



Avela Ngqunguza – Bachelor of Education in Further Education and Training (Economic and Management Sciences), Bachelor of Education Honours in Inclusive Education, Master of Education, Doctor of Philosophy in Education (in progress), Lecturer, Department of Business Management Education, Faculty of Education, Walter Sisulu University, South Africa.

Research interests: Commerce Education.

 angqunguza@wsu.ac.za

 <https://orcid.org/0000-0002-2924-1946>

УДК 378.147:371.26

<https://doi.org/10.32405/2411-1317-2026-3-206-224>

Подано до редакції: 01.09.2026

Прийнято після рецензування: 19.08.2026

Затверджено до друку: 20.08.2026

Опубліковано: 30.09.2026

CROSSING THE BRIDGE: GAMIFIED QUIZZES VERSUS TRADITIONAL ASSESSMENTS IN A SECOND-YEAR ECONOMIC AND MANAGEMENT SCIENCES CLASSROOM AT A COMPREHENSIVE UNIVERSITY

Abstract. The integration of digital technologies into higher education has transformed teaching, learning, and assessment practices. Among these innovations, gamified quizzes have emerged as an alternative assessment strategy designed to increase student engagement, motivation, and academic performance. However, traditional assessments continue to dominate university classrooms due to their perceived reliability and effectiveness in measuring learning outcomes. This study compares students' and lecturers' experiences of gamified quizzes and traditional assessments in a second-year Economic and Management Sciences (EMS) lesson at a comprehensive university. The study adopts a qualitative research approach situated within an interpretivist paradigm. A case study design was employed to explore participants' perceptions and experiences. Data was collected through semi-structured interviews with the lecturer and focus group discussions involving second-year EMS students. Thematic analysis was used to analyse the collected data.

The findings highlighted key themes: student engagement, motivation, learning effectiveness, and challenges related to technology and assessment design. Both students and the lecturer view gamified quizzes as valuable in EMS teaching, enhancing engagement, motivation, and understanding while making learning enjoyable. These results align with Constructivist Learning Theory, Self-Determination Theory, and Behaviourist principles. However, gamified quizzes should complement rather than replace traditional assessments to maintain academic rigor. The study recommends incorporating gamified quizzes into assessment strategies and emphasizes the importance of real-life scenarios and immediate feedback. Investment in technology and professional development for lecturers is also crucial for effective implementation.

Keywords: gamification; gamified quizzes; traditional assessment; student engagement.

INTRODUCTION

The rapid transformation of the global socio-economic landscape in the 21st century, driven by technological advancement, globalisation, and the demands of the Fourth Industrial Revolution (4IR), has necessitated a fundamental reconfiguration of educational priorities and practices (Lumadi, 2025). In the last few decades, considerable progress and positive changes have occurred in education. Contemporary education systems are increasingly expected to move beyond traditional content transmission towards the development of critical competencies such as problem-solving, digital literacy, collaboration, creativity, and adaptability (Patcas, 2025). Within this evolving context, there is a growing belief that traditional pedagogical approaches, which are often characterised by teacher-centred instruction and rote learning, are insufficient to meet the diverse and dynamic learning needs of modern students (Geetha, 2025). The current researcher of this study believes that innovative, student-centred methodologies must emerge as essential strategies for enhancing engagement and improving academic performance in universities.

There is a growing trend towards phasing out commerce subjects and a decline in enrolment in commerce classes in senior secondary schools, which is attributed by poor academic performance in these subjects (Ngqunguza & Seleke, 2025). The Economics and Management Sciences (EMS) module, as offered in a teacher training program in the selected university, is a foundational subject for all commerce subjects since it offers students with essential knowledge and skills required to study commerce subjects in the Further Education and Training (FET) phase (Ngwenya & Nzuzi, 2022). Hence, finding a pedagogical approach that offers a promising avenue for fostering interest, enhancing conceptual understanding, increasing engagement, promoting active participation, and improving learning outcomes in the EMS class could be pivotal (Sharma, Jayalakshmi, Tripathy, Katekhaye, & Sharma, 2024). Gamification aligns well with the preferences and learning styles of digitally oriented 21st-century students.

Gamification is a pedagogical technique that applies the mechanics of games to make learning more engaging and appealing. It is distinct from serious games, which are designed purely for educational purposes rather than amusement (Moncada & Moncada, 2014). Furthermore, it refers to the integration of game design elements such as points, badges, leaderboards, challenges, and rewards into non-game educational contexts to motivate and engage learners. According to Martí-Parreño, Seguí-Mas, and Seguí-Mas (2016), the use of games or game elements in education is not new and can be traced back to the sixties when Piaget (1962) pointed out that games could not only help children to master their environments but also to create the worlds of their imagination.

