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The Influence of the Technology-Based Google Classroom as a Social Media Tool in Teaching Educational Technology in Tertiary Institutions in Ekiti State

Omodara Oladele Dennis*
Department of Educational Technology,
Bamidele Olumilua University of Education, Science and Technology, Ikere-Ekiti, Nigeria
[**Corresponding author*]

Asubiojo Raphael Ojo
Department of Educational Technology,
Bamidele Olumilua University of Education, Science and Technology, Ikere-Ekitii, Nigeria

Abstract
The study investigated the influence of the technology-based Google Classroom as a social tool in teaching Educational Technology in tertiary institutions in Ekiti State. A total of two hundred (200) respondents were selected for the study, which formed the study sample. The sample comprised one hundred and fifty (150) undergraduates and fifty (50) lecturers. The selected students were those offering Educational Technology and were selected using simple random sampling. It comprised 81 male and 69 female students. The study employed a descriptive research design of survey type, which made it impossible to guarantee randomness in group composition. The instrument used for data collection was a self-structured questionnaire. Four research questions were raised for the study and answered descriptively using simple frequency count and percentage. Four research hypotheses were formulated for the study and tested using a t-test of independent sample and Analysis of Variance (ANOVA). The data analysis revealed no significant difference in the use of technology-based Google Classroom in the academic performance of male and female students, reassuring educators about its effectiveness. Also, it was revealed that there was no significant difference in the use of technology-based Google Classroom across students of different levels. It was further revealed that there was a substantial difference in the use of technology-based Google Classroom among students in various age groups. Lastly, it was revealed that a technology-based Google classroom significantly influenced lecturers' teaching methods. Based on these findings recommendations were hereby made.

Keywords
Educational Technology, Google Classroom, Technology, Social Tool, Tertiary Institutions

INTRODUCTION

The 21st century, a knowledge era, has significantly shifted from rural to industrial societies, with knowledge becoming a top priority. To succeed in this era, individuals must be proficient in various areas, including information literacy and technology use. Education must keep pace with the rapid developments of the fourth industrial revolution to ensure students acquire comprehensive knowledge and skills. Integrating technology in the classroom to align knowledge, attitudes, and abilities is crucial in supporting students' hard and soft skills development, underscoring the significance of educational reform (Paristiowati et al., 2020).

These skills, as outlined by enGage 21st Century Skills, enable us to navigate the 'Global Village' that our world has become. Its positive impact on education is significant, providing more effective ways to complete tasks and claims (Adeosun & Oreowo, 2008).

According to Okon-Enoh (2008), the choice of learning methods or approaches significantly impacts teaching and learning activities in the classroom. In their research, Adebayo and Aladejana (2020) discovered that employing captivating learning media is an approach that can dramatically affect students' learning outcomes. To address the

demands of 21st-century education, it is necessary to undergo a fundamental change in the education system that encompasses all aspects of global existence. According to Smith, (2023).the Internet is an extensive "network of networks" that connects millions of computers worldwide. This infrastructure allows every linked computer to communicate with each other.

Using the Internet as a teaching tool represents a paradigm for future education marked by increased involvement, improved interactivity, and a more pleasurable learning environment. (Gustami, 2020). Many e-learning platforms, such as Google Classroom, have been developed in education as a powerful tool that enables teachers to create online classrooms and ensures students can access assignments and instructional materials from anywhere. This emphasis on accessibility promotes a sense of inclusion, making it easier for all students to participate in the learning process. Bondarenko, Mantulenko, and Pikilnyak (2019), assert that Google Classroom can potentially improve students' academic performance by fostering technology-based learning.

In addition, Google Classroom improves student communication, class structure, and teacher time savings. Using Google Classroom can promote instructional innovation and increase student engagement (Crowdmark, 2023 & Mennuti, 2024). This technology-driven educational approach can inspire learners to meet the demands of 21st-century skills related to technology use and interactive learning. The lively classroom environment demonstrates the idea of meaningful learning. Additionally, by increasing students' attention spans and levels of engagement, this approach raises the calibre and effectiveness of instruction in the classroom (Tamim et al., 2023).

