for real-time class meetings and conversations similar to those that take place in face-to-face classes, even though it still does not provide the same social experiences as face-to-face interactions. For example, the 'share screen' function allows participants to present pictures, video clips, or use other visual/audio presentations from a computer. Norton (2018) asserted that school counsellors can be resource persons in keeping students safe by learning the laws and policies surrounding social media, educating students and supporting families of students on social media issues. Olayemi, Adamu and Olayemi (2021) examined the perception and readiness of students' towards online learning in Nigeria during the COVID-19 Pandemic. Their findings revealed that 81 (54.7%) strongly agreed, followed by 59 (39.9%) that agreed to online learning is useful to them in the era of the COVID-19 pandemic. This is a considerably positive reaction as compared to 5 (3.4%) and 3 (2.0%) respondents who disagreed and strongly disagreed respectively. The result showed clearly that the majority of the respondents have a positive perception of the usefulness of online learning in the COVID-19 era

### **Barriers To E-Learning During COVID-19 Lockdown**

There are several barriers to e-learning during COVID -19 lockdown such as limited data bandwidth, signal issues, inability to internet access, teachers' or pupils' technological abilities to access online sites and use computers, e- learning may not give sufficient or appropriate opportunities to involve pupils' who need more interactions and hands-on activities to focus and learn compared to adult learners among others. Rasmitadila et al (2020) asserted that pupils' participation in e-learning activities is faced with problems of data packages and ownership of cellular phones or laptops, as well as the enthusiasm of students to learn. They further stated that lack of internet access will exclude some of the learners from the online classes and slow connections can also make accessing course platforms and materials frustrating. Bączek et al (2020) investigated students' perception of online learning during the COVID-19 pandemic in Poland. Their result shows that the majority of the students had never experienced any form of e-learning before the pandemic, hence they identified technical issues as one of their key challenges. Yakes et al (2020) stated that when Zoom platform is used in e-learning it is 'felt unnatural' because only one person could talk and teachers dominated and they further stated that 'No one talks on online classes except the teacher', classmates turned

off videos and microphones and didn't participate: 'people tended to not speak (be muted) or show their faces, therefore, it was hard to communicate or interact with them, and some students simply did not attend. Similarly, Coman et al (2020) asserted that students feel isolated because of the lack of interaction, especially with teachers, because they spend more time inside, in front of the computer, and because of the pandemic, which forced people to socially distance themselves from other people. Wedenoja (2020) asserted that these limitations are more evident in pupils' who may not have online access or who have had limited experience with online learning tools, such as computers. According to Schroeder and Kelley (2010); Youn et al. (2012), an additional limitation to consider is that pupils' e-learning, as well as online access, requires adult supervision and, therefore, adult availability and involvement. Kim (2020) stated that pupils may not have the technology skills necessary for e-learning tasks, such as typing responses into a chat screen or sharing flyers with written information, e-learning may not give sufficient or appropriate opportunities to involve pupils who need more interactions and hands-on activities to focus and learn compared to adult learners. Kim (2020) opined that e-learning may not give sufficient or appropriate opportunities to involve young children who need more interactions and hands-on activities to focus and learn compared to adult learners. In addition, Yates et al(2020) examined high school students' experience of e-learning during COVID-19. Their finding reveals that the students who spent less time studying at home, 66% felt they learned less at home than they would at school, whereas of the students who spent more time studying at home, 35% felt they learned more. This outcome is in line with World Bank (2020) regarding COVID-19 pandemic, who aptly pointed out that most pupils will have great difficulty accessing online learning, especially those staying in rural areas, having poor internet access and are subject to other disadvantages. However, Pujazon-Zazik and Park (2010) asserted that the hazards of online social activity include attracting unwanted attention from cyberbullies.

## **Methodology**

The study used a descriptive survey research design. A self-constructed questionnaire was the instrument for data collection. The questionnaire was constructed after consultation of related literature to ensure that relevant items were included in it. Before the administration of the questionnaire, face validity was carried out to test the validity of the questions. The questionnaire was given to experts in the Department of Library and Information Science, Ambrose Alli University, Ekpoma, who validated, resolved defects and modified the questionnaire. The population of the study comprised of all pupils in Delta State, Nigeria who participated in e-learning to meet up with the third curriculum and eventually used for promotion for the next class. The researchers used the purposive sampling technique in selecting a sample for the study because of easy accessibility to respondents and schools that participated for e-learning during the lockdown. Data were collected through the use of a self-constructed questionnaire entitled: "Pupils Experience With E-Learning During Covid- 19 Lockdown Questionnaire (PEELDC19LQ). To ensure that the structured questionnaire was reliable, a pilot study was conducted using 35 teenagers in Day secondary school in Federal Government College Lagos, Ijanikin-Lagos State, Nigeria. The results of the reliability test using Cronbach's alpha reliability coefficient was 0.89. This means that the instrument is