The integration of gamified mobile platforms into higher education emerges as a strategic response to the declining engagement levels often observed in traditional lecture-based delivery models for Economic and Management Sciences. By leveraging interactive digital environments, educators aim to bridge the gap between abstract theoretical frameworks and practical application, thereby fostering deeper student commitment and continuous assessment success (Montero-Benavides et al., 2025). Empirical evidence suggests that such technology-mediated interventions not only enhance behavioural engagement but also correlate positively with improved academic retention and overall performance metrics (Pechenkina et al., 2017). However, as scholarly discourse on the efficacy of these gamified approaches expands, a notable research gap remains regarding the definitive classification of optimal game design elements for meaningful learning in active university settings (Murillo-Zamorano et al., 2021). Consequently, this study explores the comparative usage of gamified digital quizzes versus traditional assessments on student motivation and cognitive engagement within the specific context of the second-year EMS Class.

Although numerous studies have examined the benefits of gamification in education, existing literature primarily focuses on primary education, secondary education, or science-related disciplines. Limited research has investigated how gamified quizzes compare with traditional assessments within higher education EMS contexts.

Furthermore, previous studies often emphasise quantitative outcomes such as test scores while overlooking participants' lived experiences, perceptions, and attitudes towards different assessment methods. This study seeks to contribute to the literature by providing an in-depth qualitative understanding of how students and lecturers experience gamified versus traditional assessment approaches.

Through a qualitative analysis, this study addresses the following research question:

1. How do students and lecturers experience and perceive gamified quizzes compared to traditional assessments in a second-year Economic and Management Sciences lesson at a comprehensive university?

LITERATURE REVIEW

1. STUDENT PERCEPTIONS OF GAMIFIED QUIZZES

1.1. Engagement and Participation

A prominent theme within educational literature is the significantly enhanced engagement that gamified quizzes foster among students (Zainuddin et al., 2020). Research indicates that students frequently experience elevated levels of participation, largely owing to interactive components such as competitive elements, real-time scoring feedback, and visually dynamic user interfaces. These features contribute to a more immersive learning experience, transforming passive learners into active participants. As a result, both emotional and behavioural engagement levels rise markedly in gamified settings (Duterte, 2024).

In stark contrast, traditional assessments are generally regarded as more static and formal in nature, which can lead to reduced levels of interaction within the classroom environment. While conventional quizzes may still be received positively by some students, the overall degree of active engagement tends to fall short compared to that found in gamified contexts. Studies suggest that the rigid structure of traditional assessments limits opportunities for interaction and dynamic involvement, leading to a less pronounced experience of engagement among learners (Kyung-Mi, 2022). Thus, the shift toward gamified quizzes presents a compelling alternative for educators seeking to enhance student participation and overall learning outcomes.

1.2. Motivation and Enjoyment

Gamified quizzes have been shown to significantly enhance student motivation and enjoyment, particularly when they integrate dynamic game mechanics such as rewards, leaderboards, and various challenges (Atmasani, Suhaeb, & Munir, 2025). These elements contribute to a more interactive and engaging assessment experience, transforming what can often feel like a daunting or high-pressure task into something much more enjoyable and approachable.

For instance, research indicates that tools like Kahoot! have a positive impact on student engagement levels in higher education (Kyung-Mi, 2022). They foster not only improved motivation but also greater concentration and active participation during learning sessions. This is largely attributed to the fun, competitive nature of gamified assessments, which encourage students to engage with the material in a lively and collaborative manner.

In contrast, traditional assessments are frequently linked to high stakes and significant performance pressure. Such environments can diminish students' intrinsic motivation and elevate anx-

xiety levels, leading to a less favourable learning atmosphere. As a result, many students begin to view gamified quizzes not just as a viable alternative, but as a more appealing and engaging way to demonstrate their knowledge and skills. By reducing the stress associated with conventional testing methods, gamified quizzes provide an opportunity for students to participate in a way that feels more supportive, allowing them to showcase their abilities without the looming fear of failure.

1.3. Learning Outcomes and Academic Achievement

The literature presents mixed findings regarding the impact of gamified quizzes on academic performance. Some studies report improved knowledge retention and understanding due to immediate feedback and repeated practice opportunities (Andretta et al., 2026). Gamification also supports continuous assessment and formative learning processes.

However, other research suggests that there may be no statistically significant difference between gamified and traditional quizzes in terms of overall academic performance, even though both methods are perceived positively (Kyung-Mi, 2022). This indicates that while gamification enhances the learning experience, it does not necessarily replace the effectiveness of traditional assessment in measuring knowledge acquisition.

2. LECTURER PERCEPTIONS OF GAMIFIED QUIZZES

2.1. Pedagogical Effectiveness

Lecturers frequently recognise gamified quizzes as effective instruments for boosting classroom interaction and enhancing student engagement. According to Mahaseth, Bajpai, & Gupta (2025), these quizzes not only make learning more enjoyable but also foster a dynamic learning environment where students feel more motivated to participate actively. The incorporation of real-time feedback is a significant advantage of gamified quizzes, as it allows instructors to gauge student comprehension on the spot. This immediate assessment capability enables educators to adjust their teaching strategies in real-time, addressing any gaps in understanding before they become more pronounced.

