



PERCEPTION OF UNIVERSITY UNDERGRADUATES TOWARDS ONLINE LEARNING AMIDST COVID-19 PANDEMIC LOCKDOWN

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ABSTRACT

The study assessed the perception of Nigeria University Undergraduates towards benefits and challenges associated with online learning during covid-19 pandemic lockdown. Adapted and validated questionnaires were used. The data collected after administration of the instrument to the participants were analysed with frequency counts and percentages. Findings from the studies revealed that majority of the participants enjoy the flexibility of online learning, quick sharing of learning materials, opportunity for collaboration, its consideration for individual student's learning style, its multimedia approach, encouraging active learning, constant updates of content and real-time synchronous interaction. Findings also revealed that majority do not enjoy online learning due to lack of a personal computer, sometimes they don't participate due to high cost of internet bundle, communication in online classroom is sometimes distorted, sometimes students have difficulty to participate in online discussion and sometimes they have technical challenges due to digital literacy. Also, majority disagree with the notion that online learning leads to social isolation, difficult for collaboration, it leads to distraction and that it is boring for training. Based on the results of the study far reaching, recommendations were provided including that students be provided with personal computer, internet facilities should be accessible, training should be provided for instructors on the use of learning management system even after the pandemic.

Keywords: COVID-19; Remote learning; Collaboration; Multimedia; Flexibility

Paper type: Research paper

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1. INTRODUCTION

Corona virus started in China on the 1st of December 2019, where it is named "Corona virus Disease 2019" Covid-19 (Ozili, 2020). As of 23 July, 2020 the pandemic has affected 213 countries in the world while cases were 15,400,761 in July 2020, with 630,781 deaths and 9,377,142 recovered (World Health Organisation, 2020). The unabated rise in the number of people that contracted the virus and recorded deaths left the Government of many countries with no option than the closure of all educational institutions with the hope of reducing the transmission among helpless citizens. By March 2020, many countries have closed their schools, students were made to stay at home for their safety and this subsequently grounded academic activities. The United Nation Educational Scientific and Cultural Organisation (2020) reported that this closure has affected about 1.6 billion students globally.



Against this backdrop, a large number of countries commenced application of information technologies for instructional delivery in their educational institutions. According to Swafford, Ollen and Findel (2018) information and communication technologies are digital devices used to exchange, share, store and manage information for human development. The world has witnessed the massive discovery and changes in technology invention which stem from the use of internet (Siwandeti, Sanga & Pang, 2021). Due to the covid-19 lockdown many educational institutions resorted to the use of online teaching-learning software such as Google meet, Microsoft team, Zoom Cloud Meeting, Google Meet, Skype, Go to Meeting etc. It should be noted that the general features of these learning management systems (LMS) include but not limited to sharing of screenshots of lecture slides, recording of lectures for students who were absent, content review, high fidelity virtual environment, multimedia presentation, giving assignment, opportunity for assessment, viewing students' roster, teacher identifying students' raising hands, managing the classroom through muting and sending messages through chats. The contribution of information communication technology (ICT) has gained enormous increase globally and this significantly manifested in the area of online learning (Young, Stone & Teddy, 2020). During the lockdown the relatively innovative learning management systems (LMS) did provide significant assistance to educational institutions in the area of technology and pedagogy. This digital interactive learning system is providing platforms for education practitioners to integrate IT in their curriculum planning, implementation and evaluation.

Education stakeholders are making frantic efforts for considerable utilisation of digital media, effective learning approach and the fundamental fact is to significantly reduce or close the learning gap arising from the lockdown (Reys & Bang, 2019). No doubt, due to the circumstances at hand teachers and students likewise have no choice but to embrace online learning which was traditionally designed for open and distance learning system (ODLS). Hang and Marlondia (2019) noted that the advantages attached to the utilization of e-learning include but not limited to its interactivity, multimedia format, flexibility and self-regulated approach. In a study, Merrill, Raiker and Smart (2020) surveyed the opinion of students on their perception towards online learning, it was reported that higher number of students preferred online learning than face to face learning. Hill (2018) in a study found that majority of the students' participants preferred online learning for group discussion than face to face. Blake (2020), in a study reported that 64.5 % of the students agreed that online learning provides a more efficient learning methods, 56.8 % agreed that it provides more time to study, while 62.3 % agreed that it provides more time to review the study materials.

