

## **Challenges of E-Learning during Covid-19 Pandemic in Colleges of Education in South East States, Nigeria**

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### **Abstracts**

*The decision to move traditional physical classrooms to e-learning in response to COVID-19 appears to be inadequately planned and too sudden as there are many infrastructural and technical challenges in tertiary institutions. This prompted the study which examined the challenges of e-learning during COVID-19 pandemic in colleges of education in south east states, Nigeria. One research question guided the study. The research design employed for the study was descriptive survey. The population of the study comprised 2,184 lecturers out of which a sample of 437 was drawn for the study using stratified proportionate sampling technique. The instrument for data collection was a questionnaire. The instrument was duly validated by three experts and the reliability of the instrument was ascertained using Cronbach Alpha which yielded coefficient of 0.83. Data collected were analyzed using mean and standard deviation. The result of the study revealed that the challenges of e-learning during COVID-19 pandemic in colleges of education in south east states include: epileptic power supply, high cost of procurement of electronic devices, high cost of maintenance of ICT equipment for e-learning, poor internet connectivity, shortages of relevant software, low level of incentive to lecturers, low level of student accessibility to internet facilities, poor technical support from management and high cost of data bundle to connect e-learning platform. Based on the findings, it was concluded that e-learning cannot produce desired results as the best alternative platform for instruction during COVID-19 pandemic due to these challenges in colleges of education in south-east, Nigeria*

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**Keywords:** Challenges, E-learning, COVID-19 Pandemic, Colleges of Education

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### **Introduction**

There was emergence of a viral infection called corona-virus (COVID-19) in December, 2019. Nnebedum, Obuegbe and Nwafor (2021) stressed that human existence has been threatened by coronaviruses (Covid-19) virus which originated from in Hubei province of China in December, 2019 and subsequently spread across the world in three months. Symptoms of the virus are fever, tiredness, sore throat, dry cough, respiratory problems and pneumonia among others. The first case of COVID-19 was reported in Nigeria by the Federal Ministry of Health on 27<sup>th</sup> February, 2020 and this was the case of an Italian citizen who works in Nigeria and returned from Milan, Italy to Lagos, Nigeria on the 25<sup>th</sup> of February, 2020 (Agbele & Oyelade, 2020). Since then, there are increasing rate of confirmed cases of COVID-19 in Nigeria and the world at large. Currently, there are no specific antibiotics for treatment of the virus but some vaccines has been developed to minimize it spread across global. According to Olayinka and Aanuoluwapo (2020), the declaration of COVID-19 as a public health emergency by the World Health Organization necessitated countries across the globe to implement response and mitigation measures. These measures include: contact tracing and testing, frequent wash handing, compulsory wearing of face masks in public

places, ban of inter-state movement except for those on special assignments, restrictions on social and religious gatherings and school closure.

The rapid rate of spread of the COVID-19 led to the closed down of educational institutions from pre-primary to the tertiary education levels in Nigeria. Similar to this, Adeoye, Adanikin and Adanikin (2020) asserted that COVID-19 has disrupted the global educational system as most countries around the world have resulted in temporarily closure of all educational institutions in an attempt to contain the spread of the pandemic. On March 20<sup>th</sup>, 2020, the Federal Government of Nigeria ordered the closure of all educational institutions as a precaution to reduce the spread of COVID-19 in the country (Oladipo, Fashola, Agboola, Adisa, Oyekanmi & Akinsete, 2020). This was a worrisome development as some of undergraduates in higher institutions are either preparing for examination or beginning new semester among others. Most Nigerian students and other African or underdeveloped countries were more disadvantaged because most educational institutions in Nigeria still follow the traditional set-up of face-to-face lectures in the normal classroom settings (Agbele & Oyelade, 2020). However, during the lock down, governments across the world initiated policy to continue teaching activities without spreading the virus among learners and teachers. Oyedirana, Omoare, Owoyemi, Adejobi and Fasasi (2020) stressed that efforts to revamp education due to prolong lockdown made the government enforce e-learning in tertiary institutions across the country. Many educational institutions in Nigeria embrace e-learning during COVID-19 outbreak to ensure coverage of syllabus. Adeoye, Adanikin and Adanikin (2020) noted that e-learning has become the most preferred platform to learn during global pandemic periods such as the COVID -19 where movement is restricted and institutions of learning are on lockdown.

