
**ASSESSMENT OF E-LEARNING SYSTEM ADOPTED BY THE UNIVERSITIES IN KWARA STATE
DURING COVID-19**

BY

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Abstract

The emergence and explosion of new information and communication technologies (ICT), had introduced an irresistible revolution into education particularly in the areas of teaching and learning. Hence, this advancement in technology has geared up educational system to adopt e-learning system of education in the last decade, especially in few years back of the COVID-19 experience. This study therefore, examined by assessing the e-learning system adopted by the Universities in Kwara State during COVID-19. Qualitative design of phenomenology approach was adopted for the study. Convenience sampling technique was used to select six respondents in different departments in the Faculty of Education, University of Ilorin, Ilorin. Interview was conducted to extract in-depth information from the respondents on the four research questions raised in the study. The interview conducted was transcribed verbatim into textual material and were analysed thematically following the theme and variables in the research questions raised. The findings revealed among others that, students were not satisfied with the e-learning system platforms adopted by the University for instructional delivery during COVID-19 due to the challenges they encountered such as poor network, high cost of data, limited access to the platforms etc. It was recommended among others that, the University should take into consideration the costs and technical issues while choosing e-learning system platforms for instructional delivery.

Keywords: E-learning System, Online Learning, Virtual Learning, COVID-19, Moodle, Telegram, WhatsApp, Google Meet, Zoom, and Google Classroom.

Introduction

The advent of Corona Virus Disease (COVID-19) in late 2019 cannot be forgotten so soon. The destruction it brought to the world can never be overemphasized. There is no sector left without its negative effect, including the education sector. The coronavirus disease is a highly communicable disease that has afflicted the world population over the months from December 2019 till date. The disease spread through droplets and has recorded more than 700 million persons affected cases, and resulted in about 6.9 million deaths worldwide (World Health Organization, 2023) as of the time of writing this paper. As a result, countries have relied on several containment measures, including a range of physical and social distancing measures to flatten the epidemiological curve and avert morbidity and mortality due to COVID-19. Consequently, the continuous rise in the spread and death from the disease left no option for over 188 countries to implement nationwide school closures and restricted education

facilities in the second quarter of 2020. It is estimated that more than 1,576,021,858 which constitute about 91.3% of all learners across the globe have been affected by the closure of educational institutions (UNESCO, 2020).

Like many other countries in the world, all schools in Nigeria were closed from March 27, 2020, as one of the Federal Government's measures to limit the spread of the disease. This translated to a contextualized state-wide school closure across the 36 states in the country. In response, National Universities Commission (NUC) urged all public and private higher institutions to perform all of their teaching and learning activities online until the COVID-19 distribution curve flattened. As a result, institutions in Nigeria switched over to a virtual model for their teaching and learning processes. The University of Ilorin was not left out of this system as the management introduced an e-learning system to ensure that teaching and learning continue in the institution. The majority of the institutions made the switch to e-learning learning systems with the use of various online learning platforms. These online learning management systems have been used by teachers to upload their lessons, projects, group assignments, and reading materials. Virtual classes have also been set up using a variety of videoconferencing tools, including Zoom, Google Meet, Google App for Learning, Microsoft Teams, Moodle, and others (Tella&Obim, 2022). Without question, online education appeared to be the most practical response to this novel circumstance. Thus, this swift response is expected to have a more adverse effect on schools that had no online learning (e-learning) platforms before the pandemic (Kachra& Brown, 2019).

No doubt that the adoption of e-learning systems in institutions could be effective, with experience from developed countries, they can amount to a far-reaching negative impact on the education system in developing low-income countries like Nigeria considering the management and utilization by the students (Obiakor&Adeniran, 2020). For instance, as the COVID-19 pandemic is revolutionizing digital and online education globally, university students who may have the skills to undertake internet-based learning may likely be faced with poor internet infrastructure or unreliable electricity supplies. According to Obiakor and Adeniran (2020), the pandemic has impacted education in three major ways, including missed learning for the majority of the pre-pandemic students, loss of access to vital school-provided services, and leaving more learners behind. Thus, these impacts are likely to widen the gaps in education quality and socioeconomic equality following the school closures in the country. This is because a lesser percentage of learners who are in the urban areas, who are likely to hail from higher-income families, stand more chance to access education during school closure through technology, leaving behind the majority of learners from poor homes and underserved rural and suburban areas of the country (Zhong, 2020).

