EDUCATION BROADCASTING: THE USE OF GOOGLE CLASSROOM IN DISTANCE LEARNING

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Abstract

The purpose of this study is to explore the transformative role of Google Classroom in facilitating distance learning. It examines how this digital platform serves as a conduit for educational broadcasting, bridging the gap between educators and learners by providing an integrated virtual environment for instruction, collaboration, and assessment. This study employs the use of quantitative questionnaire in examining the awareness level of the respondents on Goggle Classroom, the availability and adequacies of infrastructures to enable the use of Goggle Classroom. It further accessed the challenges and recommendations the respondents provided. This study addresses these issues by investigating how Google Classroom addresses the limitations of conventional distance learning methods, offering a solution that promotes engagement, collaboration, and efficient management of educational content. The significance of this work lies in its potential to revolutionize distance learning practices. By examining the utilization of Google Classroom, educators, policymakers, and institutions gain insights into harnessing technology for enhanced educational broadcasting. The platform's ability to streamline communication, assignments, and resource sharing fosters a dynamic learning environment that transcends geographical barriers. This study contributes to shaping effective pedagogical strategies and technological interventions, ultimately redefining the landscape of modern education through the lens of educational broadcasting and digital collaboration

Keywords: Education, Broadcasting Activity, Google Classroom, Distance Learning.

1.0 INTRODUCTION

Educational Broadcasting is a method of delivering educational content to a widespread audience through various media channels. With the advent of digital technology, one powerful tool that has transformed distance learning is Google Classroom. It's a web-based platform developed by Google, specifically designed to facilitate communication, collaboration, and assignment management in an online educational environment.

In the modern era, the realm of education has witnessed a paradigm shift, primarily driven by technological advancements. (Ogbuanya, Nungse, and Shettima, 2014) asserted that a new era of education has started where teaching/learning is blended digitally. Educational broadcasting, a concept that has gained prominence in recent times, involves the use of various media channels to disseminate educational content to a wide and diverse audience. One of the most impactful tools in this landscape is Google Classroom—a digital platform designed to revolutionize the process of teaching and learning, especially in the context of distance education. This introduction provides an in-depth overview of the role and significance of Google Classroom in the realm of educational broadcasting within the domain of distance learning.

The traditional concept of education often relied on physical classrooms and face-to-face interactions between teachers and students. (Azharand Iqba, 2018) has it that the age in which teachers go into class with a lesson plan designed by them and policymakers is gradually fadingaway. The rise of digital technology has spurred the evolution of educational broadcasting, which transcends geographical barriers and traditional constraints. However, with the advent of online learning platforms, the dissemination of educational content has become more accessible and dynamic than ever before. Educational broadcasting leverages digital media channels to deliver a wide range of educational materials, from instructional videos to interactive simulations, thereby catering to diverse learning styles and preferences. Central to this paradigm is Google Classroom, a versatile digital platform developed by Google. Just in line with (Izwan, Jastini, and Rodzi, 2016) thought, It creates a social presence which provides an environment for this connectedness and group cohesion to develop. Google Classroom reimagines the concept of a traditional classroom by providing a virtual space where educators can engage with their students remotely, fostering a sense of community and interaction. (Renard, 2017) revealed that as classrooms are becoming more and more paperless with the latest technologies, teachers have started finding alternative solutions to handout, assignments, manage their classroom, and communicate with students through the use of Google Classroom.In the context of distance learning, where physical presence is often limited, Google Classroom serves as a virtual conduit that bridges the gap between educators and learners. Google Classroom is considered as one of the best platforms out there for enhancing teachers' workflow.(Shampa, 2016).It offers a comprehensive suite of features designed to facilitate seamless communication, efficient assignment management, collaborative learning, (Keeler, 2014) and real-time assessment.

The conventional methods of distance learning often face challenges such as limited interactivity, reduced engagement, and fragmented communication. Google Classroom addresses these challenges by offering a range of tools that facilitate direct communication between teachers and students, collaborative assignments that encourage peer interaction, and a user-friendly interface that streamlines access to resources. This not only enhances student engagement but also nurtures a sense of community in the virtual learning space.

This work delves into the multifaceted role of Google Classroom as a tool for educational broadcasting in the realm of distance learning. It will explore the platform's features, functionality, and effectiveness in fostering interactive and engaging learning experiences. Additionally, this study will investigate the impact of Google Classroom on instructional

methods, student performance, and overall learning outcomes. By examining the integration of Google Classroom into the context of educational broadcasting, this research aims to contribute to the ongoing discourse on the transformation of education in the digital age.

