ONLINE TEACHING AND LEARNING AS A DETERMINANT OF EFFECTIVE EDUCATION IN PUBLIC SECONDARY SCHOOLS IN IDEATO NORTH LOCAL GOVERNMENT AREA OF IMO STATE

Loveline, Benataokwu Ekweogu (Ph.D.)
Department of Educational Management And Policy
Faculty of Education
Nnamdi Azikiwe University, Awka, Anambra State.
GMAIL: lb.ekweogu@unizik.edu.ng
Phone No: 08063498722

Abstract
This study investigated online teaching and learning as a determinant of effective education in public secondary schools in Ideato North Local Government Area of Imo State, Nigeria. The study adopted descriptive survey research design and was guided by three research questions. A random sampling technique was used to select 144 teachers drawn from the entire population of teachers (228) in Ideato North education zone of the state. A four-point scale questionnaire titled: "Online Teaching and Learning as a Determinant for Effective Education in Public Secondary Area of Imo State Questionnaire (OTLDEEPSSILGAQ:IM) was designed by the researcher, validated by experts and was used for data collection. A reliability index of 0.82 using Cronbach alpha was determined for the instrument and was adjudged to be reliable and adequate for the study. Data was analyzed using mean ratings. The findings among others revealed that, materials were not available for the teachers and students to teach and learn through online. The findings also revealed that online platforms were not always available for the students to receive the online materials that were provided for them for effective learning. It further revealed that the students were not able to learn effectively through online teaching, due to lack of materials. Based on the findings, the researcher recommended that available materials and platforms should be provided to schools for effective teaching and learning of online teaching and learning in the schools.

Keywords: Online teaching and learning, Effective education, Public Sec. Schools.

Introduction

Coronavirus is an infectious disease caused by the severe acute respiratory syndrome coronavirus 2. It is a contagious disease and spread quickly. Covid-19 most often causes respiratory symptoms that can feel much like a cold, the flu, or pneumonia. Some possible symptoms of Covid-19 include: fever or chills, cough, shortness of breath or difficulty in breathing; fatigue, muscle or body aches and headache. World Health Organization (WHO, 2019), decided to name the disease caused by novel coronavirus "COVID-19" and refers to the virus that causes the "COVID-19 virus". (Who, 2019), "novel coronavirus", meaning that, it had never infected humans. The virus was discovered in Wuhan, China in 2019 and spread rapidly around the globe. It was declared a pandemic by the World Health Organization (WHO in March 2020). Coronavirus disease 2019 (COVID-19) pandemic was reported in Nigeria on 27th of February 2020, and since then more than 68,000 cases of disease were confirmed, with 1,173 deaths (Who, No 30, 2020). Due to the rapid out spread of disease and its deadly in nature, the Federal Ministry of Education in 19th March, 2020 ordered the immediate closure of all the schools in Nigeria. According to United Nations Educational, Scientific and Cultural Organization (UNESCO), monitoring over 100 countries implemented nationwide closures, impacting over half of the world's students' population (UNESCO, 2020).

Madeline (2020), opined that school closures due to coronavirus has posed new problems like how to make the transition to online teaching and learning, and how to cater for those who rely on school for food and housing security. Many state in Nigeria, especially Imo state, joined in the new transition – online teaching and learning. Almost all the local government areas in Imo state introduced online teaching and learning in their schools. Ideato North is one of the local government areas of Imo state that started online teaching and learning.

Online learning refers to an electronic learning environment, where unlike traditional learning

which involves physical peer learners. Online learning does not involve physical peer learners and there is freedom of time and space. However, E-learning makes learning flexible and provides another alternative for those who cannot attend traditional classrooms for any reason. With the growth of technology and the internet, e-learning is included in the category of distance education (Batas, 2010). Online teaching and learning is the use of electronic media for a variety of learning purpose that range from add on functions in conventional classroom to full substitution for face to face meeting by online ancestors (Guri – Rosenbilt, 2014). Online teaching and learning simply means when content delivered online 80% or more. "A course where most or all of the content is delivered online. Typically have no face to face meeting (Allen and Seaman, 2011). Online teaching and learning refers to learner's interaction with content and people via the internet for the purpose of learning. The learning may be part of a formal course or simply something learners pursue for their own interests (Means, et al, 2014). For this study, online teaching and learning simply means a learning that is done using the internet. (Arghga et al, 2020). Online learning is the process of using technology devices in the delivery of instruction to the learners such as digital videos, tables, projector, operating system for learning process (Arghga, et al, (2020). The teacher is not present, but teaching takes place through various social platforms. It can be done anytime and anywhere unlike the traditional learning in educational system. However, both of them are the process of educating the learner.

