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EFFECT OF THE APPLICATION OF GOOGLE CLASSROOM IN TEACHING AND LEARNING IN COLLEGES OF EDUCATION

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ABSTRACT

Google Classroom provides a platform that supports blended learning in schools by streamlining the posting of lecture materials, videos, presentations, assignments, and grades in a paperless manner. This enables lecturers to conduct teaching activities both inside and outside the classroom, as students can access Google Classroom online at any time and from any location. The primary purpose of this study is to investigate the impact of Google Classroom on teaching and learning in colleges of education. Data were collected through a structured questionnaire based on specific research questions. The study was conducted at one college of education, with seventy-five (75) questionnaires distributed to both educators and students. The findings indicate that Google Classroom significantly enhances the teaching and learning experience by providing easy access to educational materials and facilitating efficient communication between lecturers and students. Respondents reported high levels of satisfaction with the platform's usability and effectiveness in supporting their learning activities. However, some challenges were noted, such

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as the need for students to have reliable internet access and compatible devices. Based on these findings, the study recommends that higher educational institutions invest in improving digital infrastructure to ensure all students can benefit from online learning platforms like Google Classroom. Additionally, training programs should be implemented to help both educators and students maximize the potential of such platforms. Overall, the application of Google Classroom in colleges of education is found to positively impact student engagement and performance, supporting independent study and enhancing the overall educational experience.

Keywords: Google Classroom, Teaching, Learning

Introduction

The development of technology is growing rapidly, that almost all sectors in our societies have witness these developments. Economics, politics and education have applied this technology. It can be predicted that majority of the people have been addicted with these tools (ICT) information and communication technology. (Laudon and Laudon, 2014). However, many aspects of human life are influenced by technological developments tools where one of them is related to teaching and learning process in the field of education. Sukmawati and Nensia (2019) are of the view that the current teaching and learning process is different from the past time where classes are held directly (face to face) known as the traditional method of teaching i.e. teacher cantered learning where lecturers/teachers use visual aids in the form of slides presentation, whiteboard and visualizer. Then Learning activities in the computer lab are four major types of practical works: exercises, experiences, demonstrations and investigations. Therefore, the lecturers/teachers need to be able to use the various technologies and also be able to design, compile, guide, and assess student projects. Resources and services need to be coordinated with colleagues and other professional personals. This new technological role is challenging; and it requires the need for a different approach to teacher's professional development. The isolation of typical teachers is formed with each other and the outside world must be eliminated given this very different form of education

The role of technology in the present teaching and learning process implies that, every educator knows that learning is not something done only in class or handled by teacher. Today, it is often difficult to reach every student in the class using the same curriculum approach. The prospective of teachers has endless resources to guide students to higher levels of learning. The development of the use of computer technology in the last two decade has had a profound effect on many schools and classrooms throughout the world, including Nigeria. The use of technology to improve teaching and learning will bring benefits to the future in all areas of our society. The integration of Google classroom into the teaching and learning into colleges of education, the users i.e. teachers/lecturers or

students must have perceptions on Google classroom usefulness in teaching and learning process, and its ease of use, the willingness to use it when the needs arise. The teachers/lecturers have the tasks to make the students/learners aware of its use in future workplace, as well as to ensure students confidence that it is easy to use. The use of Google Classroom can be via multiplatform which can be a computer and a mobile/smartphone device. Teachers and students can visit the site https://classroom.google.com or download the application from the Play Store on android or apple app store in IOS as a keyword Google Classroom. The use is free of charge, so that utilization can be done as needed. Through online learning, students are expected to be able to develop their abilities in a better direction. (Sukmawati & Nensia, 2019).

