



**UTILIZATION OF GOOGLE CLASSROOM FOR EFFECTIVE TEACHING AND
LEARNING IN NIGERIAN COLLEGES OF EDUCATION**

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Abstract

The study investigated utilization of Google Classroom for effective teaching and learning in colleges of education in Nigeria. One research question and one null hypothesis were formulated for the study. The study adopted descriptive survey research design. The population for the study is 408 lecturers in federal and state colleges of education in Enugu State. Census sampling was adopted. A questionnaire titled Utilization of Google Classroom Questionnaire (UGCQ) was designed to elicit information from the respondents. The questionnaire was validated by three research experts from Enugu State University of Science and Technology (ESUT) and Federal College of Education Eha-Amufu (FCEE). The reliability co-efficient of the instrument was calculated using Cronbach's alpha method. The overall alpha value was found to be 0.75, indicating high reliability of the instrument. Mean scores and standard deviation were used to answer the research question and z-test statistic was used to test the null hypothesis at 0.05 level of significance. The finding indicates that Google Classroom is used to a low extent in teaching and learning in colleges of education in Nigeria. It was recommended that management of colleges of education should provide training and support for Google Classroom to increase adoption and effectiveness.

Keywords: Utilization; Google Classroom; Teaching; Learning; Nigerian Colleges of Education.

Introduction

The outbreak of Corona virus (COVID-19) brought many challenges, which among them is the shutdown of academic institutions in the world. According to Dadhe, and Dubey (2020), the COVID-19 pandemic forced governments worldwide to place their countries in full or partial lockdown to contain the spread of the virus. However, these lock-downs came with unique changes in teaching and learning process in higher education institutions and has influenced the interactions between lecturers and students. As a consequence of the pandemic, higher education institutions, whether consciously or unconsciously were constrained to carry out their activities with students exclusively online (Jebba&Umaru, 2019). The colleges of education happens to be a part of the higher education sub-sector in Nigeria.

Colleges of education is one of the education given to children after secondary school (Federal Republic of Nigeria (FRN), 2013). The National Policy on Education state that the primary responsibility of colleges of education in Nigeria is to train professional teachers for basic education (FRN, 2013). These institutions are categorized into federal, state and private institutions, depending on the ownership. The focus of this research is on federal and state colleges of education. Traditionally, the colleges of education has mainly been supported through a variety of campus-focused activities, which involve face-to-face interactions of students with lecturers (Kumar, Sarkar, Davis, *et al.*, 2021). The campus-focused activities foster real life interactions, socialization, and hands-on learning experiences. However, with

outbreak of COVID-19 and the rise of digital technologies, many institutions are now incorporating blended and digital learning approaches to complement traditional campus-based education. One of such digital platform is the Google Classroom.

Google Classroom is a free digital learning platform that facilitates instructional delivery and learning processes. This platform enables students to acquire knowledge through collaborative activities, such as conversation, interaction, and discussion. Lecturers can utilize Google Classroom to teach their courses, assign tasks, and upload assignments, promoting a structured learning environment. According to Shaharane, Jamil, and Rodzi (2016), the platform allows lecturers to create and organize assessments, provide comments, and communicate with their students, streamlining the learning process. Google Classroom has emerged as a leading teaching platform, widely adopted by lecturers and students since the outbreak of COVID-19. With over 30 million assignments uploaded by educators and learners, its popularity is evident (Iftakhar, 2016). This significant uptake suggests that Google Classroom has the potential to be a valuable asset in enhancing teaching and learning experiences within the colleges of education (Iftakhar, 2016). Following the outbreak of the pandemic, lecturers were advised to switch to the Google classroom. It was hoped that as a free digital learning platform and wide access to google tools in Nigeria, lecturers and students may have unfettered access to this learning platform. However, it is not known the rate of utilization of this platform by lecturers in colleges of education in Nigeria. This is a gap that this study intends to fill.

A lecturer is an educator who teaches students in a higher education setting. According to Chuenjitwongsa *et al.* (2018), a lecturer is considered an expert in their field, bringing together theoretical knowledge and practical experience to inform their teaching. This definition encompasses not only the lecturer's subject matter expertise but also their ability to synthesize evidence from various theoretical frameworks and student perspectives. The lecturers benefit from the digital learning platforms. This is because the role of engagement in e-learning is important for effective learning as it is not merely student-student interaction that matters. Al Rawashdeh, Mohammed, Al Arab, Alara, and Al-Rawashdeh (2021) added that although, students are active participants who pursue and create knowledge through a meaningful context, but the lecturers become the architecture of the learning system, which supports flexibility and capable of lasting, even though there are many diverse tools. The learning space is left under the control of the lecturers and institutions using available digital learning platforms irrespective of any external tools (Sarrab, Al-Shihi & Rehman, 2013). On this note, the objectives of learning can be achieved in the shortest time with least efforts through e-learning. However, this could be realized based on the level utilization by lecturers. Utilization refers to the extent an item has been put to use (Ogundu, 2022). In the context of digital learning platforms, utilization means using these platforms to achieve academic goals and objectives. Many countries worldwide have promoted the utilization of digital learning platforms, leading to increased adoption. According to the World Bank (2021), countries that have successfully utilized digital learning platforms include Austria, the United States, Brazil, Bulgaria, Chile, China, Colombia, Costa Rica, Croatia, Czech Republic, Dominican Republic, Russia, Saudi Arabia, Egypt, Finland, Canada and United Kingdom.

