

EDUCATION IN A RAPIDLY CHANGING WORLD



Edited by

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Chapter Twelve

Students' Assessment of Google Classroom as an Instructional Medium in University of Ilorin, Nigeria

Rasaq L. Abdulkareem

Abstract

Google Classroom is an online mode of teaching and learning that is efficient and effective. However, its efficiency and effectiveness are stalled by factors militating against it. Thus, this study assessed Google classroom as an instructional medium at the University of Ilorin. Three research questions guided the study. The study adopted a descriptive research design. The sample of the study consists of 380 students out of 43, 602. The sample was selected using the proportional sampling technique, followed by a simple random sampling technique. The instrument used for data collection was a researcher's designed questionnaire titled "Assessment of Google classroom as an Instructional medium Questionnaire". The validity of the questionnaire was ascertained by one expert in Educational Management and two experts in Measurement and Evaluation at the University. Cronbach alpha was used to ascertain the reliability of the instrument with a reliability value of 0.70. The research questions raised were answered using percentages. The findings revealed that Google classroom is moderately accessible as an instructional medium at the University of Ilorin, the level of usability of Google classroom as an instructional medium at the University of Ilorin is moderately utilised. Furthermore, the findings indicated that the main barriers militating against the use of Google classroom as an instructional medium at the University of Ilorin include inadequate power supply, erratic internet connectivity, inadequate provision of computer devices, lack of incentives by the University, lack of technical knowledge in the use of Google applications, lack of technological support for the system for effective use of Google applications and heavy workload of lecturers. It was therefore recommended that the school authority should improve on training on content development and video production.

Keywords: *Google Applications, Instructional Delivery, Mode, Information and Communication Technology*

Introduction

Tertiary education in Nigeria is commonly referred to as the apex level of education. Thus, tertiary education is a form of education given after secondary school education. In Nigeria, the goals of tertiary education as spelled out in Section 5 sub-section 81 of the National Policy on Education (FRN, 2014), are to contribute to national development through high-level relevant manpower training; provide accessible and affordable quality learning opportunities in formal and informal education in response to the needs and interests of all Nigerians; provide high-quality career counselling and lifelong learning programmes that prepare students with the knowledge and skills for self-reliance and the world of work; reduce shortages through the production of skilled manpower relevant to the needs of the labour market; promote and encourage scholarship, entrepreneurship, and community service; forge and cement national unity; and to promote national and international understanding and interaction through research, teaching and community service that formed the three mandates of the Universities.

Hence, to efficiently achieve the goals of university education, there is a need to integrate and adopt Information Communication Technology (Ajegbelen, 2016). Information Communication Technology (ICT) refers to a broad spectrum of products that could be harnessed to store, retrieve, manipulate, transmit or receive information electronically in a digital form (Dafiaghor, 2012). It, therefore, encompasses all hardware, software, networks, and media for collection, storage, processing, transmission, and presentation of information (voice, data, texts, and images) (Arinze, Okonkwo & Iwunor, 2012). In the field of education, effective utilization of ICT tools for instructional process reinforces the teacher's ability to cater to individual differences and fosters students' involvement, participation, and understanding (Hussain, Iqbal, & Akhtar, 2010). ICT is a tool that comprises electronic devices which are utilised for the information and communication needs of institutions, organisations, lecturers, and individuals (Ogunsola, 2005). Such electronic devices include computers, multimedia, networking, video, telephone, and Internet (Wi-Fi). Also, Also the following researchers Nordin, Hamzah, Yunus & Embi, (2010) opined that information and communication technologies

(ICTs) refer to technological tools and resources which are employed to connect, generate, broadcast, and manage information. Teachers and students can get into the Google Classroom from anywhere and utilise the application at home to complete assignments (Hemrungrote, Jakkaew, & Assawaboonmee, 2017).

Google classroom remains one of the most formidable ICT tools that have been leveraged by lecturers and students alike in the University system since it emerged as a medium of instruction in the year 2014. Google classroom is part of Google Suite of Educational Tools (GAFE) which is a suite of cloud-based Google Apps packaged and provided free of charge to educational institutions (Krug, 2014). Essentially, Google Classroom is a web-based platform that helps lecturers and students to create and receive assignments of their students without the need for using paper in the University environment (Google, 2017). The use of Google applications in the teaching-learning process enables students to have a better organisation of their class assignments, due dates, and access to all the class materials from an individual Google Drive folder. In a like manner, Google classroom enables students to reflect upon their learning, and then share that learning via the online platform (Crane, 2016).

At the University of Ilorin, the use of Google applications as modes of instructional delivery is tamed towards enhancing discussion about course contents before, during, and after the teaching/learning process. To assist this course, the university administration in conjunction with the United Bank for Africa built an e-library, internet facilities are provided in form of free Wi-Fi for the students and the electricity supply is regular. As promising as Google applications as modes of instructional delivery are, several factors can make or mare its efficiency and effectiveness. For google classroom to function effectively, there must be enough laptops. Computer laboratories, stable electricity, stable internet connectivity, adequate knowledge/skill on google classroom utilization, and mechanism must be put in place to ensure regular attendance. Thus, this study assessed Google applications as modes of instructional delivery at the University of Ilorin concerning the availability of necessary gadgets, accessibility, usability, and challenges facing its efficiency and effectiveness.

