
RESEARCH ARTICLES

Emergency Remote Teaching During COVID-19 Pandemic Lockdown: Nigeria University Students' Perspective

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Abstract

This study reports the viewpoints of students on Emergency Remote Teaching (ERT) in tertiary institutions in Nigeria during the COVID-19 induced schools' closure. Three research questions guided the study. The descriptive survey design was adopted. A total of 1017 students formed the population for the study. Sample size of 100 students were drawn using simple random sampling technique. A 32 item structured questionnaire titled '*Students' View on Emergency Remote Teaching (SVERT)*' validated by experts with a reliability coefficient of 0.78 was used as instrument for data collection. Data was analysed using frequency, percentage and mean. The findings revealed the educational media used by NAU and KSU lecturers for ERT. It further revealed that students were satisfied with the coverage of course contents, but not fully satisfied with ERT due to inadequacy of learning activities, which led to boredom amongst isolated learners. It also found out that challenges experienced during ERT include high cost of data for internet subscription and inadequate electricity supply to keep device always charged before lectures, among others. The study recommended among others that ERT sessions should be designed with relevant and highly engaging and interactive learning activities to reduce boredom among isolated learners during learning.

Keywords: Emergency Remote Teaching, COVID-19, Pandemic, Lockdown, Students' Perspective

Introduction

On the backdrop of the Corona virus disease 2019 (COVID-19) pandemic lockdown, Emergency Remote Teaching (ERT) emerged as a necessity for all levels of education on a global scale. The rapid spread of SARS-CoV-2 necessitated the adoption of mitigation measures preventing mass gathering like closure of schools to curb the spread of the virus and control local transmission (Ikwuka, 2020). It was posited that above 1.5 billion learners of all ages globally were affected, attributable to school closure because of the pandemic (UNESCO, 2020a; UNICEF, 2020). Virtually about 90% of the students enrolled globally are affected by this pandemic

(UNESCO, 2020a; 2020b), and as part of measures to mitigate the spread of SARS-CoV-2 in Nigeria, the government published an advisory in March 2020, that ensured the immediate closure of schools and other sectors to prevent mass gathering.

With the lockdown, a huge number of school children and university students were confined to their homes. The school calendar and the conventional face-to-face platform through which most schools in the developing countries of the world, Nigeria included, deliver their instructions were disrupted. It then became very important for schools to explore other methods of

teaching and learning. The most handy alternative to traditional face-to-face instructional platform is found to be the online learning platform. However, such a hasty shift from classroom-based face-to-face learning to online learning came with its challenges, among which are inadequate technology infrastructure for full online learning, erratic power supply, lack of technical know-how, and lack of funds for students to purchase laptops and/or android phones to enable them participate. Again, the hasty shift to online learning afforded teachers minimal time to prepare themselves adequately. Hodges, Moore, Lockee, Trust and Bond (2020) posited that the design process and decisions concerning the type of online designs to be adopted in online learning is essential for effective online education. However, this is absent in such hasty shift from offline classroom-based to online. Bozkurt and Sharma (2020) suggest that the online learning scheme to which schools resorted during the pandemic, may be more appropriately termed Emergency Remote Teaching (ERT).

Emergency Remote Teaching is defined as a sudden temporary shift of instructional delivery to an online learning mode resulting from an immense catastrophe, in contrast to planned online courses which were initially organized and designed to be delivered virtually (Hodges et al, 2020). Emergency Remote Teaching is therefore an interim shift of instructional delivery to an alternative delivery mode owing to crisis. It requires the application of fully remote teaching solutions for instruction, that would otherwise be delivered face-to-face or as a blended or hybrid course, which will be reinstated once the crisis is over. In other words, the main objective in these situations is not to re-create a dependable educational environment, but preferably provide a temporary approach to instruction and instructional support in a way that is swift to set up and is accessible during a crisis or an emergency.