In a study by Nidup (2022), students agreed that Google Classroom is the right tool for online teaching and learning. The research study of Munasinghe and Percy (2016) indicated that perceived usefulness and ease of use have significant effects on the attitude towards the use of Google Classroom. The research study of Simon, Ajayi and Gadzama (2022) that analyze the utilization of Google Classroom as a tool for teaching and learning in the Federal Polytechnic Mubi supported the previous research. It concluded that Google Classroom is utilized in the institution following the COVID-19 challenges. It confirmed that lecturers have positive attitude towards Google Classroom. The study was similar to the research study

of Febriani, et. al (2023) revealing that the digital learning platform used to manage online learning is Google Classroom. On the contrary, the study by Tsegba, Fayomi and Swande (2024) revealed that to a very high extent, lecturers do not use Google Classroom in teaching and learning. The study indicated that despite the importance of Google Classroom in the teaching and learning, the effective use is faced with several factors.

Unfortunately, Nigeria is vividly missing among the list of successful countries in digital learning. The researchers are concerned that the current situation is not conducive to training effective teachers, who can thrive in today's fast-paced, ever-changing society. The rapidly evolving landscape demands educators who can adapt, innovate and meet the diverse needs of students, but the existing circumstances hinder the development of such teachers. Sadly, from preliminary research, there seems to be a paucity of literature on the utilization of Google Classroom for effective teaching and learning in colleges of education in Nigeria. This has created a gap in literature in this area of study. In order to fill this gap, this study seeks to determine the extent of utilization of Google Classroom for effective teaching and learning in colleges of education in Nigeria.

Research Question

1. To what extent do lecturers utilize google classroom for effective teaching and learning in colleges of education?

Hypothesis

One null hypothesis tested at 0.05 level of significance guided the study.

H_{01} : There is no significant difference between the mean scores of lecturers in federal and state colleges of education on the extent of utilization of google classroom for effective teaching and learning.

Research method

This study employed descriptive survey design. A descriptive survey design according to Nworgu (2015) is a type of research design which involves collecting and analyzing data from a representative sample or the entire population to describe the characteristics of a phenomenon. The study was conducted in Enugu State, located in South Eastern Nigeria. Enugu State is home to a diverse range of tertiary institutions, both public and private institutions, including the University of Nigeria, Nsukka, Enugu State University of Science and Technology, Caritas University, Godfrey Okoye University, Federal College of Education, Eha-Amufu (FCEE), Enugu State College of Education Technical (ESCET), among others. This rich educational landscape made Enugu State an ideal setting for the study. Population for the study was 408, comprising of all the 338 lecturers of FCEE and 70 lecturers of ESCET. These institutions were established and managed by state and federal governments respectively. Census sampling was used because the population is manageable.

A self-developed structured questionnaire titled Utilization of Google Classroom Questionnaire (UGCQ) was used as the instrument for data collection. The questionnaire has two parts: A and B. Part A contains information on personal data of the respondents, while part B contains 14 items which focused on lecturers' use of Google Classroom for effective teaching in colleges of education in Nigeria. The rating format was based on a four point scale of Very High Extent (VHE), High Extent (HE), Low Extent (LE), and Very Low Extent (VLE). This implies that the higher the aggregate scores in the rating scale, the more positive the response of the subjects and the lower the score the more negative the response of the subjects. The scale was weighed 4, 3, 2, and 1 respectively. The face validity of the research instrument was determined by giving initial copies of the instrument to three research experts. One of the experts is a specialist in Measurement and Evaluation from the Department of Educational Psychology, Federal College of Education, Eha-Amufu, while two were from

Department of Educational Management, Enugu State University of Science and Technology (ESUT). The reliability of the instrument was determined by a trial test on 20 academic staff at the Federal College of Education (Technical) Umunze, Anambra State, which has similar characteristics with Federal College of Education Eha-Amufu and Enugu State College of Education Technical. Cronbach alpha method was adopted to determine the internal consistency coefficient of the instrument, because the questions are polychotomous in nature. The instrument yielded reliability index coefficient of 'r' .75. The reliability index indicates that the instrument was reliable and suitable for the study.

The instrument was administered on the respondents using Survey Heart Application. Survey Heart Application is a web-based data collection application. The web link address was shared to the respondents through the WhatsApp groups of the academic staff unions of the respective institutions. This approach helped to maintain control over the data collection process, ensuring that the correct respondents completed the instrument. Three hundred and seventy-two (372) soft copies of questionnaire completed and returned were used for the study. The research questions were answered using mean rating and standard deviation, while the hypotheses were tested at 0.05 level of significance using z-test statistic. The decision rule was that any item with mean rating of 2.50 and above was interpreted as "Agree", while mean rating below 2.50 was interpreted as "Disagree". Furthermore, when the calculated z-value is less than the critical z-value, the null hypothesis was not rejected, but when the calculated z-value is equal to or greater than the critical z-value, the null hypothesis is rejected.