Statement of the problem

In the present information age, the integration of ICT in the teaching-learning process is very important. Students can learn and be assessed individually and at their pace. Google classroom like many ICT instructional media, is not new in many Universities outside Nigeria. Hence, there are so many online courses in many universities in the western world, making it for them to continue the teaching/learning process even when Covid-19 made the schools close. Virtual teaching/learning seems easy in many of these western countries because they have a stable power supply, stable internet, they also have the technical know-how on how to use these instructional delivery modes.

However, at the University of Ilorin like many other Nigerian universities, utilization of google classroom as an instructional medium seems to be difficult. To use google classroom, both students and the lecturers must have an internet connection. Though, the university made provision for free internet access but many of the students live outside the campus. Since many students reside outside campus, access to Wi-Fi may not be possible and to compound the issue, many students may not be able to afford data because of the poverty level of the country. There seems to be no adequate training for lecturers to be able to use google classroom to teach and many students too may not even know how to join the class. Many of the students sometimes are not disciplined enough to join the class and these factors are likely to jeopardize the success of google classroom as an instructional medium at the University of Ilorin. Thus, this study investigates the students' assessment of google classroom at the University of Ilorin.

Purpose of the study

The main purpose of this study is students' assessment of Google classroom as an instructional medium at the University of Ilorin. Specifically, the study seeks to investigate:

1. The level of students' accessibility of Google classroom as an instructional medium in University of Ilorin.
2. the level of students' usability of Google classroom as an instructional medium at the University of Ilorin.
3. the barriers militating against students' use of Google classroom as an instructional medium at the University of Ilorin.

Also, the following questions are raised to guide the conduct of the study.

1. What is the level of students' accessibility of Google classroom as an instructional medium at the University of Ilorin?
2. What is the level of usability of Google classroom as an instructional medium at the University of Ilorin?
3. What are the barriers militating against the use of Google classroom as an instructional medium at the University of Ilorin?

Methodology

The study adopted a descriptive research design. The population for this study consists of all 43, 602 undergraduate students at the University of Ilorin. The sample of the study includes 380 students who were randomly selected. A proportional sampling technique was used to select the sample of the study. Research Advisor was used to proportionally select the sample. A simple random sampling technique was then used to select the 380 sampled respondents across the faculties in the university. A Researcher-designed questionnaire titled "Assessment of Google classroom as an instructional medium Questionnaire" was used for data collection. The instrument consists of three sections. Section A consists of seven items on the accessibility of Google classroom as an instructional medium at the University of Ilorin. Section B consists of seven items on the usability of Google classroom as an instructional medium at the University of Ilorin while Section C consists of nine items on the barriers militating against the use of Google Unicorn classroom as an instructional medium at the University of Ilorin. SPSS was used for data analysis. The validity of the questionnaire was ascertained by an expert in Educational Management and two experts in Measurement and Evaluation. Crum Bach's alpha was used to ascertain the reliability of the instrument with a reliability value of 0.70. The percentage was used to answer the research questions raised.

Results

Research Question One: What is the level of accessibility of Google classroom as an instructional medium at the University of Ilorin?

Table 1: Accessibility of Google classroom as an instructional medium in Unilorin

Items	VA (%)	MA(%)	NA (%)
Google Drive	80	17	3
Google Presentation	89	11	0
Google Forms	73	23	4
Google Sheets	67	23	10
Google Draw	20	79	1
Google Slides	26	64	10
Doctopus	10	10	80
Percentage	52.14	32.43	15.43
Average			

Key: VA= Very Accessible; MA= Moderately Accessible; NA= Not Accessible

Table 1 revealed that 52.14% of the respondents on average believed that google drive, google presentation, google forms, google sheets, google draw, and google slides are very accessible, 32.43% agreed that Google applications as modes of instructional delivery are moderately accessible while 15.43 thought that Google applications as modes of instructional delivery were not accessible. Since the highest percentage of the respondents thought that google drive, google presentation, google forms, google sheets, google draw, and google slides at the University of Ilorin are very accessible it indicates that Google classroom as an instructional medium is very accessible at the University of Ilorin.

Research Question Two: What is the level of utilisation of Google classroom as an instructional medium at the University of Ilorin?