Many countries of the world have resorted to ERT as a response to schools and universities closure during crisis. For instance, Davie and Bentrovato (2011) cited the case of Afghanistan, where education was disrupted by conflict and violence, and schools were targets of Taliban attacks. In order to keep school children and students safe and off the streets, radio education and distribution of DVDs were used to sustain and increase educational access to learners. During the Liberian civil war, ERT was also used to provide education to all students. Considerably, since ERT has the capacity of providing education to students just as the standard approach, it should no longer be viewed as a mere optional support approach that can be discarded when the situation normalizes, rather, it should be given the full support to serve as a full-fledged approach for teaching and learning. In support of this, Head, Lockee and Oliver (2002) explained that ERT should not be thought about as a bare-bones method to standard instruction but as an approach of thinking about instructional delivery modes, methods and media, especially as they map to rapidly changing needs and limitations in resources.

Others have raised some concerns. Hodges, et al (2020) were of the view that the rapid process required for ERT may reduce the standard of the courses delivered because it can take months for a full course development project to be done properly. They further posited that the demand to 'just get it online' directly contradicts the time and effort usually assigned to developing a standard course. On the other hand, they added that online courses developed in this way should be welcomed as a temporary solution to an immediate problem rather than for a long term solution. Another concern raised about ERT is that there may be inadequate accessibility of learning materials for such an online instructional delivery because of the short term associated with the preparation of ERT. In other words, the mere shift to ERT may not ensure equity and inclusivity in learning among students. To curb this, Hodges et al, (2020) suggested that the Universal Design and Learning (UDL) should be included in all discussions around teaching and learning. The principles of UDL focus on flexible, all-encompassing and student-centered design of learning environments to ensure that all students can access and learn the course materials, activities and assessments irrespective of their locations.

Moreover, it was discovered by some researchers that using ERT in instructional delivery reduces students' engagement. Bhaumik and Priyadarshini (2020) revealed that due to the sudden switch to online learning as a result of the pandemic, students were exposed to a new learning environment with reduced student engagement due to inadequate learning activities during lectures. However, they suggested that research and development into online teaching and learning methodology would help in improving the interactivity quotient of an online learning environment (OLE) in order to tackle the challenge. Technically, the digital platform which ERT uses to engage students during teaching and learning such as WhatsApp, Facebook and Twitter amongst others, have different activities inherent in them. All these have the capacity of distracting students when learning with ERT. Mohammed, Khidhir, Nazeer and Vijayan (2020) in their views noted that it is a challenging task to get the concentration and attention of students during online meetings because in a digital platform, there are possibilities that the students may be diverted to other activities like web browsing, without the knowledge of the instructors, unlike the case in real live face-to-face classes.

Additionally, since ERT is technology-based, there are likely some challenges that can hinder its effective use. One of such challenges is unreliable power supply. According to Okoye and Omede (2017), erratic power supply has been a continuous issue opposing ICT utilization for educational purposes in Nigeria. Ferri, Grifoni and Guzzo (2020) asserted that technological challenges experienced during ERT are mainly related to the erratic internet connections that occur when thousands of students and workers are connected simultaneously, and also the lack of devices for many students. This finding, according to the authors, has been

reported in some developing countries like Ghana and Malaysia. Perhaps, using ERT in teaching creates gap between teachers and students which leads to students' lack of attention and motivation, as supported by Ferri et al that lack of interactivity and inspiration of students is associated with the social challenge linked to the loss of human interaction between teachers and students as well as among students. They further suggested that more interactive resources would be used to foster engagement and curiosity among students. In the view of Vivolo (2016), that despite evidence that online learning works as effectively as traditional learning, there has been resistance to online learning.

Moreover, ERT is still beneficial not only in times of face-to-face class interruption but also in expediting of course curriculum coverage. ERT uses synchronous and asynchronous modes of instructional delivery to facilitate students' active participation in instructional processes, together with course content coverage. Synchronous mode involves real-time classes in the web, while asynchronous mode involves offline through listening to recorded lectures which students can access even after the class session, at their own time and pace. Studies by Vollbrecht, Porter-Stransky and Lackey-Cornelison (2020) revealed that course contents can be easily facilitated when using ERT approach more especially through the use of asynchronous mode. In support of this, Mohammed et al (2020) explained that there is possibility of accessing lectures after class sessions because recorded lectures provide students who face internet connections disturbance or limited bandwidth a second opportunity to follow up.

