

Reconstruction of Teaching Techniques in the Era of COVID-19 in Higher Institutions in Osun State, Nigeria

¹Regina Modupe Quaye & ²Amos Adekunle Adediran

¹Department of Educational Foundations and Counselling

Faculty of Education, Obafemi Awolowo University, Ile-Ife, Osun State, Nigeria

²Department of Social Studies, Federal College of Education,
Abeokuta, Ogun State

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Abstract

The study examines the reconstruction of teaching techniques in the era of COVID-19 in higher institutions in Osun State. It adopted a descriptive survey research design. Population comprises of all students in Osun State College of Education, Ilesa, Osun State, Nigeria. Simple random sampling technique was used to select one hundred (100) respondents as sample for study. The instrument was moderated by experts who affirmed its validity. Reliability of the instrument was determined using Cronbach Alpha. Data collected were analyzed using simple percentage statistical tool. The study revealed that COVID-19 pandemic is currently ravaging the world and has halted lots of human activities in many countries. In Nigeria, the pandemic has greatly affected the education sector causing the suspension of all academic activities, as stay at home order was enacted. On the other hand, this crisis has stimulated innovation which brings about reconstruction of teaching and learning techniques within the education sector. The new learning technique include; real-time social media channels-WhatsApp, Telegram, YouTube, Facebook, the use of a Discussion board and Digital library and the use of video conferencing tools such as Microsoft Teams, Zoom, Google Hangout, WebEx, Skype, Google Meet. It is therefore recommended that a strategic plan to equip all schools with good infrastructural facilities for successful ICT integration should be developed and monitored for full implementation. Curriculum planners at all levels should be reviewed to allow ICT integration as a pedagogy

Keywords: *Techniques, Reconstruction, Teaching, COVID-19, E-learning.*

Corresponding Author: Regina Modupe Quaye

Background to the Study

The world is currently experiencing the pandemic of a novel infectious disease called coronavirus disease, otherwise known as COVID-19. The pandemic, according to the United Nations (2020) touches every aspect of society, constituting inevitable social disruptions. Therefore, being able to work might be difficult or impossible. Consequently, the global spread of the COVID-19 virus informed the action of the World Health Organization (WHO) to mandate learning institutions to close. For instance, UNESCO (2020) reported that governments of about 146 countries spreading across the globe have ordered the closure of educational institutions, thereby throwing about 1.37 billion learners as well as about 60.2 million teachers out of the schools and classrooms. This resulted in educational stakeholders and education service providers seeking alternative teaching mean to avoid the complete collapse of the education sector. While some governments have temporarily instructed the use of public television stations for teaching primary and secondary schools, some tertiary institutions moved to virtual teaching platforms to reach out to their students (UNESCO, 2020). Buttressing this, the disease is highly infectious and transmitted through human contact makes it invariably incompatible with the physical contact setting of learning and teaching. This incompatibility has brought about reconstruction of teaching technique from traditional practices, processes and concepts of brick and mortar to online virtual learning setting in many nations of the world.

The coronavirus pandemic has generated changes in the teaching-learning process in higher education institutions and has influenced the interaction between teachers and students. As a consequence of the pandemic, universities were constrained to carrying out their activity with students exclusively online (Sobaih, Hasanein, AbuElnasr, 2020). In this regard, many governments took measures in order to avoid spreading the virus and to ensure the continuity of the educational process, and universities worldwide adopted online learning.

While in general, internet-based learning is considered an option, an alternative to traditional learning (Abou El-Seoud, Seddiek, Taj-Eddin, Ghenghesh, Nosseir, El-Khouly (2014), during the Coronavirus pandemic it became an essential element for maintaining the activity of schools and universities. This paradigm shift could generate changes in students' perception of this way of teaching and their perception might be different from the one found in studies previous to the pandemic. Thus, through this paper, we tried to capture the existence of such changes.

Education holds the potential to contribute to the protection of children and youths, and helps them cope or maintain some normalcy during crisis such as the current COVID-19 pandemic. An education intervention during crisis is known to support prevention; recovery of public health; and also mitigate its impact on learning. While school closures could present a logical solution to enforcing social distancing, prolonged closures may however, have a negative impact on students (Azzi-huck and Shmis, 2020). Hence, the need for schooling to continue regardless of the closure becomes imperative. Also, considering that many areas of life such as education and work are adversely affected and with no clear signs as to when the virus will cease, educational institutions may continue to stop functioning and hence, having a huge

impact on the global education. At this critical moment, teaching and learning do not have to grind to halt. Perhaps, can continue through innovative approaches such as the use of radio, television, smartphone and internet (Fleet, 2020). Hence, these lockdowns, especially in Nigeria, could be used as a best test for education technology interventions.