Moreover, gamified quizzes serve as an excellent method for formative assessment. They facilitate continuous monitoring of student progress throughout the course by providing data that highlights areas of strength and weakness (Zhang & Crawford, 2024). This ongoing assessment model supports a more personalised learning experience, allowing instructors to identify specific needs for intervention and support. By integrating gamified quizzes into their teaching practices, educators can create a more responsive and engaging learning atmosphere that ultimately enhances student outcomes.

2.2. Instructional Challenges and Constraints

Lecturers have identified a range of challenges associated with the implementation of gamified assessments in educational settings. One significant concern revolves around the necessity of aligning game design elements closely with the established learning objectives. As noted by Mirica (2026), if gamified quizzes are poorly designed, they can inadvertently lead to superficial engagement from students. This superficiality not only undermines the intended educational value of the activity but also risks diverting learners' attention away from the core learning outcomes that the assessment seeks to address. Effective gamification requires a thoughtful integration of game mechanics, narratives, and rewards that reinforce rather than distract from the educational goals.

In addition to the design-related challenges, there are considerable technological constraints that educators face when implementing gamified tools. Issues such as limited internet access and a lack of sufficient technological resources can significantly hinder the feasibility and effectiveness

of gamified assessments (Atmasani et al., 2025). These obstacles are particularly pronounced in resource-constrained educational contexts, where both instructors and students may lack the necessary infrastructure to fully engage with gamified learning environments. In such situations, the potential benefits of gamification could be diminished or rendered unachievable, highlighting the need for strategic planning and support to overcome these barriers.

2.3. Concerns About Academic Rigour

While lecturers acknowledge the benefits of gamification, many remain cautious about its ability to assess higher-order thinking skills (Joshi & Joshi, 2024). Traditional assessments are still viewed as more appropriate for evaluating complex reasoning, analytical abilities, and written communication, which are essential in EMS disciplines.

The literature consistently advocates for a balanced integration of gamified and traditional assessments in EMS education. Gamified quizzes are effective for formative assessment and engagement, while traditional methods remain essential for summative evaluation and in-depth analysis. This literature demonstrates that both students and lecturers generally perceive gamified quizzes as a valuable addition to assessment practices. From the student perspective, gamification enhances engagement while reducing anxiety. Lecturers recognise its potential for improving classroom interaction and supporting formative assessment, although concerns remain regarding design, resources, and academic rigour.

In the context of Economics and Management Sciences education, gamified quizzes offer significant benefits by addressing the abstract nature of the discipline and promoting active learning. However, they should not replace traditional assessments entirely. Instead, a strategic combination of gamified and conventional assessment methods is recommended to achieve optimal learning outcomes.

THEORETICAL LITERATURE

The implementation of gamified quizzes within the educational landscape is grounded in several key theoretical frameworks, with Constructivist Learning Theory being particularly influential (Gupta, 2024). This study draws primarily from Constructivist principles, which advocate for active participation and engagement in the learning process. According to this theory, students are likely to enhance their understanding and retention of information when they interact dynamically with the content rather than merely passively absorb it (Fernando & Marikar, 2017).

The origins of Constructivist Learning Theory can be traced back to the pioneering work of Jean Piaget in 1952. Piaget posited that learning transcends mere fact acquisition; it is a complex, active process in which individuals construct their own understanding of the world by navigating their interactions with the environment (Yildiz, 2025). His framework underscores that learners do not simply store information but instead build new knowledge upon the foundational structures created through their previous experiences and knowledge. This process occurs through two critical mechanisms: assimilation, in which individuals incorporate new information into existing cognitive frameworks, and accommodation, in which they modify their frameworks to accommodate new insights.

Gamified quizzes align seamlessly with Constructivist learning principles because they require ongoing student interaction. These quizzes not only prompt learners to engage with the material actively but also provide iterative feedback that helps guide their understanding and improvement. By integrating interactive elements, gamified quizzes create a learning environment where students can explore, experiment, and continuously refine their knowledge (Gupta, 2024).

Self-Determination Theory (SDT) serves as a secondary framework for this study, emphasizing the critical role of intrinsic motivation, autonomy, and competence in driving human behaviour and learning outcomes (Gagné et al., 2022). As developed by Deci and Ryan in 1985, SDT posits that individuals possess an innate drive for growth, learning, and psychological development. This theory asserts that optimal levels of motivation are achieved when three basic psychological needs are fulfilled: the need for autonomy, which allows individuals to feel in control of their actions; the need for competence, which reflects the desire to master skills and build confidence; and the need for relatedness, which pertains to the establishment of meaningful connections with others (Ryan & Deci, 2020).

In gamified environments, these elements are enhanced through the use of various strategies, such as achievement systems that reward individuals for reaching specific goals, feedback loops that provide continuous information about progress and areas for improvement, and opportunities for social interaction that foster a sense of community and belonging. By integrating these strategies, gamification creates an engaging and motivating context that nurtures learners' psychological needs.