Bhaumik et al (2020) found that the freedom and flexibility to study at one's own pace encouraged many students to continue studying through online learning. On the other hand, Noddings (2020) objected on the attitudes of educational institutions during the time of crisis, being of the view that crisis period may present the room to let go of our enthusiasm with teaching, transmitting knowledge and giving lectures using cool and shiny educational technology tools. He added that teaching and learning during a crisis period is a mere waste of time that when things return to normal, learners often forget the educational content delivered, but remember certain experiences like how they felt, how we cared for them and how we supported them. In support of this, Zimmerman (2020) added that ERT is an opportunity to test online pedagogy centric approaches, therefore, emotional presence should be amplified in order to initiate an atmosphere of empathy and care, and that focus should be on different types of presences such as teaching presence, social presence and cognitive presence. In the view of Mule (2020), ERT may just be a coping mechanism, but a worthy exercise in developing a coherent online education strategy for the future, bearing in mind that a challenge may be an opportunity in disguise.

In Nigeria, due to the closure of schools in the face of COVID-19, the management of Nnamdi Azikiwe University, Awka (NAU) and Kogi State University,

Anyigba (KSU) were faced with decisions on how to continue teaching and learning while keeping their faculties, staff and students safe amidst the COVID-19 scare. The universities then migrated to online ERT. This circumstance necessitated learners and teachers to familiarize themselves with online learning tools and skills. It is vital to know the views of learners about their online learning experience, as well as their satisfaction with the process; as this would certainly assist in the formulation of better policies and practices for a full-fledged online learning usage in educational institutions post lock-down. Based on this backdrop, the present study aimed at examining Nigeria public university students' view point on ERT during the COVID-19 pandemic.

Research Questions

The study addressed the following research questions.

1. What are the educational media used by lecturers of NAU and KSU for ERT during the COVID-19 pandemic lockdown?
2. How satisfied are NAU and KSU students with ERT during the COVID-19 pandemic lockdown?
3. What challenges of ERT are experienced by NAU and KSU students during the COVID-19 pandemic lockdown?

Materials and Methods

The study utilized descriptive survey design. The population consisted of 1017 undergraduate students in the Faculty of Education of Nnamdi Azikiwe University, Awka (NAU) and Kogi State University, Anyigba (KSU) for the 2019/2020 academic session. The sample size was 100 students drawn using multi-stage sampling technique. A total of 10 students each were drawn from the five departments out of the 15 departments in the Faculties of Education in both universities bringing the sample size to 100. A 32 item questionnaire titled "Students' View on Emergency Remote Teaching (SVERT)" was the instrument used for data collection. The instrument developed by the researchers comprised of items designed to elicit students' responses on their viewpoint on ERT during the COVID-19 pandemic lockdown. The instrument contained two sections A and B. Section A comprised of the respondents' background information, while Section B had items designed to obtain data from the students on their views on ERT during COVID-19 pandemic. Section B had three clusters. Cluster one comprised 12 items designed to obtain data on the educational media used by the lecturers of NAU and KSU for ERT. Cluster two had 11 items designed to obtain data on the NAU and KSU students' level of satisfaction with ERT, while cluster three with 9 items sought to find out the challenges of ERT as experienced by NAU and KSU students during the COVID-19 pandemic lockdown.

The SVERT was validated by three experts; one in Educational Technology, another one in Measurement and Evaluation and the other in Curriculum. Using Cronbach Alpha, the reliability of the SVERT was found

to be 0.78 and this was considered adequate. Frequency, percentage and mean were utilized to respond to the research questions. Research question 1 was answered using frequency and percentage while mean was utilized in answering research questions 2 and 3. For research question 1, any item for which the percentage of respondents is below 50% was regarded as “not utilized” while an item with percentage of respondents above 50% was regarded as “utilized”. For research questions 2, a four-point response options of Highly Satisfied (HS-3.50-4.49), Satisfied (S-2.50-3.49), Partially Satisfied (PS-1.50-2.49) and Not Satisfied(NS-0.00-1.49) was used, while for research question 3, a four-point response options of Strongly Agree (SA-3.50-4.49), Agree (A-2.50-3.49), Disagree (D-1.50-2.49) and Strongly Disagree(SD-0.00-1.49) was used in rating the responses to the questionnaire items. Any item with a mean response value of 0.00-2.49 was regarded as Disagree/Not Satisfied, while any item with a mean response value of 2.50 and above was regarded as Agree/Satisfied.