Table 2: Utilisation of Google Classroom as an Instructional Medium in Unilorin

Items	HU (%)	MU(%)	NU (%)
Google Drive	28	72	9
Google Presentation	1	92	7
Google Forms	2	93	5
Google Sheets	7	73	20
Google Draw	20	79	1

Google Slides	26	64	10
Doctopus	11	10	79
Percentage	13.57	69.00	17.43
Average			

Key: HU= Highly Utilised; MU= Moderately Utilised; NU= Not Utilised

Table 2 revealed that 13.57% of the respondents on average believed that google drive, google presentation, google forms, google sheets, google draw, and google slides are highly utilised, 69.00% agreed that google classroom is moderately utilised while 17.43 believed that Google classroom as modes of instructional delivery was not utilised. Since the highest percentage of the respondents thought that Google drive, Google presentation, Google forms, Google sheets, Google drawing, and Google slides at the University of Ilorin are moderately utilised, it implies that Google classroom was moderately utilised as an instructional medium at the University of Ilorin.

Research Question Three: What are the barriers militating against the use of Google classroom as an instructional medium at the University of Ilorin?

Table 3: Barriers against the use of Google classroom as an instructional medium in Unilorin

Items	Positive response (%)	Negative response (%)
Inadequate power supply	52	48
Erratic internet connectivity	92	8
Inadequate provision of computer devices	73	27
Lack of proper incentives by the University	33	67
Lack of technical knowledge in the use of Google applications	79	21
Lack of support system effective use of Google applications	64	36
Heavy workload of lecturers	67	23
Percentage Average	67.71	32.29

Table 3 revealed that 67.71% of the respondents on average agreed that inadequate power supply, erratic internet connectivity, inadequate provision of

computer devices, lack of proper incentives, lack of technological knowledge in the use of google classroom, lack of technological support system for effective use of classroom as an instructional medium and heavy workload lecturers are the barriers militating against the use of Google classroom as modes of instructional delivery in University of Ilorin while 32.29% disagree. Since the highest percentage of the respondents agreed, it implies that inadequate power supply, erratic internet connectivity, inadequate provision of computer devices, lack of proper incentives, lack of technological knowledge in the use of google classroom, lack of technological support system for effective use of Google classroom as modes of instructional delivery and heavy workload lecturers are the barriers militating against the use of google classroom at the University of Ilorin.

Discussion

The answering of research question one indicated that Google classroom as an instructional medium is moderately accessible at the University of Ilorin. The rationale for this finding might be premised on the Wi-Fi that is made available for students and lecturers use at the University of Ilorin. Students have a good attitude towards Google application usage when they have access to technologies, their willingness to use them is achieved and they make use of the available reliable ICTs (Sinclair, 2007). The convenience of accessing these technologies reflects student attitudes toward Google Classroom usage. Access to the necessary ICT infrastructure is one of the most important issues that should come into focus in the assessment of how the institution has progressed in Google applications as modes of instructional delivery, for instance, the University of Ilorin provides WI-FI and smartphones for students which is useful for them in attending Google Classroom, with these students are eager to learn on the platform. The responses to research question two revealed that the level of usability of Google applications as modes of instructional delivery is moderately utilised. This finding might be because most courses are still delivered in the traditional lecture method in most of the faculties at the University of Ilorin. Hence, the moderate levels of usability of Google applications as modes of instructional delivery at the University of Ilorin. The traditional means of learning, which are paper based, are still the most commonly used in contrast to the online learning methods. According to Adegbija, Fakomogbon, & Adebayo (2013), developing nations find the traditional means of learning more reliable and sustainable. The answering of

research question three showed that inadequate power supply, erratic internet connectivity, inadequate provision of computer devices, lack of proper incentives by the University, lack of technical knowledge in the use of Google classroom, lack of technical support for the system for effective use of Google applications as modes of instructional delivery and lecturers' heavy workload are the main barriers militating against the use of Google applications as modes of instructional delivery at the University of Ilorin. This finding could be due to the technical and financial constraints that militate against the effective utilization of Google applications as modes of instructional delivery in University of Ilorin. This finding is in line with that of Wright and Wilson (2011) who observed that it is not just enough to say we want bandwidth, broadband, or connectivity in isolation, for the foundation to be strong, power must be involved.

Conclusion

Based on the findings of the study, it is concluded that Google classroom is very important to the success of the university system especially now that the world has become a global village and the adverse effect of the Covid-19 pandemic. The pandemic has made face-to-face interactions between lecturers and students very difficult, hence the only option left is the use of online teaching through a medium like Google classroom. University of Ilorin though has been making google classroom accessible and usable for students, there is still a need to improve on the existing process to curb various challenges militating against the use of google classroom to ensure its' efficiency and effectiveness in the university.

Recommendations

Based on the findings of the study, the following recommendations are proffered:

1. The school authority should endeavour to organise regular training on content development and video production
2. Internet connection should be made to be affordable for both the students and lecturers in having access to Google applications.
3. Funds should be made available by the school authority for procurement of the necessary facilities which are needed for the availability and effective utilization of Google applications as modes of instructional delivery in the University of Ilorin.

4. Adequate support for the effective use of Google Classroom should be given by the school's administration in other for the academic staff such as lecturers to be motivated in the utilisation of Google applications as modes of instructional delivery.
5. Capacity-building training should be organised for staffs and students on the effective use of Google applications as modes of instructional delivery at the University of Ilorin.

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