Indonesian Journal of Educational Research and Technology

Students 'Attitude Towards the Utilization of Google Classroom for Learning

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A B S T R A C T

This study investigates students' attitudes towards the use of Google Classroom for learning at the University of Ilorin, Nigeria. Descriptive survey research is used in this study. The population for this study consisted of all students at the University of Ilorin, Nigeria. The population of this study consisted of Undergraduates in ten selected faculties at the University of Ilorin. Samples were taken using a multi-stage sampling technique. Use of stratified sampling technique to divide the population into strata based on faculty. Then, random sampling technique was used to select 30 respondents from each stratum. Specifically, 30 undergraduate students were selected from ten faculties, bringing the total number of respondents to 300 people. The research finding is that students have a positive attitude towards the use of Google Classroom at the University of Ilorin. Gender has no significant effect on student attitudes towards the use of Google Classroom at Ilorin University. The research course did not have a significant effect on respondents' attitudes towards the use of Google Classroom at the University of Ilorin. The study concludes that Google Classroom's diverse potential can be harnessed and harnessed to transform teaching and learning processes from traditional chalk-talk methods to virtual or blended learning, which is increasingly recognized as a global best practice in the university field. It is recommended that University lecturers be encouraged to use Google Classroom because of the many benefits it has for teaching and learning.

A R T I C L E I N F O

1. INTRODUCTION

The advent of the 21century has significantly changed the teaching-learning process across all levels of the formal education system. Thus, it is undeniable that a plethora of technological innovations has been leveraged by stakeholders in the field of education to improve the outcome of instructional activities. Of great importance in this is the application of a broad range of extant and emerging technologies in the field of education (Olumorin *et al.*, 2018). For instance, Information Communication Technology tools are increasingly being utilized for teaching, learning, administrative and assessment purposes in public and private universities that are spread across the six geo-political zones of Nigeria (Ajegbelen, 2016).

Information Communication Technology is a broad term that refers to a broad spectrum of products that could be harnessed to store, retrieve, manipulate, transmit pr receive information electronically in 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 *et al.,* 2012). ICT also includes computer sets, computer, and application software (that is, spreadsheet, word processing, excel), disc and storage media (that is, memory cards, flash drives, scanner, CD-ROMs, audio and video cassettes, films, picture, e-books, magazines), telecommunication gadgets and services such as web-based tools, mobile technologies and a broad spectrum of extant and emerging technologies that are used for processing, storage, presentation, communication and exchange of data and information (Bhukuvhani *et* al. 2011). Therefore, there has been a paradigm shift in the deployment of university education in Nigeria through diverse ICT platforms such as e-learning. In the field of education, effective utilization of e-learning tools for instructional purposes reinforces the teachers' ability to cater to individual differences and fosters students' involvement, participation, and understanding (Hussain *et al.*, 2010).

The platform of Google Classroom is one of the novel innovations in the field of ICT-enhanced teaching and learning. Thus, Google Classroom has the potential to streamline communication and workflow for students by providing a single access point to discussion threads and assigned work. Faculty can more quickly identify which students may be struggling with their assignments due to the tracking mechanisms associated with assigned tasks. Furthermore, grading processes can be simplified because of the grading features associated with student submission. Google Classroom is one of the free services by Google in the Gsuite for Education plan. It promotes paperless instruction for streamlining assignments, boosts collaboration, and fosters seamless communication to make teaching more productive and meaningful. Google Classroom can be easily deployed in the URL classroom. Google. Com, educators can set up the classroom in minutes and create content for students. It is also free for schools, best-in-class security is also included without cost for plan holders. The platform is also integrated with other Google tools to help educators provide instant feedback and track a student's progress to improve performance, it has also a mobile application for easy access anytime and anywhere.

Google Classroom is a free application that integrates e-mails and documents to save into storage. Google Classroom makes teachers upload files, videos, links, announcements, and assignments for students to retrieve and view. Document files can be edited in class and shared with peers to learn collaborative skills. When students complete an assignment, they can submit it by posting it on the teachers' board or the classroom board. This program can be accessed using some mobile devices such as Smartphones, Tablet PCs, and Laptops, which

are convenient for both teachers and students. Google platform allows learners to chat and discuss topics learned in class and teachers to view student discussion and post comments.

Google Classroom has the potential to streamline communication and workflow for students by providing single access point discussion threads and assigned work. Google Classroom can help students to keep their files more organized because all their work can be stored paperless in a single program. Faculty can more quickly identify with students who may be struggling with their assignments due to the tracking mechanisms associated with assigned tasks. Grading processes can be simplified because of the grading features associated with students' submissions.