Results

Research question 1: What are the educational media used by NAU and KSU lecturers for ERT during the COVID-19 pandemic lockdown?

Data in Table 1 show that educational media such as Google Classroom, WhatsApp, Microsoft Teams and Facebook are utilized by lecturers for ERT as indicated in items 2, 4, 6 and 8, while the rest such as Google Hangout, Google Meet, Skype, Zoom, Interactive White Board, Moodle, Voice over PowerPoint and YouTube are not utilized as indicated in items 1, 3, 5, 7, 9, 10, 11 and 12 respectively.

Research question 2: How satisfied are NAU and KSU students with ERT during the COVID-19 pandemic lockdown?

Data in Table 2 show the mean ratings of respondents on the level of satisfaction of NAU and KSU students with ERT during the Covid-19 pandemic lockdown. Students were found to be satisfied with statements in items 13, 17, 18 and 22 with mean value of 2.71, 2.57, 2.56 and 2.96 respectively and dissatisfied with statements in items 14, 15, 16, 19, 20, 21, and 23 with mean value of 2.01, 2.26, 2.23, 2.19, 2.00, 2.15 and 2.23 respectively.

Research question 3: What challenges of ERT are experienced by NAU and KSU students during the COVID-19 pandemic lockdown?

Data presented in Table 3 reveal that items 24, 25, 26, 27, 28, 29, 30, 31 and 32 with mean value of 2.66, 2.95, 2.92, 3.27, 3.17, 2.54, 2.95, 3.16 and 3.02 respectively were the challenges of ERT experienced by NAU and KSU students during the COVID-19 pandemic lockdown.

Discussion

Findings of the study revealed that four out of the twelve identified educational media (Google Classroom, WhatsApp, Microsoft Teams and Facebook) were

utilized by NAU and KSU lecturers for ERT. This finding is in line with the report of Mohammed et al. (2020) that Google Teams was not only utilized in ERT in Middle East College, Oman during the Covid-19 pandemic, but was also found effective. The management of NAU and KSU officially approved the utilization of Google Classroom and Google Teams for ERT and such provided technical support and ensured that every student was accommodated. This is in line with the standard practice in universities all over the world where every university has a Learning Management System (LMS). The finding was further supported by Mohammed et al. (2020) when they said that WhatsApp and Facebook are social media which provided speedy and instant interaction connecting the educator and students. For instance, WhatsApp could be utilized in sharing hints or short notes. Furthermore, it is the simplest means to interface with the students as it consumes less internet data. Besides, most softwares are in-built in the students' mobile phone.

Findings of the study also revealed that Google hangouts, Google meet, Skype, Zoom, Interactive white board, Moodle, Voice over power point and YouTube were not utilized. These are external platforms and third-party software required by ERT for effectiveness. Their non-usage could be due to their terms and conditions to the users. The findings of Marzetti (2021) that each of these external platforms and third-party software has its own terms and conditions intended to minimize their exposure to different legal risks which must be accepted first, supports this finding.

The study also revealed the level of satisfaction of NAU and KSU students with ERT during the COVID-19 pandemic lockdown. The students were said to be satisfied with coverage of course content, class attendance by students, quality of teacher communication skills and the possibility of accessing lectures after class sessions. On the coverage of course content, Vollbrecht, Porter-Stransky and Lackey-Cornelison (2020) revealed that course contents can easily be covered when using ERT approach mostly through asynchronous mode. In the same vein, with ERT, course content would be covered because recorded lectures will be provided to all students including those that participated or did not participate in the lecture which they will access after class sessions. Mohammed et al. (2020) lent support to the possibility of accessing lectures after class sessions because recorded lessons could allow a second opportunity to students who experienced internet connection disturbances or limited bandwidth. Also, Bhaumik et al. (2020) found that online learning afforded students the freedom and flexibility to study at their convenience and inspired many students to continue studying through same medium.

