THE USE OF GOOGLE CLASSROOM AMONG OGUN STATE TERTIARY INSTITUTION STUDENTS

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Abstract

This study examined theUse of Google Classroom among tertiary institution students in Ogun State, Nigeria. The study is guided by two research questions. A survey research design was adopted, with sample size of 2815 respondents, an adapted four point modified likertscale instrument given a reliability co-efficient value of r = 0.89, while data was analyzed with mean and standard deviation statistical methods. Finding reveals that majority of the respondents agreed that Google classroom is useful for their learning activities as it enables them to accomplish tasks more quickly, helps to improve learning ability, motivates them to learn without stress, helps to eliminate barriers in learning, exposes them to online system, helps facilitate online discussions between students amongst many others. Findingreveals that majority of the respondents agreed that lack of internet facilities, lack of adequate ICT skills of using Google classrooms, inadequate ICT gadgets, poor network service, inadequate instruction, and students' negative attitude towards ICT are challenges facing the use of Google classroom for instruction. The study recommends among others that for optimal utilization of Google classroom learning environment academic institutions should provide quality ICT infrastructures and software for all stakeholders.

Keyword: Utilization, Students, Tertiary Institutions, Google Classroom, Respondents

Introduction

The outbreak of coronavirus (Covid-19) in December 2019 was a significant threat and the devastating effects of the pandemic on health, education and economy globally can never be over emphasized. The implication of the pandemic educationally was the unexpected shut down of schools, and students were told to vacate campuses as one of the measures to curb further infections. The lockdown distorted the traditional face-to-face instructional activities of variousschools,but to ensure uninterrupted teaching-learning activities schools hadto switch from physical classroom to e-learning system. E-learning is seen as a learning environment that uses digital technologies as a platform for teaching-learning, the use of computers, smart classroom, smartphones and internet form the major components of e-learning.

According to Johnson (2016), Green and Horney (2018) and Alexander (2021) e-learning environment allows students to have considerable freedom in learning and get connected with their teachers anywhere, anytime and anyplacedesired. Online learning which is often referred to as e-learning takes place across distance and it is covered under a larger term of technology-based learning through learning portals, video conferencing, YouTube, mobile learning software and various kind of blended learning tools. There are quite numbers of video conference platformsdesigned for online instruction such as Microsoft Teams, Webex Meet, Zoomand Google Meet etc with their amazing features (Roseline, 2020).However, Google classroom is a free online learning platform developed by Google for schools or   teachers that aim to create, distribute and grade assignments. The primary

purpose of Google classroom is to streamline the process of sharing files between teachers and students for effective learning (Crockhood, 2017).

As at2021 about 150 million users had adopted Google classroom for virtual meeting and other instructional activities (Esther & George, 2021). Google classroom integrates a whole lot of features to manage student and teacher communication in which students can be invited to join a class through a private code, link or automatically imported from a school domain. Simeon and Brook (2019)explainedthat in the use of Google classroom each class creates a separate folder in respective user's Google Drive where students can submit work to be graded by the teacher, while assignments and due dates are added to Google calendar where each assignment can be groupedinto a category of topic. Ross (2019) maintained that Googleclassroom allows teachers to monitoreach student's progress by reviewing a document and after being graded teachers can return the work along with comments and grades on the platform.

Obasi (2016) and Gordion (2019) noted that Google Classroom package includesGoogle Calendar, Google Meet, Google Drive, Google Docs, Google Sheets, Google Slides, Google Forms, Google Sites, and Gmail amongst others to help educational institutions move to paperless system. The function of Google Calendar is meant to help with scheduling, assignment due dates, field trips and class speakers. It must be noted that the use of Google classroom is becoming more popular in secondary schools, especially in Nigeria(Adeolu, 2020). More teacherscreate Google classes to blend their F2F teaching while students too have found the use of Googleclassroom interestingly motivatingas an essential tool to improving their learning experiences.

In this study, there is need to examine the perception of students on the prospects or otherwise of Google classroom for effectivee-learning delivery, perhaps, students might show positive or negative views towards the use of Google classroom. Empirical evidence on effectiveness of Google classroom in a study reported that students taught with Google classroom performed significantly better than students nottaught with Google classroom. Smart (2019) examined attitude of 120 High School Students in using Google classroom as a Learning Management System, the results showed that Perceived Usefulness and Perceived Ease of Use have significant influence on students' attitude towards the use of Google classroom.

Ekeremadu (2020) examined the influencedof Google classroom as a learning management system (LMS) on students' attitude towards learning during Covid-19 Pandemic in Imo State, Nigeria. The researcher made use of online questionnaire on Google Classroom Attitude Scale (GCAS) and a Semi-Structured Interview Guide (SSIG) adapted to measure students' perceptions on Google classroom with 925 participants from private secondary schoolsin Imo State. The results showed that Google classroom platform positively influencedstudents' attitude towards learning during Covid-19 pandemic.