From a behaviourist standpoint, gamification capitalises on principles of reinforcement and reward mechanisms. Elements such as points, badges, and leaderboards are used to incentivise and reinforce desired learning behaviours, making the educational process more interactive and enjoyable (Lampropoulos & Sidiropoulos, 2024). This dual approach not only cultivates intrinsic motivation but also strategically employs extrinsic rewards to enhance overall engagement and commitment to learning objectives.

These theoretical foundations provide a basis for understanding why gamified quizzes often produce different perceptions compared to traditional assessments.

THEORETICAL FRAMEWORK OF GAMIFIED TEACHING

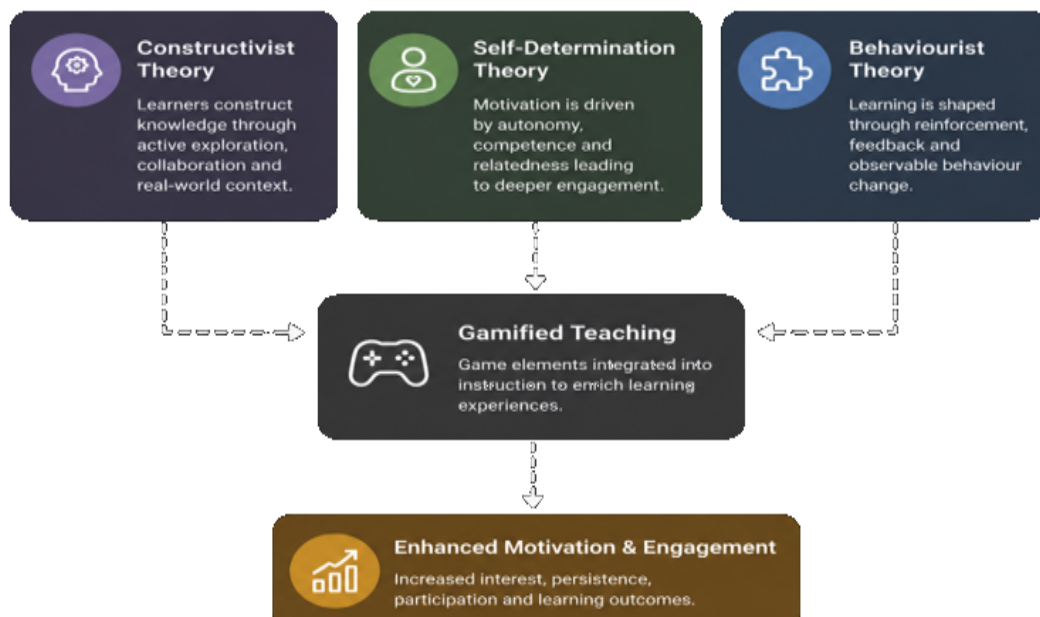


Figure 1. Theoretical framework of gamified teaching

METHODOLOGY

The researcher collected and analysed the study's data using a qualitative approach/method. According to Bhandari (2020), the qualitative strategy involves gathering and examining non-numerical data, such as a screenplay, videotape, or audio, to comprehend viewpoints, attitudes, or proficiencies. This type of research seeks to uncover meanings, concepts, definitions, traits, metaphors, symbols, and descriptions of objects (Ghorbani et al., 2024). Instead of focusing on the number of people who support or oppose the use of gamified quizzes compared to traditional assessments, this study examines how students and lecturers experience and perceive gamified quizzes compared to traditional assessments in a second-year Economic and Management Sciences lesson at a comprehensive university. The use of the qualitative research method in this study was influenced by various theoretical constraints, with a focus on understanding the use of gamification in university classrooms. This qualitative study utilises a case study approach to explore the participants' perceptions and experiences. The case study method allows for an in-depth examination of specific instances within their real-life context, providing rich insights into the complexities of the case being studied (Grossman, 2024). Unlike merely presenting abstract theories or principles, case-study research offers a concrete example of real people in real situations, which can help readers better understand the ideas being discussed (Louis et al., 2009).

The research is centred in a higher education setting. The study population comprises a university lecturer and 246 second-year Economics and Management Sciences students who have direct experience with gamification in the classroom. The researcher employed a sample-based strategy (Jurs and Wierman, 2016) with a distinct focus on purposive sampling, as defined by Patton (2015). A focus group discussion with 12 second-year students served as the primary data collection instrument, providing flexibility to explore students' experiences and perceptions of gamified quizzes compared with traditional assessments. A semi-structured interview with one lecturer was also used as a secondary data-collection instrument, in which the lecturer's perceptions of gamified quizzes were compared with those of traditional assessments. These interviews are recorded, transcribed, and analysed using thematic coding to identify common patterns and themes.