Bhukuvhani *et al.* (2011) noted that the integration of e-learning into the teaching and learning process facilitates the quality of education. Supporting the foregoing, Saffari *et al.* (2014) noted that e-learning platforms make learning to take place in a collaborative, independent, and self-directed manner. In other words, the effective integration of e-learning tools into the teaching-learning environment significantly improves the outcomes of university education. In this wise, therefore, undergraduate students stand to gain maximally when the diverse potentials of e-learning tools are appropriately and adequately harnessed for academic purposes (Bola & Ogunlade, 2012).

The virtual classroom, which is a common form of synchronous e-learning, is increasingly being used to facilitate the outcomes of the teaching-learning process in some institutions of learning. In this wise, the Google classroom remains one of the most formidable ICT tools that have been leveraged by lecturers and students alike in the University system and it emerged as the medium of instruction in the year 2014. Manca and Ranieri (2013) noted that Google classroom is part of the applications of Google Apps of Educational Tools (GAfE), which is a suite of cloud-based Google Apps packed and provided free of charge to educational institutions.

Hariadi *et al.* (2016) further touted the benefits of utilizing online collaborative applications with students by commending the Google Apps for Education. The benefits of GAfE include staying connected wherever, uniting students and lecturers quickly without space and time constraints, ease of managing tasks, grades, and courses, and unlimited learning sources, for both students and lecturers. More so, Google classroom enables students to edit, revise, add and delete portions. This particularly novel notion lends itself well to the roles of teaching and learning where professors and teachers may apply immediate feedback for the students regarding their work as well suggest certain revisions, further research (Vickers *et al.*, 2015). Google classroom is also a cloud learning portal that offers an even more interactive approach because they allow for multiple participants and collaboration across the internet (Shinsky & Stevens, 2011; Vickers *et al.*, 2015).

Using Google classroom also promotes higher-order thinking skills, promotes the development of problem-solving skills, and supports what-if type questions which are more desirable in this computer age (Mohd Shaharanee *et al.*, 2016).

Essentially, Google classroom is a web-based platform that helps lecturers and students to create and receive assignments of their students without the need of using paper in the University environment. In this sense, therefore, the Google classroom has a broad spectrum of advantages. For instance, Google classroom saves time regarding the process of content sharing, creation, revision, and grading of assignments and communication with the students and their lectures. Likewise, the use of Google classroom in the teaching-learning process enables students to have a better organization 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's questioning capabilities enable students to reflect upon their learning and then share that learning via the online platform.

Given the pervasiveness of Google Classroom as a contemporary form of the instructional delivery platform in the 21st century, the University of Ilorin is increasingly exploring and harnessing the diverse potentials of Google Classroom to facilitate the outcomes of the teaching-learning process. Given the importance attached to the use of Google Classroom for teaching and learning purposes in the University of Ilorin, certain variables such as perceived usefulness, easiness, attitude, intention to use, and self-efficacy with social factors such as subjective norm and organizational factors such as accessibility, affordability and students' attitude might mediate the utilization of Google Classroom for learning.

Attitude has been identified in extant literature to be related to students' use of ICT tools for learning. In other words, students who have a positive attitude towards the use of technology might be more motivated and inclined towards the effective integration of technology in the teaching-learning process. On the other hand, students who maintain a negative attitude towards the integration of technology in teaching-learning activities might not be inclined towards the integration of technology in the teaching-learning process. To this end, attitude is not a passive construct. Rather, it is a powerful force that drives human behavior, which includes the utilization of Google Classroom.

Concerning the influence of demographic variables on students' use of Google Classroom, There is no significant gender difference in students' perception towards the use of Google Classroom for learning at the University of Ilorin. Likewise, the course of study and level of study has also been correlated with students' use of e-learning platforms, such as Google Classroom for learning. Hence, for the diverse and enormous potentials of Google Classroom to be effectively harnessed for learning purposes, it is germane for the school administrators, lecturers, students, and policymakers to gain an insight into students' attitudes towards the utilization of Google Classroom for learning. To this end, the present study seeks to investigate students' attitudes towards the utilization of Google Classroom for learning at the University of Ilorin.

Gender, as implied in this context, refers to the societal and cultural roles that are attached to being a man or woman. Thus, it should be noted that gender differs from sex. The rationale for this dimension of research is well-grounded on the widely accepted gender theories in the field of psychology and sociology which suggests that different behaviors, values, and attitudes of men and women influence their performance within the educational environment. In the same manner, gender as implied in this context refers to the cultural and psychological factors and not the biological factors that may play a significant role in the people towards the utilization of Information Communication Technology in the teaching-learning process (Saffari *et al.,* 2014).

For guiding the conduct of this study, the following research questions are generated:

(i)   What are students' attitudes towards the utilization of Google Classroom at the University of Ilorin?

(ii)   Is there any difference in students' attitude towards utilization of Google Classroom at the University of Ilorin based on gender?

