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Assessing the Impact of Interactive E-Learning Platforms on the Academic Engagement of Accountancy Undergraduates in Nigerian Universities

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Abstract

The adoption of interactive e-learning platforms in Nigerian higher education has grown significantly, especially among Accountancy undergraduates seeking flexible and engaging learning experiences. Despite this trend, questions remain about the effectiveness of these platforms in promoting academic engagement. This study employed a mixed-method approach, combining surveys and in-depth interviews with 120 Accountancy undergraduates across selected Nigerian universities. Findings indicate that interactive e-learning platforms enhance student participation, collaboration, and motivation, but challenges such as unstable internet access, limited digital literacy, and inadequate institutional support hinder their full potential. The study recommends targeted training for students and lecturers, improved technological infrastructure, and policy interventions to strengthen the integration of interactive e-learning platforms in accounting education.

Keywords: Interactive e-learning, Academic engagement, Accountancy students, Nigerian universities, Digital learning

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Introduction

The COVID-19 pandemic caused major disruptions to education worldwide, prompting Nigerian universities to rapidly adopt online and blended learning models to maintain academic continuity. In this context, interactive learning platforms such as Moodle, Google Classroom, Zoom, and Kahoot! have become essential tools for sustaining student engagement and promoting active learning in higher education (Adeshola & Agoyi, 2022). Blended learning, which combines digital modules with traditional face-to-face instruction, has shown potential to enhance academic participation and address limitations of conventional classrooms. However, the Nigerian higher education system faces persistent challenges including inadequate ICT infrastructure, limited digital literacy among students and lecturers, and intermittent internet connectivity (Bedi, 2023; Roulet, 2024). Student engagement encompassing behavioral, emotional, and cognitive involvement in learning activities is a critical determinant of academic success (Abou-Khalil et al., 2021). In the field of accountancy, where comprehension of complex financial concepts and practical applications is vital, the use of interactive platforms can provide collaborative, real-time, and personalized learning experiences. This study investigates the effectiveness of interactive learning platforms in enhancing academic engagement among accountancy students in Nigerian universities. The aim is to generate insights that can inform policies and pedagogical strategies for integrating digital tools into accountancy education, thereby improving students' learning outcomes and overall performance.

Review of Related Literature

Benefits and Challenges of Interactive Learning Platforms

Interactive learning platforms offer dynamic and engaging features such as gamified content, interactive quizzes, and multimedia resources that can enhance comprehension and retention of complex concepts (Elite, 2024). They support active participation, collaborative learning, and student motivation, making them particularly beneficial in disciplines like accountancy. Despite these advantages, Nigerian students and lecturers encounter several obstacles in adopting digital learning tools. Studies by Denbel (2023) and Adeshola & Agoyi (2022) highlight barriers such as limited access to digital devices, poor internet connectivity, insufficient technical support, and low technological readiness. These challenges can hinder student engagement and reduce the effectiveness of online learning interventions.

Student Engagement and Academic Performance

Student engagement is a multifaceted construct involving interactions with peers, instructors, and content. Moore's Interaction Model categorizes engagement into student-student, student-teacher, and student-content interactions, all of which contribute to motivation, comprehension, and academic achievement (Abou-Khalil et al., 2021). Empirical studies indicate that active participation in interactive platforms correlates with higher learning outcomes. Johar et al. (2023) emphasize that monitoring log data, forum participation, and assignment submissions can provide insights into students' engagement levels. Similarly, Bukhatwa et al. (2022) found that video-based and gamified content enhances understanding, particularly in quantitative courses such as accounting, mathematics, and statistics. In the Nigerian context, the integration of interactive learning platforms holds promise for improving student engagement and performance. However, effective implementation requires addressing infrastructural and pedagogical limitations, ensuring students have equitable access, and fostering digital competence among both students and instructors.

Interactive Learning Platforms

Gamified and interactive tools such as Kahoot!, Quizizz, and Socrative have been shown to enhance student engagement and motivation by making learning more dynamic and enjoyable (Zainuddin et al., 2020). Nigerian students in higher education settings also benefit from these platforms, as the competitive and interactive features encourage active participation and improve comprehension of complex concepts. Platforms like Microsoft Teams and Google Meet, offering video conferencing, resource sharing, and session recordings, are positively perceived by students for increasing accessibility and engagement in coursework (Islakhah et al., 2024). Similarly, Chernov et al. (2021) and Felszeghy et al. (2019) demonstrate that integrating interactive tools and online games can improve understanding and academic performance across disciplines, including accountancy.