E-learning is the use of electronic gadgets and ICT devices in the process of instructional delivery. According to Adeoye, Adanikin and Adanikin (2020), e-learning connotes electronic method of learning which is associated with computerized learning in an interactive interface at the convenience of both the learners and lecturers. It is an innovative means of instruction without physical contact with the learners and the lecturers. According to Sobhana (2020), teaching is a formal educational process in which one teaches with internet technology which allows flexibility of time and location for both teachers and students. E-learning is a mode of instruction where students and lecturers use their home computers and phones through the internet to exchange ideas and knowledge. Agbele and Oyelade (2020) asserted that e-learning provides platform for students and lecturers to connect computer/mobile phone to a network or radio/television set that offers the possibility to teach from anywhere, at any time and by any means. Lecturers and students may need to download some apps like Zoom, FoxFi, Audioboo among others to promote e-learning. Mukhtar, Javed, Arooj and Sethi (2020) stressed that e-learning involves the implementation of advancements in technology to direct, design and deliver the learning content, and to facilitate two-way communication between students and faculty. Furthermore, the authors also pointed out that it contains features such as whiteboards, chat rooms, polls, quizzes, discussion forums and surveys that allow instructors and students to communicate online and share course content side by side.

There are numerous benefits of e-learning. Adeoye, Adanikin and Adanikin (2020) averred that the benefits of the e-learning include better content delivery, interactivity, quality content delivery and confidence of both learners and lecturers in the educational sector. Continuing, the authors also stressed that it also allows students to study at their open pace and convenience as the lecture material is readily available and the content delivery of the lecturer is quite accessible to them. Eduard and Lucian (2020) stressed that e-learning is an innovative platform for transmitting knowledge and skills to the learners; it is cheap, saves time, has a wider coverage, and as well promoting team learning and collaboration. E-

learning platforms offer many advantages to learners such as control over the content, control over the time spent learning, and thus the process can be adapted according to the learner needs and objectives of learning (Coman, Tîru, Mesesan-Schmitz, Stanciu & Bularca, 2020). On the contrary, Coman et al stressed that when using E-learning platforms there are also some elements that might be considered obstacles in students' process of learning, such as decreased motivation in students, delayed feedback or help due to the fact that teachers are not always available at the time students may need help while learning, or feelings of isolation due to lack of physical presence of classmates.

The decision to move traditional physical classrooms to e-learning in response to COVID-19 appears to be inadequately planned and too sudden as there are many infrastructural and technical challenges in tertiary institutions in colleges of education in south-east, Nigeria. Oladipo et al (2020) averred that transition to the e-learning model was unprepared for in Nigeria but inevitable due to the pandemic. Oladipo et al further noted that as a result of this unpreparedness and the situation of Nigeria as a resource limited country, this new method of learning comes with different challenges. Some lecturers and students are unfamiliar with e-learning in colleges of education in south-east, Nigeria. Ali (2020) averred that COVID-19 pandemic and social distancing requirement has presented undue challenges on all educational stakeholders to go online as they have to work in a time constraint and resource restraint situation. Adeoye, Adanikin and Adanikin (2020) observed that e-learning is still confronted with a lot of challenges in Nigerian tertiary institutions especially during this pandemic as this is the only medium available for learning. The authors also stressed that cost of ICT facilities is so high which might be difficult for both students and lecturers. In some cases, few students who are privilege to afford could find it often difficult to purchase data bundle to connect to online classes. These challenges seem to have resulted in low attendance of students during the online classes. It is this poor state of affairs that prompted this study.