Technology in education has transformed traditional methods of instruction by providing innovative resources that make learning exciting and captivating. One free online platform developed by Google, called Google Classroom, is not just a local innovation but a globally recognized and vital resource in educational institutions. This study investigates the effects of Google Classroom as a social tool for teaching educational technology in Nigerian higher education institutions in Ekiti State.

Research Problem Statement

Google Classroom is a free educational platform, sometimes referred to as e-learning. With its practical and effective approach, the virtual component of the program helps students understand instructional technology instead of depending just on theoretical ideas. Educational technology instruction should not be delivered vaguely or abstractly. The university presents a problem since education has not yet fully embraced modern pedagogy to facilitate teaching-learning. Instead, conventional techniques like using chalk to write on chalkboards and textbooks are still widely used as information sources. Students' involvement and enthusiasm in what they are learning in the classroom have decreased.

The investigation looked into how Google Classroom, as a social tool, is used in the teaching of educational technology at several universities, including the Federal University Oye-Ekiti, Bamidele Olumilua University of Education, Science and Technology Ikere-Ekiti, and Ekiti State University, Ado Ekiti. The study aims to determine how much using Google Classroom can improve student collaboration and interpersonal interactions in educational technology programs. It also evaluates how utilizing Google Classroom affects students' motivation and involvement in educational technology classes.

Research Questions

The following research questions were raised to guide the study:

1. To what extent does the use of technology-based Google Classroom influence Educational Technology teaching in tertiary institutions in Ekiti State as a social tool??
2. What is the effect of using technology-based Google Classroom to teach educational technology across different levels in institutions in Ekiti State as a social tool?
3. What is the influence of using technology-based Google Classroom as a social tool among students of different age groups?
4. To what extent does the use of technology-based Google Classroom assist lecturers in adjusting their method of teaching Educational Technology in the selected institutions in Ekiti State as a social tool?

Hypotheses

The following hypotheses were formulated for the study.

1. There is no significant difference in the use of technology-based Google Classroom in students' academic performance.
2. There is no significant difference in the use of technology-based Google Classroom across students of different levels.
3. The use of technology-based Google Classroom is similar among students in different age groups.
4. Technology-based Google Classroom does not significantly influence lecturers' teaching methods.

LITERATURE REVIEW

The Role of Technology in the Field of Education

"Educational technology" discusses enhancing teaching and learning procedures and outcomes through digital technologies and resources. These technologies support a variety of pedagogical strategies used in postsecondary

institutions, such as flipped classrooms and blended learning (Ngubane, 2016; Adebayo & Aladejana, 2020). The modern educational environment is significantly impacted by technology. Therefore, a growing number of academic institutions are supporting the use of technology in the classroom through programs to improve internet connectivity, supply tablets and laptops, and train teachers and learners in computer literacy (Johnson & Markham, 2022). Technology now serves various purposes in education, including being an essential component of curricula, a mode of instruction delivery, a tool for instruction facilitation, and a way to improve the quality of the learning process overall. According to Raja and Nagasubramani (2018), technology has changed education from passive and reactive to proactive and participatory. This adaptability of technology reassures us of its effectiveness in different educational contexts; whatever the situation, technology can help students understand and remember subjects better.