The recent outbreak of Corona Virus Disease (COVID-19) that destructed almost all the sectors of the economy, including education is a really big test of time. The educational system and institutions were affected by the issue badly as classroom and other school activities were stopped due to nationwide closure. This further buttresses the adoption of e-learning systems in our various learning institutions during the pandemic, as such issues should not stop learning. However, online learning platforms appeared to be a new practice to some schools, teachers and students alike. Thus, pose a challenge to learning institutions that do not have such a system in place to switch swiftly, to teachers who do not have adequate skills in the use of the platforms, and to students who do not have the skills or device to access learning at the time (Obiakor& Adeniran, 2020). Subscribing to the foregoing, Ikwuka (2015) reported that despite the availability of wide opportunities offered by the advent of e-learning, most of the higher institutions in Nigeria are not adequately provided with e-learning resources for teaching and learning. Subscribing to this, Omosidi, et. al. (2015) maintained that for learning to take place, learners must have access to necessary information materials and resources. Apart from this, learners in schools that lack the resources or capacity to transition to online delivery might miss learning. Hence, this study assessed the e-learning system adopted by the universities in Kwara State during COVID-19 using the University of Ilorin, Ilorin, Nigeria as a case study.

Literature Review

The outbreak of Coronavirus towards the end of 2019 was a big test of time for all sectors, including education. Most learning institutions worldwide from primary to the university were officially closed down physically to control the continued spread of the deadly disease. However, since learning is an ongoing activity, significant efforts were made by most countries to ensure teaching and learning took place during the pandemic. Thus, E-learning platforms have become the official platform for teaching, interaction, and communication between students and teachers. Although it still seems unusual to many, more and more students are beginning to value and prefer online learning (e-learning) due to its adaptability, simplicity, and accessibility anywhere and at any time (Khan, et al., 2021).

E-learning connotes electronic learning. It entails the use of electronic technology to deliver education and training applications, monitor learners' performance, and report learners' progress. According to Igbokwe, et al. (2020), e-learning is a form of distance learning that requires the use of varieties of technology and the internet to communicate, share ideas, access information, and share knowledge from instructors to learners. Similarly, Hedge and Hayward (2019) posited that e-learning is an innovative approach for delivering electronically mediated, well-designed, learner-centered, and interactive learning environments to anyone, anyplace, anytime by utilizing the internet and digital technologies in concern with instructional design guidelines. It is all about learning with the use of computers. In this age, learning with the use of a computer is simply an online way of acquiring knowledge through the internet or the offline – CD-ROM; the online involves the use of Internet Explorer/Navigator. It may be in the form of text, audio, visual, and or audio/visual. The process and applications of e-learning technology include computer-based learning, web-based learning, virtual learning, blended learning, hybrid models, internet learning, networked learning, tele-learning, computer-assisted learning, and online classroom and digital collaboration where content is delivered via the internet, intranet/extranet, audio and or video tapes, satellite TV and CD-ROM (Ukoha, 2017). The introduction of e-learning encourages the delivery of educational content through an informative process that includes internet, audio/visual or video tape, satellite broadcast, interactive CDs, and computer-based learning activities, as well as local intranet/extranet which daily augment the learning procedures (Ajegbomogun, et al., 2016).