1.1 The Structure of Google Classroom

i. **Creating Virtual Classrooms:** Educators can set up virtual classrooms for different courses or subjects. Each classroom serves as a centralized hub for sharing resources, assignments, and announcements.

ii. **Student Enrollment:** Teachers can invite students to join their virtual classrooms using their Google accounts. This streamlines the enrollment process and ensures secure access.

iii. **Course Organization:** Google Classroom allows instructors to create units or modules to structure the course content. This helps break down complex subjects into manageable segments.

iv. **Announcements and Communication:** Teachers can make announcements to provide important updates, share resources, or clarify doubts. This keeps students informed about any changes in the course.

v. **Assignment Creation and Distribution:** Educators can design a variety of assignments, from written tasks to multimedia projects. These assignments are then shared with students within the platform.

vi. **Submission and Grading:** Students can complete assignments using various Google tools like Docs, Sheets, and Slides. Once submitted, teachers can review, grade, and provide feedback digitally.

vii. **Materials Sharing:** Teachers can upload documents, presentations, videos, and links to external resources. This centralizes all learning materials in one place, making it convenient for students.

viii. **Collaborative Learning:** Google Classroom supports collaborative activities. Students can collaborate on assignments by sharing documents, offering comments, and working together in real time.

ix. **Discussion Forums:** The platform offers discussion features where students can engage in academic conversations, ask questions, and exchange ideas with peers and teachers.

x. **Integration with Google Tools:** Google Classroom seamlessly integrates with tools like Google Drive. This allows students to access and submit assignments directly from their Drive accounts.

xi. **Due Date Reminders:** The platform includes a calendar feature that displays assignment due dates, helping students manage their time effectively.

xii. **Guardian Access:** Parents can be invited as guardians, granting them access to their child's progress, assignments, and announcements, fostering parental involvement.

xiii. **Accessibility Options:** Google Classroom provides accessibility features such as screen reader compatibility and keyboard shortcuts, ensuring inclusivity for students with disabilities.

xiv. **Mobile App:** Google Classroom has a mobile app that enables students to engage in learning on-the-go, making it flexible and convenient.

xv. **Data Tracking and Insights:** Educators can gather insights into student engagement and performance, helping them tailor their teaching strategies accordingly.

2.0 LITERATURE REVIEW
2.1 Conceptual Framework
2.1.1 Distance Learning Context

Distance learning involves learners and educators being physically separated, often due to geographical reasons. It is a kind of education where teachers and students are separated and learning material is carried out through telecommunications systems.(Sukmawati and Nensia, 2019). This creates a need for effective communication, collaboration, and resource sharing, as traditional face-to-face interactions are limited or absent. The context sets the stage for the adoption of digital tools like Google Classroom to bridge the gap and create meaningful online learning experiences.

2.1.2 Educational Broadcasting

Educational broadcasting encompasses the use of digital media channels to deliver educational content to a broad audience. This approach includes various forms of multimedia content, such as instructional videos, podcasts, online lectures, and interactive simulations. By leveraging diverse media formats, educational broadcasting accommodates different learning styles, making learning more engaging and accessible.

2.1.3 Google Classroom

Google Classroom is a digital platform designed to create virtual classrooms and support online learning. Its features include announcements, assignments, discussions, materials sharing, calendar integration, and more. The platform acts as a centralized hub for educators to interact with students and manage course content efficiently.

2.1.4 Features and Functionality of Google Classroom

Google Classroom offers a straightforward and streamlined experience, integrating all available features seamlessly. Upon setting up a new course space, instructors encounter three labeled tabs: "about," "students," and "stream." Additionally, a plus sign appears at the bottom right corner of the same page. Clicking this plus sign reveals four distinct tabs: "reuse post," "create question," "create assignment," and "create announcement." Teachers can conveniently store files within Google Drive, grade assignments, and attach various resources, including YouTube videos or links for instructional purposes. Communication is facilitated as teachers can send emails to all students simultaneously using Google Classroom.

Announcement Section: Educators can post updates, changes, and important information here.

Assignments Section: Educators create, distribute, and manage assignments digitally. Students can submit their work within this section.

Materials Sharing: Teachers can upload various resources like documents, presentations, videos, and links for students to access.

Discussion Forums: Students and educators can engage in academic discussions, ask questions, and share ideas.

Calendar Integration: The platform syncs with Google Calendar to display assignment due dates and other important events.

Google Tools Integration: Seamless integration with Google Drive, Docs, Sheets, Slides, and other tools to facilitate collaboration.

Guardian Access: Parents can be invited to monitor their child's progress and engagement.

2.1.5 Enhanced Engagement and Collaboration
Google Classroom facilitates real-time communication between educators and students, allowing for immediate clarification of doubts and addressing questions. Collaborative assignments promote interaction among students, fostering peer learning and teamwork. Discussion forums encourage critical thinking and idea exchange, creating an environment akin to traditional classroom discussions.

2.1.6 Management of Learning Resources
The platform serves as a centralized repository for all course materials, reducing the need for physical distribution. Students have easy access to documents, presentations, and multimedia content, simplifying the learning process in a paperless manner. (Yates, 2017). This feature also helps educators maintain an organized and easily accessible collection of resources.

2.1.7 Assessments and Feedback
Google Classroom enables digital submission of assignments, streamlining the process for both students and educators. Teachers can provide timely feedback on assignments, facilitating continuous improvement. The digital grading system simplifies tracking student performance and maintaining records.

