

Attitude of Students Towards Use of Google Classroom for E-Learning in Alvan Ikoku Federal College of Education, Owerri, Nigeria

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Abstract

The study investigated the attitude of students towards the use of Google Classroom for e-learning in Alvan Ikoku Federal college of Education, Owerri. The study was conducted using a descriptive analytical survey design. one research question and two hypotheses were formulated to guide the study. A sample of 150 students was purposively selected from an intact Educational Technology class comprising Education/Economics and Education/English 200 level students. A sixteen item researchers designed instrument was employed to collect data from the respondents. The instrument was administered on the respondents electronically through Survey Monkey on Google Classroom platform. Data collected from the survey was analysed using descriptive and analytical statistics. Findings revealed that the students have a positive attitude towards the use of Google Classroom. It was also discovered that there is a significant difference in attitude towards the use of Google Classroom between male and female students in favour of the males. However, there was no significant difference in attitude towards use of Google Classroom based on the area of specialization of the students. It was recommended that educators in the higher education institutions should upgrade their skill in the use of Google Classroom application in presentation of contents in their subject areas among others.

Keywords: Attitude of students; google classroom; e-learning.

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1. Introduction

The coming of the 21st century and the attendant communication technology innovations has undoubtedly transformed the way things are done globally especially teaching and learning process. Information and communication technology (ICT) has become, one of the basic building blocks of modern society. Many countries in the present dispensation cannot talk of teaching and learning devoid of the integration of technology. To this end the use of technology therefore has become a driving force for development and innovations in the education system globally. E-learning has received much impetus following the outbreak of Covid-19 and the attendant lockdown and closure of all educational institutions globally (Haleem et al., 2022). According to Dash (2019) e-learning has brought about changes in adaptive learning, collaborative learning, and the way in which teachers perform their duties.

E-learning in literal terms can be seen as electronic learning which encompasses all learning situations that involve the use of new electronic technologies and devices (Oluwatimilehin et al., 2021). The importance of e-learning in the learning environment cannot be relegated to the background in the present 21st century that is technology driven hence Bhukihni et al. cited in Olumori et al. (2022) noted that the integration of e-learning into the teaching and learning process facilitates the quality of education. In the same vein, e-learning platforms make learning to take place in a collaborative, independent, and self-directed manner (Joshua et al., 2016). E-learning is an umbrella word that describes any type of learning that depends on electronic communication. Hambrecht 2000 cited in Edo (2016) maintained that it is a generic term covering a wide set of information communication technology-based applications and processes which includes: computer-based learning, web-based learning, virtual classrooms, digital collaboration and networking. Tamm, (2023) defines e-learning as online learning or electronic learning which entails the acquisition of knowledge through electronic technologies and media. In simple terms, e-learning is a type of learning that is enabled electronically or a learning conducted on the internet where learners can access their learning materials online at any place and time. Similarly, Clark and Mayer (2016) viewed e-learning as instructions delivered through digital devices to support learning.

There are many e-learning tools available for use in the implementation of remote/distance teaching and learning. They include Blackboard, Moodle, Canvas, Edmodo, Google Classroom (Abazi-Bexheti et al. 2018) and even social network tools like Facebook and WhatsApp. For the purpose of this study, Google Classroom was selected. The reason for selecting this e-learning platform is premised on the fact that it was recommended for lecturers to use during the Covid-19 pandemic lockdown by the College authorities to ensure teaching and learning took place unhindered during the period. It is therefore worthwhile to ascertain the students' attitude

towards its use in the learning environment.

Although Google Classroom was announced in May, 2014, it was not until August 12 2014 that it was made available publicly and on January 14, 2015, Google unveiled a classroom Application and a share button for websites allowing teachers, developers and other school administrators to even further interact with it. It is among the unique innovations found in the field of ICT-enriched teaching and learning (Olumorin, et al. 2022). According to Adegbenro (2021) Google Classroom is a collection of online tools designed to make grading of student work easier for teachers. It integrates other google products like Slides, Sheets, Docs, Gmail, and Calendar to ensure better communication between teachers and students. Similarly, Edwards, (2022) defined Google Classroom as a suite of online tools that allows teachers to set assignment, have works submitted by students to mark and return graded papers. It was created to make digital learning possible by eliminating paper in classes by incorporating the use of laptops like Chromebooks in schools. The Google Classroom allows the teachers and students to share information and assignments more efficiently. Scholars (Lynch 2018; Zakaria et al. 2020; Alssager & Nasir, 2021) have identified some benefits of using Google Classroom in the learning environment to include:

1. Accessibility of from any computer via Google Chrome or from any mobile device regardless of platform with all the files uploaded by the teachers and the learners stored in a Classroom folder on Google Drive. All users can access classroom anytime anywhere.
2. Exposes students to online learning system which will invariably assist them to transit into other learning management systems used in many universities in the 21st century.
3. It encourages the elimination of papers in the learning environment as teachers' assignment and assessments as well as students' completed works are uploaded to the platform and saved to Drive.
4. Saves time for the teacher who saves all the instructional resources in one place which is accessible anytime anywhere making it possible for the teachers to have more free time to complete other tasks.
5. Google classroom has in-built tools which enables easy communication between teachers and the students like sending emails, post to stream, send private message on assignments and equally provide feedback to students on their works and enhance efficient classroom management.
6. It also offers opportunities for students to collaborate. Teachers can facilitate online discussion between students and equally create group projects within the classroom etc.

These numerous benefits of using Google classroom in the learning environment have to be harnessed for seamless integration of technology into teaching and learning. During the covid-19 lockdown, the federal government of Nigeria through the federal ministry of education directed tertiary institutions to adopt e-learning mode of teaching to keep the students busy pending the relaxing of the lockdown order. Alvan Ikoku federal college of education in response adopted the Google Classroom Learning Management System because of the benefits enumerated above. The attitude of people towards an innovation goes a long way to determine whether such an innovation will be fully adopted or rejected over time. To the best knowledge of the researchers, there is a dearth of study carried out in developing countries like Nigeria to explore the attitude of learners in fully web-based classroom. In the light of the above, it therefore becomes necessary to investigate the attitude of students towards the use of Google Classroom in learning in the institution.

Attitude is seen in psychology as an expression of favour or disfavour towards an attitude object, be it an event, person, place or thing (Cherry, 2023). This attitude can be a positive or negative evaluation of people, objects, events, activities, and ideas. Attitude refers to the manner a person regards and attends to task. Allport in Onwuagboke and Singh (2016) maintained that attitude is a state of readiness to respond to external stimuli that exerts a powerful and dynamic influence on cognition and behavior. From the afore mentioned attitude can therefore be seen as a strong force that determines individual choice of action and general responses to situations around them. One's attitude is influenced by one's thought, what one does and how one feels. Attitude in this regard can be either positive or negative. The attitude which students have about any technology used in the classroom may affect their studies and their achievement in teaching and learning. Studies conducted in higher institutions outside Nigeria have shown that students have positive attitude towards the use of Google Classroom in learning (Moonma, 2021; Minshar, 2021;). In Nigeria few studies have been conducted in this regard. Akpunonu & Agbarakwe, (2021) as well as Olumorin et al. (2022) made similar discoveries. Gender has been investigated in many studies bothering on technology uptake hence it is an important variable that may affect students' attitude towards use of Google Classroom.

Gender as seen in this study refers to the societal and cultural roles that are attached to being a man or woman. Thus it shows that gender here differs from sex. Here gender according to Wood and Eagly in Brown et al. (2018) refers to the cultural, social and psychological factors and not the biological factors that may play a significant role in the people behaviour towards the use of technology in the teaching and learning process. Several studies have investigated the effect of gender on students' attitude towards e-learning tools. Olumorin et al. (2022) students' attitude towards the use of Google Classroom in teaching in University of Ilorin Nigeria and discovered no gender difference in attitude towards google classroom in teaching. In the same vein, Akpunonu

and Agbarakwe (2021) made a similar discovery in a study conducted in University of Port Harcourt. In a similar study on attitude towards ICT use by Spanish higher education teachers, it was however discovered that there is a significant gender difference in attitude towards the use of technology in teaching and learning in favour of males (Guillen-Gamez, et al. 2020). Majority of students in a Malaysian university also show high level of satisfaction with the introduction of Google Classroom tools in their learning environment (Alssager & Nasir, 2021).