Google Classroom a free web service was developed by Google for educational institutions (schools) aiming to simplify the creating, distributing, and grading of assignments. One 0f the purpose of Google Classroom is to streamline the process of files sharing between lecturers/teachers and learners/students. The said application allowed the lecturers/teachers to create an online learning environment (classroom) in which the teachers/lecturers can manage all the documents that their students/learners need. Documents are stored on Google Drive and can be edited in Drive's apps, such as Google Docs, Sheets, and so on. But what separates Google Classroom from the regular Google Drive experience is the teacher/student interface, which Google designed for the way both (teachers/students) think and work. Google Classroom is a free online collaboration tool for teachers and students. The user (teachers) can create an online classroom, add a co teacher, invite the students to the class, create and assigned assignments to the students. Within the Google Classroom students and teachers can have conversations about the assignments and teachers can track the student's progress (Vangie,2020). Besides, Google Classroom was used to facilitate the interaction of a professor or teacher with a student or students in the virtual world (Liu & Chuang, 2016). In Google Classroom, teachers freely hand out a scientific assessment and provide an independent assessment for students (Wijaya, 2016). Teachers can provide materials on the subject being taught. The teacher can post some teaching materials, assign tasks for students, and upload the students' grades so that they can immediately see the scores obtained in the course. Google Classroom also minimizes the costs incurred due to the use of more affordable stationery and other materials and can minimize time-released energy (Inoue & Pengnate, 2018). In short, the time and energy spent by Google Classroom users will be lesser than the usual.

Statement of Problem

The process of technological transformation, the legal instruments that govern it, the telecommunications infrastructure and the lack of availability of human resources are the main causes of the hampered process of technology-based education in colleges of

education. Our common hope for this matter can be overcome in line with the development of increasingly sophisticated and inexpensive telecommunications. For this reason, it is necessary to think about access to the internet without going through a personal computer at home. Campus, schools, and internet cafes are place for internet access that needs to be widened (Uno 2016). The weakness of google classroom applications is requiring students to have a laptop, tablet, smartphone, and gadget that supports the google classroom feature. Teachers must think it over to use the google classroom as a teaching tool, because not all students have a laptop or android or apple IOS. Students with smartphone mostly use their smartphone for playing game games and involve on social media activities, they should encourage to also use it for learning process. This platform can be one solution to complete the teaching and learning process, it provides students to be independent, engaged and motivated. To succeed in teaching and learning process in the digital era as in industrial revolution that the teachers/lecturers are required to have expertise ability to adapt to the platform. It is against this study that the research is being conducted to investigate the effect of the application of google classroom in teaching and learning process in colleges of education.

Research Questions

The following research questions guided the study

1. How effective is the access/utilization of google classroom in the teaching and learning process?
2. To what extent is google classroom utilized in teaching and learning in colleges of education?
3. What is the extent of the student's satisfaction, when using google classroom to learn?
4. To what extent is the lecturer's satisfaction in the application of google classroom in teaching?

Research Method

The design of the study in the form of a survey type quantitative method to study the effect of the application of google classroom in teaching and learning in colleges of education The target populations for this study are educators and students (who teaches introductory computer studies courses and students who enrolled the courses) where the classes is taught in a computer lab. Random selection method was adopted, simple random sampling was applied when choosing the sample. The study involved 5 educators and 70 students of colleges of education in Delta state who were selected at simple random techniques from the colleges of education in Delta state. The instruments for the questionnaire were developed with the internet self-efficacy scale as referenced by Eastin & Larose (2000). All the items were measured using a five-point nominal scale range from 1 (strongly disagree), 2 (disagree), 3