2.1.8 Inclusivity and Accessibility
Google Classroom incorporates accessibility features to accommodate students with disabilities, such as screen readers and keyboard shortcuts. The inclusion of various media formats caters to diverse learning preferences, ensuring that content is accessible to all learners.

2.1.9 Learning Outcomes and Impact
Educators can measure the impact of Google Classroom through improved student engagement, participation, and collaboration. They can also assess the effectiveness of interactive content in enhancing comprehension and retention. Learning outcomes are evaluated to understand the platform's contribution to academic achievement.

2.1.9.1 Pedagogical Transformation
The adoption of Google Classroom often signifies a shift from traditional teaching methods to technology-enhanced instruction. Educators adapt their approaches to incorporate active learning, critical thinking, and collaborative skills. The platform encourages educators to innovate and explore new ways of teaching.

2.1.9.2 Institutional Support and Training

Institutions provide educators with training on Google Classroom's features and functionalities. Integration of the platform into institutional policies and practices ensures consistent use across courses. Technical support is crucial for both educators and students to address any challenges or issues.

2.1.9.3 Future Directions and Adaptations

The framework acknowledges that technology evolves, and platforms like Google Classroom continue to improve. Educators and institutions explore ways to adapt to changing educational technology trends and consider the integration of artificial intelligence, personalized learning, and other emerging approaches.

2.2 Theoretical Framework

This framework draws on several educational theories and models to provide a comprehensive understanding of how Google Classroom enhances distance learning through educational broadcasting.

2.2.1 Constructivism

Jean Piaget's constructivist theory posits that learners actively construct their understanding of the world through interactions with their environment. Piaget believed that learners assimilate new information into their existing cognitive structures (schemas) and accommodate these structures to accommodate new information. This active process of construction and modification leads to meaningful learning.

Constructivism posits that learners actively construct knowledge by interacting with their environment and experiences. (Nola and Irzik, 2006). In the context of Google Classroom, learners engage with multimedia resources, collaborative discussions, and self-directed learning activities. By interacting with these elements, students construct their understanding, aligning with the principles of educational broadcasting that aim to cater to diverse learning styles.

Constructivism highlights how Google Classroom serves as a platform that aligns with the principles of this theory.

Active Learning: Google Classroom encourages active learning by enabling students to engage with course materials, resources, and assignments in a dynamic and interactive manner. Learners are not passive recipients of information but actively participate in discussions, collaborate on projects, and share their insights.(Mcleod, 2023) views this passivity with an analogy of an "empty vessel" in which things are poured into.

Social Interaction: Constructivism emphasizes the importance of social interaction in learning. Learning is directly associated to our connection with other people. (WGU, 2020). Google Classroom facilitates communication and collaboration among students and instructors, replicating the social learning environment that is crucial for constructivist learning. Discussion boards, group projects, and real-time interactions foster meaningful dialogues and shared understanding.

Learning through Experience: Constructivist theory emphasizes the role of hands-on experiences in learning. Learning needs to involve activities for the minds, not just our hands. Mental experiences are needed for retaining knowledge. (WGU, 2020).Google Classroom supports this by allowing educators to provide multimedia content, simulations, and practical assignments that enable students to learn through direct engagement and experimentation.

Student-Centered Learning: In constructivism, learning is personalized and student-centered. (McLeod, 2023). Google Classroom's flexibility allows instructors to tailor content and activities to individual needs and learning styles, promoting autonomy and self-directed learning.

Reflection and Meaning-Making: Constructivism encourages learners to reflect on their experiences and construct meaning from them. Google Classroom provides tools for self-assessment, peer feedback, and reflection, fostering deeper understanding and metacognitive skills.

Problem-Solving: Constructivist learning emphasizes problem-solving and critical thinking. Google Classroom supports this by enabling instructors to pose challenging questions, scenarios, and case studies that require students to analyze, synthesize, and apply their knowledge.

In essence, the use of Google Classroom in distance learning aligns well with constructivist principles. It creates an environment where students actively construct knowledge, interact socially, engage in experiential learning, and develop critical thinking skills. As educators design courses and activities within Google Classroom, they can leverage its features to facilitate the kind of learning experiences that resonate with constructivist theory.

2.2.2 Social Learning Theory
Social Learning Theory, proposed by Albert Bandura, focuses on how individuals learn by observing, imitating, and interacting with others. (Bandura, 1971). When applied to the context of "Educational Broadcasting: The use of Google Classroom in Distance Learning," the theory highlights how Google Classroom facilitates social learning through digital interactions.

Observational Learning: According to Bandura, (1963) It can occur purely through observation or direct instruction. Google Classroom enables students to observe and learn from their peers' contributions, responses, and interactions within the virtual classroom. By observing how others engage with course materials and discussions, learners can gain insights and perspectives that enhance their understanding.