Table 1. Frequency and percentage of responses on the educational media used by NAU and KSU lecturers for ERT during the COVID-19 pandemic lockdown

S/N	Item	Frequency and Percentage of Response	Response	Decision
1.	Google Hangouts	75(75%)	Not utilized	Not utilized
		25(25%)	Utilized	
2..	Google Classroom	25(75%)	Not utilized	Utilized
		75(75%)	Utilized	
3.	Google Meet	91 (91%)	Not utilized	Not utilized
		9 (9%)	Utilized	
4.	WhatsApp	21 (21%)	Not utilized	Utilized
		79 (79%)	Utilized	
5.	Skype	91 (9%)	Not utilized	Not utilized
		9 (9%)	Utilized	
6.	Microsoft Teams	20 (20%)	Not utilized	Utilized
		80 (80%)	Utilized	
7.	Zoom	70 (70%)	Not utilized	Not utilized
		30 (30%)	Utilized	
8.	Facebook	20 (20%)	Not utilized	Utilized
		80 (80%)	Utilized	
9.	Interactive White Board	80 (80%)	Not utilized	Not utilized
		20 (20%)	Utilized	
10.	Moodle	91 (91%)	Not utilized	Not utilized
		9 (9%)	Utilized	
11.	Voice over PowerPoint	83 (83%)	Not utilized	Not utilized
		17 (17%)	Utilized	
12.	Youtube	100 (100%)	Not utilized	Not utilized
		0 (0%)		

Table 2. Mean rating of the level of satisfaction of NAU and KSU students with ERT during the COVID-19 pandemic lockdown

S/N	Item	N	Mean	Standard Deviation	Decision
How satisfied are you in:					
1.	Coverage of course content	100	2.71	1.131	Satisfied
2.	Level of students' engagement during class sessions	100	2.01	0.969	Not satisfied
3.	Adequacy of relevant learning activities embedded to avoid boredom	100	2.26	1.107	Not satisfied
4.	Level of discipline among isolated learners	100	2.23	1.145	Not satisfied
5.	Class attendance by students	100	2.57	1.037	Satisfied
6.	Quality of teacher communication skill	100	2.56	1.113	Satisfied
7.	Provision of links to learning resources for further research	100	2.17	1.120	Not satisfied
8.	Timing of lectures	100	2.00	1.005	Not satisfied
9.	Flexibility of educational media used	100	2.15	1.234	Not satisfied
10.	Possibility of accessing lectures after class sessions	100	2.94	1.196	Satisfied
11.	Coverage of practical areas of course content	100	2.23	1.145	Not satisfied

Table 3. Mean rating of the challenges of ERT experienced by NAU and KSU students during the COVID-19 pandemic lockdown

S/N	Item	N	Mean	Standard Deviation	Decision
My challenge is:					
1.	Feeling of isolation while learning	100	2.66	1.103	Agree
2.	High cost of data for Internet subscription	100	2.95	1.114	Agree
3.	Poor internet services in remote areas	100	2.92	1.051	Agree
4.	Inadequate electricity supplies to keep device always charged before lectures	100	3.27	0.962	Agree
5.	Lack of smart device (phone, laptop, tablet) due to high cost	100	3.17	1.035	Agree
6.	Technical issues like poor internet connectivity and signals causing interruptions during classes	100	2.54	1.029	Agree
7.	Lack of motivation for independent learning	100	2.95	1.132	Agree
8.	Classes were not interactive	100	3.16	1.032	Agree
9.	I missed seeing my lecturers face-to-face during lectures	100	3.02	0.921	Agree