In respect of this study, one research question was formulated to guide the study: What is the attitude of students towards the use of Google Classroom in learning in Alvan Ikoku Federal College of Education Owerri? On the other hand, two hypotheses were also formulated to guide the study. They are as follows: There is no significance difference in the attitude of male and female students towards the use of Google Classroom in learning; There is no significant difference in students' attitude towards use of Google Classroom in learning according to their area of specialization.

Methodology

The study was conducted at Alvan Ikoku Federal College of Education, Owerri. Descriptive analytical survey design was adopted for the study. This method was considered the most suitable for this because it involves selecting a chosen sample from a large population. This study was targeted at the undergraduates at 200 level student teachers who took Ed 224 course last semester of their second year in preparation for Teaching Practice in their third year. The population of the study consisted of 500 students. A purposive sampling technique was used to draw a sample of 150 students who showed 75% presence online during classes from the entire population. The instrument that was used for this study was a researcher-designed questionnaire titled Attitude of students towards use of Google Classroom in Learning Questionnaire (ASTGCILQ). The Sixteen itemed instrument were rated on the Likert scale response made of strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD).

The Questionnaire was validated by three experts, one from educational measurement and evaluation whereas two were drawn from curriculum and instruction Department. The comment and suggestions that were given by the experts led to the modification of the items in the questionnaire. All the items in the questionnaire were judged to be relevant to what is being measured thereby ensuring adequate content and face validity of the instrument. A pilot study was conducted using 20 undergraduates at the same level outside the departments of the research respondents to compute the reliability of the research instrument. The research instrument yielded 0.88 Cronbach's Alpha at 0.05 level of significance using SPSS statistical tools. The instrument was administered on the respondents using Survey Monkey through the google classroom platform. Both descriptive statistics were employed to answer research questions and inferential statistics were used to test the formulated hypotheses at 0.05 level of significance. For decision making, mean scores of 2.50 and above were considered as indication of a positive attitude whereas mean scores below 2.5 were considered negative attitude towards use of Google Classroom e-learning platform in learning.

Results and Discussion of Findings

One hundred and forty respondents completed the questionnaire and their responses were analysed to give the following results.

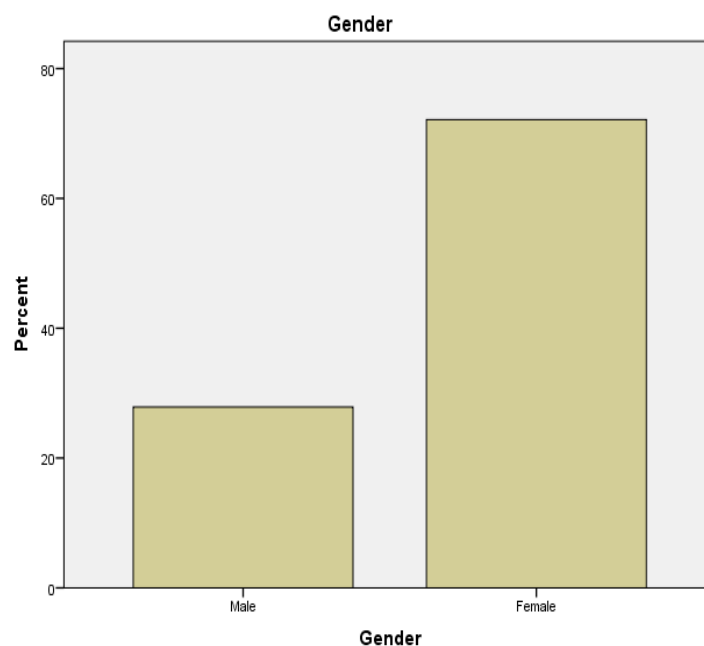


Figure 1. Bar chart showing distribution of respondents according to Gender

Figure 1 displays the percentage of the respondents according to gender. The males were 39 in number representing 27.9% of the respondents while the females were 101 representing 72.1% of the respondents.