Olori (2020) posited that information and communication devices are now most preferable means of generating and transmitting information thus, the people are increasingly conscious of digital literacy. Muhanga (2021) hinted that people do interact on daily basis with information technology and this has significantly been shaping ideas and knowledge. The 21st century skills include not only creativity, innovative, critical thinking, problem solving and collaborating, but also ability to efficiently utilize new technologies to communicate with others for educational purpose. With various benefits provided by e-learning, yet it has its challenges as a pedagogical approach. These challenges include but are not limited to social isolation, technology expertise, IT experience, lack of personal computer, lack of electricity to power IT devices, lack of direct eye contact between teacher and student, internet connectivity problem etc. It should be noted that even before Covid-19, the use of remote learning for distance learning has not been successful in developing countries compared to developed nations (Johnwealthy, 2020). Before the pandemic almost 30% of world's young population couldn't access online education, which comes worst amidst the pandemic (Reys & Bang, 2019). For instance, Paul (2019) in a study reported that 78.6% of students agreed that virtual learning resulted in more difficult communication and gave less learning satisfaction. Rose (2021) in a survey study reported that (76.2%) of the participants indicated problem of unstable internet connection for smooth delivery of online learning. Other challenges of online delivery

identified by Spill, Meltovich, Jackson and Garden (2020) include time management, difficulty to focus on the content and students interaction with classmates significantly reduced.

There are studies reporting the challenges confronting students, especially in universities on efficient utilisation of remote learning during lockdown. Several factors have been advanced in literatures on the efficacy of learning management system amidst covid-19 era, but none has addressed the challenges from socio - economic background and IT expertise on the parts of students. It should be noted that during the lockdown economic activities became paralysed while parents could not feed their children because an average family in Sub-Sahara Africa countries lived on daily income (Johnwealthy, 2020). Majority of the parents are peasant farmers, artisans, petty traders and junior level civil servants with low standard of living. Therefore, the introduction of online teaching-learning might bring significant challenge for majority of students who come from low income homes. These challenges might be unaffordable price of a personal computer, lack of regular supply of electricity to power their phones, laptops, extra financial burden to purchase internet bundle amongst others which are basic need for successful delivery of remote learning. Monday, Smith and Drulley (2018) reported significant relationship between students' owning a personal computer and attitude towards the use of ICT. Richardson and Swan (2001) found significant relationship between possessing personal computer and more time to study online materials. Anderson (2017) found out that students using personal computer were significantly provided with satisfaction in online learning environment than those without personal computer.

Another factor which might determine students' attitude towards online learning is the extra financial burden on internet bundle. Johnson (2018) viewed that majority of Nigerian undergraduates come from poor homes and this factor is affecting their internet subscription, even if they possessed an internet enabled device at all. Wobodo (2020) found out that majority of the university undergraduates could not have access to e-learning because of high cost of internet. Rose (2021) reported that the cost of internet significantly determine students' interest towards e-learning, meaning that if the cost is affordable many students will use blended or online learning system more efficiently.

This study is guided by Roger's "Theory of diffusion of innovation (DOI)". According to Roger (2003), diffusion of innovation theory is applicable to integration of digital learning. The theoretical assumption is that students' understandings of innovation will significantly affect its adoption because it's a construct which drive interest, motivation, attitude positively or negatively. Martin (2003) posited that if digital learning devices are flexible to manipulate teachers and students will joyfully adopt them. Covid-19 pandemic unexpectedly become a global threat especially to educational institutions leading to school closure and disruption of academic calendar. However, after a prolonged closure, government and education stakeholders decided to introduce online mode of teaching-learning to engage the learners who are remotely distributed. It was believed that this delivery mode was traditionally meant for distance learning system thus, it might not be impossible that institutions which were unfamiliar with online system may have difficulties in engaging their students in online learning. The instructional benefits and challenges of virtual learning environment have not been thoroughly espoused in literatures especially in covid-19 circumstances. This study seeks to investigate the perception of university undergraduates on instructional benefits and challenges of remote learning amidst covid-19 pandemic.

