

AN INVESTIGATION ON TEACHERS' READINESS AND AVAILABILITY OF E-LEARNING RESOURCES FOR EFFECTIVE TEACHING IN SECONDARY SCHOOLS IN POST – COVID 19 ERA.

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Abstract.

The Coronavirus pandemic that pierced the African continent and Nigeria in particular in February 2020 greatly impacted the education sectors of almost all countries of the world. Many Nigerians were aware of the unique role that online/e-learning plays in teaching and learning in the various levels of education, including secondary schools. This made education stakeholders and others concerned about the development of education in the country and called for adopting and integrating the paradigm shift for teaching and learning during the coronavirus era and in any emergency that may re-occur in the future. The study aimed to investigate teachers' readiness and availability of e-learning resources for effective teaching in secondary schools in Agatu Local Government Area of Benue State in the post-covid-19 era. The population of the study is the entire teachers of the 24 secondary schools in the Agatu Local Government Area. The study sample is 50 teachers from ten selected secondary schools in the Local Government Area. The study has two research questions. The instrument of the study is a self-structured instrument titled; "E-Learning and Effective Teaching Questionnaire (ELETEQ)". Mean

rating and standard deviation were used to answer and analyze the research questions. The findings revealed that secondary school teachers were ready to adopt e-learning in the post-covid-19 era but were hindered by the non-availability of the necessary e-learning facilities. Government/school proprietors should employ the services of technical experts and technicians to train and support secondary school teachers in teaching and learning students as they are ready to adopt and integrate the new system. Regular seminars and workshops on using ICTs/e-learning resources should be organized for teachers to become acquainted with the help of e-learning resources for effective performance. Individual teachers should be provided with and have access to computers and other electronic resources. Government should give special attention to teachers by providing special allowances and remuneration to teachers of secondary schools. Government/school proprietors should deliver ICTs/e-learning platforms to all secondary schools in Nigeria, and all secondary schools should have constant/stable light and internet connectivity.

Keywords: Readiness, Availability, E-learning, Resources, Post Covid-19 Era

Introduction

Education is regarded as an essential instrument for national development. It gives individuals the knowledge and skills needed for self-reliance and societal development. According to Antonio (2020), education is the key to personal growth and the frontiers of societies that unlocks opportunities, narrow inequities and is a primary driver of sustainable development. There is high demand for education in Nigeria, like other countries of the world, because of its social and latent functions. Particularly, there is high demand for secondary

education in Nigeria due to the rising number of children completing primary education coupled with a growing youth population.

The value attached to education as an instrument for a nation's rapid economic, social, cultural and political development and aiding the development of the child's mental, physical, social and environmental skills made the majority of Nigerians enrol their children in schools. Enrolling their children in secondary schools is an opportunity for Nigerians to lay the foundations for academic and entrepreneurial skills of the child as the schools also prepare the youths for future tasks (UN mastered card, 2020).

Secondary school students, like students of other levels of education in Nigeria, were at the peak of academic activities as some classes were preparing for second term examinations while others were for external examinations before the outbreak of Covid-19 and the lockdown that followed (Godwin & Kayang, 2021). The first case of the dreaded virus was reported in Wuhan, Hubei province in China, in November 2019. The pandemic spread to Africa and Nigeria in February 2020 like wildfire and has ever since caused a lot of psycho-social impediments to education. At the end of February 2020, the growing spread of the covid-19 virus made the World Bank establish a multi-sectoral task force to support countries' response and coping measures.

The different measures for coping and preventing the virus could not work. In reaction to this, in March 2020, over 200 countries forced school children to vacate schools and stay at home (World Bank Education Covid-19 Monitoring, 2020). Consequently, on March 20, 2020, the Federal Government of Nigeria directed all schools to close immediately. This precautionary step aimed at preventing the spread of the dreaded virus, which had become a threat to the global community (Godwin & Kayang, 2021; Temidayo, 2020). The situation heightened as the pandemic made students stay home for more than six months. During this period, students who wrote final examinations and others who were expected to continue their third-term academic activities could not do so. This continued till August, when some states, including Benue State, began to open their primary and secondary schools gradually with some protocols such as the use of masks, sanitizer, adoption of social distance and abundance of a handshake. Notably, during this period, many Nigerians opined that teaching and learning be done through e-learning. This opinion was impracticable in most schools in Nigeria.