reliable since the test result is above the acceptance point of 0.50. The questionnaire was made up of two sections. The first section focused on the demographic information of respondents while the second section on pupils experience with e-learning during COVID-19 lockdown consisting of five items– (i)the media which pupils used to participate ,(ii) who owned the garget pupils used to participate, (iii)learning resources in which pupils received from their teachers, (iv) formats of materials/ resources/presentations pupils received from their teachers,(v) how does pupils respond to teachers’ assignments/seek an explanation for points they are not cleared with and (v)barriers to encountered by pupils during e-learning. The questionnaire was administered face to face to pupils in Delta State with the support of six research assistants who were trained on how to distribute the questionnaires to the respondents. Out of the 750 copies of the questionnaire distributed to pupils in Delta State, 703 usable copies (that is, a response rate of 93%). According to Richardson (2005), a response rate of 60% or more is desirable and, adequate for survey research. Therefore, the response rate of 93% was considered very adequate for the study. The data collected were analysed using percentages and presented in tables.

### Results and discussion

Table 1 reveals the schools of the respondents used in this study. International Unity School Edjeba attracted the highest with 167 (23.7%) respondents. This is a reflection of the fact that e-learning during the pandemic was used to assess pupils/students for promotion to the next class. This is followed by Mother of Redeemer Catholic School, Effurun-130(18.4%). The table reveals the schools that participated in e-learning during COVID 19.

**Table 1: Schools of Respondents.**

S/N	Name of school	Local Government Area	Classes	Frequency	Percentage
1.	International Unity School Edjeba	Warri South	Primary 4=21 SS1=86 SS2=60	167	23.7
2.	Edjeba Estate School Edjeba.	Warri South	Primary 5=20 Primary 4=18 Primary 3=20	58	8.2
3.	Alvina High School Effurun,	Uvwie	Primary 4=20 SS1=16 SS2=15 SS3=18	69	9.81
4.	Mother of Redeemer Catholic School, Effurun.	Uvwie	SS1=60 SS2=50 SS3= 20	130	18.4
5.	Nehemiah International School Okuokoko	Okpe	SS1=43 SS2=29 SS3=31	103	14.6

6.	James Welch Grammar School, Emevor	Isoko South	SS1=38 SS2=23 SS3=15	76	10.8
7.	St. Theresa Girls Grammar School Ughelli	Ughelli South	JSS 3=20 JSS3=30 SS1=20 SS2=30	100	14.2
<b>Total</b>				703	100

**Table 2: Media used by Pupils for participation in e-learning**

Media used for e-learning	Frequency	Percentage
WhatsApp	595	84.6
Zoom	3	0.42
Edmodos	36	5.12
Alvinas VLE	69	9.81
<b>Total</b>	<b>703</b>	<b>100</b>

Table 2, shows that the majority of the respondents used WhatsApp for participation in e-learning during the pandemic period with 595(84.6%) and followed by Alvinas with 69(9.81%). It could deduce that WhatsApp was dominated by schools in e-learning participation.

**Table 3: Ownership of phone used for participation**

Ownership of phone used for e-learning	Frequency	Percentage
Father's phone	103	14.6
Mother's Phone	404	57.4
Relative's phone	37	5.5
Friends/neighbour(s) Phone	30	4.26
My own	129	18.34
<b>Total</b>	<b>703</b>	<b>100</b>

Table 3, reveals that pupils used their mother's phone for participation during e-learning which attracted 404(57.4) and followed by 129(18.43%). It could be deduced that mothers have compassionate with their phones unlike with fathers.

**Table 4: Learning Materials/Resources in which pupils received from their teachers for e- Learning**

<b>Materials pupils received from teachers for e-learning</b>	<b>Frequency</b>	<b>Percentage</b>
Timetable	43	6.11
Recorded audio/voice lectures	223	31.72
Recorded video lectures	658	93.59
Assignments	500	71.12
Corrections	200	28.44

Table 4, shows that recorded video lectures attracted the highest responses of 658(93.59%) and followed by assignments with 500 (71.12%). It could be deduced that recorded video lectures could be played several for pupils to understand the lessons taught by teachers.

**Table 5: Formats of materials /resource/presentations**

<b>Formats of materials Pupils received from teachers during e-learning</b>	<b>Frequency</b>	<b>Percentage</b>
Recorded voice teaching	223	31.7
Recorded video teaching	658	93.5
Teachers' written notes/assignments	440	62.5
Typed lecture notes/assignments	560	79.6
Plain social media texts	200	28.4
Pictorial/images	180	25.60

Table 5, shows that recorded video teaching and typed lecture notes/ assignments were mostly received by pupils from teachers. It could be said that teachers sent recorded video teaching to pupils WhatsApp platform.