### **Purpose of the Study**

The main purpose of the study was to determine challenges of e-learning during COVID-19 pandemic in colleges of education in south east states, Nigeria. Specifically, the study sought to find out:

1. Challenges of e-learning during COVID-19 pandemic in colleges of education in south east states, Nigeria.

### **Research Question**

One research question guided the study

1. What are the challenges of e-learning during COVID-19 pandemic in colleges of education in south east states, Nigeria?

### **Method**

Descriptive survey design was adopted for the study. The design was adjudged appropriate for the study because the researchers collected data from given representative of the population in order to systematically describe the challenges of e-learning during COVID-19 pandemic in colleges of education in south east states, Nigeria. The study was carried out in the five states in the South East Nigeria which include Abia, Anambra, Ebonyi, Enugu and Imo States. South East Nigeria is one of the six geo-political zones of the country. The population of the study comprised 6 of 2,184 lecturers in the eight Colleges of Education in the South East, Nigeria. Stratified proportionate sampling technique was used to draw a sample of 437 lecturers which represent 10% of the population for the study. The instrument for data collection was a researcher-developed questionnaire titled Challenges of E-learning

COVID-19 Pandemic Questionnaire (CECPQ). The instrument was developed based on literature reviewed and consultation with experts in the field. CECPQ has 12 items structured on a 4-point rating scale of Strongly Agree (SA)-4 points; Agree (A)-3 points, Disagree (D)-2 points and Strongly Disagree (SD), 1 point.

The instrument (CECPQ) was subjected to face validation. To ascertain this, the researcher presented the title, purpose of the study, research question and hypothesis with a copy of the questionnaire to three experts who are lecturers; two in the Department of Educational Management, and a specialist in Measurement and Evaluation all in the Faculty of Education, Chukwuemeka Odumegwu Ojukwu university, Igbariam Campus. The experts suggested that double barrel items should be restructured and also that some items should be recast. Their suggestions were used to produce the final edition of the questionnaire. The internal consistency of CECPQ was obtained using Cronbach alpha after the administration on 20 lecturers in Colleges of Education in south-south, Nigeria. The choice of south-south was because the two geo-political zones share similar characteristics in school administration. The reliability of the instrument was ascertained using Cronbach Alpha and the co-efficient obtained was 0.83. The administration of the instruments was done by the researchers together with four research assistants, who were briefed on what to do.

Out of a total of 437 copies of the questionnaire administered on the respondents, 424 copies representing 97% were properly completed and successfully retrieved. They were used for data analysis. Mean and standard deviation were used to answer the research question. For decision on the research question, any item whose mean score fell below 2.50 was taken as disagreement while any with mean score of 2.50 and above was taken to indicate agreement. Standard deviation was used to ascertain the homogeneity or otherwise of the respondents mean ratings.

## **Results**

**Research Question 1:** What are the challenges of e-learning during COVID-19 pandemic in colleges of education in south east states, Nigeria?

**Table 1:** Mean Ratings and Standard Deviation Scores of the Challenges of E-learning during COVID-19 Pandemic in Colleges of Education

S/ N	Items	Students (N = 397)		
		Mean	SD	Remark
1	Epileptic power supply	2.87	0.98	Agree
2	High cost of procurement of electronic devices	2.71	1.01	Agree
3	High cost of maintenance of ICT equipment for e-learning	2.65	1.11	Agree
4	Poor internet connectivity	2.74	1.03	Agree
5	Shortages of relevant software	2.56	1.07	Agree
6	low level of incentive to lecturers	2.60	1.09	Agree
7	Resistance to change among lecturers and students	2.41	1.16	Disagree
8	Poor level of lecturers' readiness to adopt e-learning	2.46	1.10	Disagree
9	Low level of student accessibility to internet facilities	2.53	1.07	Agree
10	Poor technical support from management	2.66	1.00	Agree
11	Insufficient skills among lecturers to use the digital platforms	2.81	1.10	Agree
12	High cost of data bundle to connect e-learning platform	2.72	1.12	Agree
<b>Mean of Means</b>		<b>2.64</b>	<b>1.07</b>	<b>Agree</b>

