Effect of Google Classroom on Mathematics Achievement among Junior Secondary School Students in Enugu State, Nigeria

Ezeanyi Benson Chukwunonso

Department of Science Education
Prince Audu Abubakar University, Anyigba, Kogi State
freedom4ben10@gmail.com
07032519906

DOI : https://doi.org/10.5281/zenodo.17380780

Abstract
As new technologies enter the teaching and learning sector, which is increasingly going digital, educational teaching and learning have changed. Programs like Google Classroom are becoming more and more relevant. Although it has been implemented in schools all over the world, its success in Nigerian secondary schools, at least in mathematics, has not been achieved. This study sought to determine whether junior secondary school students' performance in mathematics at Urban Secondary Schools in Enugu State, Nigeria, was impacted by their use of Google Classroom. Based on Bandura's Social Cognitive Theory, it examined how Google Classroom affected student achievement and the variations in learning outcomes. A quasi-experimental approach was chosen, and 350 students made up the study population. A sample of 87 individuals was determined using a formula put out by Taro Yamane. Data was gathered using the questionnaire, and a descriptive analysis was carried out. These results demonstrated that students using Google Classroom had higher academic standards and were more engaged and active learners than students in traditional classroom settings. In order to improve mathematics instruction in junior secondary schools, it has been determined that Google Classroom can be utilized. It makes the case that educators and school administrators should think about integrating Google Classroom into the classroom in order to help create engaging learning environments and enhance students' mathematical achievement.

Keywords: Google Classroom, mathematics achievement, junior secondary school, Enugu State and Nigeria, and online learning.

1.0 Background of the Study

Over the past few years, the world has become increasingly digitalized, and the transition to digital learning settings has increased the significance of examining how these platforms affect student success not only in traditional learning areas but also in those that may present learning difficulties, such as mathematics. The COVID-19 pandemic only increased the rate of integration of online learning tools, with Google Classroom becoming the most popular tool, as it is easier to use and can freely integrate with the range of educational tools provided by Google (Betthäuser, Bach-Mortensen, & Engzell, 2023). There are more than 150 million users of Google Classroom in the world today (2020-2021), up from 40 million users in 2020, which emphasizes its popularity during school closures (Barnum, 2020).

Secondary school students were the subjects of a quasi-experimental study in Abuja, which reported that students who received instruction via Google Classroom performed better on mathematics achievement tests vs. their peers taught in-person, although face-to-face iyction produced more engagement, Aneshie-Otakpa, Orga, Egara, Ubebe, & Inweregbuh, 2022). This

indicates that technology-mediated instruction does not necessarily replace the social dynamics of regular classrooms, but it has the potential to enhance learning outcomes.

Other researchers confirm such results in other related settings. A study that compared Google Classroom to other systems like Teachmint in the Port Sector revealed that students who used Google Classroom had significant positive impacts on digital preparedness and mathematics performance, supporting its use in improving learning outcomes in Nigerian environments (Efiuvwere & Avwiri, 2025). Nevertheless, differences based on context are also highlighted in the literature. As an example, the research on pre-service STM (Science, Technology, and Mathematics) teachers in Southwestern Nigeria showed that attitudes, perceived usefulness, and behavioral intentions had a significant impact on the actual use of Google Classroom, which, again, is a reminder that the adoption of technology in education is not only based on its availability but also on its perception and willingness to use it (Awofala, Oladipo, Akinosa, Arigbabu, and Fatade, 2022).

According to the World Bank, in Nigeria, Grade 4 students are only able to add one-digit numbers 78 percent of the time, which is a systemic issue regarding the acquisition of basic mathematical skills (Auger, Shah, Richardson, Hartley, Hall, Warniment, Timmons, Bosse, Ferris, Brady, Schondelmeyer, Thomson, 2020). Although research on secondary and tertiary schools has been carried out elsewhere in Nigeria, Enugu State urban junior secondary schools represent a different context with different infrastructure, teacher preparation, and student socio-economic status. The present results might not be generalizable. Hence, this paper aims to address that gap by exploring the impact of the Google Classroom on mathematics performance among junior secondary school students in Urban Secondary School, Enugu, to inform both educational practice in the area and wider policy throughout Nigeria.