Modeling Behavior: Bandura, et. al, (1961) commented that learners pick behaviors from their models. In the context of Google Classroom, instructors serve as models for desired behaviors and interactions. When educators actively engage in discussions, provide constructive feedback, and demonstrate effective online communication, students are more likely to emulate these behaviors in their own interactions.

Collaborative Learning: Google Classroom supports collaborative learning by allowing students to work together on projects, assignments, and group discussions. This promotes cooperative problem-solving, shared knowledge construction, and the exchange of diverse viewpoints.

Social Reinforcement: According to Renzetti, Curran, and Maier (2012): When a particular behavior is rewarded regularly, it will most likely persist; conversely, if a particular behavior is constantly punished, it will most likely desist. Within Google Classroom, social reinforcement occurs through feedback, comments, and peer evaluations. Positive interactions, encouragement, and praise from peers and instructors can motivate learners to actively participate and contribute.

Shared Learning Experiences: Google Classroom creates a shared digital space where learners from diverse backgrounds come together to engage in learning activities. This shared environment fosters a sense of community and belonging, encouraging learners to contribute and participate.

Cognitive Processes: Grusec (1992) has it that Learning is not purely behavioral; rather,it is a cognitive process that takes place in a social context. Social Learning Theory emphasizes cognitive processes such as attention, retention, reproduction, and motivation. Google Classroom's design and features facilitate these processes by capturing learners' attention with multimedia content, providing opportunities for note-taking and review, enabling collaboration for knowledge reproduction, and fostering motivation through interactive activities and discussions.

Feedback and Self-Efficacy: Social Learning Theory highlights the role of feedback in shaping behavior and self-efficacy beliefs. Google Classroom's feedback mechanisms, both from peers and instructors, contribute to students' sense of competence and confidence in their learning abilities.

2.2.3 Technology Acceptance Model (TAM)

Fred Davis' Technology Acceptance Model (TAM) (Davis, 1985), proposes that users' intention to adopt technology is influenced by their perception of its usefulness and ease of use. (Davis, 1989). TAM suggests that when users perceive a technology as beneficial and user-friendly, they are more likely to adopt and use it effectively. It also focuses on understanding individuals' attitudes and behaviors toward adopting and using new technology.

The TAM explores users' adoption of technology based on perceived usefulness and ease of use. Educators and students using Google Classroom assess its usefulness for communication, assignment management, and collaborative learning. The platform's user-friendly interface and integration with Google tools contribute to its ease of use, influencing its adoption. TAM helps explain how learners and educators perceive and adopt Google Classroom for distance learning purposes.

Perceived Usefulness: According to TAM, individuals are more likely to use a technology if they perceive it as useful. (Davis, 1989). In the case of Google Classroom, learners and

educators would assess how it enhances their learning and teaching experiences. Google Classroom's features for content sharing, assignment submission, and interaction can lead to increased perceived usefulness by simplifying communication, organization, and access to resources.

Perceived Ease of Use: TAM posits that individuals are more likely to adopt technology if they find it easy to use. (Davis, 1989). Google Classroom's user-friendly interface, integration with familiar Google tools, and intuitive navigation contribute to a high perceived ease of use. Educators and learners can quickly adapt to the platform, reducing barriers to adoption.

Behavioral Intention to Use: TAM suggests that perceived usefulness and perceived ease of use influence an individual's intention to use technology (Davis, 1989). In the context of Google Classroom, if educators and learners perceive it as useful for facilitating distance learning and find it easy to navigate, they are more likely to express a positive intention to use the platform.

Actual Usage: The TAM model predicts that behavioral intention to use technology leads to its actual usage. (Davis, 1989). In the case of Google Classroom, when educators and learners have a positive intention to adopt it for distance learning, they are more likely to actively use the platform to conduct classes, share resources, and engage in discussions.

External Factors: TAM also recognizes external factors that can influence perceived usefulness and ease of use. Factors such as training, support, and institutional policies play a role in shaping individuals' attitudes and behaviors toward technology adoption. Effective training on using Google Classroom and institutional support for its implementation can enhance perceived ease of use and usefulness.

Feedback Loop: TAM acknowledges that users' experiences and actual usage can influence their perceptions over time. Positive experiences with Google Classroom, such as improved organization, communication, and student engagement, can reinforce its perceived usefulness and ease of use, leading to continued adoption and usage.

2.2.4 Transaction Distance Theory

Michael G. Moore's Transaction Distance Theory focuses on the psychological and communication space between learners and instructors in distance education. (Moore, 1993). Moore proposed that this "transactional distance" is influenced by three factors: structure, dialogue, and autonomy. (Moore and Kearsley, 2012). He believed that effective distance education involves finding a balance between providing structured content, enabling meaningful dialogue, and allowing learners the autonomy to manage their learning. Moore's theory emphasizes that reducing transactional distance contributes to more successful and engaging distance learning experiences.

Structure: Refers to the level of organization and clarity in course materials and instructions. A higher structure reduces the perceived distance between learners and instructors.

Learner Autonomy: This pertains to the degree of independence learners have in managing their learning. More autonomy increases transactional distance.