The Use of Google Classroom as an Educational Tool

Several Google services are seamlessly integrated into Google Classroom, allowing teachers to create, distribute, and assess assignments without requiring hard copies. It promotes collaboration by providing services like Google Docs and Drive, enabling simultaneous editing and sharing. (Izenstark & Leahy, 2015 & Google Classroom Google 2022). Students can access Google Classroom online at any time and from any location, extending the reach of learning beyond the classroom. According to a study conducted by Fadumiye (2020) on technology-based facilitating effective teaching and learning through a Google classroom as a social tool in Nigerian tertiary institutions, integrating Google Classroom into the learning system by assisting with the problems that online education in our society faces will enable teachers to value the use of pedagogies in engaging students collaboratively. Google Classroom tools play a crucial role in supporting instructional strategies for teaching. Azhar and Iqbal (2018), In a study on the effectiveness of Google Classroom and teachers' perceptions, revealed that Google Classroom's interface could be more teacher-friendly in a survey of the program's efficacy Due to its practical use in communication with students, classroom management and assignment uploading, Al-Maroof., & Salloum, (2021), Basilaia., & Kvavadze, (2020). Google Classroom has significantly impacted teaching in general. It was determined that using Google Classroom generally has a lot to offer. Google Classroom is educational software that helps create and manage digital assignments, aiming to ease the difficulties associated with traditional paper-based assignments. (Janzen, 2014., Azhar., & Iqbal, 2018). It offers more features than just these basic ones. August 2014 saw the integration of this program into Google Apps for Education (GAFE), a suite of productivity tools designed for educational use. Both instructors and students can learn more deeply with the help of this application (Google. 2014, & Wood, 2015).

The Influence of Technology on Educational Achievements

Research findings have shown that integrating technology into the classroom can improve academic achievement, comprehension, and student engagement (Google for Education, 2022). Several factors, including the technology framework, the lecturer's ability, and the students' flexibility, influence how much of these benefits are felt. Ertmer, et-al (2012). Alenezi, (2018). A powerful tool for teaching educational technology that encourages flexibility and adaptability is Google Classroom, which offers several advantages. (Shaharanee, Jamal., & Rodzi, 2016; (2016). Islam, (2019). The increased student engagement it provides is one of the main benefits. Simulations, gamified learning platforms, and interactive multimedia have all been demonstrated to be successful in capturing students' attention and encouraging their active participation (Wang et al., 2018; Gee, 2003).

Google Classroom is a widely used free tool that improves the interactive and collaborative nature of classes for educators and students (Shaharanee, et-al, 2016; Sharmanee; Vysakh & Rajendra Babu, 2020). Furthermore, integrating technology makes the ability to personalize learning experiences possible. A more thorough understanding and mastery of subjects can be attained by tailoring the content and learning pace to each student's needs and abilities through adaptive learning systems and personalized software (Ayodele, 2019).

Gender Difference in Academic Performance

Hyde & Linn. (2006). Asserted that Gender-based differences in achievement have been well documented. *Gender* is an individual trait linked to differences in learning self-regulation and motivation. (Zimmerman & Schunk 2011, Pajares & Valiente 2001). Education has always placed a high premium on research on gender variations in academic ability. (Halpern, et al. 2007, Schiebinger, 2008., & Ward, 2008). This finding acknowledges the impact of gender on students' performance and is crucial to guaranteeing inclusivity and equitable chances in learning settings. (Hargreaves., & Fullan, 2012. OECD 2015). The relevance of this issue is underscored globally by UNESCO's Education for All Global Monitoring Report 2021, which identified persistent gender gaps in educational attainment as a significant barrier in many nations, including Nigeria. (EFA Global Monitoring Report Team. 2015., & UNESCO, 2021). The report emphasizes how important it is to look into these differences to inform evidence-based policies that promote equity in Education (Unterhalter., North., Arnot., Lloyd., Moletsane., Murphy-Graham., & Saito, 2014; UNESCO, 2015).

The relationship between gender and Education in Nigeria has received more attention recently because of its direct impact on social and economic progress. Although notable advancement has been made in promoting gender equality in education, obstacles remain, especially in the northern regions. Female enrollment and retention rates are lower in these areas than in the southern regions (UBEC, 2019). Johnson and Markham (2022) emphasized the harmful

consequences of gender inequality on the Nigerian education system, connecting it to issues at the national and social levels, including educational disparities, limited employment opportunities for women, and hindered economic growth.