PRESENTATION OF DATA AND INTERPRETATION

This section presents the direct words of the twelve (12) second-year students interviewed using a focus group discussion. The researcher then used the manual method to transcribe the data collected from the focus group discussion with these 12 participants. As explained in the introduction, the researcher reviewed the data, became familiar with it, and then identified the main themes. The next step was to examine the data in-depth and to provide detailed descriptions of the participants' views. The researcher also categorised and coded the data, grouping them into themes. Finally, the researcher interpreted the organised data into a conclusion. The section below details how participants were coded to protect their real identities.

The coding of participants is as follows: All participants, both Students and lecturers, are coded according to their occupation.

Students are coded as follows:

Second-Year Student (SYS): 1-12

Lecturer is coded as follows:

Second-Year Lecturer: SYL

The analysis of the responses to each question and the excerpts and examples from participants are presented. The students responded to the interview questions, and their responses were presented. SYS answered the questions thus:

Can you briefly describe your experience of studying Economics and Management Sciences (EMS) at university?

- ✓ SYS1: *My experience of studying EMS at university has been good because I already had the basics of EMS before entering university. This made it easier for me to understand the work and participate in class activities. University studies also helped me gain more knowledge and understand the subject better.*
- ✓ SYS2: *My experience of studying Economics and Management Sciences (EMS) at university has been positive and informative. The module has helped me understand economic concepts, business management principles, and their application in real-life situations. It has also improved my critical thinking, problem-solving, and decision-making skills.*
- ✓ SYS3: *It was good that we had EMS but I wish we got to be deep into it, especially for students who never carried on with accounting in high school or only major in business and economics not accounting coz there are basics that we didn't go through that they needed to learn, fortunately for me I did accounting in high school and I majored in with it here in varsity. Which can also be the cause for Commerce becoming scarce coz a lot of teachers don't know how to teach the accounting part of it.*
- ✓ SYS4: *My experience was good mainly because of the prior knowledge I had on the subject, so there were no new challenges or difficulties.*

Have you participated in both gamified quizzes and traditional assessments in this module? Please explain your experience.

- ✓ SYS4: *Yes, I have participated in both gamified quizzes and traditional assessments. Gamified quizzes were more interesting and engaging because they made learning enjoyable. Traditional assessments helped me test my understanding in a more formal way.*
- ✓ SYS7: *Yes, I have participated in both gamified quizzes and traditional assessments in this module. The gamified quizzes were engaging and interactive, making learning more enjoyable while providing immediate feedback. Traditional assessments allowed me to demonstrate my understanding in a more structured manner. Both methods contributed to my learning, although I found gamified quizzes more motivating and enjoyable.*
- ✓ SYS8: *Traditional assessments, yes, but not gamified quizzes, because I thought maybe because they are not formal assessments, and the lecturer spoke of voluntary participation, hence I didn't.*
- ✓ *Not gamified quizzes but traditional assessments because gamified quizzes were voluntary, but traditional assessments are compulsory.*

Theme 1: Student Engagement and Participation

How did gamified quizzes influence your participation during EMS lessons?

- ✓ SYS11: *Gamified quizzes increased my participation during EMS lessons. They made me more active and motivated to take part in class activities.*
- ✓ SYS9: *Gamified quizzes made learning more engaging by introducing elements of fun, competition, and instant feedback. Unlike traditional assessments, they kept me actively involved throughout the lesson and motivated me to improve my performance.*

In what ways, if any, did gamified quizzes make learning more engaging than traditional assessments?

- ✓ SYS6: *They make learning more engaging because they are interactive and enjoyable. They made learning less stressful and more interesting, but they become more strenuous when given all the time.*

- ✓ SYS8: *Unlike traditional assessments, where your understanding is assessed once in a while, they kept me actively involved throughout the lesson and motivated me to improve my performance.*

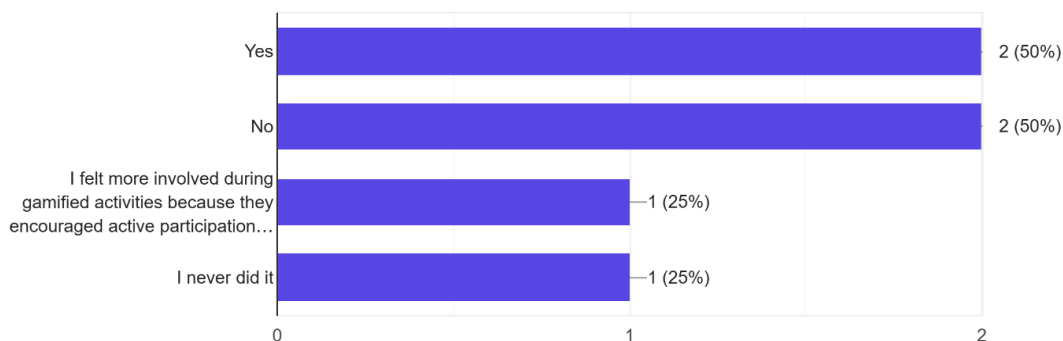
Can you describe specific features of the gamified quizzes that captured your attention and encouraged participation?