Interaction: Interaction between learners and educators is crucial. A higher level of interaction, whether through communication tools or collaborative activities, decreases transactional distance.

2.2.5 Technological Pedagogical Content Knowledge (TPACK)
The concept of Technological Pedagogical Content Knowledge (TPACK) was introduced by Punya Mishra and Matthew J. Koehler. They are both educators and researchers who proposed this framework to understand the complex interactions between technology, pedagogy, and content knowledge in educational contexts. (Mishra and Koehler, 2006)

Mishra and Koehler's TPACK framework is built on the intersection of three core components: **Technological Knowledge (TK):** This refers to an educator's understanding of various technologies and their capabilities. It's not just about knowing how to use specific tools, but understanding the principles behind them and how they can be applied in teaching and learning.

Pedagogical Knowledge (PK): Pedagogical knowledge involves understanding various teaching strategies, methods, and approaches that are effective in facilitating learning. It includes knowledge of instructional design, classroom management, assessment techniques, and more.

Content Knowledge (CK): Content knowledge pertains to the subject matter being taught. Educators need a deep understanding of the content they are teaching, including its core concepts, principles, and potential misconceptions.

Mishra and Koehler proposed that the effective integration of these three components is not enough on its own. The real power comes from the intersections:

Technological Content Knowledge (TCK): This is the intersection of technological knowledge and content knowledge. It involves understanding how technology can be used to teach specific content effectively.

Technological Pedagogical Knowledge (TPK): This is the intersection of technological knowledge and pedagogical knowledge. It involves understanding how to use technology in ways that align with effective teaching strategies.

Pedagogical Content Knowledge (PCK): This is the intersection of pedagogical knowledge and content knowledge. It involves understanding how to teach a specific subject effectively, including selecting appropriate instructional methods and strategies.

Technological Pedagogical Content Knowledge (TPACK): This is the central concept of the framework, where all three components (technological, pedagogical, and content knowledge) intersect.(Kohler, Shin and Mishra, 2012). TPACK represents the understanding of how to

integrate technology appropriately and effectively to enhance teaching and learning within a specific content area.

2.3 Empirical Review

Google Classroom was developed by a team of engineers and educators at Google. It was introduced as a free web service for schools and educational institutions to streamline the process of creating, distributing, and grading assignments in a digital environment. Google Classroom was first unveiled to the public on May 6, 2014, during the Google I/O developer conference, and subsequently released in August, 2014 as a tool for teachers which functions as an interface layered on top of the Google Application for Education (GAFE) that establishes collaborative environment for students–teachers interaction (Brown &Hocutt, 2015).

The development of Google Classroom was driven by the growing demand for effective digital tools to enhance teaching and learning experiences in classrooms. The aim was to provide educators with a platform that simplifies the management of assignments, communication, and collaboration between teachers and students in an online setting.

Over the years, Google Classroom has undergone numerous updates and improvements based on feedback from educators and users. It has become a widely adopted learning management system (LMS) used by schools, colleges, and universities around the world to facilitate online and blended learning, especially during the rise of distance education and remote learning.

Google Classroom offers a multitude of advantages to its users. These encompass serving as a platform that facilitates digital content creation, enabling the establishment of virtual classrooms, fostering seamless community communication, streamlining organization through folders, facilitating information sharing, assignment posting, and real-time viewing of submitted work, as highlighted by (Beaumont, 2018). Functioning as a nexus, Google Classroom harmonizes Google's suite of tools for educators and learners, simultaneously serving as a digital repository, according to (Bell, 2015). Within this digital domain, educators can compile and distribute course materials in an eco-friendly, paperless format. The advent of Google Classroom (GC) has further revolutionized the educator-student dynamic. It empowers educators to engage with individual students on their terms and timelines, contingent upon the availability of a functional network infrastructure.

Many researchers have set out to investigate, observe and examine the concept of distance learning using Google Classroom as a case study. (Udosen and Adie, 2019) investigated the use of Google Classroom technology for distance learners by National Teacher's Institute.

The researchers noted that the NTI Study Center in Calabar lacks Google Classroom Technology access. Observations revealed NTI Calabar lecturers' non-utilization of Google Classroom Software due to unavailability of ICT equipment. The researchers also noted high NTI Calabar lecturer competence in using Google Classroom's Learning Content Management System, supported by practical familiarity with similar operational tasks and internet literacy within the Faculty. They emphasized the need for comprehensive staff training for optimal productivity if Google Classroom technology is deployed.

The researchers advocate adopting Google Classroom Technology at the National Teacher Institute Nigeria to align with its ICT integration goals, enabling efficient digital communication and transactions. They stress the importance of practical training for NTI staff on using Google Classroom, covering tasks like assignments, grading, archiving, and communication. This training would maximize the software's benefits. The researchers underscore the necessity for retraining NTI staff to effectively utilize the internet for academic purposes, expanding beyond basic use to leverage various internet-based instructional media. This comprehensive approach would empower the institute to fully harness Google Classroom's potential and tap into the educational possibilities of the internet.