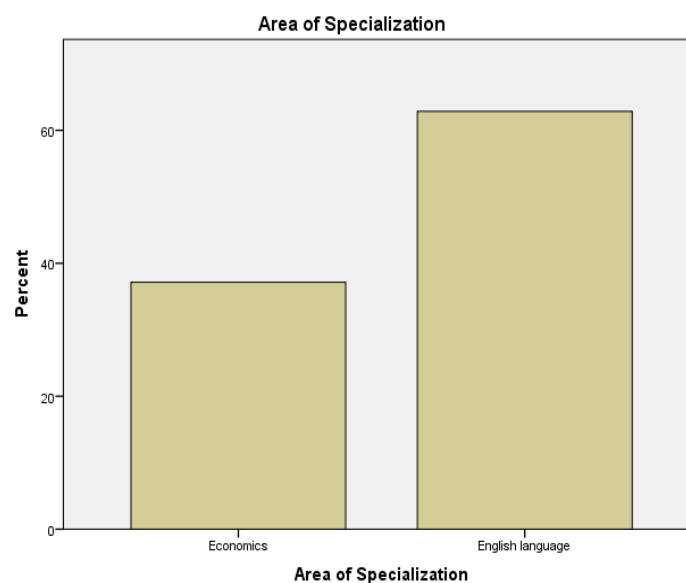


Figure 2. Bar chart showing distribution of respondents according to area of specialization

Figure 2. shows the distribution of the respondents according to their areas of study. Out of the 140 respondents, 52 respondents representing 37.1% of the were studying Economics/Education while 88 respondents representing 62.9% were studying English Language/Education.

Results Question 1.

What are the attitudes of students towards the use of Google classroom as e-learning platform for teaching education courses in AIFCE, Owerri?

Table 1: Mean responses on attitude of Students towards use of Google Classroom in learning

		N	Mean	Std. Deviation
1	I have knowledge of Google Classroom as an online Learning Platform	140	3.58	.49556
2	I believe using Google Classroom for teaching facilitates proper learning of subject content	140	3.14	.57790
3	I think communicating with lecturers in the Google Classroom platform promotes the learning of various concepts	140	3.30	.57151
4	I intend to continue to use the potentials of Google Classroom to interact with lecturers and my course mates	140	3.03	.66725
5	I prefer using Google Classroom to learn course contents to the traditional or chalk-talk method	140	2.52	.68349
6	I think rote learning would be reduced in learning if students are taught using Google Classroom	140	2.85	.67776
7	I am convinced that the use of Google Classroom for giving, submitting and grading assignments would provide a worthwhile outcome	140	2.92	.67927
8	I think learning with the Google Classroom promotes critical thinking among students	140	3.27	.49228
9	I think using Google Classroom for learning saves time	140	3.53	.50098
10	I would be glad to continually use Google Classroom for further learning experiences	140	3.29	.67094
11	I am convinced that Google Classroom makes it easier for students to learn anywhere and anytime	140	3.73	.44629
12	I think it does not take much of training and competence to effectively use Google Classroom	140	3.31	.53505
13	I believe learning with Google Classroom would not be too stressful	140	3.27	.52069
14	I believe using Google Classroom for learning purposes would not be hindered by the lack of relevant facilities and technical personnel	140	2.89	.77817
15	I believe using Google Classroom for effective learning does not require expensive bandwidth	140	3.02	.58109
16	I think Google Classroom is not too technical to be used for learning	140	3.04	.70834
	Grand mean	140	3.17	

Data presented in table 1 showed that all the items in the questionnaire received mean responses (3.17) which is above the (2.5) benchmark indicating that the students who participated in the study have positive attitude towards the use of Google Classroom in learning at Alvan Ikoku Federal College of Education Owerri. This result is in tandem with the findings of Moonma (2021) as well as Ahmed and Rehman (2021). The finding is also similar to the finding of Kassim (2021) who reported that the attitudes of a Malaysian university students were highly positive. Similarly, this result finds support in the report of Olumorin et al. (2022) who discovered that students of the university of Ilorin have positive attitude towards the use of Google Classroom for learning. In the same vein, the result is in agreement with Akpunonu and Agbarakwe (2021) who reported that undergraduate students have a positive behavioral intention towards the use of Google Classroom application in teaching and learning.

Hypotheses 1.

There is no significance difference in the attitude of male and female students towards the use of Google Classroom in learning.

Table 2: Mean Scores and Standard Deviation of Male and Female students on attitude towards the use of Google Classroom in Learning

	Gender	N	Mean	Std. Deviation
TATGCIL	Male	39	52.1795	3.44026
	Female	101	50.0990	3.60140

Table 2 shows that the mean attitude score of male students who participated in the study is 52.18 while that of female students is 50.10. the difference in the mean scores of the two groups is 2.08, an indication that the English students have a higher attitude mean score. An independent samples t-test was conducted to ascertain if the mean difference is significant.