The new form of learning technique i.e. (virtual) has advanced as a major means of education in the developed world even before the pandemic (Kyari, Adiuku-Brown, Abachi, and Adelokun, 2018). This form of learning technique is adjudged to be better than the usual face-to-face interaction because it has the advantage of reaching many learners at the same time and does not require them to come together in a place or under a common roof (Ajadi, Salawu, and Adeoye, 2008).

According to Ajadi et al. (2008), the new learning process entails the use of three broad categories of technological tools: Real-time social media channels-WhatsApp, Telegram, YouTube, Facebook; Asynchronous learning processes which involve the use of a Discussion board and Digital library; and Video conferencing tools such as Microsoft Teams, Zoom, Google Hangout, WebEx, Skype, Google Meet, etc., the astronomical increase in the deployment of technology in the learning and teaching processes has led to an increase in investments in education technology companies. For instance, in 2019, investments in education technology companies increased by 18.66 USD billion. To underscore the shift to and importance of technology deployment in learning and teaching processes, the sum of investments to the education technology companies in 2018 and 2019 far outstrip such investment for the period between 1998 and 2017 (MarketInsider, 2019).

In a study of Ananga and Biney (2017), a comparative study on the effectiveness of face-to-face and online teaching and learning in higher education. Using Distance Learning as a case study, the study aimed to ascertain which of the two methods is more preferred by the faculty and lecturers. The study suggests a blend of the two models in the learning and teaching processes. Lecturers that have been trained for face-to-face teaching should be trained for online teaching. In their various studies, scholars have emphasized the importance of further training to increase the competencies of the lecturers in teaching courses online (Crawford-Ferre ans Wiest, 2012) reported that most online teachers and faculty have not been adequately trained for the task. The provision of institutional support such as laptops and data bundle to both staff and students.

The shift from the face-to-face teaching method to the virtual method by lecturers demands that lecturers acquire the requisite skills and knowledge for online teaching. Apart from the skills and knowledge, it is also important that necessary ICT facilities are provided. These will ensure the success of the virtual teaching method (Khan, 2020) Using twenty-five countries as a case study, Gray, Ryan, and Coulon, (2004), investigated how the online teachers were trained and how the teachers became skilful in this type of teaching. Their result reveals that the same virtual setting where online learners were being trained was also the same setting where the teachers were trained.

In other words, there is no special setting for the training of online teachers. The E-learning process in higher education is done with the help of various online platforms. Over time, many notions were used to describe online learning, such as Computer-mediated learning, Web-based training, E-learning systems, and Learning Management Systems. Regardless of the name, all these systems have the use of the Internet in common, and certain features that allow registration, assessment of the activities of learners and teachers, and that also facilitate. Therefore, both university members and students came across many challenges. The Organization for Economic Co-operation and Development mentioned that some of the challenges universities have to face were: keeping an equilibrium between online courses, that could affect students health, them spending many hours in front of a screen, and non-digital activities, analyzing and focusing on student's emotional health providing them with support throughout the process of learning, taking into account the fact that not all students have access to the internet, and managing and monitoring their access to devices in order to effectively collaborate with them (Education Responses to COVID-19 2020).

Furthermore, universities also struggle with keeping the content of the course consistent and relevant, with communicating clearly with the academic community, and also with acquiring and recruiting students. On the other hand, students also had to face challenges and a study focus nonstudents' perspective on E-learning identified that among the main challenges that students encountered were accessibility, connectivity, lack of appropriate devices, social issues represented by the lack of communication and interaction with teachers and peers (Aboagye, Yawson, and Appiah, 2020). Taking into account the aspects mentioned above we believe that the transition to exclusive E-learning can highly affect the educational process and students' perception about the use of the on line environment in the process of teaching and learning, and these ideas stand at the basis of our research. We considered it important, relevant, and necessary to analyze whether students have adapted to E-learning and whether they are satisfied rather than dissatisfied with this exclusive online experience.

Objectives of the Study

The main objective of the research is to examine the reconstruction of teaching techniques in the era of COVID-19 among students of higher institutions in Osun State. The specific objectives are;

1. Identify the new teaching techniques used in the era of COVID-19 among students of higher institutions in Osun State.
2. Identify the challenges facing the new teaching techniques used in the era of COVID-19 among students of higher institutions in Osun State

Research Questions

1. What are the new teaching techniques used in the era of COVID-19 in higher institutions in Osun State?
2. What are the challenges facing the new teaching techniques used in the era of COVID-19 in higher institutions in Osun State?

Methodology

The study adopted a descriptive survey research design. Population comprises of all students in Osun State College of Education, Ilesa, Osun State of Nigeria. Simple random sampling technique was used to select 100 respondents as sample for study. A self-developed questionnaire was used as instrument for data collection. The questionnaire contained items on the main title of study. The instrument was moderated by experts who affirmed its validity. Reliability of the instrument was determined using Cronbach Alpha. Data collected were analyzed using simple percentage statistical tool.