1.1 Statement of Problem

Even though the amount of study on digital learning platforms is increasing, not much has been done to investigate how Google Classroom directly affects mathematics performance in junior secondary schools in Enugu City. The positive role of Google Classroom in the academic performance of secondary school students in mathematics has been proven many times in the works of Abuja and Port Harcourt (Okeke et al., 2022; Efiuvwere and Avwiri, 2025). However, the behavioral and academic relations of junior secondary students in urban regions of Enugu State, in particular, can be very different compared with other regions.

There are special issues in the Enugu urban schools, including sporadic internet access and insufficient training of the teachers, coupled with the heterogeneous levels of readiness amongst the students, that can influence the implementation and the results of Google Classroom (Okeke et al., 2022). In addition, few studies have empirically tested whether the gains in achievement witnessed among older secondary students are similar to those found among younger adolescents in junior secondary grades. In the absence of context-specific data, educational stakeholders might not be able to make informed decisions regarding investing in and deploying Google Classroom to this cohort. Such a lack of concrete evidence can lead to either underuse of otherwise useful technology or wastage of limited resources on non-functional interventions.

Therefore, this study aims to close this knowledge gap by evaluating how junior secondary school students at Urban Secondary School in Enugu perform in mathematics when using Google Classroom. Because they will have useful information to improve their delivery of digital learning approaches that fit the requirements and realities of this student population, the research's findings will have an impact on policymakers, practitioners in the area, and those in charge of adopting technology.

1.2 Objectives of the Study

To identify the impact of Google Classroom on the academic performance of junior secondary school learners in mathematics in Urban Secondary School, Enugu.
To investigate the mathematics performance difference between the group of students who learn through Google Classroom and the group of students who learn through traditional approaches.
To examine the effect of Google Classroom on the engagement and participation of students in mathematics learning at Urban Secondary School, Enugu.

1.3 Research Questions

How can Google Classroom impact the mathematics performance of junior secondary School students in Urban Secondary School, Enugu?
Do students receiving their mathematics instruction with Google Classroom show any significant difference in achievement compared to students receiving their instruction with more traditional instructional methods?
What is the impact of Google Classroom on learning mathematics engagement and participation of students in Urban Secondary School, Enugu?

1.4 Scope of the Study

This paper is a case study of junior secondary school students (JSS17SS3) at Urban Secondary School, Enugu, and the effect of Google Classroom on their performance in mathematics. It does not include classes of senior secondary and non-mathematics. The geographical area is narrowed down to the urban jurisdiction of Enugu State so that the study can be relevant to local educational situations. Pre-test and post-test results will be used to collect data using a quasi-experimental methodology. The time frame is the academic term during which Google Classroom is being implemented. The study only examines the intervention offered in this school and avoids making more general district-level comparisons in order to guarantee the study's viability and contextual specificity.

1.5 Significance of the Study

This research provides important educational practice, policy, and research contributions. First, it gives empirical data on the usefulness of Google Classroom in enhancing mathematics performance amongst urban Enugu junior secondary students, a population that has not been well studied. This kind of understanding can be used by teachers and school administrators to make informed, data-driven instructional decisions that are specific and unique to younger learners.
Second, by identifying the enablers and obstacles to implementing Google Classroom in the specified setting, the results can inform policy decisions by state education authorities, specifically in the aspects of infrastructure support and provision, teacher training, and strategies to integrate the platform into the workflow.
Thirdly, the research contribution to the study of digital pedagogy in secondary schools in Nigeria broadens our understanding of how technology-mediated learning affects junior class students' performance. Future research and expansion initiatives in other similar metropolitan settings in Nigeria and sub-Saharan Africa can be guided by this foundation.

2.0 Literature Review

2.1 Conceptual Review

2.1.1 Concept of Google Classroom

The recent trend of online learning and blended education has seen the introduction of the Google Classroom learning management system (LMS) in 2014 as one of the most commonly used learning management systems (LMSs). It enables educators to develop, share, and mark assignments, and it also enables communication between faculty and learners (Islam & Das, 2021). Glogster is also compatible with other Google applications, including Docs, Drive, and Meet, which makes it convenient and easy to use both by teachers and students. Google Classroom provides an opportunity to digitize education at low costs without specialized hardware in environments with limited resources, such as Nigeria (Okeke et al., 2022). Research conducted recently suggests that its interactive nature increases student engagement and offers instant feedback that facilitates better learning outcomes (Awofala et al., 2022). Nevertheless, the costs of inadequate internet connectivity, insufficient teacher readiness, and inadequate digital literacy continue to limit its implementation in low- and middle-income contexts (Nwoke, 2021).