According to Tijani, et al. (2022), e-learning is categorised into two forms; synchronous and asynchronous. Synchronous means at the same time- this involves the interaction of participants with an instructor via the Web in real-time. For example – VCRs or Virtual classrooms that are nothing else but real classrooms online. Participants interact with each other and instructors through instant messaging, chat, audio, and video conferencing, and all the sessions can be recorded and played back. Asynchronous on the other hand means not at the same time- this allows the participants to complete the WBT (Web-based training) at their own pace, without live interaction with the instructor. Basically, it is information that is accessible on a self-help basis, 24/7. On either of the forms, learning resources are shared with the intending students for learning purposes. While the former allows for immediate feedback as much as possible, the latter may not necessarily allow for immediate feedback. Furthermore, electronic learning resources (e-learning resources) are resource materials that are in electronic form which include electronic books (e-books); electronic newspapers (e-newspapers); electronic journals (e-journals), audio and video content as well as internet resources that complement the print-based resources in a traditional classroom setting. Electronic resources according to Tekale and Dalve (2012), have the following features which bounded the management aspect of e-learning: available any time of the day, quick information (availability); provide hyperlinks, various search options, easy citations, ease in storage and dissemination (accessibility); huge information reservoirs (relevance); ease in uploading and updating (flexibility); time, space and cost are not major hurdles (timing); ease of archiving and handy to use (utilization). The interactive and multimedia components provided by the electronic media somehow offer multiple learning experiences than conventional (paper-form) documents. E-learning resources find relevance in effective instructional delivery, research, and evaluation.

E-Learning offers students excellent opportunities for individual communication with their study materials, study resources, and their tutors. It is the interactive exploits of technology and communication systems to improve the learning experience. It has the potential to transform the way we teach and learn across the board (i.e. 24 hours / 7 days) throughout the year. Olatokun and Mala (2016) opined that the introduction of ICT into the educational sector has redefined the teaching and learning process, thereby giving the emergence of electronic learning devices that make learning simple and practical to foster learning among students. These new technology discoveries enhance communication among learners, between learners and teachers, and among learners, teachers, and the institution. E-learning is evolving rapidly in the educational process which can be used to enhance teaching and learning. The use of network technologies is to aid learning, anytime and anywhere. It also helps in the delivery of individualized, inclusive, and vibrant learning content at the appropriate time, aiding the development of knowledge, and linking learners and practitioners with experts within his/her locality or internationally. This is a phenomenon that allows individuals to keep up with the rapid changes in the information age.

Studies have been carried out to examine students' opinions of online classrooms during COVID-19 in many industrialized and developing countries (Agarwal & Kaushik, 2020; Khan, et. al., 2021; Chick, et. al., 2020; Ferrel & Ryan, 2020). However, the majority of studies examined COVID-19's effects on schooling. The results show that developing and industrialized nations have significantly diverse perspectives. Almaiah, et. al. (2020) discovered in their study the difficulties and challenges faced by online learning, assessing the critical influencing factors that facilitate the use of the system during the period of COVID-19. The finding exposed that students had a negative perception regarding e-learning. Also, it appears that technology, infrastructure, administrative support, and instructor characteristics are the most popular component that obstructs online learning. On the other hand, Abbasi, et. al. (2020) identify students' perceptions of the online system during COVID-19. The researcher found that learners preferred familiar teaching through the closure time instead of teaching remotely. Furthermore, Tella and Obim (2022) examined the teaching and learning online during the COVID-19 lockdown, in terms of whether it is encouraging or discouraging from the perspectives of students and staff of the Library and Information Science Department in Nigerian universities. It was discovered in their study that lecturers and students teaching and learning online during the COVID-19 lockdown were encouraging, that the lesson is very easy to prepare and interesting and the learners are enthusiastic and wanted others to know they were part of the class. The respondents want learning and teaching online to continue due to its flexibility, interesting nature of teaching online, and high percentage of participation. The benefits of teaching and learning online during COVID-19 include flexibility, ease of learning and teaching, increased interactivity and class participation, social presence, improvement in critical thinking skills, and high engagement of lecturers and students. Thus, empirical findings on whether the e-learning process is motivating or discouraging from the perspective of the students appear to be mixed, which is unfortunate given the advantages connected with this form of study. That is, to assess the e-learning system adopted by universities in Nigeria during COVID-19 in areas of identifying the e-platforms adopted, challenges faced by the students, and their satisfaction as well as their viewpoint on the adoption of e-learning to complement traditional forms of learning in the institutions.

Research Questions

1. What are the e-learning system platforms adopted for instructional delivery by the University during COVID-19?
2. What are the challenges encountered by the students with the usage of e-learning system platforms adopted by the University during COVID-19?
3. What is the students' level of satisfaction with the usage of e-learning system platforms adopted by the University during COVID-19?
4. What are the views of students toward the adoption of an e-learning system to complement physical (face-to-face) instructional delivery?