- ✓ SYS3: *Features such as points, scores, competition, and instant feedback captured my attention. They encouraged me to participate more.*
- ✓ SYS6: *Features such as points, leaderboards, timed questions, badges, and immediate feedback captured my attention and encouraged me to participate actively. These features made the learning experience more exciting and rewarding.*
- ✓ SYS8: *The use of 30 seconds to gamify some of the EMS classes to deepen the understanding of Economic concepts and formulas.*
- ✓ SYS12: *Elements like points, scores, competition, and immediate feedback drew my interest. They motivated me to engage more and maintain my concentration.*

Did you feel more involved during gamified activities? Why?

Did you feel more involved during gamified activities? Why?

4 responses



Theme 2: Motivation and Enjoyment

How did gamified quizzes affect your motivation to prepare for EMS classes? 4 responses

- ✓ SYS5: *Gamified quizzes increased my motivation to prepare for EMS classes. They encouraged me to study and understand the work before class activities.*
- ✓ SYS12: *Gamified quizzes increased my motivation to prepare for EMS classes because I wanted to perform well and achieve higher scores. They encouraged me to review the content before class and stay up to date with the work.*
- ✓ SYS7: *Learners love participation in a lesson; they love to be practical and hands-on. So, this can help them with the retention of concepts.*

How did you feel while completing gamified quizzes compared to traditional assessments?

- ✓ SYS1: *I felt more excited and interested while completing gamified quizzes compared to traditional assessments. They were less stressful and made learning more enjoyable.*
- ✓ SYS5: *Felt more excited, engaged, and confident while completing gamified quizzes. Traditional assessments often felt more formal and stressful, whereas gamified quizzes fostered*



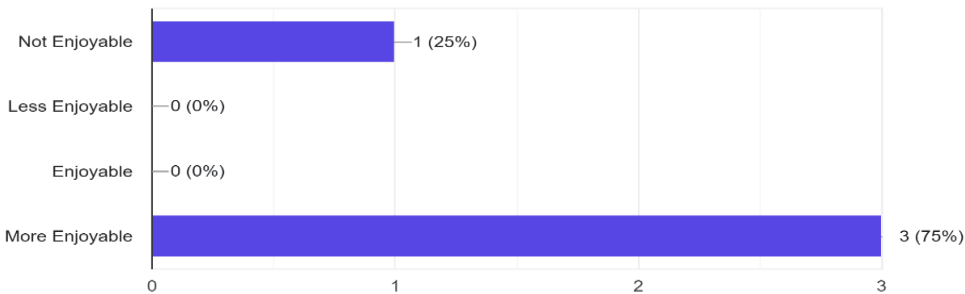
a relaxed, enjoyable learning environment.

- ✓ **SYS3:** *Concepts are easy to capture and have long retention in your mind, whereas using traditional assessments, they are tedious.*

To what extent did gamified quizzes make learning enjoyable?

To what extent did gamified quizzes make learning enjoyable?

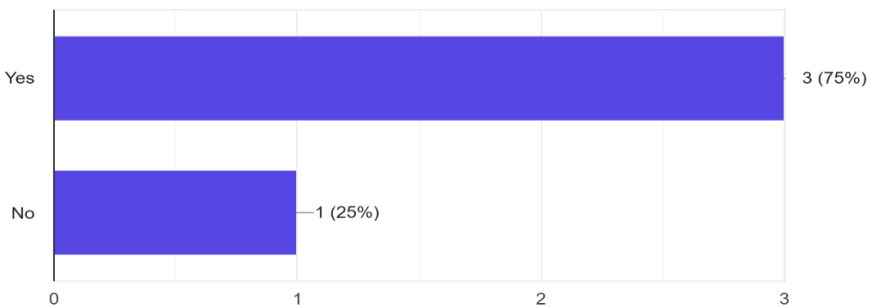
4 responses



Did they reduce anxiety?

Did they reduce anxiety?

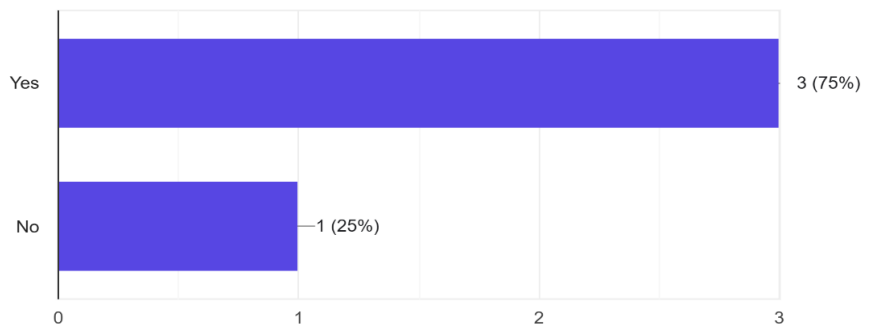
4 responses



Did competition motivate you?