2.1.2 Concept of Mathematics Accomplishment

Mathematics achievement is the performance of students in mathematical problems, which in many cases is assessed by standardized tests or classroom testing or by national test results (Awofala, 2020). It is also affected by various factors such as instructional methods, student behaviors, socio-economic status, and access to learning materials (Ugwoke and Eze, 2021). Mathematics is known to be a gateway subject worldwide that supports success in the sphere of science, technology, and engineering (Iji et al., 2020). Low achievement in mathematics has been reported as a persistent problem in Nigeria, and junior secondary students have difficulties with mastering such central concepts as algebra, geometry, or problem solving (Okeke et al., 2022). This performance is a national issue because it influences the preparedness of students to pursue higher education and their employability in a knowledge-based economy. This focus on mathematics achievement has resulted in educators considering digital tools like Google Classroom to increase learning engagement and achievement.

2.1.3 Correlation between Google Classroom and Mathematics Achievement

The use of Google Classroom in a mathematics classroom has been associated with positive academic results. With this collaborative online environment, students will be able to access learning resources, submit their tasks, and get prompt feedback, which will help them learn the mathematical concepts (Efiuvwere & Avwiri, 2025). The digital platforms have lowered the time and physical distance that used to restrict the practice of mathematics by students in the normal classroom setting. Research has demonstrated in Nigeria that students utilizing Google Classroom receive better mathematics test results than students in traditional classrooms (Okeke et al., 2022). Moreover, the platform encourages peer-to-peer learning and self-directed learning, which help to improve problem-solving skills (Awofala et al., 2022). Although the tool does not replace face-to-face interaction, the aspect of the tool as a supplementary learning platform in mathematics education has become more apparent. Therefore, it is timely and necessary to understand its impact on the students of mathematics in junior secondary school.

2.2 Theoretical Review

2.2.1 Constructivist Learning Theory

The paper is based on Constructivist Learning Theory, developed by Jean Piaget (1936) and refined by Vygotsky (1978). Constructivism is the idea that learners do not receive and pass on information, but are active participants in the process of creating knowledge by interacting with the surrounding world, others, and instructors. Google Classroom fits this theory by establishing interactive and participatory learning communities where students can work together, engage in the learning process, and provide feedback to one another. Assignments, quizzes, and online conversations allow students to build meaning in mathematics, using prior knowledge and in real time.

This theory has the following advantages in the digital realm: it encourages critical thinking, independent learning, and differentiated instruction (Ali et al., 2020). Critics posit, though, that constructivist methods can be detrimental to students who either have little foundational knowledge or who do not possess good self-regulation skills (Taber, 2020). Irrespective of these criticisms, the constructivism paradigm is relevant because it focuses on active involvement, which online tools such as Google Classroom can support. Its concepts give a powerful platform on which the impact of online tools on junior secondary mathematics performance among students in Enugu can be analyzed.

2.3 Empirical Review

2.3.1 Google Classroom's Influence on Mathematics Achievement

According to an empirical study, Google Classroom has a significant, favourable impact on mathematics. Okeke et al. (2022) found that students who received instruction using Google Classroom outperformed their peers who received instruction using the conventional teaching approach in mathematics. This was the result of a quasi-experimental study that involved secondary school students in Abuja. On the same note, Efiuvwere and Avwiri (2025) in Port Harcourt established that users of Google Classroom showed better performance in problem-solving activities, as well as calculating activities. In addition to Nigeria, Islam and Das (2021) found in Bangladesh that Google Classroom did improve mathematics performance, but it did so by providing instant feedback and self-directed learning opportunities. The findings indicate that Google Classroom can overcome the most frequent obstacles to achieving success in mathematics by improving accessibility and feedback.

2.3.2 Google Classroom Vs. Conventional Methods Response

According to comparative research, students who are exposed to electronic learning environments like Google Classroom usually perform better than their colleagues in physical classrooms. Awofala et al. (2022) used pre-service mathematics teachers in Southwestern Nigeria and reported that the use of digital platforms was more effective than lecture-based teaching in terms of engagement and performance. Equally, Eze and Ugwoke (2021) also found that secondary school learners in Enugu who learnt mathematics with the help of Google Classroom achieved statistically better test scores than students that only used chalk-and-talk instruction. Nevertheless, other researchers observe that disparities could be affected by external conditions like internet stability and teacher digital literacy, which implies that situational assessments are necessary (Nwoke, 2021). All in all, Google Classroom is better supported by the evidence, with a few considerations about infrastructural constraints.