(iii)   Is there any difference in students' attitudes towards the utilization of Google Classroom at the University of Ilorin based on the course of study?

Based on the research questions, the following hypotheses were postulated:

(i)   H01: There is no significant difference in students' attitudes towards the utilization of Google Classroom at the University of Ilorin based on gender.

(i)   H02:   There is no significant difference in students' attitudes towards the utilization of Google Classroom in the University of Ilorin based on the course of study.

2. METHOD
2.1. Methodology

Descriptive research of the survey type was adopted for this study. This method was considered the most suitable design for this study because it involves selecting a chosen sample from a large population. This study is targeted at the undergraduates at the University of Ilorin. Based on the estimated population of undergraduate students, the samples were drawn from the population using multi-stage sampling techniques. This involves using a stratified random sampling technique to divide the population into strata based on faculties. Then, a simple random sampling technique was used to select 30 respondents from each of the strata. Specifically, 30 undergraduates were selected from ten faculties to make a total number of 300 respondents.

2.2. Research Instruments

The instrument that was used for this study is a researcher-designed questionnaire titled: "Attitude towards the Utilization of Google Classroom for learning in the University of Ilorin. The questionnaire consisted of two sections; A and B. Section A deals with the respondents' demographical data, these include gender, course of study, and academic level. Section B consists of statements to elucidate information on students' attitudes towards the utilization of Google Classroom for learning at the University of Ilorin. The items on section B were rated on the Likert scale response mode of Strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (D).

2.3. Validation of the Research Instrument

The questionnaire was validated by three experts from the Educational Technology Department, University of Ilorin. 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 administered to 20 undergraduates from Kwara State University, Nigeria for the reliability of the research instrument. The research instrument was reliable at 0.85 at 0.05 level of significance, using Cronbach Alpha SPSS statistical tool.

2.4. Procedure for Data Collection

The researchers obtained a letter of introduction from the Head of the department, Educational Technology, University of Ilorin, to seek permission from the acceptable authority within the sampled faculties to facilitate easy administration of the questionnaires. The researchers read and explained the aim of the study to the participants. The respondents got sufficient time to answer the questionnaire. After which, the researchers retrieved the answered questionnaire. Through the assistance of the statistical analyst, the researchers tabulated the data collected from the participants using Microsoft Excel and eventually process the data collected using Statistical Package for Social Sciences (SPSS). Ethical consideration was maintained through the period of data collection. The researcher ensured that respondents were not coerced to fill out the questionnaire and respondents were allowed to participate voluntarily. Also, utmost confidentiality and secrecy of the respondents were maintained during the administration, collation, and report of research findings.

2.5. Data Analysis Techniques

Both descriptive and inferential statistics were employed to answer research questions and test the formulated hypotheses at a 0.05 level of significance. The data collected and analyzed in this section represents the variables of focus for the study and background information of undergraduates that were actively involved in the study.

Table 1, showed that male respondents were 151 (50.3%), while females were 149 (49.7%). Thus, male respondents formed the highest number with 151(50.3%). This implied that male and female undergraduates were fairly represented in the study. However, male respondents participated more in the study than their female counterparts.

Table 1. Percentage distribution of respondents by gender.

Gender	Frequency	Percentage (%)
Male	151	50.3
Female	149	49.7
Total	300	100

Table 2 showed that Humanities students constituted the highest number of respondents of 88(29.3%) from the total number of sampled respondents 300, social sciences students were 83(27.7%) of the respondents, sciences students formed 72 (24.0%) of the respondents, students from other faculties are the lowest number of respondents 57(19.0%).

Table 2. Percentage distribution of respondents by course of study.

Course of Study	Frequency	Percentage (%)
Sciences	72	24.0
Humanities	88	29.3
Social Sciences	83	27.7
Others	57	19.0
Total	300	100

3. RESULTS AND DISCUSSION

3.1. Research Question 1: What are students' attitudes towards the utilization of Google Classroom at the University of Ilorin?

Table 3 indicates that student's attitude towards the utilization of Google Classroom at the University of Ilorin is positive and moderate, based on the benchmark mean score of 2.996. Specifically, the respondent's attitude was believed to be positive in only eleven items, that is, item 1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 14 with mean score 3.72, 3.51, 3.01, 3.82, 2.94, 2.69, 3.22, 2.88, 3.62, 2.59, 3.24 and 2.78 respectively. The rest were below the benchmark score of 2.996. Thus, it can be deduced from the foregoing, that the respondents' attitude towards the utilization of Google Classroom at the University of Ilorin was moderate and positive.

Table 3. Students' attitude towards the utilization of google classroom in university of Ilorin.