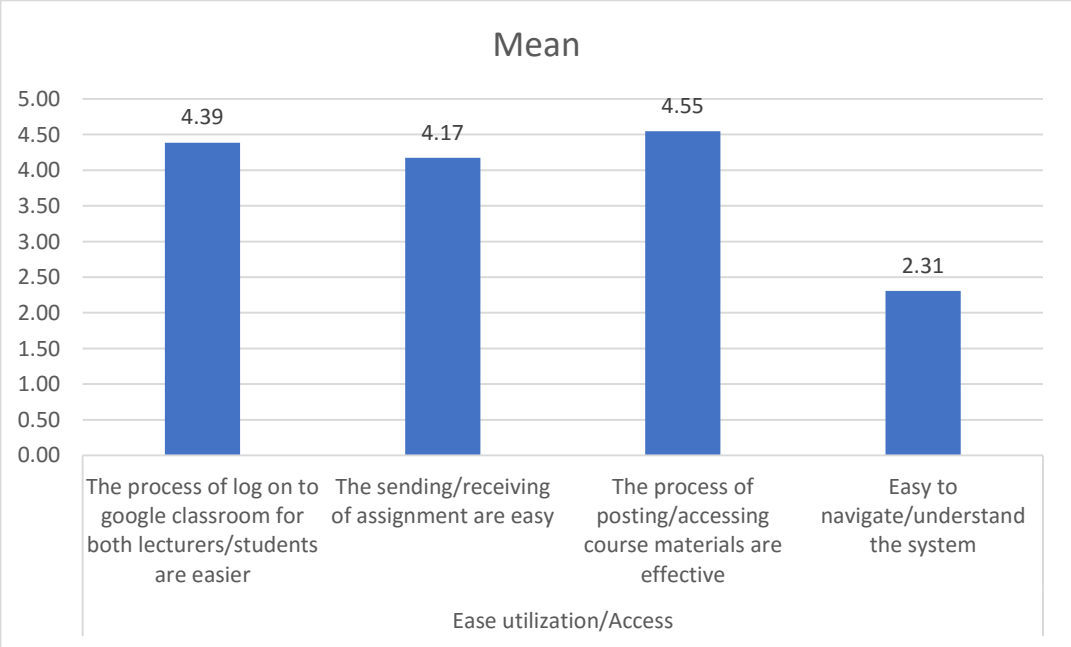
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African Journal of Educational Management, Teaching and Entrepreneurship Studies
VOL.12 (2), May-August, 2024 https://ajemates.org

(undecided), 4 (agree) and 5 (strongly agree). The instrument was reviewed by experts to ensure its content validity.

Result and Findings

It was identified that the access to internet is high these imply that the entire respondents are familiar with the use of internet and google applications.

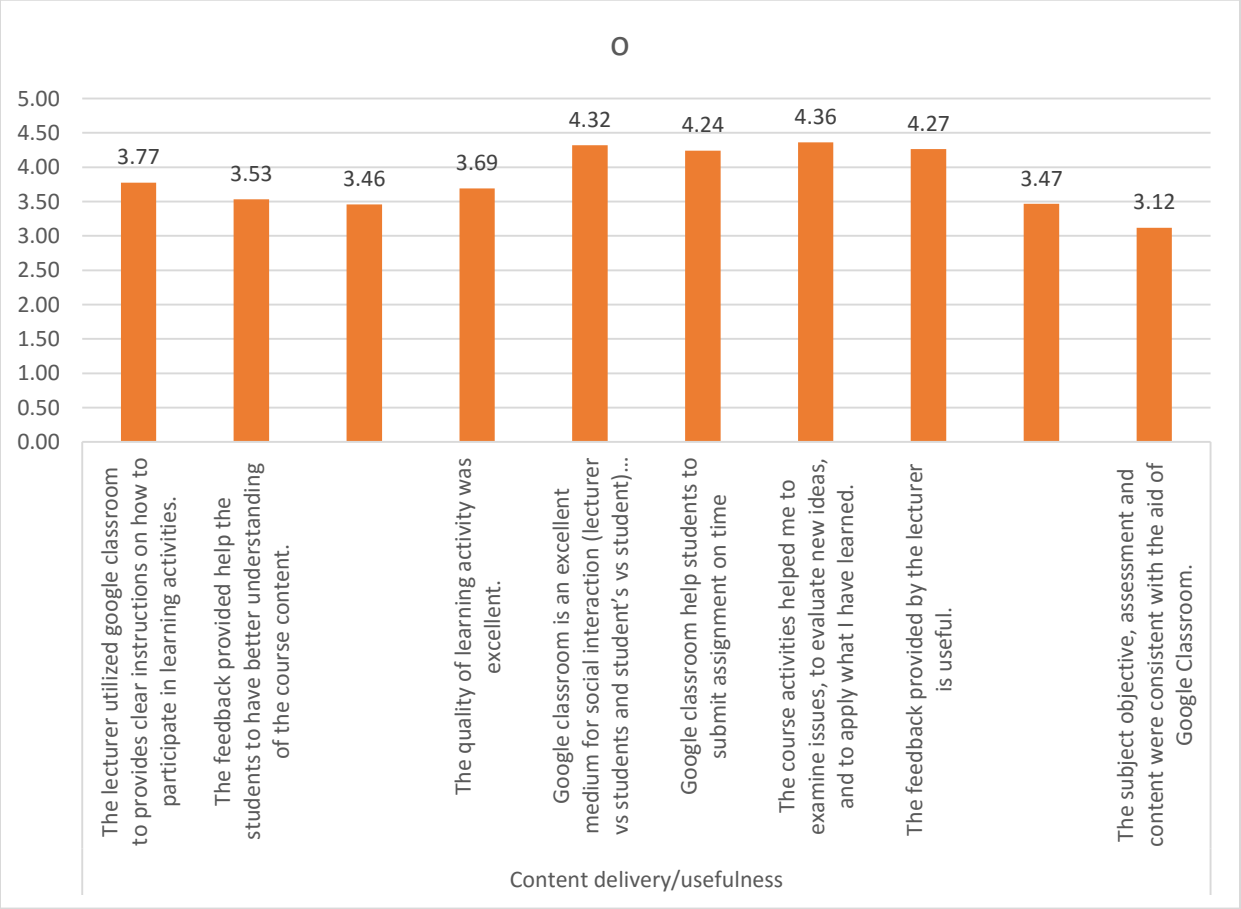
Figure one
The mean value chart for each component of ease utilization/access