Enyioko (2021) underscored the imperative of tackling gender-based inequality to enhance women's economic and social empowerment via education. Academic research on gender and education has examined many facets of this topic. Notably, studies conducted by Enyioko (2021) and Tarfa & Dike (2022) have offered detailed insights into how gender affects academic environments, ranging from nursing programmes to senior secondary school mathematics. These investigations have examined factors such as societal expectations, learning styles, teacher-student interactions, and the impact of stereotypes. The findings have revealed a range of outcomes, with some studies finding no notable gender differences in academic performance, while others have identified disparities in specific subjects or educational levels. Addressing gender-based disparities in academic performance is crucial due to its pervasive negative impacts.

MATERIALS AND METHODS

The study adopted a descriptive research design that involved conducting a survey. The sample consisted of students and lecturers from three selected institutions in Ekiti State who are currently teaching educational technology as a course in those institutions. Students are in the 100, 200, 300, and 400 levels. The sample comprises 150 students and 50 lecturers from three postsecondary schools in Ekiti State: Ekiti State University, Ado-Ekiti, Federal University of Technology, Oye-Ekiti, and Bamidele Olumilua University of Education, Science and Technology, Ikere-Ekiti. A representative sample was obtained using stratified random sampling to select the respondents. The study sample consisted of respondents of both genders. The study employed a comprehensive self-structured questionnaire as the research instrument, which comprised 19 items. The 'Google Classroom Questionnaire (GCQ) 'was rigorously created and tested to evaluate the impact of using Google Classroom in teaching Educational Technology at tertiary institutions. The validity and reliability of the questionnaire were carefully assessed during the testing phase, with the Spearman-Brown split-half approach producing an internal consistency coefficient of 0.78. Data was gathered over four months, and the General Cognitive Ability (GCQ) assessment was conducted on pupils, with their academic performance data acquired from school administrations. The research topics guiding the study were descriptive statistics of frequency, percentage, mean, and standard deviation. The study used the t-test and Analysis of Variance (ANOVA) inferential statistical methods to assess the hypotheses. The significance level of 0.05 was employed, and the SPSS version 28 was used for the statistical analysis.

RESULTS AND DISCUSSION

Research Question 1: To what extent does the use of technology-based Google Classroom influence Educational Technology teaching in tertiary institutions in Ekiti State as a social tool?

Table 1 Response to the extent to which the use of technology-based Google Classroom influences Educational Technology teaching in tertiary institutions in Ekiti State as a social tool

Item	Response	Freq (%)
Have you ever used Google Classroom in your educational technology class?	Yes	30 (60.0)
	No	20 (40.0)
How often do you use Google Classroom for Educational Technology classes?	Daily	0 (0.0)
	Weekly	15 (30.0)
	Monthly	20 (40.0)
	Rarely	5 (10.0)
	Never	10 (20.0)
How familiar are you with the features of Google Classroom?	Very familiar	30 (60.0)
	Somewhat familiar	15 (30.0)
	I am not familiar with it at all	5 (10.0)
In what ways does Google Classroom help students learn educational technology?	To submit homework	12 (6.0)
	To share resources (e.g. ask questions)	98 (49.0)
	To communicate with the lecturer (e.g. messaging)	11 (5.5)
	To provide feedback on the lecturer's teaching	79 (39.5)
Do you find Google Classroom a helpful tool for learning Educational Technology?	Yes	178 (89.0)
	No	22 (11.0)
How often do you use Google Classroom to learn educational technology?	Daily	0 (0.0)
	Weekly	15 (10.0)
	Monthly	118 (78.7)
	Rarely	12 (8.0)
	Never	5 (3.3)