S/N	Items	N	Mean
1	I believe using the Google classroom for instruction facilitates proper learning of course contents	300	3.72
2	I think communicating with lecturers in the Google Classroom promotes the understanding of various concepts	300	3.51
3	I am ready to leverage the potentials of the Google classroom to interact with lecturers and classmates	300	3.01
4	I prefer to learn course content using the Google Classroom than the traditional or chalk-talk method	300	3.82
5	I think rote learning would be reduced in instruction if students are taught with the Google Classroom	300	2.94
6	I am convinced that utilization of Google Classroom for submitting and grading assignments would provide a worthwhile outcome	300	2.69
7	I think learning with the Google Classroom promotes critical thinking among students	300	3.22
8	I would be glad to be exposed to learning experiences on the platform of Google Classroom	300	2.88
9	I think using the Google Classroom for learning saves time	300	2.45
10	I am convinced that Google Classroom makes it easier for students to learn anywhere and anytime	300	3.62
11	I think it takes more training and competence to effectively teach Basic School Science with the mother tongue	300	2.59
12	I believe learning with Google Classroom would be too stressful	300	2.04
13	I believe using the Google Classroom for instructional purposes would be hindered by the lack of relevant facilities and technical personnel	300	2.43
14	I believe the Google Classroom requires expensive bandwidth to be used effectively	300	3.24
15	I think the Google Classroom is too technical to be harnessed for learning	300	2.78
	TOTAL (44.94/15)		
			2.996

3.2. Hypothesis one: There is no significant difference in students' attitudes towards the utilization of Google Classroom in the University of Ilorin based on gender

As shown in **Table 4**, the calculated t-value was 0.18 while the critical t-value is 1.96 (0.86 > 0.05 level of significance). Since the calculated t-value is less than the critical value, the null hypothesis was not rejected. This means that there is no significant difference in students' attitudes towards the utilization of Google Classroom in the University of Ilorin based on gender. This implied that there was no significant difference between male and female students' attitudes towards the utilization of Google Classroom in the University of Ilorin.

Table 4. Mean, standard deviation and t-value on male and female students' attitude towards utilization of google classroom in University of Ilorin gender.

Gender	F	X	SD	Df	T	Sig.	Remark
Male	151	60.20	7.59				
				298	1.18	1.96	0.86
Female	149	60.34	5.85				

3.3. Hypothesis two: There is no significant difference in students' attitude towards the utilization of Google Classroom in the University of Ilorin based on the course of study

As shown in **Table 5,** showed that the calculated F-ratio was 1.398 while the critical F-ratio is 3.00. Since the calculated F-ratio is less than the critical F-ratio, the null hypothesis was not rejected. This means that there is no significant difference in the rationale in students' attitude towards the utilization of Google Classroom at the University of Ilorin based on the course of study.

Table 5. Analysis of Variance (ANOVA) showing the difference in students' attitude towards the utilization of google classroom at the University of Ilorin based on the course of study.

Source	Sum of Squares	Df	Mean Squares	Cal. F-ratio	Crit. F-ratio	p-value
Between Groups	254.071	4	63.518	1.398	3.00	0.24
Within Groups	13407.516	295	45.449			
Total	13661.587	299				

The result on students' attitude towards utilization of Google Classroom in the University of Ilorin established that students had a moderate and positive attitude towards the utilization of Google Classroom in University of Ilorin having compared the total mean score with the benchmark, it was observed that the total mean score (2.996) was higher than the benchmark (2.50). Likewise, this finding aligns with that of Heggart and Yoo (2018), who found that students' attitude facilitates getting the most from Google Classroom.

The study revealed no significant difference between male and female students' attitudes towards the utilization of Google Classroom at the University of Ilorin. It can therefore be deduced that gender did not have a relative influence on students' attitude towards utilization of Google Classroom at the University of Ilorin. There is a significant gender difference in students' perception towards the use of Google Classroom for learning at the University of Ilorin.

The study revealed no significant difference in students' attitudes towards the utilization of Google Classroom at the University of Ilorin based on the course of study. Thus, the course of study did not have a relative influence on students' attitudes towards the utilization of Google Classroom at the University of Ilorin.

4. CONCLUSION

The findings of this study indicated that most of the students had a positive attitude towards the utilization of Google Classroom at the University of Ilorin irrespective of gender and course of study. The success or otherwise of students learning with Google Classroom is largely a function of their attitude, which may be positive or negative. Google Classroom allows students to spend more time with their lecturers and less time on paperwork. It is easily accessible and useable to instructors and learners in both face-to-face learning environments and fully online environments. Conclusively, the diverse potentials of Google Classroom could be leveraged and harnessed to transform the teaching and learning process from the traditional chalk-talk method to virtual or blended learning, which is increasingly being recognized as a global best practice in the field of university education across the globe in the challenging COVID-19 era.

5. AUTHORS' NOTE

The authors declare that there is no conflict of interest regarding the publication of this article. The authors confirmed that the paper was free of plagiarism.

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