From figure one. The mean score of items 1,2, and 3 with the mean value of 4.39, 4.17 and 4.55 were agreed by respondent that there are ease access/utilization of google classroom in the teaching and learning process. While item 4 was disagreed with the mean value of 2.31. However, the application of google classroom in teaching and learning is more effective, while the lecturer should pay attention on helping in easy to navigate/understanding the system.

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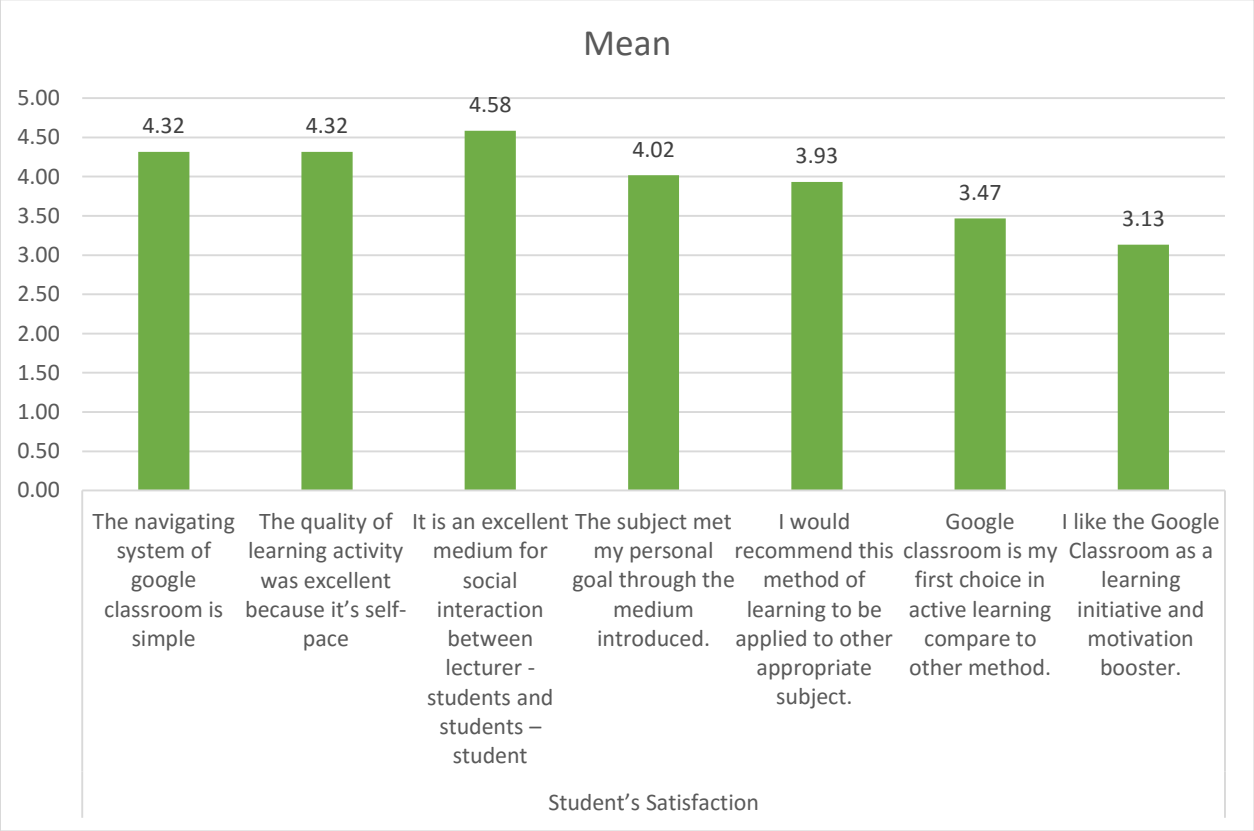
Figure two
The mean value chart for each component of content delivery/usefulness