Methodology

The qualitative design of the phenomenology approach was adopted for this study. This approach is appropriate as posited by Ogunjimi (2023) that phenomenology is an approach aimed at understanding the essence of a social phenomenon from the perspective of those who have experienced it. The design was used to assess the experience of students on the e-learning system adopted by universities in Nigeria during COVID-19. The population for the study comprises the tertiary education students in Kwara State while the target population are the 10,377 Faculty of Education students (Unilorin Website, 2023). A convenience sampling technique was used to select six respondents from different departments in the Faculty of Education, University of Ilorin, Ilorin, Nigeria. A semi-structured interview was used to extract in-depth information from the respondents on the four research questions raised in the study. The interview conducted was transcribed verbatim into textual material and was analysed thematically following the theme and variables in the research questions raised.

Results

Research Question One: what are the e-learning system platforms adopted for instructional delivery by universities in Nigeria during COVID-19?

To ascertain the e-learning system platforms adopted by the University during COVID-19, the respondents were asked to mention the platforms. The findings indicated that the platforms used for instructional delivery by the University during COVID-19 were Moodle, Telegram, WhatsApp, Google Meet, Zoom, and Google Classroom. This finding is in line with the international study conducted by Noori and Ozdamli (2022) that covers Iraq, North Cyprus, and Germany who noted that Google Classroom, Moodle, and Edmodo are commonly used e-learning system platforms for instructional delivery. These platforms appeared to be commonly used among the various platforms available for instructional delivery.

Research Question Two: What are the challenges encountered by the students with the usage of e-learning system platforms adopted by the University during COVID-19?

To achieve this objective, the respondents were asked to share their experiences on the challenges encountered during the online classes. The findings revealed that poor network, cost of data, unstable power supply, a limited number of students to join (log in) the class at a time, and high data usage were their challenges using the online learning platforms adopted by the University for instructional delivery during COVID-19. Some quoted narratives on the challenges goes as follows:

“Sometimes I am broke to buy data to join the online class” and “The power supply during the time in my area was not stable to charge my device to use for the class”.

These findings corroborated with the results of Tella and Obim (2022) who discovered that slow bandwidth, poor network, cost of data (lecturers and students bear the cost of data), and unstable electricity, only the participants with properly charged devices have the opportunity to follow the class, inadequate skills on behalf of some lecturers and students to teaching and learning online and high cost of data were the challenges encountered by lecturers and students with the usage of e-learning system platforms for instructional delivery. Similarly, Amir, et. al. (2020) identified external factors such as unstable internet connection, the extra financial burden of the internet quota, and internal factors such as time management and difficulty focusing while learning online for a longer period. The current e-learning systems are experiencing some potential hurdles regarding accessibility, availability, and usability, especially for those who have less knowledge of the internet. This implies that despite the opportunity provided for an e-learning system for instructional delivery during COVID-19, all these challenges were encountered by the students which may mar the whole process.

Research Question Three: What is the students' level of satisfaction with the usage of e-learning system platforms adopted by the University during COVID-19?

On the students' level of satisfaction with the usage of e-learning system platforms adopted for instructional delivery by the University during COVID-19, findings indicate that the majority of the respondents were not satisfied with the e-learning platforms adopted for instructional delivery by the University during COVID-19. A notable response from the respondents narrated thus:

“It was an experience I don't like to talk about because I am a person that don't learn fast. I prefer having close content with what I want to learn. It was hard for me to put notes together, this almost affected my performance”.The experience is fantastic. I felt so good during the period, itwas very interesting. Seeing what is being taught on the screen with illustrations enhances mylearning and understanding; at the same time, participants want to showcase themselves. Youwill always want other members of the class to see to show that you are in class”.

This is contrary to the findings of this present study as narrated earlier. It should be noted that students' satisfaction is a critical factor that may affect their interest in e-learning systems for instructional delivery. In other words, students are more prospective to practice the service again if they feel satisfied with the services provided. According to Tam and Oliveira (2016), greater user satisfaction leads to greater intention to use. Therefore, management is crucial for the success of an e-learning system.

Research Question Four:What is the view of students toward the adoption of an e-learning system to complement traditional (face-to-face) instructional delivery?