Saidu and Ibrahim (2021) made an integration of Google Classroom as an alternative learning environment in Colleges of Education in North-East Nigeria. The study reveals that while lecturers are familiar with Google Classroom as a search engine, its adoption for teaching purposes remains limited. Factors such as class size, technological competence, and a lack of awareness about its educational benefits contribute to this situation, mirroring challenges found in earlier research. The investigation highlights a gap between participation and actual usage of Google Classroom, influenced by attitudes, behavioral intention, and technology-related barriers, aligning with established theoretical models and prior studies on technology acceptance. Despite its user-friendly nature and cost-effectiveness, Google Classroom's integration in the region remains modest, differing from studies showcasing its positive impact on education. Respondents recognize the security potential of Google Classroom, aligning with studies underlining its ability to create a secure online learning environment. Lastly, while Google Classroom's compatibility with limited internet connectivity and user-friendly features is evident, the study prompts an examination into Nigerian lecturers' reluctance, particularly in the North Eastern Region, to embrace its use. The platform's capacity for fostering collaboration, trust, and confidence among learners and educators suggests a need for further exploration.

Hyellamada, Ajayi and Wadzani (2022) made an analysis of Google Classroom utilization as a tool to enhance blended learning in Federal Polytechnic Mubi.

The study's findings indicate that many lecturers found Google Classroom easy to use for uploading course materials, conducting assignments and quizzes, and interacting with students. Consequently, the study concludes that Google Classroom has aided lecturers at the Federal Polytechnic Mubi in delivering courses and assessing students promptly despite Covid-19 challenges. The paper recommends the adoption of Google Classroom to enhance teaching and learning in Nigerian higher institutions, alongside investment in the necessary infrastructure to support blended learning.

Lakshmi and Sri Lakshmi (2020) conducted a survey, to explore the integration of technological tools for blended learning, with a specific focus on Google Classroom during the COVID-19 pandemic. It employed a combination of quantitative and qualitative methods, incorporating numerical measurements and in-depth exploration. The survey involved first-year students in the Department of Information Technology at Vishnu Institute of Technology, India. The outcomes revealed that Google Classroom was the primary tool employed by the

institution, and both students and teachers felt at ease utilizing it for blended learning and assessment.

Agustina and Purnawarman (2020) investigated learners' satisfaction with utilizing Google Classroom as an online formative feedback tool. The study employed a quantitative research design with 43 participants who completed questionnaires through Google Forms. Additionally, student interviews were conducted to gather quantitative data. The experiment's outcome revealed that the respondents expressed high satisfaction with using Google Classroom for online learning, academic tasks, and formative assessment.

This research will add to already existing studies on the utilizations, and experimentations done with Google Classroom as a tool for educational broadcasting.

3.0 RESEARCH METHODOLOGY
3.1 Materials and Methods
Conducted at Oduduwa University Ipetumodu Ile Ife, Osun State, Nigeria. This research employed a survey research design. The study's target population consisted of both lecturers and students in the Department of Management Sciences which includes Business Administrator, Mass Communication/Media Technology and Public Administration. A random sampling technique was utilized to select participants from these three departments, resulting in a sample size of 100 individuals, including 81 students and 19 lecturers. Data collection was carried out through a structured questionnaire with nominal values assigned to anticipated responses. Respondents rated items on a 4-point Likert scale, encompassing "To a Great Extent," (GE) "Somewhat Extent," (SE) "Very Little Extent," (VL) and "Not At All" (NA) for research question 1; while research question 2 – 4, used "Strongly Agree," (SA) "Agree," (A) "Disagree," (D) and "Strongly Disagree." (SD) The survey aimed to assess participants' perceptions of Google Classroom awareness, infrastructure availability, usage constraints, and integration strategies in education. Internal consistency was evaluated using Cronbach's Alpha, resulting in a reliability coefficient of 0.993. Simple descriptive statistics were then applied to determine the weighted mean for each item in the collected data. Any calculated mean that is above the mean rating of 2.50 is "Accepted" while calculated mean below the mean rating 2.50 is "Rejected".

3.2 Data Presentation and Analysis
The results were presented using the Likert table rating scale. The 100 respondents responded to the questions and all returned their questionnaire forms.

Research Question 1
What is the level of awareness of Google Classroom in Nigerian universities?
The data needed to generate answer for this research question are presented table 1.

TABLE 1. Responses on the level of awareness of Google Classroom in Nigerian universities.