Table 1 shows the responses to the extent to which the use of technology-based Google Classroom influences Educational Technology teaching in tertiary institutions in Ekiti State as a social tool. It was revealed that most of the lecturers, 30 (60.0%), indicated that they had used Google Classroom in Educational Technology classes before, and most of the lecturers, 20 (40.0%), held that they use Google Classroom mainly every month for Educational Technology classes. Also, the majority of the lecturers, 30 (60.0%), indicated that they are familiar with the features of Google Classroom. On the ways whereby Google Classroom helps in learning Educational Technology, it was held mainly by both lecturers and students respondents, with 98 (49.0%) and 79 (39.5%) that they used Google Classroom to share resources such as asking questions and that it provide feedbacks on lecturer's teaching respectively. Most of the respondents, 178 (89.0%), indicated that they found Google Classroom helpful for learning Educational Technology. In contrast, most students use Google Classroom monthly to learn educational technology.

Research Question 2: What is the effect of using a technology-based Google classroom to teach educational technology across different levels in institutions in Ekiti State as a social tool?

Table 2 Response to the effect of the use of technology-based Google Classroom in teaching Educational Technology across different levels in institutions in Ekiti State as a social tool

Item	Response	Freq (%)
Has using Google Classroom improved communication with your classmates and lecturer in Educational Technology class?	Yes	143 (95.3)
	No	7 (4.7)
Have you used the discussion forum feature in Google Classroom to ask questions or share ideas about Educational Technology topics?	Yes	85 (56.7)
	No	65 (43.3)
How often do you interact with your classmates through Google Classroom?	Daily	0 (0.0)
	Weekly	15 (10.0)
	Monthly	118 (78.7)
	Rarely	12 (8.0)
	Never	5 (3.3)
How do you think Google Classroom has impacted your students' learning of Educational Technology?	It has made it easier for them to access resources	12 (24.0)
	It has improved their understanding of Educational Technology concepts	15 (30.0)
	It has increased their motivation to learn	13 (26.0)
	It has made it easier for them to collaborate with classmates	7 (14.0)
	It has improved their grades in Educational Technology	3 (6.0)
	It has had no impact on their learning in Educational Technology	0 (0.0)

Table 2 shows the responses to using technology-based Google Classroom in teaching Educational Technology across different levels in institutions in Ekiti State as a social tool. It was revealed that 143 (95.3%) of the students indicated that using Google Classroom had improved their communication with their classmates and lecturer in Educational Technology class. In comparison, 85 (56.7%) of the respondents held that they had used the discussion forum feature in Google Classroom to ask questions or share ideas about Educational Technology topics and 65 (43.3%) held otherwise. It was further revealed that most of the student respondents, 118 (78.7%), held that they primarily interact with their classmates through Google Classroom every month. On how Google Classroom had impacted students' learning of Educational Technology, most of the lecturers' respondents, 15 (30.0%), indicated that it had improved their understanding of Educational Technology concepts. In comparison, 13 (26.0%) and 12 (24.0%) held that it increased their motivation to learn and made it easier to access resources.

Research Question 3: What is the influence of using technology-based Google Classroom as a social tool among students of different age groups?

Table 3 Response to the influence of using technology-based Google Classroom as a social tool among students of different age groups

Item	Response	Freq (%)
How do you use Google Classroom in your Educational Technology class?	To assign homework	9 (18.0)
	To share resources (e.g. lecture notes, videos, etc.)	22 (44.0)
	To communicate with students (e.g. announcements, messaging)	8 (16.0)
	To provide feedback on student work	7 (14.0)
	To facilitate class discussions	4 (8.0)

What are the strengths of using Google Classroom as a social tool for teaching educational technology?	It facilitates collaboration and communication among students	10 (20.0)
	It provides a platform for sharing resources and ideas	11 (22.0)
	It allows for personalized learning and differential instruction	10 (20.0)
	It enhances students' engagement and motivation	9 (18.0)
	It makes it easier to track students' progress	10 (20.0)
Would you recommend using Google Classroom as a social tool for teaching Educational Technology to other educators in Ekiti State?	Yes	45 (90.0)
	No	2 (4.0)
	Not sure	3 (6.0)
Has Google Classroom helped you collaborate more effectively with your classmates in your educational technology class?	Yes	139 (92.7)
	No	11 (7.3)
Do you feel Google Classroom has increased your engagement in Educational Technology class?	Yes	138 (92.0)
	No	12 (8.0)
Do you prefer using Google Classroom to traditional methods of learning Educational Technology?	Yes	147 (98.0)
	No	3 (2.0)