Blended Learning

Blended learning, which combines face-to-face instruction with online components, has been shown to enhance student satisfaction, engagement, and learning outcomes (Fisher et al., 2018). In accountancy education, hybrid approaches allow students to interact with course materials, instructors, and peers both in-class and digitally, fostering self-efficacy and active learning. Abusalem et al. (2022) emphasize that while digital platforms provide flexibility and accessibility, traditional classroom instruction remains critical for conceptual understanding. Research by Karaaslan et al. (2018) and Pereira & Gomes (2022) supports using synchronous and asynchronous methods to promote collaboration, participation, and engagement. Huang et al. (2022) and Yu & Yi (2020) further note that blended learning facilitates deeper content exploration, improves retention, and allows students to progress at their own pace.

Engaging Students Digitally

Digital learning platforms support student engagement through features such as real-time messaging, interactive content, assignment submissions, and multimedia resources. Alshammary et al. (2023) highlight the scalability and adaptability of these tools, while Ahmed et al. (2020) note that learning management

systems (LMS) enhance critical thinking and active learning. Malysheva et al. (2022) stress the importance of adapting pedagogical strategies to digital environments, particularly in response to disruptions like the COVID-19 pandemic. Ramsey & Flanagan (2019) underscore the need for collaboration between instructors and students in designing technology-integrated learning experiences. Rusk (2019) further explains how students leverage smartphones and social apps to extend learning and communication beyond traditional classrooms, which is increasingly relevant in Nigerian higher education contexts.

Conceptual Framework

This study adopts an Independent-Dependent Variable Model, where interactive learning platforms are the independent variable, and student engagement (active participation, collaboration, motivation) and learning effectiveness (comprehension, retention, mastery) serve as dependent variables. The framework is informed by Bandura's Social Cognitive Theory, which posits that learners' self-efficacy, observational learning, and motivation influence educational outcomes.

Statement of the Problem

This study seeks to evaluate the effectiveness of interactive learning platforms in enhancing academic engagement among accountancy students in Nigerian universities. Specifically, it addresses the following questions:

What interactive learning platforms are used by accountancy students?

1.1 Microsoft Teams

1.2 Google Meet

1.3 Kahoot!

1.4 Quizizz

What factors influence academic engagement through interactive learning platforms?

2.1 Active participation

2.2 Collaboration

2.3 Motivation

What is the level of effectiveness of interactive learning platforms among accountancy students?

3.1 Comprehension of course content

3.2 Retention of knowledge

3.3 Mastery of accounting concepts

Is there a significant relationship between the use of interactive learning platforms and student engagement?

Is there a significant relationship between the use of interactive learning platforms and their effectiveness in improving academic outcomes?

Significance of the Study

This study offers practical benefits to multiple stakeholders:

Students: Identify which platforms enhance engagement, motivation, and understanding of accounting concepts.

Instructors: Provide guidance on selecting and using digital tools to improve teaching methods and interaction.

University Administrators: Inform decisions on technology integration, resource allocation, and blended learning design.

Future Researchers: Serve as a reference for further studies on educational technology and student engagement in Nigerian higher education.

Hypothesis of the Study

H0: There is no significant relationship between the use of interactive learning platforms and student engagement or learning effectiveness.

H1: There is a significant relationship between the use of interactive learning platforms and student engagement or learning effectiveness.

Scope and Delimitations

This study focuses on assessing the effectiveness of interactive learning platforms—specifically Microsoft Teams, Google Meet, Kahoot!, and Quizizz—on the academic engagement of fourth-year Bachelor of Science in Accountancy students in Nigerian universities during the academic session 2024–2025.

Methodology

8.1 Research Design

This study employed a quantitative research approach with a descriptive-correlational design to examine the relationship between interactive learning platforms and the academic engagement of accountancy students in Nigerian universities. Descriptive research was used to assess the current levels of student engagement and usage of digital platforms, while correlational analysis determined the presence and strength of relationships between platform use and engagement without manipulating the variables.