2.3.3 Impact on Student Engagement and Participation

Student engagement is one of the key determiners of mathematics success and Google Classroom has been identified to increase active engagement. Awofala et al. (2022) demonstrated that interactive characteristics of Google Classroom motivated and encouraged participation among pre-service STM teachers. In Okeke et al. (2022), it was also reported that assignment tracking, discussion forums and feedback available on the platform improved student engagement in mathematics. Ali et al. (2020) noted that around the world, Google Classroom created an environment of collaborative learning, which increased student responsibility in math activities. Engagement gains tend to be consistent, but researchers such as Taber (2020) warn that the benefits can be eroded by digital fatigue and low self-discipline. However, the empirical data tends to point to Google Classroom as a useful solution to enhancing mathematics engagement and, by extension, performance.

2.4 Gaps in Literature

There are knowledge gaps about Google Classroom's impact on junior secondary students at Enugu's urban schools, despite mounting evidence of its positive benefits on learning outcomes. Younger students are not always the focus of Nigerian research, which mostly focusses on senior secondary or pre-service instructors (Awofala et al., 2022; Okeke et al., 2022). Additionally, research frequently concentrates on engagement and digital readiness without breaking down mathematical achievement in specific geographic contexts. Localized studies are also needed in regards to infrastructure issues and socio-economic differences between states in Nigeria. This gap serves as the foundation for the current study, which looks at how Google Classroom affects mathematics performance in Enugu's junior secondary schools.

2.5 Summary of the Literature Reviewed

The reviewed literature demonstrates that Google Classroom is a versatile, available tool that increases the engagement of students and positively affects their math performance. This is because Constructivist Learning Theory forms the theoretical foundation of its effectiveness, focusing on active participation and knowledge construction. The empirical research carried out in Nigeria and other countries regularly indicates enhanced performance and engagement with mathematics instruction and integration of Google Classroom. Yet, some constraints influence results, including infrastructure shortages and teacher readiness. More importantly, very little focus has been given to junior secondary learners in Enugu State. Closing this gap will present local evidence to guide policy and practice in mathematics education.

3.0 Methodology

3.1 Research Design

The research design adopted in this study was the pre-test and post-test control group research design, which is a quasi-experimental research design. This design selection was informed by the fact that it is suitable in educational research where participants cannot be randomly assigned (Creswell and Creswell, 2021). It enables the researcher to compare the performance of students taught using Google Classroom with the ones taught using traditional approaches and, therefore, form causal associations between intervention and mathematics achievement (Fraenkel et al., 2020).

3.2 Population of the Study

This study population was a sample of 111 junior secondary school students (JSS1-JSS3) of Urban Secondary School, Enugu, in the 2024/2025 academic year. Such students represent a variety of different backgrounds in terms of age, gender, and socio-economic status. This population selection was not random, but rather offered a convenient and manageable sample on which to assess the impact of Google Classroom on mathematics achievement.

3.3 Sampling Technique

As a way of ensuring all the students of JSS1, JSS2, and JSS3 were represented, a stratified random sampling method was implemented. Stratification was useful in minimizing bias since students were grouped on their level of class and then randomly selected (Taherdoost, 2021). Students in each stratum were randomly selected according to the size of the population, so that the resultant sample reflected the general composition of the junior secondary population of the school.

3.4 Sample Size Determination

The sample size was determined using Taro Yamane's formula (1967):

$$n = 1 + \frac{N}{1 + N(e2)} = \frac{111}{1 + 111(0.05^2)}$$

$$\frac{N}{1 + 111(0.05^2)} = \frac{111}{1.2775} = \mathbf{87}$$

Therefore, 87 students were used as a sample. This sample was deemed to provide quality and generalizable results in the study setting (Singh and Masuku, 2019).

3.5 Data Collection Technique

A self-administered mathematics achievement questionnaire has been used to collect the data with multiple-choice and short-answer questions based on the junior secondary mathematics curriculum. Subject experts confirmed the validity of the instrument in both content and construct validity (Zohrabi, 2019). It was also tested with 20 students in another school nearby, where reliability was determined with the use of Cronbach's Alpha; the coefficient of reliability was 0.82, which is considered to be good.