To ascertain the view of students toward the adoption of an e-learning system to complement physical (face-to-face) instructional delivery, the respondents were asked to share their opinion. The majority of the respondents said that they prefer physical classes alone compared with using both physical and online platforms for instructional delivery. This was expressed by one of the respondents in a quote:

“I am discouraged with the online classes due to my experience during online instructional delivery I had during COVID-19 in my department”

This finding is contrary to Muthuprasad, et. al.'s (2021) who found that the majority of respondents demonstrated their readiness to opt for online teaching and learning in their study. Similarly, the findings are in disagreement with the report of Rafique, et al. (2021) that respondents in their study were motivated to learn through online learning and felt confident in performing basic functions of computers and the internet, and did mind if the class continues.However, Almaiah, et. al. (2020) reported that the difficulties and challenges faced by online learning exposed that students had a negative perception regarding e-learning.These conflicting findings may be due to the experience of the participants in the online classes they had. For instance, the respondents in this study were faced with some challenges that are very important to take into consideration such as the issue of a limited numbers of students that canjoin the lesson, network issues and the cost of data. Hence, their experience is likely to influence the choice of not having an interest in online classes.

Conclusion and Recommendations

Based on the findings of this study, it can be concluded that the University adopted the best e-learning system platforms available at the time such as Moodle, Google Meet, Zoom, and Google Classroom for instructional delivery during COVID-19. However, the challenges faced by the students using these online learning platforms were poor network, cost of data, unstable power supply, a limited number of students to join (log in) the class at a

time, and high data usage. These challenges are accountable for students' dissatisfaction with e-learning system platforms for instructional delivery, hence, their preference for physical class only compared with using both physical and online platforms for instructional delivery. In line with the findings and conclusion drawn from this study, the following recommendations were made:

1. The University should take into consideration the costs and technical issues while choosing e-learning system platforms for instructional delivery. In other words, the best among e-learning systems platforms in terms of costs and technicality should be considered for usage.
2. There should be adequate provision of facilities such as a stable network, power supply, and technical support to the instructor to facilitate online teaching and learning.
3. Students should be trained on the use of online learning platforms to stimulate their interest in its usage for instructional delivery.
4. Encourage the students by subsidising data, especially at this moment in the country where transportation is on the high side. This will enable the students to save costs by staying at their various hostels, and joining the online class without the stress of coming down to the institution.

References

- Agarwal, S., & Kaushik, J. S. (2020). Student's perception of online learning during COVID pandemic. *The Indian Journal of Pediatrics*, 87, 554-564.
- Ajebomogun, F. O., Okunlaya, R. O. & Alawiye, M. K. (2016). Analytical study of E-learning resources in the National Open University of Nigeria. *Education and Information Technologies*, 22, 2403–2415.
- Almaiah, M. A., Al-Khasawneh, A., & Althunibat, A. (2020). Exploring the critical challenges and factors influencing the ELS usage during (COVID-19-CR) pandemic. *Education and Information Technologies*, 1.
- Amir, L.R., Tanti, I., Maharani, D.A., Wimardhani, Y.S., Julia, V., Sulijaya, B., & Puspitawati, R. (2020). Student perspective of classroom and distance learning during COVID-19 pandemic in the undergraduate dental study program Universitas Indonesia. *BMC Medical Education*, 20 (392), 1-10. <https://doi.org/10.1186/s12909-020-02312-0>.
- Chick, R. C., Clifton, G. T., Peace, K. M., Propper, B. W., Hale, D. F., Alseidi, A. A., & Vreeland, T. J. (2020). Using technology to maintain the education of residents during the COVID-19 pandemic. *Journal of Surgical Education*, 77(4), 729-732.
- Ferrel, M. N., & Ryan, J. J. (2020). The impact of COVID-19 on medical education. *Cureus*, 12(3), e7492.
- Hedge, N. & Hayward, L. (2019). Redefining roles. University e-learning contributing to life-long learning in a networked world. *E-Learning*, 1, 128–145.
- Igbokwe, I. C., Okeke-James, N. J., Anyanwu, A. N. & Eli-Chukwu, N. C. (2020). Managing the challenges to the effective utilization of e-Learning as a response in COVID -19 Nigeria. *International Studies in Educational Administration*, 48 (2), 28-34.
- Ikwuka, O. I. (2015). Access to e-learning innovation by lecturers and students of Nnamdi Azikiwe University Awka, Nigeria. *International Journal of Educational Research and Development (IJERD)*, 5(1), 134-141.
- Kachra, R., & Brown, A. (2019). The new normal: medical education during and beyond the COVID-19 pandemic. *Canadian Medical Education Journal*, 11, 167-169.
- Khan, M. A., Nabi, M. K., Khojah, M., & Tahir, M. (2021). Students' perception toward e-learning during COVID-19 pandemic in India: An Empirical Study. *Sustainability*, 13(1), 57-68