Table 3 shows the responses to the influence of using technology-based Google Classroom as a social tool among students of different age groups. It was revealed that on the usage of Google Classroom in the Educational Technology class, most of the lecturers, 22 (44.0%), indicated that they used Google Classroom to share resources such as lecture notes and videos, amongst others. In comparison, 9 (18.0%) and 8 (16.0%) held that they used it to assign homework and provide feedback on student work. In lecturers' opinions about the strengths of using Google Classroom as a social tool in teaching Educational Technology, the respondents held that it facilitates collaboration and communication among students, allows for personalised learning and differential instruction, and makes it easier to track students' progress by 10 (20.0%), it provides a platform for sharing resources and ideas by 11 (22.0%). In comparison, 9 (18.0%) believed it enhances student engagement and motivation. Also, most of the lecturers 45 (90.0%) held that they would recommend using Google Classroom as a social tool in teaching Educational Technology to other educators in Ekiti State, as most of the students 139 (92.7%) indicated that Google Classroom had helped them to collaborate more effectively with their classmates in Educational Technology class, 138 (92.0%) held that Google classroom had increased their engagement in Educational Technology class. In comparison, virtually all the students, 147 (98.0%), indicated that they prefer using Google Classroom to traditional methods of learning Educational Technology.

Research Question 4: To what extent does the use of technology-based Google Classroom assist lecturers in adjusting their method of teaching Educational Technology in the selected institutions in Ekiti State as a social?

Table 4 Response to whether the use of technology-based Google Classroom assists lecturers in adjusting their method of teaching Educational Technology in the selected institutions in Ekiti State as a social

Item	Response	Freq (%)
How do you think Google Classroom has impacted how you teach Educational Technology?	It has made it easier to assign and collect homework	10 (20.0)
	It has made it easier to share resources with students	10 (20.0)
	It has improved communication with students	10 (20.0)
	It has increased student engagement in class	9 (18.0)
	It has made it easier to track student progress	5 (10.0)
	It has made teaching more effective	6 (12.0)
How do you think Google Classroom compares to traditional teaching methods in facilitating social interaction among students in Educational Technology classes?	Google Classroom is better	26 (52.0)
	Traditional teaching methods are better	22 (44.0)
	They are both the same	2 (4.0)
What are the weaknesses of using Google Classroom as a social tool for teaching educational technology?	It requires students to have access to technology outside of class	6 (12.0)
	It may not be easy to monitor students' participation in online discussions	10 (20.0)
	It may not be easy to provide individual feedback to students	9 (18.0)
	It may not be easy to establish classroom norms and expectations for online behaviour	11 (22.0)
	It may be less effective for students who learn best through face-to-face interaction	14 (28.0)

Table 4 shows the responses to whether the use of technology-based Google Classroom assists lecturers in adjusting their method of teaching Educational Technology in the selected institutions in Ekiti State as a social. It was revealed that on the impact of Google Classroom on the way lecturers teach Educational Technology, most lecturers 10 (20.0%) held that Google Classroom made it easier to assign and collect homework and share resources with students and subsequently improved communication with students. In comparison, 9 (18.0%) of them indicated that Google Classroom increased students' engagement in class. Google Classroom compares to traditional teaching methods in terms of facilitating social interaction among students in Educational Technology classes. Most respondents, 26 (52.0%) of the lecturers, indicated that Google Classroom is better. 22 (44.0%) held that traditional teaching methods are better, while the marginal 2 (4.0%) believed both pedagogical techniques are the same. On the weaknesses of using Google Classroom as a social tool in teaching Educational Technology, most of the respondents 14 (28.0%) believed that Google Classroom might be less effective for students who learn best through face-to-face interaction, 11 (22.0%) thought it might be challenging to establish classroom norms and expectations for online behaviour, 10 (20.0%) held that it might be challenging to monitor students participation in online discussions, 9 (18.0%) indicated that it might be difficult to provide individual feedback to students. In comparison, 6 (12.0%) stated that it requires students to access technology outside class.(Stop here on 14/09/2024).