Over the years, the National Policy on Education and the implementation guideline for Information and Communication Technology (ICT) emphasized ICT integration at the various levels of its education in the country (FRN, 2004; FRN, 2010). The policies aim to improve the quality of education of citizens to attain and enhance sustainable socio-economic development and global competition and improve individuals' ability to survive in a contemporary environment. The ICT policy particularly stated that the government should provide facilities and necessary infrastructure for promoting ICT and e-learning in schools. This was aimed at achieving sustainable development in the 21st century in line with the agenda of the New Partnership for Africa Development (NEPAD). This move shows that Nigeria has been trying to integrate and adopt e-learning in her educational institutions to give quality education to her

citizen for sustainable development and aid learning during future global emergencies like Covid-19.

Because of its variety, e-learning has been defined differently by scholars. E-learning is a computer-assisted and pedagogical change in education for student-centred and collaborative learning toward building 21st-century skills (Olojo et al., 2012; Sisco *et al.*, 2015). E-learning involves using computers, digital technology, digital network devices like the internet and other associated software and courseware. Learning occurs online through the internet and using the CD-ROM or other facilities such as radio, television and telephones. It encompasses all forms of electronically supported learning and teaching processes to increase the quality, efficiency and dissemination of education and deliver instruction to learners at remote locations from a central site (Arkorful & Abaidoo, 2014; Eke, 2011; Natarajan & May, 2015). e-learning enables students, trainees and teachers to interact virtually without physical contact. It is a web-based instruction that use electronic technology and media to deliver, support and enhance teaching, learning and assessment. Ogwu and Ogbu (2020) add that e-learning provides easy access to any type of information required for academic purposes through the use of internet facilities such as World Wide Web (www) based technology and other software

The importance of e-learning made Nigerians call for integration into their educational institutions, particularly secondary school. With the help of e-learning technologies, many students could receive lessons without physical contact with the teacher. This is evident in some Nigerian states, such as Lagos, Oyo, Ogun and Edo, where students and teachers were trained to use basic e-learning technologies during the pandemic (FM E, 2020). Research shows that most teachers in secondary schools in Nigeria were ready to use electronics to teach within and outside school environments during the pandemic as they were aware of the importance of e-learning but were handicapped due to a lack of resources. In their survey during the pandemic, the federal Ministry of Education (FME) officials reported that most secondary school teachers in Nigeria were ready to use electronic devices with the support of experts but could not because they had no access to electronic resources. Abdul-Salam (2007) declared that, when e-learning was introduced in Nigerian Secondary Schools, most teachers were ready to use ICTs for teaching but needed resources and training or technical support and how to use ICTs effectively. Adomi and Kpangban (2010) added that teachers are ready to use ICT tools but needed resources and technical support to maximize their expertise. Ajelabi and Agbatogun (2010), in their work, concluded that teachers are interested in the introduction of e-learning because they want to move with the technological development as they have seen the uniqueness of the internet and its usefulness to education.

The pandemic also made the Federal Government of Nigeria re-emphasize adopting online/e-learning in her educational institutions, including secondary schools. Unfortunately, the pronouncement of the adoption and integration of e-learning in secondary schools in Nigeria was not followed by the provision of adequate electronic resources. FME (2020), in the report of their study during the covid-19, declared that most secondary in Nigeria do not have access to digital tools, internet and electricity to adopt e-learning. Ishiaka (2020) revealed during the covid-19 era that ICT facilities such as computers, projectors, electronic notice boards, internet and filmstrips

were not available in Nigerian schools. That was why secondary schools and other educational institutions in Nigeria were closed for over six months during the covid-19 era.

Over two years ago, the government promised to collaborate with Non-Governmental Organizations (NGOs) and the private sectors, such as the Unity Schools Virtual Learning platforms, the WAEC E-Learning toolkit, 9mobile telecommunication, UNESCO School Meets Learner Approach, IBM University Relations and Development Learning Partners Educational Resources among others in providing e-learning resources for schools in Nigeria to avoid a future scenario where schools may have to be closed for months with no alternative to learning as in the case of the Covid-19 pandemic (FME 2020). How has the government yielded to this promise so far? It is in line with this premise that the researcher sets to determine the extent to which teachers are ready to use e-learning resources. And whether schools are equipped with these resources for effective teaching in secondary schools in Agatu Local Government Area of Benue State in the post-Covid-19 era.

Statement of the Problem

Though e-learning was introduced in Nigeria's education system before the 21st century, in 2020, in the heat of the Covid-19 pandemic, Nigerians realized the need to integrate these important resources into the education system. During this period, the need to use e-learning gadgets and services that will enable students to learn from the comfort of their homes became paramount. It is therefore fitting for the government to make proper budgetary allocations towards providing these gadgets and services to prevent the nation's education system from experiencing the setbacks it experienced during the pandemic.