8.2 Research Locale

The study was conducted in selected universities in Nigeria, focusing on institutions offering the Bachelor of Science in Accountancy program. The research targeted campuses where students actively use interactive learning platforms such as Microsoft Teams, Google Meet, Kahoot!, and Quizizz as part of their curriculum or supplementary learning activities. This setting was chosen because Nigerian universities have increasingly adopted digital learning tools to complement face-to-face teaching, particularly following the COVID-19 pandemic.

8.3 Respondents

The respondents were fourth-year Bachelor of Science in Accountancy students enrolled during the academic session 2024–2025. A total of 119 students were selected using purposive-convenience sampling, targeting participants who had prior experience using interactive learning platforms in their academic activities. This sampling ensured that respondents were relevant and accessible while providing insights into platform usage and engagement.

8.4 Research Instruments

Data were collected using an adapted-modified research questionnaire based on Hollister et al. (2022), "Engagement in Online Learning: Student Attitudes and Behavior During COVID-19," and modified to reflect the Nigerian accountancy education context.

The questionnaire included:

Closed-ended items with predefined response options.

Two 4-point Likert scales:

Agreement scale: 4 = Strongly Agree, 3 = Agree, 2 = Disagree, 1 = Strongly Disagree

Effectiveness scale: 4 = Very Effective, 3 = Effective, 2 = Low Effective, 1 = Very Low Effective

Reliability Testing: Using Cronbach's alpha, the instrument achieved a score of 0.927, indicating excellent internal consistency and confirming that the tool is reliable for data collection.

8.5 Data Analysis Techniques

The following statistical tools were used:

Frequency and Percentage Distribution – To determine the most and least utilized interactive learning platforms among accountancy students.

Weighted Mean and Standard Deviation – To assess average responses for variables such as active participation, collaboration, motivation, comprehension, retention, and mastery. Standard deviation was used to determine the consistency of responses.

Rank Method – To identify the preferred platforms based on usage and effectiveness.

Chi-Square Test for Independence – Employed to examine whether the level of student engagement varied significantly depending on the type of interactive learning platform used (Microsoft Teams, Google Meet,

Kahoot, Quizizz). This test evaluates if observed differences in categorical data are statistically significant (Biswal, 2023).

Summary of Findings

This chapter presents a summary of the study's findings based on the collected data, followed by conclusions drawn and recommendations derived from the results.

1. Interactive Learning Platforms Used by Accountancy Students

The findings indicate that Microsoft Teams is the most widely used interactive learning platform among accountancy students in Nigerian universities, with 95% of respondents reporting usage. Google Meet ranks second, used by 4.2%, while Kahoot! is used by only 0.8%. Quizizz had no reported usage among the respondents. These results highlight the dominance of Microsoft Teams as the primary platform for online and blended learning activities.

2. Factors Affecting Academic Engagement Using Interactive Learning Platforms

Active Participation:

Accountancy students frequently ask questions and attend virtual lectures, although fewer students consistently use cameras during online sessions. Overall, students agree that these platforms enhance participation, but there is room to improve visual engagement to further boost active involvement.

Collaboration:

Students report that features like breakout rooms, shared resources, and group projects support understanding of accounting concepts and foster teamwork. While responses vary slightly, the general consensus is that these collaborative tools enhance engagement and build confidence in group work.

Motivation:

Students generally agree that the flexibility, incentives, and self-paced nature of online learning positively impact motivation. However, some students experience challenges maintaining focus during lectures, suggesting that motivation levels can fluctuate despite the benefits offered by these platforms.

3. Effectiveness of Interactive Learning Platforms for Accountancy Students

Comprehensive Understanding:

Students find that interactive quizzes, discussions, and online resources enhance comprehension of accounting topics. Nonetheless, understanding complex accounting theories and problem-solving remains challenging for some students, indicating potential areas for platform optimization.

Retention of Knowledge:

Accountancy students report that features like online quizzes, recorded lectures, and chat discussions aid long-term retention. Although certain tools, such as repeated exposure through recorded content, are more influential, the overall perception is that the platforms effectively support knowledge retention.

Mastery of Concepts:

Students generally agree that interactive tools help them grasp key accounting principles. Online quizzes and practice activities build confidence and enhance the ability to explain concepts. Despite some variability in responses, students perceive these platforms as supportive in mastering accounting content.