Presentation of Data Analysis and Discussion of Results

Research Question One: What are the new teaching techniques used in the era of COVID-19 in higher institutions in Osun State?

Table 1.

S/N	ITEMS	YES		NO		TOTAL	
		Freq (N)	Percent %	Freq (N)	Percent %	Freq (N)	Percent %
1.	Real-time social media channels-WhatsApp, Telegram, YouTube, Facebook	74.00	74.00	26.00	26.00	100.00	100.00
2.	The use of a Discussion board and Digital library	46.00	46.00	54.00	54.00	100.00	100.00
3.	The use of video conferencing tools such as Microsoft Teams, Zoom, Google Hangout, WebEx, Skype, Google Meet,	60.00	60.00	40.00	40.00	100.00	100.00
TOTAL		180.00	60.00	120.00	40.00	300.00	100.00

The study shows that that majority of the respondents 74.00% chose 'Yes' for item 1 while the remaining 26.00% opted for 'No'. For item 2, majority of the respondents 46.00% chose 'Yes' while the remaining 54.00% selected 'No'. 60 of the respondents 60.00% selected 'Yes' for item 3 while the remaining 40.00% chose 'No'. Since, the cumulative values of YES (60.00%) is higher than NO (40.00%) responses.

Research Question Two: What are the challenges facing the new teaching techniques used in the era of COVID-19 among students of higher institutions in Osun State?

Table 2.

S/N	ITEMS	YES		NO		TOTAL	
		Freq (N)	Percent %	Freq (N)	Percent %	Freq (N)	Percent %
1.	Students encountered lack of appropriate devices	90.00	90.00	10.00	10.00	100.00	100.00
2.	Social issues represented by the lack of communication and interaction with teachers and peers	58.00	56.00	42.00	42.00	100.00	100.00
3.	Difficulties while connecting to the platform	82.00	82.00	18.00	18.00	100.00	100.00
TOTAL		230.00	76.70	70.00	23.30	300.00	100.00

The study shows that that majority of the respondents (90.00%) chose 'Yes' for item 1 while the remaining 10.00% chose 'No'. For item 2, majority of the respondents 58.00% selected 'Yes' while the remaining 42.00% selected 'No'. Majority of the respondents 82.00% opted for 'Yes' for item 3 while the remaining 18.00% chose 'No'. Therefore, since the cumulative value of Yes (76.7%) is greater than No (23.3%) value.

Discussion of Findings

Table 1 indicates the new teaching techniques used in the era of COVID-19 among students of higher institutions in Osun State. The findings is in support of Ajadi et al. (2008) who opined that the new learning process entails the use of three broad categories of technological tools: Real-time social media channels-WhatsApp, Telegram, YouTube, Facebook; Asynchronous learning processes which involve the use of a Discussion board and Digital library; and Video conferencing tools such as Microsoft Teams, Zoom, Google Hangout, WebEx, Skype, Google Meet, etc., the astronomical increase in the deployment of technology in the learning and teaching processes has led to an increase in investments in education technology companies.

The findings further report in table two the challenges facing the new teaching techniques used in the era of COVID-19 among students of higher institutions in Osun State. The above findings is in agreement with the opinion of Aboagye, Yawson, and Appiah, (2020) students also had to face challenges and a study focusing on students' perspective on E-learning identified that among the main challenges that students encountered were accessibility, connectivity, lack of appropriate devices, social issues represented by the lack of communication and interaction with teachers and peers.

Conclusions

Based on findings, it was concluded that COVID-19 pandemic is currently ravaging the world and has halted lots of human activities in many countries. In Nigeria, the pandemic has greatly affected the education sector causing the suspension of all academic activities, as stay at home order was enacted. On the other hand, this crisis has stimulated innovation which

brings about reconstruction of teaching and learning technique within the education sector. The new learning technique include; real-time social media channels-WhatsApp, Telegram, YouTube, Facebook, the use of a Discussion board and Digital library and the use of video conferencing tools such as Microsoft Teams, Zoom, Google Hangout, WebEx, Skype, Google Meet.

Recommendations

The following recommendations were made:

1. A strategic plan to equip all schools with good infrastructural facilities for successful ICT integration should be developed and monitored for full implementation
2. Curriculum planners at all levels should be reviewed to allow ICT integration as a pedagogy
3. Training programmes for teachers need to be developed in order to: help them adapt to the changes, to help them understand that the future of education in higher education systems involves the online environment, that it is unlikely that the system will return to how it was before the pandemic, and that online teaching is a new way to interact with students
4. In-service training should be organized for teachers and lecturers to upgrade their technological pedagogical content knowledge (TPACK)
5. Educational software should be supported for design and development.
6. Teachers and lecturers should be enjoined to create virtual classrooms and relevant courseware should be uploaded
7. E-learning platforms for both synchronous and asynchronous learning should be introduced.

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