Unfortunately, in recent times, the researcher has observed that most secondary schools in the study do not have e-learning platforms such as television, internet and other gadgets. Most teachers in secondary schools may not be competent in operating the computer and other educational technologies for effective teaching and learning. Also, there may be no evidence of government intervention through funding, provision of e-learning equipment and employment of personnel in secondary schools to promote the integration of e-learning. These problems may have hindered the full implementation of e-learning in secondary schools, especially in the area under investigation. Based on this background, one is forced to ask: what is the level of readiness of secondary school teachers to integrate e-learning at the secondary level of education? What is the story of the availability of e-learning resources in secondary schools in the Agatu Local Government Area? These issues prompted the researcher to determine whether teachers are ready and the available e-learning resources for effective teaching in Secondary Schools in the Agatu Local Government Area of Benue State in the post-Covid-19 era.

Purpose of the Study

The general purpose of this study is to investigate teachers' readiness and availability of e-learning resources for effective teaching in secondary schools in the Agatu Local Government Area in the post-covid-19 era. The study specifically sought to:

- examine teachers' readiness for the integration of e-learning in secondary schools.

- Determine the level of availability of e-learning resources in secondary schools in Agatu Local Government of Benue state.

Research Questions

The following questions guide the study.

- What is the level of teachers' readiness for integrating e-learning in secondary schools in the post-Covid-19 era?
- What is the level of availability of e-learning resources in secondary schools in Agatu Local Government Area of Benue State in the post-Covid-19 era?

Methodology and Procedure

The design of this study is a descriptive survey. The researcher used this design to describe the data collected and explain the current status of e-learning in the Agatu Local Government Area of Benue State. The study population comprised all the teachers in the 24 secondary schools in Agatu Local Government Area in Benue State. The sample included 50 secondary school teachers from 10 schools.

The instrument for data collection is a researcher-designed instrument titled "e-learning and effective teaching questionnaire (ELETEQ)". ELETEQ has 22 items covering issues on teachers' readiness and the availability of e-learning resources. It adapted the Likert scale with the scoring of SA-4, A-3, D-2, and SD-1. ELETEQ was also validated by one expert in the Department of Educational Measurement and Evaluation and two other experts from the Department of Computer Science. The instrument was further pilot-tested on eight secondary school teachers in two schools that were outside the sample schools. The reliability coefficient of the instrument yielded 0.84.

The researcher used one week to administer the instrument to 50 respondents. The researcher visited two schools daily within a week. Copies of the questionnaire were administered and collected on the spot upon completion. Difficult or technical expressions were explained to the respondents.

Mean rating and Standard Deviation were used to answer the research questions. The mean threshold for agreeing or disagreeing with the impact of an item is 2.50. This implies that a mean rating of 2.50 and above is accepted to have the desired effects, while ratings below 2.50 are not accepted and therefore do not have the desired impact.

Results

Research Question 1:

What is the level of teachers' readiness for integrating e-learning in secondary schools in the post-Covid-19 era?

Table 1: Mean ratings and standard deviation of teachers' readiness for the integration of e-learning in secondary schools

S/NO	Item statement	N	<i>X</i>	<i>SD</i>	Remarks
1	Teachers have the knowledge of e-learning in secondary schools.	50	3.04	0.76	Agree
2.	Teachers understand the importance of e-learning in secondary schools.	50	3.24	0.70	Agree
3	Teachers possess the skills to use e-learning resources in secondary schools.	50	2.72	0.92	Agree
4.	Teachers have positive attitudes towards the use of e-learning platforms	50	3.16	0.62	Agree
5.	Teachers accept to be members of ICT organizations in schools.	50	3.26	0.72	Agree
6.	Teachers have been using e-learning platforms for teaching in secondary schools.	50	1.70	0.68	Disagree

The result from Table 1 shows that five out of the six items have mean values ranging from 2.72, 3.04, 3.16, 3.24, to 3.26, which is within the response category of agreeing with the 2.50 benchmark. Only item 6 has a mean value of 1.70 (below the benchmark). Since most of the items were approved, this indicates that teachers are ready to integrate e-learning in secondary schools but have not ever used digital tools for teaching and learning.

Research Question 2:

What is the level of availability of e-learning resources in secondary schools post Covid-19 era?

Table 2: mean ratings and standard Deviation on the level of availability of e-learning resources.