**Table 6: Respond to teachers' assignments/ seeks further explanation from teachers.**

<b>Respond to the teacher's assignments/ further explanation from teachers</b>	<b>Frequency</b>	<b>Percentage</b>
Posting assignments to teachers' personal, social media account who then marked and provided feedback	300	42.6

Calling teachers on the phone for an explanation	450	64
Going to the school to deliver receive materials/responses	550	78.2
Asking questions on the e-learning website	350	49.7

Table 6, shows that going to school to deliver receive materials attracted the highest response rate of 550 (78.2%) and followed by calling teachers on the phone for an explanation 450(64%). It could be said that e-learning in Nigeria is still in the embryo stage unlike the developed countries where submission of assignments to teachers is done online.

**Table 7: Problems Pupils encountered with e-learning**

<b>Problems pupils encountered with e-learning</b>	<b>Frequency</b>	<b>Percentage</b>
Not always having access to the phone for the e-learning	50	7.1
Not having data most times to access e-learning platform	40	5.6
Lack of software to download learning materials	100	14.22
High cost of data	665	94.5
Slow internet signal	680	96.7
The exercise not interactive	500	71.1
Some of the materials deployed were clear	300	42.6
Occasional unavailability of internet signal	400	56.8

Table 7, shows that slow internet signals and high cost of data had the highest and higher response rates. It could be deduced that slow internet signals and high cost of data have been bottlenecks affecting e-learning during pandemic.

## **Discussion of findings**

In this survey, the researchers have resorted to the use of schools in Delta State that participated in e-learning during COVID-19. The researchers used the purposive sampling technique in selecting the sample for the study because of easy accessibility to respondents and schools that participated in e-learning during the lockdown. The findings revealed that International Unity School Edjeba attracted the highest, followed by Mother of Redeemer Catholic School, Effurun-130. This is in line with Goh and Sandars (2020) who pointed out that educators worldwide, being deeply involved in the current tremendous shift towards e-learning, have to adapt to the current major educational challenges.

The study has revealed that the majority of the respondents used WhatsApp for participation in e-learning during the pandemic period and followed by Alvinas VLE. This is supported by Fontanillas, Carbonell, Catusus (2016) who asserted that the use of technological tools such as a Webinar, WhatsApp, Zoom, Google among others will enable schools to establish the active process of e-learning. A majority of the pupils used their mother's phone for participation during e-learning and a larger number of respondents have their personal phones this is in line with Kearney et al. (2012) who asserted that students were using mobile devices such as smartphones, tablets and laptops for learning which provides three pedagogical characteristics that influence learners' experiences when using such devices: personalisation, authenticity and collaboration. The findings also revealed that recorded video lectures had the highest response rate. Rasmitadila et al (2020) asserted that some teachers said that instructional videos were one of the most accessible media to use because the teacher already had time, and students could easily understand the subject matter.

The findings revealed that recorded video teaching and typed lecture notes/ assignments were mostly received by pupils from teachers. This is in line with Kim (2020) who asserted that they are different functions and tools of many video communication platforms which children can benefit from e-learning when teachers use them appropriately. The study shows that going to school to deliver receive materials attracted the highest response rate followed by calling teachers on the phone for an explanation. The findings show that the slow internet signals attracted the highest response rate followed by the high cost of data. Yates et al (2020) stated that when Zoom platform is used in e-learning it is 'felt unnatural' because only one person could talk and teachers dominated and they further stated that 'No one talks in online classes except the teacher', classmates turned off videos and microphones and didn't participate: 'people tended to not speak (be muted) or show their faces, therefore, it was hard to communicate or interact with them', and some students simply did not attend.

## **Conclusion**

Based on the findings of this study, it is concluded that the International Unity School Edjeba, Edjeba Estate School Edjeba, Alvinas High School Effurun, Mother of Redeemer Catholic School, Effurun, Nehemiah International School Okuokoko, James Welch Grammar School, Emevor and St. Theresa Girls Grammar School Ughelli in Delta State participated in e-learning during COVID-19 lockdown to keep pupils in continues learning while at home. WhatsApp

was dominated by schools for e-learning, the majority of participants used their Mother's phones, video lectures were mostly used so that participants can learn at their free time, pupils were going to school submit received materials to their teachers for assessment. The purpose of this study is to enable schools that participated in e-learning to know how to improve on e-learning in case of subsequent occurrence.

## **Recommendations**

Based on the findings of the study, the following recommendations are made:

1. The study has revealed e-learning is essential when there is locked down, for continuous teaching and learning process. Since the respondents had issues with slow internet signals the Federal government of Nigeria should ensure that they liaise with organisations in charge of various networks on how to ensure that they boost their signal transmission and how to reduce tariffs during the lockdown era.
2. Further research should be conducted on Pupils' experience in e-learning during COVID -19 in the South-West region, Nigeria.
3. Schools in Delta State should increase the extent to which they collaborate on e-learning platform.

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