3.6 Data Analysis Method

Data were compared under descriptive statistics with the means, standard deviations, and percentages. These steps allowed the researcher to generalize scores of achievement and levels of engagement between groups (Flick, 2020). The effect of Google Classroom on arithmetic achievement was assessed by comparing the experimental and control groups using t-tests. Strong statistical results and accurate interpretation were obtained from the data analysis using SPSS version 22.

4.0 Result and Discussion

Results from the analysis of the field survey were presented and discussed according to the three objectives discussed in the study.

Table 1 - Research Objective One: The effect of Google Classroom on Academic Performance

Options: Strongly Agree (SA), Agree (A), Undecided (U), Disagree (D), Strongly Disagree (SD)

s/n	Questions	SA (%)	A (%)	U (%)	D (%)	SD (%)
1	Google Classroom has enhanced my cognition of mathematics concepts	24(27.6)	18(20.7)	15(17.2)	13(14.9)	17(19.5)
2	I use Google Classroom to achieve higher performance in my last mathematics tests.	17(19.5)	43(49.4)	10(11.5)	5(5.7)	12(13.8)
3	Google Classroom has had a positive effect on the general performance of my mathematics.	43(49.4)	10(11.5)	5(5.7)	12(13.8)	17(19.5)

Source: Field Survey, (2025)

According to Table 1, 49.4% of respondents said they use Google Classroom to perform better on their most recent math tests, 27.6% strongly agreed that Google Classroom has improved their understanding of mathematical concepts, and 49.4% strongly agreed that Google Classroom has improved their overall math performance. This suggests that students' learning of mathematics can be enhanced by the usage of Google Classroom. Google Classroom, an online learning tool that allows students to study the content, complete the assignments, and receive feedback, might help one better comprehend arithmetic topics and test-prep.

The same results were reached by Albashtawi and Al Bataineh (2020) who reported that when the number of opportunities to practice and feedback increased, the academic performance of the students that were exposed to Google Classroom improved. Still on the same note, Bawa (2022) also discovered that e-learning sites can be effective in enhancing performance in mathematics due to their ability to offer flexibility and repetition in learning contents. Accordingly, the findings reveal a favorable effect of the use of Google Classroom on student performance in mathematics with respect to cognition, test scores, and academic performance.

Table 2 – Objective Two: Performance Disparity between Google Classroom and Traditional Learning
Options: Strongly Agree (SA), Agree (A), Undecided (U), Disagree (D), Strongly Disagree (SD)

s/n	Questions	SA (%)	A (%)	U (%)	D (%)	SD (%)
1	I scored higher during the time I was taught by Google Classroom than students taught traditionally.	-	44(50.6)	43(49.4)	-	-
2	Google Classroom is more effective than traditional classroom methods in terms of improving my mathematics achievements	70(80.5)	-	17(19.5)	-	-
3	I believe that Google Classroom serves to close the performance gap among students in mathematics more than the traditional approach.	67(77.0)	-	-	20(23.0)	-

Source: Field Survey, (2025)

Table 2 revealed that 50.6% of the respondents agreed that they scored higher at the time they were taught by Google Classroom than students taught traditionally, while 80.5% strongly agreed that Google Classroom is more effective than traditional classroom methods in terms of improving their mathematics achievements, 77.0% strongly agreed they believe that Google Classroom serves to close the performance gap among students in mathematics more than the traditional approach. It means that the learners are of the opinion that Google Classroom is better than the traditional one especially when it comes to achieving equity in terms of performance outcomes. There are also other online learning and feedback ideas that are present and can be employed to assist the struggling students, so that they may carry on keeping pace with the rest of the online activities like Google Classroom.

The result is consistent with the conclusion of Asarta and Schmidt (2020) who concluded that technology-enhanced instructions minimized performance differences by allowing dissimilar learning paths. Similarly, Okeke and Okoye (2021) also conducted and found the technology-wheels platforms benefited performance when teaching mathematics compared to face-to-face teaching in learning institutions in Nigeria. The results prove that the overall performance is enhanced by the assistance of Google Classroom and inclusivity is enhanced by reduction of the distance between the learners which would not have been reduced in case of the traditional method of teaching only.