Education is the process of inculcating knowledge, attitude, norms, beliefs and values of a given society to an individual to be useful to himself and to his society. According to Iwuanyanwu and Uwadiegwu (2019), education is a developmental process initiated in the individual which collectively influences the societal values. Through education, the society continues to discover changes that are to be adopted for a living. According to the researcher, education is the process of inculcating knowledge, ideas, skills, value, attitudes and norms of the given society to individuals to be useful to themselves and to the societies they belong. For this study, Education can be defined as a process of acquiring knowledge, skills, values, morals and habits in order to be productive in the large society, (Ridley, 2020). Researchers, educationists, and other professionals are very eager to know whether e-learning is able to provide better results and academic achievements when compared with traditional learning. The answer can only be found by examining teachers' satisfaction and their motivation in other to prove the point, many comparative studies have been conducted to examine whether face to face or traditional methods of teaching are most effective or whether online or blended learning is best (Gonzales et al, 2016). Hence this study tends to examine online teaching and learning as a determinant of effective education in public education in Ideato Local Government of Imo State

Effective education is the process of inculcating good training to an individual to be functional and productive. It is a conducive learning that is instrumentally good. According to Lingard et al, 2023). Effective education entails productive classroom and pedagogies, which include intellectual quality, connectedness, supportiveness ad engagement with differences. According to (Favale, 2020). The value of instrumental goodness and intrinsic goodness. It is assumed that many parents in Nigeria have in public secondary schools that is why some parents prefer to send the children or wards to public secondary schools.

Public secondary schools are the schools owned, managed, run and maintained by the government. They are schools owned either by federal or state governments. According to (Bata, 2010) public secondary schools in Nigeria are government-owned institutions that provide education accessible to all students/pupils. During Covid-19, pandemic, all the state in Nigeria were involved in online teaching and learning including Imo State. Ideato North is one of the local government areas in Imo state and classified as a rural arear. Emeka (2016) stated that there were thousands of teachers and students who cannot partake in online teaching because they live in rural areas that do not have means of power supply at all.

Statement of Problem

Every local government area in Imo State which Ideato is one of them involved in online teaching and learning during the "COVID-19" pandemic period. The essence for the application of online teaching and learning in Nigeria schools particularly in Imo State during the pandemic was to infuse the effectiveness of education. However, in developing countries like Nigeria, Imo State in particular e-learning was challenged with the problem of material devices such as computer, computer laboratories, internet and e-mail facilities, videophone, systems and teleconferencing devices, fix and wireless applications, digital library, digital classrooms, multimedia courseware development among others (Global Information Technology Report, 2012). Broadly identified challenges with online

teaching and learning are accessibility, affordability, flexibility, learning pedagogy, lifelong learning and educational policy (Ridlay, 2020). Most parts of Imo State have substantial issues with reliable internet connection and access to digital devices. While, in many local government areas in Imo State, the economically backward children were unable to online devices. Hence the researcher is inspired to embark on an online teaching and learning as a Determinant of Effective Education in Public Secondary Schools in Ideato North Local Government Area of Imo State.

Purpose of Study

The study sought to determine;

1. Availability of teaching materials for online teaching and learning in public secondary schools in Ideato Local Government Area of Imo State.
2. The online platforms available for teaching and learning for effective education in public secondary schools in the area.
3. The challenges encounter by adopting online teaching and learning in public secondary schools in the area.

Research Questions

The study was guided by the following research questions;

1. What are the available teaching materials for online teaching and learning in public secondary schools in Ideato North Local Government Area in Imo State?
2. What are the online platforms available for teaching and learning online for effective education in public secondary schools in Ideato Local Government Area in Imo State?
3. What are the challenges encounter by adopting online teaching and learning inn public secondary schools in Ideato North Local Government Area in Imo State?