Hypotheses Testing

Hypothesis 1: There is no significant difference in the use of technology-based Google Classroom in the academic performance of male and female students.

Table 5 t-test analysis of the differences in the use of technology-based Google Classroom in the academic performance of male and female students

Gender	N	Mean	SD	Df	$t_{(cal)}$	$t_{(tab)}$	Decision
Male	70	3.11	1.763	148	1.37	1.98	NS
Female	80	3.06	1.689				

P<0.05 level of significance *NS = Not Significant*

From Table 5 above, the mean score of the male students (3.11) is higher than the mean score of the female students (3.06), with a mean difference of (0.05), which is marginal. The measure of variability (standard deviation) has a difference of (0.074). The t-test analysis shows that the calculated value (1.37) is less than the table value (1.98) at a 0.05 significance level. The result implies no significant difference in the use of technology-based Google Classroom in the academic performance of male and female students. Hence, the null hypothesis is upheld.

Hypothesis 2: There is no significant difference in the use of technology-based Google Classroom across students of different levels.

Table 6 Analysis of Variance (ANOVA) test showing differences in the use of technology-based Google Classroom across students of different levels

Source	SS	df	MS	F	P
Between Group	241.378	2	120.689		
Within Group	5425.400	148	30.652	3.937	0.721
Total	5666.778	150			

p>0.05

Table 6 shows the Analysis of Variance (ANOVA) of the difference in the use of technology-based Google Classroom across students of different levels. It was revealed that F= 3.937, P= 0.721, more excellent than 0.05 significance level. This finding implies no significant difference in the use of technology-based Google Classroom across students of different levels. Hence, the null hypothesis is upheld.

Hypothesis 3: The use of technology-based Google Classroom is similar among students in different age groups.

Table 7 Analysis of Variance (ANOVA) test showing differences in the use of technology-based Google Classroom among students in different age groups

Source	SS	Df	MS	F	P
Between Groups	108.133	2	84.067		
Within Groups	286.417	148	14.048	5.239	0.522
Total	404.550	150			

Table 7 shows the Analysis of Variance (ANOVA) of the difference in the use of technology-based Google Classroom among students in different age groups. It was revealed that F= 5.239, P= 0.522, more excellent than 0.05 significance level. This result shows a significant difference in the use of technology-based Google Classroom among students in different age groups. Hence, the null hypothesis is upheld.

Hypothesis 4: Technology-based Google Classroom has no significant influence on lecturers' teaching methods.

Table 8 Analysis of Variance (ANOVA) test showing difference in the use of technology-based Google Classroom in assisting lecturers in their teaching method

Source	SS	df	MS	F	P
Between Group	211.378	2	120.689		
Within Group	545.400	48	30.652	3.937	0.620
Total	566.778	50			

p<0.05

The result in Table 8 shows the one-way Analysis of Variance (ANOVA) of the difference in the use of technology-based Google Classroom in assisting lecturers in their teaching method. It was revealed that F= 3.937, P= 0.620, was more excellent than the 0.05 significance level. This result implies a significant influence of technology-based Google Classroom in assisting lecturers in their teaching method. Hence, the null hypothesis is upheld.

DISCUSSION OF FINDINGS

The study focuses on the influence of technology-based Google Classroom as a social tool in teaching Educational Technology in tertiary institutions. The descriptive analysis of the study indicated that both lecturers and students see Google Classroom as a modern strategy to improve the teaching and learning of Educational Technology.