2. METHODOLOGY

Survey research design was employed while 4,980 undergraduates of government owned universities in Ogun State constitute the subjects. The two purposively selected universities employed the use of Learning Management System (LMS) during covid-19 pandemic lockdown to teach their students. Random sampling method was employed for selecting the participants. The instrument was an adapted questionnaire on e-learning platform designed and validated by Johnson (2018). It was used to measure

the perceived benefits and challenges confronting the students in online classes. The instrument is divided into two sections, section A seeks students' personal information such as: gender, age, programme, level and name of institution while section B measures university undergraduates' perception towards instructional benefits and challenges of remote learning amidst the pandemic. It's a twenty (20) item of 4-point Likert scale of Strongly Agree, Agree, Disagree and Strongly Disagree. Face and content validity was given to Educational Technology Experts. It was trial tested on 100 students who were not part of the sample but with similar characteristics. To determine its reliability, test-retest was administered and Cronbach's alpha formula was applied which yielded 0.72 reliability coefficient value. The instrument was administered to the subjects, immediately the schools opened and students resumed for few weeks physical lectures prior to their examination. The questionnaires were distributed to the participants through research assistants and the process was monitored by the researchers. However, out of 5000 questionnaires administered 4980 were duly completed and returned. Descriptive statistics were used to analyse data collected.

3. RESULTS

Research Question 1: What are perception holds by University Undergraduates towards instructional benefits of remote learning amidst covid-19 pandemic?

Table 1: Descriptive Analysis of the Benefits of Online-Learning (N = 4980).

S/N	Variables	SA(4)	A(3)	4+3%	D(2)	SD(1)	2+1%
1.	I am motivated in online learning during covid-19 pandemic because it makes me to be self- discipline	2523	1740	85.61%	355	362	14.39%
2.	Online learning during covid-19 pandemic was interesting because of its multimedia approach	1920	1950	77.71%	685	425	22.29%
3.	Online learning during covid-19 really takes care of my preferred learning style	1970	1900	77.71%	585	525	22.29%
4.	Online learning during covid-19 pandemic provides opportunity for active learning	1924	1946	77.70%	552	558	22.30%
5.	Online leaning during covid-19 pandemic provides efficient learning resources	1888	1982	77.71%	516	594	22.29%
6.	I enjoy online learning during covid-19 because learning material are constantly updated	1688	1782	69.68%	716	794	30.32%
7.	I enjoy the flexibility provided by online learning during covid-19	1988	2078	81.65%	420	494	18.35%
8.	I like online learning during covid-19 because it provides opportunity for quick sharing of learning materials	2056	2010	81.65%	488	426	18.35%
9.	I like the online learning mode during covid-19 as it provides collaboration and interactivity among students	2078	1988	81.64%	510	404	18.36%
10.	Online learning during covid-19 provides reinforcement because of its immediate feedback	1474	1368	57.07%	1114	1024	42.93%

Results in table one show that (85.61%) of the participants indicate that online learning makes them to be self- discipline. The results show that (81.65%) indicate that they enjoy its flexibility and quick sharing of learning materials. The results reveal that (81.64%) indicate that online learning provides opportunity for

collaboration. Also, (77.71%) indicate that it provides efficient learning, it considers individual student's preferred learning style, it's interesting because of the multimedia approach and it encourages active learning. Also, (69.68%) indicates that learning materials are constantly updated in online learning while (57.07%) indicate that it provides immediate feedback.

Research Question 2: What are perception holds by University Undergraduates towards the challenges of remote learning amidst covid-19 pandemic?

Table 2: Descriptive Analysis of the Challenges of Online -Learning (N = 4980)