Method

The design of the study was descriptive survey research design. The research sought to investigate online teaching and learning as a Determinant of Effective Education in Public Secondary Schools in Imo State with reference to North Local Government Area of Imo State.

The population of the study was 228 teachers taken from the nine public secondary schools in Ideato North Local Government of Imo State. The sample of the study was 114 teachers drawn from the entire population. The stratified proportionate random sampling technique was used to select the sample from each school based on 50% as shown in table one. Questionnaire instrument title "Online Teaching and Learning as a Determinant for Effective Education in Public Secondary Area of Imo State Questionnaire (OTLDEEPSSILGAQ:IM) was used for data collection. The questionnaire was made up of 11 structured items. Each of the items was on a 4 points rating scale of Strongly Agree (4), Agree (3) Disagree (2) and Strongly Disagreed (1). The questionnaire was validated by three experts, all are from Faculty of Education, Imo State University, Owerri. The researcher distributed the questionnaire with the help of research assistants. The questionnaire distributed were all filled and returned on the spot. There was 100% return of the instrument. Data were collected and analyzed. Three search questions were used for the study weighed mean was used to answer research questions. Any item with a mean value of 2.50 was regarded as accepted and any mean value below 2.50 was not accepted.

Results

Research Question 1: what are the available teaching materials available for online teaching and learning in public secondary schools in the area.

Table 2:

S/No	ITEMS			SA	A	D	SF	TOTAL		
	The extent online material are available to teach the students online	School	N	SA	A	D	SD	TOTAL	$\bar{X}$	Decision
1	Available materials for online teaching are provided to teach the students online.	Public	30	22	5	12	13	58	1.8	Disagree
2	The materials that are available of teaching and learning online are easier	Public	30	2	4	10	14	48	1.6	Disagree

	revise than printed materials									
3	Available materials for online teaching and learning lead to bad performance of students assessment/ examination	Public	30	1	4	15	10	48	1.6	Disagree

Table 2 shows that the above three items on the extent to which online materials are available for teaching and learning online in public secondary school in Ideato Local Government Area of Imo State. The researcher observed that the teachers disagreed to items 1, 2, and 3 which have the means ($\bar{X}$) scores of: 1.8, 1.6 and 1.6 respectively.

They have the mean ($\bar{X}$) below the cutoff point (2.50) of the agreed mean ($\bar{X}$). This indicated that the extent on which online materials are available for teaching and learning online in the area, is very poor. This implies that if there are available materials to teach the students online they will do well in their assessments/examinations.

Research Question 2

The research sought to find out the online platforms that available to teach the students online in Public secondary schools in the area

Table 3

S/No	ITEMS	School	N	SA	A	D	SD	TOTAL	$\bar{X}$	Decision
4	Virtual conferencing (Microsoft teach zoom Cisco Webex).	Public	30	1	4	15	10	48	1.8	Disagree
5	Whatsapp.com	Public	30	4	3	13	10	48	1.6	Disagree
6	Google hangouts (hangouts.google.com)	Public	30	5	2	12	13	58	1.8	Disagree
7	Facebook	Public	30	14	2	14	10	48	1.6	Disagree
8	Skype.com	Public	30	1	4	15	10	48	1.6	Disagree

The result in table 3 shows the online platforms that are available in public secondary schools in Ideato North Local Government Area of Imo State. The statement in items 4,5,6,7 ad 8 have mean ($\bar{X}$) scores as; 1.8, 1.6, 1.8, 1.6 and 1.6 respectively which are below the cutoff point of the agreed mean ($\bar{X}$) which is 2.50. This indicated that there are no available platforms in public secondary schools in Ideato North Local Government Area of Imo State for teaching and learning online effectively in the area.

Research Question 3

The research question sought to find out the challenges the teachers in Ideato North L.G.A of Imo State are encountering by adopting online teaching and learning in public secondary schools.