Result

Research Question

To what extent do lecturers utilize google classroom for effective teaching and learning in colleges of education?

Table 1: mean scores of lecturers on the extent to which they use Google Classroom for effective teaching and learning

S/n	Item	ESCET (68)			FCEE (304)		
		X	SD	Decision	X	SD	Decision
	I use Google Classroom to:						
1	communicate with students	1.25	0.71	LE	1.53	1.07	LE
2	facilitate videos interactive lesson	1.08	0.93	LE	1.06	0.77	LE
3	access digital library	0.85	0.99	LE	1.13	0.45	LE
4	share a collection of data	1.25	1.04	LE	1.44	0.81	LE
5	evaluate the students' work	0.86	1.13	LE	1.14	0.77	LE
6	provide feedback	0.88	1.25	LE	1.00	1.09	LE
7	upload assignment files	0.75	1.25	LE	1.13	1.12	LE
8	conduct synchronous conversation	1.38	1.17	LE	1.19	1.12	LE
9	represent a special forum for general announcements	0.13	1.06	LE	0.38	1.20	LE
10	send emails	1.00	0.99	LE	1.31	1.19	LE
11	design and build quizzes with a variety of questions	1.38	0.93	LE	1.31	1.25	LE
12	save files	1.88	1.06	LE	1.07	0.89	LE
13	record lesson attendance	1.00	0.99	LE	1.19	1.22	LE
14	record lecture	1.13	0.39	LE	1.11	1.26	LE
	Cluster mean	1.06	0.99	LE	1.14	1.02	LE

Table 1 above shows the mean scores and standard deviation of lecturers on the extent to which Google Classroom is utilized to improve teaching and learning in colleges of education in Nigeria. Both groups recorded similar responses in all the items. The cluster mean responses for both groups were below the 2.50 cut of point. Hence, the cluster mean of 1.06 and 1.14 with standard deviation of 0.99 and 1.02 for lecturers in federal and state colleges

respectively, indicated that Google Classroom is utilized for effective teaching and learning to a low extent.

Hypothesis

H₀₁: There is no significant difference between the mean scores of lecturers in federal and state colleges of education on the extent of utilization of google classroom for effective teaching and learning.

Table 2: z-test of significant difference between the mean scores of lecturers on the extent of utilization of Google Classroom for effective teaching and learning.

Group	Mean	SD	N	Df	z-cal	z-crit.	Decision
ESCET	1.06	0.99	68	370	0.60	1.96	Do not reject Ho1
FCEE	1.14	1.02	304				

Table 2 above presents z-test analysis of the mean difference in response opinions of lecturers in federal and state colleges of education regarding the extent Google Classroom is utilized to improve teaching and learning. The result shows that the calculated z-value (0.60) is less than the critical value (1.96). Hence, the null hypothesis was not rejected. Therefore, there is no significant difference between the mean ratings of lecturers in federal and state colleges of education on the extent Google Classroom is utilized for effective teaching and learning in colleges of education in Nigeria.

Discussion of findings

The study revealed that Google Classroom is used for effective teaching and learning to a low extent. This indicates that Google Classroom is not being used by lecturers in colleges of education in Nigeria. This finding opposes Simon, Ajayi, and Gadzama (2022) and Febriani, et. al (2023) that Google Classroom is used for teaching and learning. This could be due to various reasons such as limited awareness and understanding of the platform's capabilities, technical issues or infrastructure problems, insufficient training and support for lecturers. To improve the situation, educational institutions can take steps to address these challenges and promote the effective use of Google Classroom.

Analysis of the research hypothesis shows no significant difference between the mean ratings of lecturers in federal and state colleges of education on the extent to which Google Classroom is used for effective teaching and learning in in colleges of education in Nigeria. This suggests that both lecturers in federal and state colleges recognize the limitations and challenges of using Google Classroom, resulting in similar ratings. This finding therefore, supports Tsegba, Fayomi and Swande (2024) report that lecturers do not use Google Classroom in teaching and learning. The study indicated that despite the importance of Google Classroom in the teaching and learning, the effective use is faced with several factors. It underscores the importance of acknowledging the realities of using technology in education and the need to address any challenges that may arise.

Conclusion

The findings suggest that lecturers in colleges of education in Nigeria do not use Google Classroom for teaching and learning. The study highlights the importance of applying Google Classroom to meet the educational needs of lecturers and students. By doing so, colleges of education in Nigeria can further enhance teaching and learning experiences, ultimately leading to better academic outcomes.

Recommendations

Based on the finding, the following recommendations are made.

1. The management of colleges of education should provide training and support for Google Classroom to increase adoption and effectiveness. This will help to provide alternative for the traditional teaching method.
2. The Federal Ministry of Education should advance a policy framework on innovation and experimentation with new digital tools Google Classroom to stay up-to-date with best practices in teaching and learning process.

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