S/N	Variables	SA(4)	A (3)	4+3%	D (2)	SD (1)	2+1%
11.	I don't enjoy online learning during covid-19 because I don't have a personal computer	1440	2123	71.55%	697	720	28.45%
12.	During covid-19, sometimes I don't participate in online learning due to high cost of internet bundle.	1390	2173	71.55%	747	670	28.45%
13.	During covid-19 online lectures effective communication is sometimes distorted due to failure internet network.	1357	2206	71.55%	714	703	28.45%
14.	Sometimes I have difficulty in participating in online discussion during covid-19.	1383	2180	71.55%	692	725	28.45%
15.	During covid-19 I consider online learning as anti-social because it leads to students' isolation from one another	592	825	28.45%	1283	2280	71.55%
16.	During covid-19 I observed that collaboration is difficult in online learning	552	865	28.45%	1243	2320	71.55%
17.	During covid-19 I observed that online learning doesn't allow students to practice in practical courses	452	765	24.44%	1343	2420	75.56%
18.	A serious problem with online learning during covid-19 is that students may be distracted with the multimedia approach instead of focusing on the content	693	726	28.45%	1382	2179	71.55%
19.	I do not enjoy online learning during covid-19 as its training is boring	748	671	28.49%	1389	2172	71.51%
20.	During covid-19 I encountered some technical difficulties with online learning because of digital literacy	1439	2122	71.55%	698	721	28.45%

From the results in table two above (71.55%) of the participants indicate that they don't enjoy online learning because they don't have a personal computer (PC), sometimes they don't participate due to high cost of internet bundle, communication in online classroom is sometimes distorted, sometimes they have difficulty to participate in online discussion and sometimes they have technical challenges due to digital literacy. Also, (71.55%) disagree that it leads to social isolation, difficult for collaboration and that it leads to distraction. Also, (75.56%) disagree that it doesn't allow for practice in practical courses, while (71.51%) disagree that it is boring for training.

4. DISCUSSION

Findings reveal majority of the participants (85.61%) indicate that online learning makes them to be self-discipline. Majority (81.65%) indicate that they enjoy the flexibility of online learning and quick sharing of

learning materials. Majority (81.64%) indicate that online learning provides opportunity for collaboration. Majority (77.71%) of the participants indicates that it provides efficient learning; it considers individual student's preferred learning style, it's interesting because of the multimedia approach and it encourages active learning. Also, majority (69.68%) indicates that learning materials are constantly updated in online learning platform while Majority (57.07%) indicated that it provides reinforcement through immediate feedback. This results support the findings of Hill (2018) which found that majority of the students' preferred online learning for group discussion than face to face. Also, Merrill, Raiker and Smart (2020) which reported that large number of students preferred online learning than face to face learning while Blake (2020), reported that 64.5 % of the students agreed that online learning provides a more efficient learning methods.

The results in research question two which is the perception of the participants towards the challenges of online learning during covid-19 reveal that majority of the participants (71.55%) indicate that they don't enjoy online learning because they don't have a personal computer(PC), sometimes they don't participate due to high cost of internet bundle, communication in online classroom is sometimes distorted, sometimes they have difficulty to participate in online discussion and sometimes they have technical challenges due to digital literacy. Also, majority (71.55%) disagree that it leads to social isolation, difficult for collaboration and that it leads to distraction. Also, 75.56% disagree that online learning doesn't allow for practical lesson, while 71.51% disagree that its training is boring. This result supported the findings of Paul (2019) which reported that 78.6% of students agreed that virtual learning resulted in more difficult communication and gave less learning satisfaction. Similarly, Rose (2021) found out that majority (76.2%) of the students who participated indicated the problem of unstable internet connection for smooth delivery of online learning.

5. CONCLUSION

Conclusively, findings show that with enthusiasm majority of the participants agreed that online learning provides significant opportunity for them to be engaged while they were out of campus. Part of the online featured found beneficial to their learning include flexibility, multimedia format, update learning materials, collaboration, reinforcement, consideration of individual leaning style of students and self-regulated learning. On the other hand, majority of the students agreed that the challenges encountered in online learning include digital literacy, cost of internet, distortion of communication flow due to network and lack of personal computer etc.

6. RECOMMENDATIONS

Majority of the students indicated the need for a personal computer, thus it is recommended that Government should provide a way to assist students in procuring personal computer with subsidised rate. Government should make internet accessible to all students out of campus irrespective of their family status, this could be subsidised as part of education trust fund. Digital training should be constantly provided for teachers and students on the utilisation of LMS for effective delivery of online learning, because of the predicted infectious "Delta Variant" which is the second wave of covid-19 pandemic. Internet network is not perfected in some sub-Saharan African countries, thus efforts should be made to improve connectivity for effective flow of communication. Experts should be trained on content development for online learning as this requires the complementary of technology pedagogy and content knowledge.

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