S/N	ITEMS	GE	SW	VL	NA	MEAN	REMARK
1.	I have heard of Google Classroom.	85	12	1	2	3.8	**GE**
2.	I have seen someone use Google Classroom	33	40	23	4	3.02	**GE**
3.	I have visited Google Classroom App.	57	20	17	16	3.38	**GE**
4.	I have used Google Classroom for religious purpose.	2	0	0	98	1.06	**NA**
5.	I have used Google Classroom for entertainment purpose.	0	0	0	100	1	**NA**
6.	I have used Google Classroom for educational purpose	78	14	3	5	3.65	**GE**
7.	I have used Google Classroom for social purpose.	3	2	3	92	1.16	**NA**
8.	Google Classroom has been introduced in the university.	22	5	40	33	2.16	**VL**
9.	I am using Google Classroom in some of my courses.	3	2	4	91	1.17	**VL**
10.	I am using Google Classroom in all my courses.	2	1	0	97	1.08	**NA**

Table 1. Showed the responses of the respondents on the level of their awareness on Google Classroom. It indicated that the students are aware of Google Classroom and its activities to a "Great Extent" except having "Very Little" knowledge in items 8 and 9 and "No knowledge at all" in items 4, 5, 7 and 10.

Research Question 2
How available and adequate are infrastructures for the use of Google Classroom in Nigerian universities?

The data needed to generate answers for this research question are presented in Table 2

TABLE 2. Responses on availability and adequacy of infrastructures for the use of Google Classroom in Nigeria Universities.

S/N	ITEMS	SA	A	D	SD	MEAN	REMARK
1.	The university strives to maintain a robust ICT infrastructure for e-learning for the integration of Google Classroom.	2	4	28	66	1.42	**SD**
2.	The university has installed stock of internet-enabled computers of acceptable specification for application of Google Classroom.	0	1	41	58	1.43	**SD**
3.	Availability of internet-enabled computers averaged across all lecturers and students.	11	7	60	22	2.07	**D**
4.	The university has established a fully developed internet/intranet infrastructure that would facilitate the integration of Google Classroom in the institution.	1	2	10	87	1.17	**SD**
5.	The university has established a network connectivity that provides for Google Classroom.	1	1	6	92	1.11	**SD**
6.	There is a portal infrastructure in the university used only for student online course registration and administration.	90	7	2	1	3.86	**SA**
7.	The university has its own website open to all lecturers and students.	74	12	10	4	3.56	**SA**
8.	The university has linkage with reputable local, national and international organizations for infrastructural provision of e – learning.	5	7	48	40	1.77	**D**
9.	The university has e-learning infrastructure already in place.	20	13	25	42	2.11	**D**
10.	The university has all infrastructures necessary for the integration of Google Classroom into teaching and learning activities.	2	1	54	43	1.62	**D**

Table 2 showed the responses of the respondents on the availability and adequacy of infrastructures for the use of Google Classroom in Nigerian Universities. The responses show that the respondents "Strongly Agree" with items 6 and 7. "Disagreed" with items 3, 8, 9, 10 and "Strongly Disagreed" with items 1, 2, 4, 5.

Research Question 3
What are the challenges of using Google Classroom in Nigerian universities?
The data needed to generate answers for this research question are presented in table 3.

TABLE 3. Responses on constraints to integrating Google Classroom in Nigeria Universities.

S/N	ITEMS	SA	A	D	SD	MEAN	REMARK
1.	Inadequate knowledge of the effectiveness of Google Classroom	32	27	20	21	2.7	**A**
2.	Technological challenges.	45	23	19	13	3	**SA**
3.	Inadequate access to available resources.	58	31	5	6	3.41	**SA**
4.	Epileptic power supply.	82	7	7	4	3.67	**SA**
5.	High cost of implementation.	24	32	14	30	2.5	**A**
6.	Lack of pedagogical training.	67	29	1	3	3.6	**SA**
7.	Inadequate technical support.	51	17	15	17	3.02	**SA**
8.	Lack of adequate awareness about Google Classroom	38	33	21	8	3.01	**SA**
9.	Poor implementation of ICT policies by government.	77	12	8	3	3.63	**SA**
10.	High cost of e-learning facilities.	84	8	3	5	3.71	**SA**
11.	Insufficient competence in handling ICT resources.	32	20	13	35	2.49	**D**
12.	High cost of internet service providers.	91	5	5	1	3.9	**SA**
13.	Inadequate funding of the university by the government.	58	27	5	10	3.29	**SA**
14.	Corruption.	88	6	4	2	3.8	**SA**

Table 3. Showed the responses of the participants on the challenges facing the use of Google Classroom in Nigeria. The participants' responses show that; they "Strongly Agree" with items 2, 3, 4, 6, 7, 8, 9, 10, 12, 13, 14. They "Agreed" with items 1 and 5, but "Disagreed" with item 11.

Research Question 4
What are the steps to be taken to improve or enhance Google Classroom integration into Nigerian universities?
The data needed to generate answers for this research question are presented in table 4.

TABLE 4. Responses on strategies and policies to enhance the integration of Google Classroom in Nigeria Universities.