In another study,Ibrahim and Mujtab(2020) investigated the challenges in the use ofGoogle classroom in Malaysia e-learning delivery.In the findings, majority of the students indicated that they cannot log in with personal Gmail to enter it, you need to be logged in Google Apps for Education, first time Google users get confused as there are several buttons with icons familiar only to existing Google users and that you have to convert a simple Word document to a Google Doc to work with.

Gahar, Samad and Ridwan (2022) examined the challenges of Google classroom in Turkish online instructionwith 450 university undergraduates; using a self-developed validated questionnaire scale and frequency counts method of data analysis. In the results, higher percentage of the participants indicated that they feel frustrated because they cannot share workunless they are owners of a document and sharing their work with more than 50 classmates is a bit cumbersome. Majority of the respondents noted that update of activity feed is not automatic, thus learners need to refresh constantly to get updated information.

This study is situated on Everett Rogers' Theory of Diffusion of Innovationwhich can be described as a process that communicate an innovation through specific channels among members of a social system. The theoryseeks to explain how, why and at what rate new ideas and technology spread. Rogers (2003) posited thatnew innovation adoption process usually

begins with a tiny number of innovators. Diffusion of Innovations Theory offers valuable insights into the process of social change (Gryan and Bross, 2015)as the main quality that provide a successful spread of an innovation. People tend to explore new technology and experience how effectively it would work in their activities before accepting or rejecting thetechnologies (Philips,2011). The relevance of this theory to this study is to explain how Google classroom as a technological innovation might significantly influence effective communication between teacher and students either in hybrid orfully web-based learning environment.

Statement of the problem

In today's digital world efforts are being made daily to improve teaching and learning in tertiary institutions and most importantly making learning attractive to students. One of the way is the introduction of digital strategy such as Google classroomlearning environment. Students need to be motivated to embrace online learningthrough the adoption of emerging technologies such as learning management systems (LMS).The introduction of Google classroomwas expected to be all embracing, however, there is need to get the empirical evidence from student users on its prospects and challenges as this technology isconsidered relatively new, especially tothe conventional tertiary institutions in Nigeria.

Purpose of the Study

The purpose of the study is toexamine students' perception towards the prospects and challenges of Google classroom.

Research Questions

1. What are the prospects of Google classroom for learning?
2. What are the challenges of using Google classroom for learning?

Significance of Study

The study will contribute to stakeholders' understanding of Google classroom, its uses and how it can support 21st century pedagogical practices. It will add to the body of knowledge about the use of learning management system (LMS) that already exist. In practice, this initiative will generate data that will help researchers better understand the prospectsand challenges associated with the use of Google classroom.

Methodology

Survey research design was adopted, while the target population comprised of all students of public tertiary institutions in Ogun State which adopted the use of Google classroom during covid-19 lockdown. A sample size of two thousand eight hundred and fifteen (2,815) students constituted the sample for the study, while only tertiaryinstitutions (College of Education, Polytechnic and University) which adopted the use of Google classroom for online learning during covid-19 lockdown were purposively selected. Two thousand eight hundred and fifteen (2815) students were randomly selected from the institutions. An adapted instrumentfrom Gordion (2019) named "Google Classroom LearningEnvironment Scale (GCLES)" was used to seek the opinion of the respondents on the prospects and challenges of Google classroom learning environment. The questionnaire was divided into two sections;the first section seeksparticipants' demographic information such as sex, age and class, whilethe second section contains 20 items measuring the variables of interest. This was sub-divided into twoparts in line with the purpose of the study. The questionnaire is a four-pointlikertrating scale of Strongly Agreed (SA), Agreed (A), Disagreed (D) and Strongly Disagreed (SD).

The questionnaire was subjected to face and content validity, this was achieved by presenting the draft copy of the questionnaire to experts in Educational Technology for necessary corrections.To establish reliability of the instrument CronbachAlpha method was used, the instrument was administered on fifty (50) students who were not part of the sample selected and a reliability co-

efficient value of r = 0.89 was obtained. In terms of administration, the researchers made use of Google-form linkedto the Group WhatsApp Platforms of the respondents.However, a total of two thousand eight hundred and fifteen (2815) respondents completed the online questionnaire and submitted successfully, whiledata were analyzed using mean and standard deviation statistical method.

Results

Research Question One: What are the prospects of Google classroom for learning?

Table 1: Mean responses on prospects of Google classroom

S/N	Items	N	$\overline{\text{X}}$	SD
1.	I find Google classroom useful in my learning activities	2815	3.12	0.78
2.	Using Google classroom enables me to accomplish my tasks more quickly	2815	3.11	0.71
3.	The attached course materials are easy to access on Google classroom	2815	3.28	0.69
4.	Google classroom improves my learning ability as I have more time to watch the prepared videos repeatedly	2815	3.19	0.87
5.	Google classroom motivates me to learn without stress	2815	3.17	0.80
6.	Google classroom helps me to eliminate the barriers in learning	2815	2.89	0.70
7.	Google classroom provides me with exposure to online system	2815	3.25	0.66
8.	The usefulness of Google classroom is that teachers and students can send e-mails, send private comments on assignments and provide feedback on work	2815	3.19	0.65
9.	Google classroom helps to facilitate online discussions between students and create group projects within the classroom	2815	3.22	0.72
10.	The usefulness of Google classroom is that teachers are able to share materials with leaners	2815	3.11	0.71