Based on figure 2, all the component of content delivery/usefulness mean value score shows that all the respondents strongly agreed with the items with a mean score of 3.77, 3.53, 3.46, 3.69, 4.32, 4.24, 4.36, 4.27, 3.47 and 3.12. This result indicates the extent google classroom is being utilized in teaching and learning in colleges of education.

Figure three
The mean value chart for each component of Student's Satisfaction

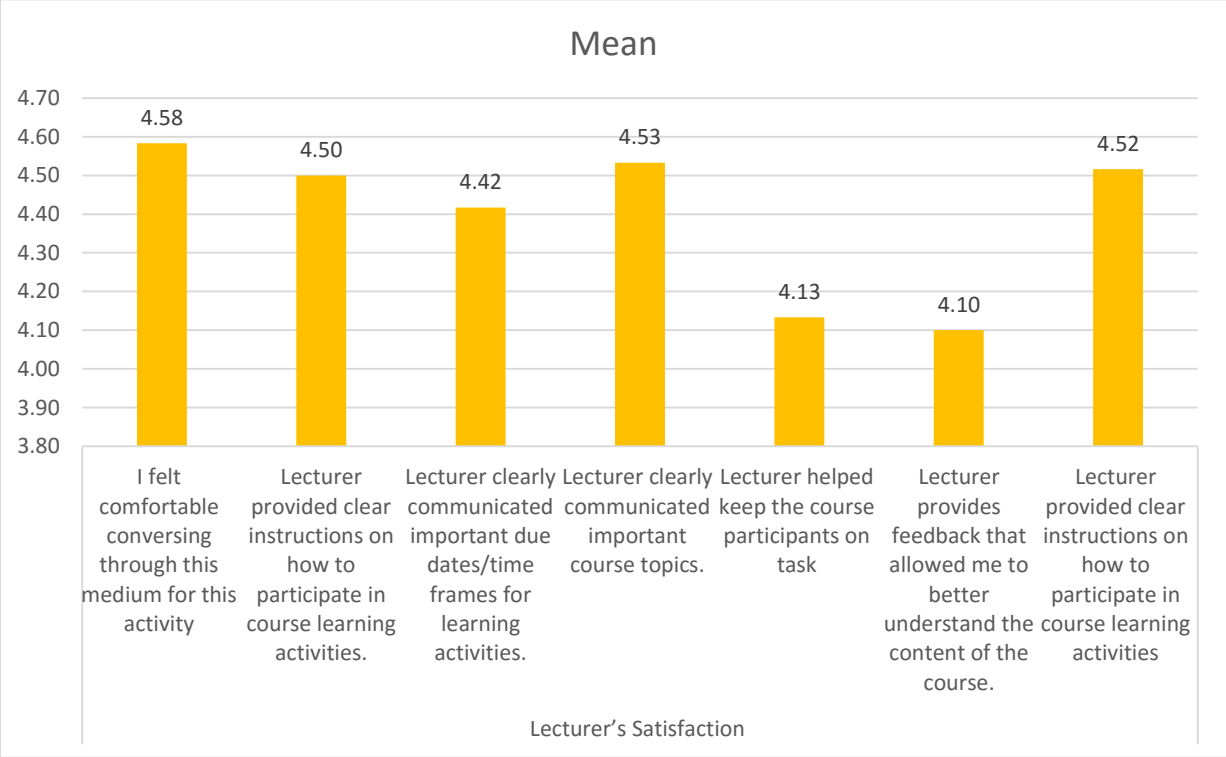
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Based on Figure 3, all the component of students' satisfaction mean value score shows that all the respondents would recommend google classroom method of learning to be applied to most introductory subject. The respondents agreed with the items with a mean score of 4.32, 4.32. 4.58, 4.02, 3.93, 3.47, and 3.13. The result indicate that the respondents are satisfy with the introduction of Google classroom as an active tool for learning.