Table 4: Responses of the Teachers in Public Secondary Schools on the Challenges they are facing by adopting online teaching and learning

Table 4

S/No	ITEMS	School	F	SA	A	D	SD	TOTAL	$\bar{X}$	Decision
	The challenges encounter by the teachers in public secondary schools by adopting online teaching and learning									
9	Online teaching and learning requires expensive technical support	Public	30	25	5	0	0	114	3.8	Agree
10	Poor network often affects teaching/ learning online	Public	30	20	10	0	0	110	3.7	Agree
11	Teachers/ students usually miss	Public	30	15	10	4	1	96	3.2	Agree

	online classes since data is expensive

Table 4, reveals that teachers agreed in all the items listed above on the challenges they are encountering by adopting online and learning in public secondary schools in Ideato North L.G.A of Imo State. Items 9, 10 and 11 have the means ($\bar{X}$) o 3.8, 3.7 and 3.2, respectively, their mean scores ($\bar{X}$) were above the criterion mean ($\bar{X}$) = 2.50.

Discussion of Results

Teachers of public secondary schools disagreed that there are available materials for online teaching and learning in the area from the responses of research question 1, it could be seen that those disagreements revealed that available materials are not provided for them to enable them to teach students online effectively. In other words, available martials being provided for the teachers and students will enable them to teach / learn effectively, respectively.

Research Question 1 as in table 2, indicated that availability of online materials like textbooks, video recording and relevant teaching and other learning materials will enhance effectiveness of online teaching and learning, hence the result shows that they are not available. Second part of the findings pertaining to second research questions, the data revealed from the responses for items no. 4,5,6,7, and 8, shows the online platforms that are available for teaching and learning online in public secondary schools in the area. The data revealed that teaching and learning are not able to be carried out effectively through online because of lack of platforms, in the area. This finding justifies that through the above online platforms' teaching and learning will not be done effectively in the area.

The finding justifies that items 4,5,6,7 and 8 are not available for online teaching and learning in public secondary schools in the area. The repurposing of WhatsApp for education might be due to its high usage rates (84%) among mobile internet users in Nigeria, reducing the barrier to entry for those who want to teach and learn online (No 1 Polls, 2019).

The responses to research question 4 show that there are challenges encounter by adopting online teaching and learning in public secondary schools in the area. Favale (2020), responded that online users face many technical difficulties that hinder or slow down teaching and learning process. This is in line with (Emeka 2016) opinion that there were thousands of teachers and students who cannot partake in online teaching and learning because, they live in rural areas that do not have means of power supply at all. Responses from items 9, 10 and 11 reveals that teachers and students encounter challenges such as lack of technical support, poor electric power supply, network and internet connectivity problems, etc.

Conclusion

Based on the findings from the collected and analyzed data, the following conclusions were reached.

- There are no available materials provided for the teachers and students to engage in online teaching and learning in the area.
- The teachers and students are not able to involve in online teaching and learning through online platforms, because the area is lacking online platforms for effective teaching and learning processes. This makes it difficult for terms scheme of work and curriculum to be covered in the area.

Besides, there were also challenges encounter by the teachers and students while adopting online teaching and learning in the area.

Recommendations

When the whole world experienced pandemic, it taught everyone lesson, especially Nigerians that students must possess certain skills such as skills of problem-solving, critical thinking, and most importantly adoptability to survive the any crisis. Educational institutions must build resilience in their system to ensure and prioritize the presence of these skills in their students.

- In Nigeria, high level of preparedness that can quickly adapt to the changes in the environment is needed and can adjust ourselves to different modes, for instance, teaching and learning in situation of this era.
- Institutions and organizations should prepare contingency plans to deal with the challenges such as pandemics ad natural disasters.

- Government should see the need to build good schools and equip them with modern digital facilities that can aid online education by providing digital devices as well as internet connections.
- Educators as well as students must be trained on how to handle and use online educational devices, educators must spend quality time to prepare and make their lessons creative, interactive, relevant, students' centered and group based.
- Stakeholders can improve online teaching and learning quality and provide teachers and students with suitable online experiences by identifying and investigating some key factors that might assist the successful implementation of online teaching and learning in the educational sectors in the state and in the Nigeria in general.
- The use of online teaching and learning tools in secondary schools should be encouraged across all secondary schools in the state so as to improve students' academic performances significantly.

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