From the students' academic records, analysis shows a notable improvement in academic performance, with 78% of students achieving higher grades in courses utilising Google Classroom compared to traditional methods. Instructors reported enhanced efficiency in managing coursework and delivering content. 90% of instructors found Google Classroom a valuable tool for organising assignments and providing timely feedback.

The inferential analysis of the study revealed no significant difference in the use of technology-based Google Classroom in the academic performance of male and female students. This finding implies that all the students relatively believed that technology-based Google Classroom greatly impacted students' academic performance in Educational Technology. The finding is in line with the position of Raja and Nagasubramani (2018), who opined that the role of technology in the field of Education is fourfold: it is included as a part of the curriculum, as an instructional delivery system, as a means of aiding instructions and also as a tool to enhance the entire learning process. Thanks to technology, Education has gone from passive and reactive to interactive and aggressive. Also, Google Classroom offers a platform of blended learning in schools to simplify creating assignments and getting the grades out to the students in a paperless way, as opined by Gustami (2020).

Also, it was revealed that there was no significant difference in the use of technology-based Google Classroom across students of different levels. This outcome implies that all the students sampled for the study, from 100 level to 400 level, attest to the efficacy of technology-based Google Classroom in its usage and the possibility of making learning educational technology more effective and impactful. This classroom facilitates the lecturers in creating and organising assignments quickly, providing feedback efficiently, and easily communicating with their classes. Online or blended learning teaching offers many advantages over traditional classroom teaching. The most influential advantages lie in its accessibility, students' scheduling flexibility, and work adaptability, as posited by Bondarenko, Mantulenko, & Pikilnyak (2019).

The study's inferential analysis further revealed no significant difference in the use of technology-based Google Classroom among students in different age groups. This finding implies that students across various age groups embraced the paradigm shift of modern technology-based Google Classroom in learning Educational Technology. Technology-based learning allows for flexibility regarding where and when students can learn, regardless of age. Therefore, it can be particularly beneficial for students with other responsibilities, such as work or family commitments, as Paristiowati, Indira & Lutfi (2020) posited.

Lastly, the study's inferential analysis revealed no significant influence of technology-based Google Classroom in assisting lecturers in their teaching method. All the lecturers, regardless of gender and age, admitted that technology-based Google Classroom made teaching Educational Technology very easy for them as they could easily communicate with their students, appraise their work, share resource materials and track their academic progress. The findings corroborated the position of Olufemi & Adedoyin (2021), who posited that instructors were concerned about their abilities to adapt to smartphones as well as their students' reaction to the technology as lecturers become more involved with specific smartphone initiatives, they are likely to acquire more significant management issues.

The findings underscore the positive impact of Google Classroom on both student engagement and academic performance. The tool's collaborative features and ease of access create a more interactive and practical learning environment. Instructors also benefit from streamlined administrative tasks and improved communication with students.

CONCLUSION

The study affirms that Google Classroom is a potent instrument for augmenting the instruction and acquisition of Educational Technology in tertiary institutions in Ekiti State. The capacity to actively involve students, enhance academic achievements, and enhance instructor productivity renders it a vital resource in contemporary Education. Subsequent investigations should investigate the enduring effects and obstacles to guarantee the enduring execution.

RECOMMENDATIONS

The study suggests that institutions should allocate resources towards acquiring dependable internet connectivity and technological infrastructure to facilitate the efficient utilisation of Google Classroom. In addition, providing frequent training sessions for instructors and students on the various features and capabilities of Google Classroom helps optimise its advantages. Educational officials should formulate rules for integrating technology-based tools, such as Google Classroom, into the curriculum. Furthermore, continuously evaluating the tool's influence on educational achievements will assist in making essential modifications for maximum utilisation.

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DECLARATION OF CONFLICT

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.”

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