S/N	ITEMS	SA	A	D	SD	MEAN	REMARK
1.	Power supply to enhance the use of ICT should be improved.	92	8	0	0	3.92	**SA**
2.	Institutionalization of e-learning as a vital development policy in Nigeria.	90	10	0	0	3.9	**SA**
3.	Creating proper awareness of the effectiveness of Google Classroom as a teaching tool.	87	13	0	0	3.87	**SA**
4.	Frequent workshop and seminar to be organized for staff and students for training	83	13	4	0	3.79	**SA**

	and retraining on Google Classroom						
5.	Establishment of telecentre across the university.	93	2	5	0	3.88	**SA**
6.	Curriculum review to include Google Classroom pedagogic principles.	78	7	10	5	3.58	**SA**
7.	Design curriculum that support the integration of Google Classroom.	81	10	6	3	3.69	**SA**
8.	Government should provide more fund for the procurement of Google Classroom facilities/tools.	73	14	9	4	3.56	**SA**
9.	Government should give lecturers incentive.	92	4	1	3	3.85	**SA**
10.	Training of lecturers on Google Classroom utilizations through in-service training.	88	6	3	3	3.79	**SA**
11.	Collaborate with other organizations on educational broadcasting related activities.	85	10	1	4	3.76	**SA**

Table 4. is a list of strategies and policies the participants responded to in order to enhance the integration of Google Classroom in Nigeria. The responses show that the respondents "Strongly Agreed" to all the items listed.

3.4 Discussion on Findings
3.4.1 Level of Awareness
Table 1 above showed that Google Classroom is not an unknown or insignificant education broadcasting tool in Nigeria Universities. To a great extent respondents exposed that they have heard, seen someone use, visited and used Google Classroom themselves. However, the curriculum should be updated to accommodate Google Classroom as a broadcast educational tool, through introducing the use of it in various courses.

3.4.2 Infrastructural Challenges
The administrative bodies of Universities should restore the shaky infrastructures of their ICT devices as it poses a problem. Internet-enabled computers are not enough to sustain educational broadcasting through the use of Google Classroom. Poor network connectivity, no linkage with local and international organizations for infrastructural provisions of e – learning were observed too.

3.4.3 Pedagogical Challenges
There is lack of well-laid out pedagogies to teach both the lecturers and students on the best way to handle the Google Classroom activities. This includes lack of teaching support and neglected I.C.T. policies

3.4.4 Technological Challenges
Universities are faced with technological problems, ranging from epileptic power supply, high cost of service providers and e – learning facilities and technical supports.

3.4.5 Bad Administration

Some universities are poorly managed. Corruption has eaten deep into the education system that funds mapped out for e-learning are been mismanaged and diverted to other unknown channels. Government often neglect this aspect of education and it continues to become a problem for the ICT sector in many Nigerian Universities.

4.0 SUMMARY, CONCLUSION AND RECOMMENDATIONS

4.1 Summary

The study focuses on the utilization of Google Classroom in distance learning, investigating its impact, challenges, and potential solutions. The theoretical framework involves educational broadcasting theories and distance learning theories, providing a foundation for understanding the context. Empirical reviews highlight related studies on Google Classroom by various researchers and experts. The impact of Google Classroom in Nigerian universities is examined, revealing pros like flexibility and accessibility, along with cons like technology challenges. It further discussed the findings and made recommendations.

4.2 Conclusion

In conclusion, the integration of Google Classroom in distance learning offers significant benefits but also presents challenges, particularly in Nigerian universities. While the platform facilitates remote learning, enhances communication, and streamlines content sharing, challenges like poor internet connectivity, limited technical skills, and inadequate infrastructure hinder its effectiveness. This researchConducted at Oduduwa University Ipetumodu Ile Ife, Osun State, Nigeria, involving 100 respondents, 81 students and 19 teachers, examined the awareness level, the availability of goggle classroom infrastructures and its adequacies. It exposed the challenges Nigeria universities face in educational broadcasting through the use of Goggle Classroom.However, with proper solutions and recommendations, these challenges can be mitigated, enabling Nigerian universities to harness the advantages of Google Classroom for distance learning.

4.3 Recommendations

Infrastructure Enhancement: Just as Saidu and Ibrahim (2021) had it, "Nigeria is faced with challenges among others; lack of infrastructures, well established ICT policies and poor or mismanaged economy".Nigerian universities should invest in improving internet connectivity and technical infrastructure to support effective use of Google Classroom.

Faculty Training: Comprehensive training programs should be implemented to enhance educators' technical skills and familiarity with Google Classroom. If teachers are trained we'll in the use of Google Classroom and other necessary technological updates they in turn impact the students' learning and academic growth. This highlights(Darling-Hammond, Hyler, and Gardner, 2017) assertion that effective professional development is seen as structured professional learning that results in changes to teacher's knowledge and practices, and improvements in student learning outcomes.

Student Orientation: Provide students with orientation and resources to navigate and use Google Classroom effectively for learning.

Support Mechanisms: Establish dedicated technical support teams to assist faculty and students in troubleshooting technical issues.

Curriculum Alignment: Ensure that the use of Google Classroom aligns with the curriculum's learning objectives and outcomes.

Regular Evaluation: Periodically assess the effectiveness of Google Classroom implementation and address any emerging challenges.

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