Results on Table 1 revealed that the mean ratings of lecturers which are above 2.50 for all items except items 7 and 8 indicated agreement on these items as the challenges of e-learning during COVID-19 pandemic. The overall standard deviation score of 1.07 indicated that there is homogeneity amongst their responses. The mean of means of 2.64 is above the mean score of 2.50 and this indicated agreement there are many challenges of e-learning during COVID-19 pandemic in colleges of education in south east states, Nigeria.

### Discussion of Findings

The finding of the study revealed that there are many challenges of e-learning during COVID-19 pandemic in colleges of education in south east states, Nigeria. The challenges of e-learning during COVID-19 pandemic in colleges of education in south east states, Nigeria include: epileptic power supply, high cost of procurement of electronic devices, high cost of maintenance of ICT equipment for e-learning, poor internet connectivity, shortages of relevant software, low level of incentive to lecturers, low level of student accessibility to internet facilities, poor technical support from management, insufficient skills among lecturers to use the digital platforms and high cost of data bundle to connect e-learning platform. This is line with the finding of Oyedirana, Omoare, Owoyemi, Adejobi and Fasasi (2020) who reported that the challenges of e-learning during COVID-19 pandemic include: poor electricity supply, high cost and poor quality of e-learning facilities, the poor technical know-how of e-learning, poor internet connectivity, lack of telecommunication infrastructure and lack of training support by the institutions. This finding also supported that of Noor, Isa and Mazhar (2020) who reported that limited resources (power and connectivity), minimal learner support, shortage of facilities, lack of technology knowhow and content restructuring were hindrances to the smooth operation of e-learning during COVID-19 pandemic. The possible explanation for this agreement is that e-learning was suddenly initiated during

COVID-19 pandemic and some countries are unprepared for it. The power supply in Nigeria is erratic and worrisome. Irregular power supply affects the utilization of modern equipment to aid the practice of e-learning in education institutions. The cost of computer hardware and software to promote e-learning is too expensive for many lecturers and students to afford. This situation is worsening by increasing exchange rate of ₦480 to \$1USD. It has brought inflation and escalating prices of ICT hardware and software to improve e-learning. Alternative power supply through generator set is difficult due to increasing price of fuel. The internet service requiring data to connect to this e-learning platform is too cost for some students and lecturers to afford. Low level of incentive for lecturers may at times affect the way in which they are willing to promote e-learning in colleges of education.

### Conclusion

Based on the findings, it is concluded that e-learning which was embraced as alternative to the traditional physical classroom to cover gaps the COVID-19 pandemic might cause colleges of education academic calendar is faced with numerous challenges. The challenges of e-learning during COVID-19 pandemic ranges from irregular power supply, high cost of data bundle, poor internet connectivity, and insufficient ICT skills among lectures and high cost of computer software and hardware among others. E-learning cannot produce desired results as the best alternative platform for instruction during COVID-19 pandemic due to shortage of ICT infrastructure in colleges of education in south-east, Nigeria.

### Recommendations

Based on the findings, it is recommended that:

1. Federal Government of Nigeria should diverse power source from hydroelectric to the use of coal to generate higher megawatt to promote stable power supply.
2. Management of colleges of education should organize workshops, seminars and conferences for lecturers to equip them with necessary skills and keep them abreast of the current trends in the use of modern tools for improvement of e-learning.
3. Federal Government of Nigeria should make adequate budgetary allocation to education to enhance the availability of funds for procurement the necessary modern technologies facilities to promote e-learning.
4. Management of colleges of education should develop incentive structure for lecturers to boost e-learnin.
5. The Federal Government should encourage local industries to manufacture some electronic devices to promote e-learning through granting credits to them.

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