Decision Rule: x̄< 2.5 = Disagreed

x̄>2.5 = Agreed

In table above, the mean scores of 3.12, 3.11, 3.28, 3.19, 3.17, 2.89, 3.25, 3.19, 3.22 and 3.11 were all above the cut-off point of 2.50 which indicated that all the items were accepted by the respondents. The standard deviation of 0.66 to 0.87 shows the respondents are close in the responses. The implication of this is that allthe respondents agreed that Google classroom is useful for their learning activities as it enables them to accomplish tasks more quickly, helps to improve learning ability, motivates them to learn without stress, helps to eliminate barriers in learning, expose them to online system, helps facilitate online discussions between students among many others.

Research Question Two:What are the challenges of using Google classroom for learning?

Table 2:Mean responses on students' challenges of using Google classroom

S/N	Items	N	$\overline{\text{X}}$	SD
11.	Lack of affordableinternet service is a major challenge facing the use of Google classroom by the students	2815	2.83	0.61
12.	Lack of adequate ICT skills contribute to the challengesof using Google classroom	2815	3.16	0.65
13.	Lack of ICT gadgetslimits the use of Google classroom	2815	2.78	0.71
14.	Poor network service contributes to the challenges facing the use of Google classroom	2815	2.81	0.67
15.	Inadequate instruction on the use of Google classroom is a key challengefacing the use of Google classroom	2815	2.99	0.72

16.	Students' negativeattitude towards ICT contributes to the use of Google classroom	2815	3.11	0.71
17.	The inability of Google classroom to allow access from multiple domains remain a challenge facing its use	2815	2.78	0.71
18.	The inability to share work with peers unless you are owner of a document contributes to the challenges facing the use of Google classroom	2815	3.21	0.74
19.	Students' negative attitude towards the use of Google classroom also hinders its use	2815	2.28	0.89
20.	First time Google classroom users may get confused as there are several buttons	2815	3.08	0.69

Decision Rule: $\bar{x} < 2.5$ = Disagreed

$\bar{x} > 2.5$ = Agreed

In table above, the mean scores of 2.83, 3.16, 2.78, 2.81, 2.99, 3.11, 2.78, 3.21, 2.28 and 3.08 were all above the cut-off point of 2.50 which indicated that almost all the items were accepted by the respondents except for item 19. The standard deviation of 0.61 to 0.89 shows the respondents are close in the responses. The implication of this is that majority of the respondents agreed that the challenges hindering adoption of Google classroom are lack of internet facilities, lack of adequate ICT skills on using Google classrooms, inadequate ICT gadgets, poor network service, inadequate instruction, and students' negative attitude towards ICT etc.

Discussion of findings

Results in research question one reveals that Google classroom has prospects for learning activities as it enables students to accomplish tasks more quickly, helps to improve learning ability, motivates them to learn without stress, helps to eliminate barriers in learning, exposes them to online system, helps facilitate online discussions between students amongst many others. The results also correspond with the findings of Smart (2019) and Ekeremadu (2020) whose findings showed that Google classroom platform as an online learning delivery positively influenced students' academic achievement, attitudes and their perception during learning activities.

Results from research question two reveal that Google classroom is wrapped with various challenges ranging from lack of internet facilities, lack of adequate ICT skills in using Google classroom, inadequate ICT gadgets, poor network service, inadequate instruction, on the use of Google classroom, students' negative attitude towards ICT and lack of internet facilities among many others. The findings is in line with the findings of Ibrahim and Mujtab (2020); Gahar, Samad and Ridwan (2022) who reported that students have unfavorable attitude towards the use of Google Classroom as a Learning Management System because of numerous disadvantages attached to it.

Conclusion

Findings from this study showed that Google classroom is effective in changing students' attitude towards learning. Majority of the students will benefit from its usage in learning process, so also teachers will be more efficient if Google classroom is used for learning management. It was also concluded that despite the challenges observed by the students, teachers must try to manage these challenges for its effective utilization. Based on the findings, for optimal utilization of Google classroom academic institutions should provide quality ICT infrastructures and software for all stakeholders; further training should be given to the facilitators and students on how to maximize the use of Google classroom; and further studies are encouraged to validate the findings obtained in this study focusing on secondary school level as many related studies are conducted on tertiary level.

Recommendations

1. In termsof prospects, all the respondents agreed that Google classroom is useful for their learning activities, thusinstitutions should be encouraged to adopt it.
2. Problem of students' negative attitude towards ICT should be curtailed.
3. Lack of ICT gadget limits the use of Google classroom; thus, this should be properly managed.
4. Students should find alternative ways of sharing files that are not originating from them.
5. The challenge of affordable internet service should be looked into.

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