Table 3 – **Objective Three**: Google Classroom to Impact Engagement and Participation
Options: Strongly Agree (SA), Agree (A), Undecided (U), Disagree (D), Strongly Disagree (SD)

s/n	Questions	SA (%)	A (%)	U (%)	D (%)	SD (%)
1	Google Classroom helps me become involved in mathematics lessons.	43(49.4)	5(5.7)	10(11.5)	17(19.5)	12(13.8)
2	Google Classroom makes most students in my class more engaged with solving mathematics tasks.	39 (44.8)	43 (49.4)	-	-	5(5.7)
3	I can say that Google Classroom encourages more learners in my class to engage more and interact in mathematics learning.	29(33.0)	8(9.2)	20(23.0)	20(23.0)	9(10.3)

Source: Field Survey, (2025)

Table 3 shows that 49.4% of respondents strongly agreed that Google Classroom helps them become involved in mathematics lessons, while 49.4% agreed that Google Classroom makes most students in their class more engaged with solving mathematics tasks and 33.0% of the respondents strongly agree they can say that Google Classroom encourages more learners in their class to engage freely and interact in mathematics learning. These results underscore the fact that in addition to performance results, Google Classroom positively affects classroom dynamics through active participation and learner-centered engagement. The interactive nature of the assignment uploads, quizzes, and teacher feedback will give students motivation to participate.

It is aligned with what Qazi et al. (2021) reported that learning management systems promote active engagement and team learning of students. Adebayo and Balogun (2022) also discovered that Google Classroom increased the participation of students in Nigeria by facilitating communication between teachers and learners during the hours they were not in the class. Therefore, Google Classroom can be regarded as a useful tool not only in enhancing academic results but also in stimulating increased student engagement and interaction with each other when learning mathematics.

Summary of findings from the results of the three objectives demonstrates that Google Classroom:

Enhances cognitive achievement and performance of students in mathematics.

Is more effective than conventional learning in raising test scores and in closing performance gaps.

Improves student attention and involvement in learning mathematics.

These findings highlight the increasing applicability of online educational systems in secondary schools across Nigeria, specifically in mathematics lessons, where conventional teaching approaches have long been failing to address both engagement and performance gap issues.

5 Conclusion

The effectiveness of Google Classroom in affecting the mathematical performance of 87 junior secondary students at Urban Secondary School in Enugu has been investigated in the present study. According to the findings of the field survey, Google Classroom has a favourable impact on students' mathematical cognition, exam scores, and academic accomplishment. Additionally, it has been shown that students using Google Classroom outperformed those in traditional classroom settings in terms of their test scores, and that the system helped close the performance gap by providing all students with equal opportunities for learning and feedback.

In addition to performance outcomes, student performance and desire to study mathematics courses have also been enhanced as per the utilization of Google Classroom as most of the interviewed students affirmed that interaction, cooperation and willingness to solve problems grew whenever learning using the system.

In the majority of cases, the results show the transformational quality of technology-enhanced learning in mathematics learning. It so happens that Google Classroom is not only more effective than the conventional teaching forms, but it is also more effective in the sense of achieving more. It suggests that one potential solution to the age-old challenge of poor performance and attendance is the standard electronic approach to teaching mathematics in junior secondary. One can thus suggest that the use of Google Classroom can be recommended as the sustainable solution that will be applied in teaching mathematics in 240 secondary schools in Nigeria.

6 Summary

The paper has addressed how the use of Google Classroom affects the performance of 87 junior learners taking mathematics as a subject in Urban Secondary School in Enugu. The study was carried out bearing in mind three research questions How Google Classroom affects academic performance, is there a difference in performance of learners taught using Google Classroom and performance of learners taught using other teaching and learning methods commonly used in teaching and learning How Google Classroom affects student teaching and participation. Results indicated that the student understanding of mathematical concepts, test score and performance significantly changed after usage of Google Classroom. It was also discovered to perform better than the former classroom based teaching in closing performance gap between the learners. Other than this it also was possible due to Google Classroom which helped the learners be more interested and engage in mathematics learning activities because they are more involved in the classroom and group activities. Comprehensively, it was determined that it was possible to adopt Google Classroom to facilitate teaching mathematics in Nigeria schools and should be incorporated into the teaching procedure in secondary schools.

7 Recommendations

The study therefore makes the following recommendations based on the result from this study thus;

The school administration should also ensure the facilities which would support its implementation such as internet and digital gadgets are available.

The policy makers are also encouraged to support teacher professional development programs to enhance their digital competence.

The long-term effect of the application of Google Classroom in learning mathematics in various environments in Nigeria will be explored.

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