Figure four
The mean value chart for each component of Lecturer's Satisfaction

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African Journal of Educational Management, Teaching and Entrepreneurship Studies
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Based on figure 4, all the component of lecturer' satisfaction mean value score shows that all the respondents strongly agreed with the items with a mean score of 4.58, 4.50, 4.42, 4.53, 4.13, 4.10, and 4.52. This result indicates how satisfied the lecturers are with google classroom in teaching and learning in colleges of education.

Discussion of finding

The application of Google Classroom in teaching and learning in colleges of education has brought about several significant effects, both for the lecturers and students. However, students who used google classroom felt excited using online learning tools. This application can be accessed easily, it can be accessed on a desktop computer, laptop, tablets, and mobiles (Latif, 2016). Here are some of the key impacts:

1) **Accessibility and Convenience**: Google Classroom provides a platform for teachers/lecturers/educators to upload course materials, assignments, and resources in a centralized location that students can access anytime, anywhere with an internet connection. This accessibility enhances convenience for both students and teachers/lecturers/instructors, allowing for greater flexibility in

learning and teaching in tertiary institution

2) **Enhanced Collaboration**: Google Classroom facilitates collaboration among students and between students and lecturers/instructors. Through features such as discussions, comments, and group assignments, students can engage in meaningful discussions, share ideas, and work together on projects, fostering a collaborative learning environment.
3) **Efficient Workflow**: The platform streamlines the workflow for lecturers/instructors by allowing them to create, distribute, and collect assignments electronically. This reduces the administrative burden associated with managing physical paperwork and enables instructors to provide timely feedback to students more efficiently.
4) **Personalized Learning**: Google Classroom enables lecturers/instructors to differentiate instruction and provide personalized learning experiences tailored to individual student needs. Lecturers can assign specific tasks or resources to different groups of students based on their learning abilities, interests, or progress, thereby catering to diverse learning styles.
5) **Integration of Multimedia**: Lecturers can integrate various multimedia elements such as videos, images, and interactive presentations into their instructional materials, making the learning experience more engaging and interactive for students. This multimedia integration can enhance understanding and retention of course content.
6) **Real-time Feedback and Assessment**: Google Classroom facilitates real-time feedback and assessment, allowing instructors to provide immediate feedback on assignments, quizzes, and discussions. This timely feedback helps students identify areas for improvement and promotes continuous learning and growth.
7) **Data-driven Insights**: The platform provides lecturers with access to data and analytics on student engagement, performance, and progress. This data-driven insight enables instructors to identify trends, assess the effectiveness of instructional strategies, and make informed decisions to support student learning outcomes.
8) **Preparation for Digital Literacy**: By using Google Classroom, students develop essential digital literacy skills necessary for success in the 21st century. They learn how to navigate online platforms, collaborate virtually, and utilize digital tools for learning and communication, preparing them for future academic and professional endeavors.

Conclusion

The application of Google Classroom in colleges of education has significantly transformed traditional teaching and learning practices. This platform provides a flexible, accessible, and efficient means for educators and students to engage in the educational process. The findings indicate high levels of satisfaction among both students and lecturers, highlighting the ease of use, enhanced collaboration, and streamlined workflow facilitated by Google Classroom. Additionally, the integration of multimedia and real-time feedback capabilities has enriched the learning experience, fostering greater engagement and personalized instruction. The platform's ability to provide data-driven insights further supports informed decision-making by educators. Overall, Google Classroom has proven to be a valuable tool in promoting digital literacy and preparing students for future academic and professional endeavors. Its successful implementation demonstrates the potential of technology to enhance educational outcomes and meet the evolving needs of the digital era.

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