Did competition motivate you?

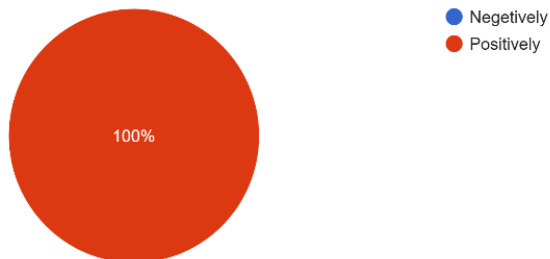
4 responses



How did feedback affect your motivation?

How did feedback affect your motivation?

4 responses



Theme 3: Learning and Understanding.

How did gamified quizzes help you understand EMS concepts?

- ✓ SYS11: *Gamified quizzes helped me understand EMS concepts by making learning more interactive and easier to remember. They also provided quick feedback, which helped me identify and correct my mistake.*
- ✓ SYS5: *Gamified quizzes helped me understand EMS concepts by breaking complex topics into smaller, interactive questions. They encouraged active participation and allowed me to identify areas where I needed further understanding.*
- ✓ SYS7: *As I have said earlier, it increases the retention of knowledge.*

Recommendations

What improvements would you suggest for the use of gamified quizzes in EMS lessons?

- ✓ SYS10: *I would suggest adding more variety in questions, increasing interactive activities, and including more real-life EMS examples. This would make learning more interesting and improve understanding.*
- ✓ SYS3: *Gamified quizzes could be improved by including a wider variety of questions, providing more detailed explanations for correct and incorrect answers, and incorporating more real-life EMS scenarios. Increasing the frequency of quizzes and allowing more time for difficult questions could also enhance learning.*
- ✓ SYS8: *They should be with the same rules as regular games, but this one with prizes that students retain for more motivation.*

How should lecturers balance gamified quizzes and traditional assessments in the future?

- ✓ SYS5: *Lecturers should use both gamified quizzes and traditional assessments in a balanced way. Gamified quizzes can be used for engagement and understanding, while traditional assessments can be used to evaluate knowledge and academic performance.*
- ✓ SYS9: *Lecturers should use gamified quizzes as a regular formative assessment tool to reinforce learning and identify areas of difficulty, while traditional assessments should be used to evaluate deeper understanding and overall academic performance. A combination of both methods would provide a balanced and effective learning experience.*

The secondary data was collected from the lecturers' responses. The lecturer responded to the semi-structured interview questions, and the responses are presented below. SYL answered the questions thus:

Please describe your teaching experience in Economics and Management Sciences.

- ✓ *I have been teaching Economics and Management Sciences to undergraduate students for several years, primarily at the second-year level. My teaching focuses on developing both conceptual understanding and practical application in areas such as microeconomics, financial literacy, and business management.*

What motivated you to introduce gamified quizzes into your EMS classroom?

- ✓ *My motivation stemmed from a need to increase student engagement and make abstract EMS concepts more accessible and interactive. Traditional lectures often resulted in passive learning, so I explored gamification to create a more student-centred environment.*

How long have you been using gamified assessment tools?

- ✓ *I have been using gamified assessment tools for approximately 2–3 years, integrating them into both formative assessments and revision activities.*

Theme 1: Pedagogical Effectiveness

How would you describe your overall experience of using gamified quizzes in EMS

teaching?

- ✓ *My experience has been positive. Gamified quizzes create an energetic classroom atmosphere and encourage participation, particularly among students who are usually less vocal.*

In what ways have gamified quizzes influenced student engagement and participation?

- ✓ *These quizzes significantly increase engagement. Students are more willing to participate when learning feels interactive and fun. Participation levels have improved, especially during revision sessions.*

How have gamified quizzes affected students' learning and understanding of EMS

concepts?

- ✓ *Gamified quizzes help reinforce key concepts through repetition and instant application. They promote active recall, which enhances understanding of EMS theories and principles.*

Theme 2: Student Motivation

How have students responded to gamified quizzes?

- ✓ *Students generally respond very positively. They enjoy the competitive and interactive nature of gamified quizzes.*

What impact have gamified quizzes had on student motivation and enthusiasm for learning?

- ✓ *Gamified quizzes increase motivation by introducing elements such as competition, rewards, and immediate feedback. Students often express more enthusiasm for attending class.*

Have you observed any differences in student confidence when using gamified quizzes?

- ✓ *Yes, I have observed improved confidence. The low-stakes environment allows students to attempt answers without fear of heavy penalties, which builds their self-assurance.*

Theme 3: Assessment and Learning Outcomes

How effective are gamified quizzes in assessing students' understanding of EMS

concepts?

- ✓ *Gamified quizzes are effective for assessing foundational knowledge and conceptual understanding, particularly in formative assessment contexts.*

How do gamified quizzes compare with traditional assessments in measuring student learning?