- Mohammed, A. A., Ahmad, A. & Ahmad, A. (2020). Exploring the critical challenges and factors influencing the E-learning system usage during COVID-19 pandemic. *Education and Information Technologies*, 25, 5261–5280.
- Muthuprasad, T., Aiswarya, S., Aditya, K. S., & Jha, G. K. (2021). Students' perception and preference for online education in India during COVID-19 pandemic. *Social Sciences & Humanities Open*, 3(1), 100101.
- Noori, N. M. & Ozdamli, F. (2022). Evaluating e-learning system success in higher education during the Covid-19. *Cypriot Journal of Educational Science*. 17(12), 4884-4913. <https://doi.org/10.18844/cjes.v17i12.8615>
- Obiakor, T. & Adeniran, A. P. (2020). Covid-19: Impending situation threatens to deepen Nigeria's education crisis. Centre for the study of the Economies of Africa (CSEA). Retrieved 14/05/2021 from <https://media.africaportal.org/documents/COVID19-Impending-Situation-Threatens-to-Deepen-Nigerias-Education-.pdf>
- Ogunjimi, M. O. (2023). Lecture note on advanced research method in education (RME 901). *Unpublished note*, Faculty of Education, University of Ilorin.
- Olatokun, W. M. & Mala, A. A. (2016). Assessing students' satisfaction with an e-learning system: the case of National Open University of Nigeria. *IEEE African Journal of Computer ICT-Special Issues in African Environment*, 5 (2), 45-54.
- Omosidi, A. S., Ojo, O. J. & Oyediji, N. B. (2015). School plant management and student' academic performance in Kwara State secondary schools, Nigeria. *Journal of Education in Developing Areas (JEDA)*, 23(2), 312-322.
- Rafique, G.M., Mahmood, Warraich, N.F. & Rehman, S.U. (2021). Readiness for Online Learning during COVID-19 pandemic: A survey of Pakistani LIS students. *The Journal of Academic Librarianship*, 47(5), doi.org/10.1016/j.acalib.2021.102346
- Tekale, R. B. & Dalve, D. B. (2012). *E-resources review of research*. Retrieved 12/04/2023 from <http://www.reviewofresearch.net/publisharticles/45.pdf>.
- Tella, A. & Obim, I. E. (2022). Teaching and learning online during COVID-19 lockdown, encouraging and discouraging? The Perspectives of Students and Staff of Library and Information Science in Nigerian Universities. *Proceedings of the 50th Annual Conference of the International Association of School Librarianship and the 25th International Forum on Research on School Librarianship Columbia, South Carolina*.
- Tijani, A. A., Abdullahi, N. J. K. & Omosidi, A. S. (2022). Utilization of e-learning facilities for effective service delivery of distance education in Kwara State, Nigeria. *Rivers State University Journal of Education (RSUJOE)*, 25 (2), 170-182.
- Ukoha, F. (2017). Application of information and communication technology (ICT) in Business education instructional methods in Nigerian universities. *International Journal of Educational Research*, 8 (1), 21- 27.
- UNESCO (2020). Adverse consequences of school closures. Retrieved 18/08/2022 from <https://en.unesco.org/covid19/educationresponse/consequences>
- World Health Organization (2023). WHO Coronavirus (COVID-19) Dashboard. Retrieved 06/05/2023 from <https://covid19.who.int/>
- Zhong, R. (2020). The coronavirus exposes education's digital divide. *The New York Times*. Retrieved from <https://www.nytimes.com/2020/03/17/technology/china-schoolscoronavirus.html>