4. Relationship Between the Use of Interactive Learning Platforms and Academic Engagement

Active Participation:

Statistical analysis revealed no significant relationship between platform usage and active participation. While platforms provide tools for engagement, their use did not directly influence students' participation levels.

Collaboration:

Similarly, there was no significant relationship between platform usage and collaboration. Despite students reporting benefits from group activities, these did not depend significantly on the platform itself.

Motivation:

The analysis indicated no significant relationship between platform usage and motivation. Although platforms offer flexibility and incentives, their overall impact on motivation was not statistically significant.

5. Relationship Between the Use of Interactive Learning Platforms and Their Effectiveness

Comprehensive Understanding:

No significant relationship was found between platform use and comprehensive understanding. Students benefited from interactive tools, but the platforms themselves did not significantly affect overall comprehension.

Retention of Knowledge:

Similarly, no significant relationship was observed between platform use and knowledge retention. Despite repeated exposure through quizzes and recorded lectures, the platforms did not significantly enhance long-term retention.

Mastery of Concepts:

No significant relationship was found between platform use and mastery of accounting concepts. While the tools support practice and reinforcement, their influence on achieving full mastery was limited.

Conclusions

Dominant Platform Usage:

The study revealed that Microsoft Teams is the most widely used platform among accountancy students in Nigerian universities, highlighting its effectiveness in facilitating online learning. However, the minimal use of alternative platforms such as Google Meet, Kahoot!, and Quizizz suggests limited diversity in tools that cater to different learning styles and preferences within accountancy education. This indicates a need for broader integration of interactive platforms to better address varied student needs.

Student Engagement:

Although interactive learning platforms generally enhance engagement in areas such as participation, collaboration, and motivation, differences in how students utilize platform features such as camera use during lectures highlight opportunities for improvement. The absence of a significant relationship between platform use and engagement metrics implies that platforms alone cannot sustain engagement, and a more comprehensive strategy that combines technology with other pedagogical approaches is needed.

Effectiveness in Learning Outcomes:

The platforms were effective in supporting comprehension, retention, and mastery of accounting concepts through quizzes, discussions, and practice activities. Nevertheless, the lack of a significant relationship between platform usage and deeper learning outcomes indicates that interactive tools alone are insufficient for achieving full mastery of complex accounting principles. Supplementary instructional methods are necessary to optimize academic performance.

Overall Impact:

There is no significant relationship between platform use and key measures of academic engagement or effectiveness. While benefits such as flexibility, interactive features, and accessibility are evident, the overall impact on deeper learning and academic achievement remains limited. This underscores the importance of integrating interactive platforms with active learning, personalized instruction, and other innovative pedagogical approaches to maximize their educational potential.

Recommendations

For Students:

Diversify the use of interactive platforms by exploring tools like Google Meet, Kahoot!, and Quizizz to match individual learning preferences.

Utilize specific features, such as camera use and real-time participation, to enhance focus and engagement.

Combine digital tools with traditional study strategies, including group discussions, problem-solving exercises, and practice tests, to reinforce comprehension of complex accounting concepts.

For Instructors:
Adopt teaching strategies beyond platform reliance, incorporating live assessments, online discussion forums, and collaborative activities to foster engagement.
Encourage students to use webcams and participate actively during sessions to create a more dynamic and participatory learning environment.
Combine interactive platforms with pedagogical techniques that support deeper learning, such as guided practice and feedback sessions.
For School Administrators:
Broaden the range of interactive platforms available in virtual classrooms beyond Microsoft Teams to accommodate different learning preferences.
Invest in training and professional development for instructors on effectively integrating digital tools with pedagogical strategies.
Continuously evaluate the platforms' effectiveness in promoting engagement, comprehension, and academic achievement to ensure alignment with the educational needs of accountancy students.
For Future Researchers:
Conduct further studies on the factors influencing academic engagement and effectiveness in interactive learning environments.
Consider mixed-2method approaches, combining quantitative surveys with qualitative interviews or focus groups, to gain deeper insights into student experiences.
Explore the long-term impact of digital learning platforms on learning outcomes, motivation, and skill mastery among accountancy students in Nigerian higher education.

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