To test the above hypothesis, an independent samples t-test was conducted. The result of the test is as displayed in table 3.

Table 3: Independent Samples Test for equality of means of male and female students on attitude towards Google Classroom in learning

Total Attitude Towards Google Classroom in Learning	N	Mean	SD	df	P-value	Decision
Male	39	52.18	3.44	138	.002	Not Significant
Female	104	50.10	3.60			

The results showed that there was significant difference in the mean scores of the male ($M = 52.18$, $SD = 3.44$) and female ($M = 50.10$, $SD = 3.60$), $t(138) = 3.102$, $p = .002$ two-tailed) students on attitude towards use of Google Classroom in learning. The magnitude of the difference in the means (mean difference = 2.08, 95% CI: .75424 to 3.40671) was moderate (eta squared = .065). Based on the above result, the null hypothesis was thus rejected in favour of the alternative hypothesis. This result is at variance with Olumorin et al. (2022) who discovered that gender has no significant effect on students' attitudes towards the use of Google Classroom in teaching at the University of Ilorin. Similarly, this result differs from the findings of Akpunonu and Agbarakwe (2021) who found no significant gender difference in use of Google Classroom for teaching in teaching at University of Port Harcourt.

Hypotheses 2:

There is no significant difference in students' attitude towards use of Google Classroom in learning according to subject of study.

Table 4: Mean Scores and Standard Deviation of Male and Female students on attitude towards the use of Google Classroom in Learning

TATGCIL	Area of Specialization	N	Mean	Std. Deviation
	Economics	52	50.1346	3.48683
	English language	88	51.0000	3.75086

Table 4 shows that the mean attitude score of the Economics students who participated in the study is 50.13 while that of the English students is 51.00. the difference in the mean scores of the two groups is .87, an indication that the English students have a higher attitude mean score. An independent samples t-test was conducted to ascertain if the mean difference is significant. The result of the test is as displayed in table 5.

Table 5: Independent Samples Test for equality of means of English Language and Economics students on attitude towards Google Classroom in learning

Attitude Towards Google Classroom in Learning	N	Mean	SD	df	P-value	Decision
Economics	58	50.13	3.49	138	.178	Not Significant
English Language	88	51.00	3.75			

The results showed that there was no significant difference in the mean scores of the English ($M = 51.00$, $SD = 3.75$) and Economics ($M = 50.13$, $SD = 3.49$), $t(138) = -1.353$, $p = .178$ two-tailed) students on attitude towards use of Google Classroom in learning. The magnitude of the difference in the means (mean difference = -.86538, 95% CI: -2.12966 to .39889) was rather small (eta squared = .013). Based on this finding, the researchers fail to reject the null hypothesis which postulated no significant difference in attitude of students towards Google classroom as a result of subject of study. This result is in tandem with Olumorin et al. (2022) that reported that students' course of study has no significant effect on their attitude towards the use of Google Classroom in teaching and learning at university of Ilorin. The students studying English language and those studying Economics equally show positive attitude towards the use of the technology in the teaching and learning process

Conclusion

This study has established through its findings that pre-service teachers of English Language and those of Economics have positive attitude towards the use of Google classroom e-learning platform in learning. This is a welcome development bearing in mind the numerous benefits the use of google classroom in teaching. Both male and female students equally show positive attitude towards the technology despite the significant difference in attitude between them. For this reason, it behooves on the teacher educators to pay attention to female students in the online learning environment to help build a more positive attitude to enable them benefit maximally from online instructions.

Recommendation

Based on the findings and conclusions drawn from the study, the following recommendations were made:

1. The use of Google Classroom as the adopted e-learning mode should be encouraged in all higher institutions in Nigeria because of its many benefits.

2. Teacher educators and indeed all educators in the higher education system should upgrade their skill in the use of Google Classroom application in presentation of contents in their subject areas.
3. Students especially pre-service teachers should be taught using technology especially Google Classroom as students will generally teach the way they were taught. To ensure that they integrate technology in their teaching after training, e-learning facilities should be made available in teacher education institution to enable them make use of them in learning and in teaching.

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