S/no	Item statement	N	<i>X</i>	<i>SD</i>	Remark
7.	There is an availability of an e-learning laboratory in the school	50	1.72	0.70	Disagree
8.	Students have access to laptops /phones	50	3.04	0.67	Agree
9.	Telephone /wireless applications are available in the school	50	3.34	0.80	Agree
10.	Scanners are available in the school.	50	1.78	0.79	Disagree
11.	Internet connectivity is available in school	50	1.76	0.77	Disagree
12.	There is a functional e-library in the school	50	2.08	0.30	Disagree
13.	Functional media projector is available in school.	50	1.74	0.53	Disagree
14.	Students have CD-ROM at school	50	1.76	0.56	Disagree
15.	Students use interactive whiteboard/light pen in schools	50	1.58	0.58	Disagree

From Table 2, items 7 (1.72), 10 (1.78), 11 (1.76), 12 (2.08), 13 (1.74), 14 (1.76) and 15 (1.58) all fall below the benchmark of 2.50 and below the response category of agree and the average mean score of 1.77. On the other hand, items 8 (3.04) and 9 (3.34) are above the benchmark and

within the response category of agree. Since most items are disagreed (1.77), there are low available e-learning resources, which negatively affects the integration of e-learning in schools.

Discussion of Findings

From table 1, the research question, which states that what is the level of teachers' readiness for the integration of e-learning in secondary schools in the post-covid-19 era, revealed that most teachers are ready to integrate e-learning in secondary schools. This was shown in items 1-5 that the responses were agreed upon. It is only item 6 that disagreed that they are ready but have never used e-learning platforms for teaching in secondary schools. These findings support the work of Abdul-Salami, (2007), who states that "most teachers in secondary school are ready to use ICTs in teaching but needed resources and training or technical support on how to use ICTs in school effectively. The findings also agreed with Adomi and Kpangban (2010) in their study that teachers are ready to use ICT tools but need facilities and technical support to maximize their expertise. Likewise, the study collaborates with Ajelabi and Agbatogun (2010), which reported that teachers are interested in the introduction of e-learning because they want to move with the technological development as they have seen the uniqueness of the internet and its usefulness to education.

Table 2, which answered the research question 2, to what extent is the availability of e-learning resources in secondary schools in the post-Covid-19 era revealed that there are no or little e-learning resources in secondary schools in the study area. This was shown from items 7 - 15. It is only items number 8 and 9 that some teachers responded that some of their students have laptops, phones and other wireless applications. Most teachers responded that the necessary technological resources for integrating e-learning in their schools are not available. The findings agree with FME (2020) in the report of their study during the covid-19 declared that most secondary in Nigeria do not have access to digital tools, internet and electricity to adopt e-learning. In his research, Ishiaka (2020), also during the covid-19 era, reported that ICT facilities such as computers, projectors, electronic notice boards, internet and filmstrips were not available in Nigerian schools.

Conclusion

The coronavirus pandemic made most Nigerians aware of the importance of e-learning in education, especially during emergencies or unforeseen circumstances. It called for its full integration at the various levels of education, including secondary schools now and in the future. Teachers of secondary schools are ready to use the electronic or digital tools as done by some teachers in other parts of the world; also, they do not want to be in a state of a dilemma if such situation should re-occur in future. Unfortunately, the teacher has not ever used e-learning resources since the government re-emphasized the implementation of policy on the paradigm shift due to the calls and yearnings of the education stakeholders and the citizens of the country in their education sectors during the pandemic. The inability of the teachers to integrate the system in secondary school is due to the non-provision or non-availability of e-learning facilities.

It shows that the dearth of digital tools deters the integration of e-learning in secondary schools and some levels of education in Nigeria now and probably in the future.

Recommendation

Based on the findings, the researcher recommended as follows;

- Government/school proprietors should employ the services of technical experts and technicians to train and support secondary school teachers in teaching and learning students as they are ready to adopt and integrate the new system.
- Regular seminars and workshops on using ICTs/e-learning resources should be organized for teachers to become acquainted with the help of e-learning resources for effective performance.
- Individual teachers should be provided with and have access to a computer and other electronic resources. This will make teachers use the devices on their leisure time for practice, teaching, and learning outside the school environment with their students.
- Government should give special attention to teachers by providing special allowances and remuneration to teachers of secondary schools. This will encourage every teacher to participate and become an expert in a new paradigm shift in education.
- Government/school proprietors should provide ICTs/e-learning platforms in all secondary schools in Nigeria. This will encourage teachers and students to always engage with the new school system.
- All secondary schools should have constant/stable light and internet connectivity. This will involve teachers and students in teaching and learning with electronic resources when the need arises.

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