The findings further revealed that NAU and KSU students were dissatisfied with the level of students' engagement during class sessions, adequacy of relevant learning activities embedded to avoid boredom, level of discipline among isolated learners and class attendance by students. Dissatisfaction was also shown regarding provision of links to learning resources for further research, timing of lectures, flexibility of media/technology used and coverage of practical areas of course content. This concurs with Bhaumik et al. (2020) who reported that owing to the sudden switch to online learning as a result of the pandemic, learners were exposed to a new learning environment with reduced student engagement as a result of inadequate learning activities provided. However, they suggested that research and development into online teaching and learning methodology would aid in boosting the interactivity quotient of an online learning environment (OLE) in an effort to tackle the challenge. On the level of discipline among isolated learners, Mohammed et al. (2020) further noted that it is a challenging task to gain the concentration and attention of students in the course of online sessions because in a digital platform, there is possibility that the students are distracted to other activities like web browsing, without the knowledge of the instructors, unlike the instance in face-to-face physical live classes.

Notable challenges experienced by NAU and KSU students in ERT during COVID-19 pandemic lockdown include high cost of data for internet subscription, poor internet services in remote areas resulting in poor signals, causing interruptions during classes, lack of smart device (phone, laptop and tablet) due to high cost, and inadequate electricity supply to keep device always charged before lectures. The findings are in tandem with that of Okoye and Omede (2017) that erratic power supply has been an incessant issue working against ICT utilization for educational purposes in Nigeria. The findings are also similar to those made by Ferri et al. (2020) that technological challenges experienced during ERT are mainly associated with the unreliability of internet connections when thousands of students and workers are connected simultaneously, coupled with the shortage of devices for many students. The students have feelings of isolation while learning, lack of motivation for independent learning and the students missing their teachers, amongst others. The authors claimed that many other studies have reported this same finding, especially in developing countries like Ghana and Malaysia. The findings are supported by Ferri et al. (2020) who reported that the dearth of interactivity and motivation of students is associated with the social challenge linked to the absence of teachers-students as well as student-student human interaction. As a means to inspire curiosity and engagement, the researcher suggested the utilization of more interactive resources.

Conclusion

Our world is shifting and the sources of disturbances to schooling are not restricted to pandemics. Local

conflicts, sudden attacks, wars, and even natural disasters could constitute potential threats to education. In Nigeria especially, the Boko-haram insurgency and kidnapping by herdsmen and bandits are contemporary concerns that should be viewed as potential sources of interruptions to education. Nigeria must therefore align with the global trend of suspending physical classes without stopping learning in a crisis situation. Emergency Remote Teaching should be institutionalized as physical distancing for instance, would be difficult to achieve in the classrooms. ERT sessions should therefore be designed with relevant, highly engaging and interactive learning activities to reduce boredom amongst isolated learners during learning.

Recommendations

The findings of the study, prompted the researchers to make the following recommendations:

1. Government should be serious and intentional about investing in education, by budgeting for, and funding it adequately to enable schools procure and install ICT infrastructure.
2. The government of the day should embark on rural electrification projects, as most undergraduates reside in rural areas whenever schools are closed. This will enhance access to education via ERT.
3. The issue of incessant power outage should be addressed with every sense of urgency by government and relevant stake holders.
4. Technological devices should be made available to students at subsidized rates to enable every one of them participate in remote learning.
5. ERT sessions should be designed with relevant and highly engaging and interactive learning activities to reduce boredom amongst isolated learners during learning.
6. There should be continuous training and re-training of university lecturers by the university management to build their capacity and develop their skills for effective design and delivery of ERT.
7. Internet connectivity, accessibility and reliability should be improved upon by the government, to enable teachers and students have connectivity that allows them to be able to take lessons remotely.

Funding Statement

This study received no funding or grant from any funding agencies.

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How to cite this article: Ikwuka OI, Okoye AC, Olanikawu SA, Udenwa VC, Okoye CC & Ikwuka DC. Emergency Remote Teaching During COVID-19 Pandemic Lockdown: Nigeria University Students' Perspective. *Global Biosecurity*, 2021; 3(1).

Published: October 2021

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