- ✓ *While traditional assessments measure greater analytical skills and long-form reasoning, gamified quizzes are better suited for quick knowledge checks and revision.*

What role does immediate feedback play in supporting student learning?

- ✓ *Immediate feedback is one of the most valuable aspects. It helps students identify misconceptions instantly and correct them before they become entrenched.*

Theme 4: Challenges and Constraints

What challenges have you experienced when implementing gamified quizzes?

- ✓ *Some challenges include designing high-quality questions and managing time effectively during lessons.*

How have technological issues influenced the use of gamified assessments?

- ✓ *Technological issues, such as unstable internet connections, can disrupt the flow of activities and reduce effectiveness.*

What difficulties do students encounter when participating in gamified quizzes?

- ✓ *Some students struggle due to limited access to devices or a lack of familiarity with digital platforms.*

Theme 5: Academic Rigour and Assessment Quality

Do you believe gamified quizzes adequately assess higher-order thinking skills? Why or why not?

- ✓ *Gamified quizzes can assess higher-order thinking to some extent, but they are often limited by format (e.g., multiple-choice). A more complex question design is needed to address this fully.*

What aspects of learning are better assessed through traditional assessments?

- ✓ *Traditional assessments are better for evaluating critical thinking, problem-solving, and written communication skills.*

How can gamified quizzes be improved to enhance academic rigour?

- ✓ *Gamified quizzes can be improved by incorporating scenario-based questions, case studies, and justification-based responses rather than simple recall questions.*

Theme 6: Comparison of Assessment Methods

What are the major differences between gamified quizzes and traditional assessments?

- ✓ *Gamified quizzes are interactive, immediate, and engaging, while traditional assessments are more formal, structured, and comprehensive.*

Which assessment approach do you believe contributes most to student learning, and why?

- ✓ *A blended approach contributes most to student learning. Each method serves a different purpose and complements the other.*

Should gamified quizzes replace traditional assessments, complement them, or remain optional? Please explain.

- ✓ *Gamified quizzes should complement rather than replace traditional assessments. They are best used as formative tools.*

Theme 7: Recommendations.

What recommendations would you make regarding the future use of gamified quizzes in EMS education?

- ✓ *I recommend expanding the use of gamified quizzes, particularly for continuous assessment and revision purposes.*

How can universities better support lecturers who wish to implement gamification?

- ✓ *Universities can support lecturers by providing access to reliable digital platforms, training workshops, and technical support.*

Is there anything else you would like to add regarding the use of gamified quizzes and traditional assessments in higher education?

- ✓ *Gamified quizzes represent a valuable innovation in higher education. However, they should be implemented thoughtfully to ensure they enhance, rather than dilute, academic rigour. A balanced approach that combines traditional and innovative assessment methods is key to effective teaching and learning.*

DISCUSSION OF FINDING

THEME 1: STUDENT ENGAGEMENT AND PARTICIPATION

The findings indicate that gamified quizzes significantly enhanced student engagement and participation during EMS lessons. Students reported that elements such as points, leaderboards, competition, badges, timed questions, and immediate feedback encouraged active involvement in classroom activities. Participants explained that gamified quizzes made lessons more interactive, enjoyable, and less stressful than traditional assessments. Similarly, the lecturer observed that participation levels increased, particularly among students who were usually reluctant to contribute during lessons. These findings support previous studies that identified engagement as one of the primary benefits of gamification in education. According to Zainuddin et al. (2020), gamified learning environments promote higher levels of student engagement by transforming passive learners into active participants. Similarly, Duterte (2024) found that game-based assessment tools increase behavioural and emotional engagement through interactive features that sustain student interest throughout the learning process. The findings further align with Kyung-Mi (2022), who argues that traditional assessments often limit interaction because of their formal and rigid structure, whereas gamified quizzes encourage continuous participation.

From a Constructivist Learning Theory perspective, the increased participation observed in this study demonstrates how students actively construct knowledge through interaction with learning activities. Constructivist theory suggests that learning occurs more effectively when learners engage directly with content and receive opportunities to test and refine their understanding (Fernando & Marikar, 2017). Therefore, the active participation reported by students confirms the relevance of constructivist principles in gamified learning environments.

THEME 2: MOTIVATION AND ENJOYMENT

The findings revealed that gamified quizzes positively influenced student motivation and enjoyment. Students reported that gamified activities encouraged them to prepare for classes, revise course content, and remain up to date with learning materials. Participants described feeling excited, interested, confident, and enthusiastic when completing gamified quizzes. Several students indicated that gamified quizzes reduced stress and anxiety commonly associated with traditional assessments. The lecturer similarly observed increased enthusiasm, confidence, and willingness to participate among students.

These findings corroborate previous research demonstrating the motivational benefits of gamification. Atmasani, Suhaeb, and Munir (2025) found that game elements such as rewards, challenges, and leaderboards enhance learners' intrinsic and extrinsic motivation. Likewise, Kyung-Mi (2022) reported that gamified tools such as Kahoot! improve student concentration, participation, and enjoyment in higher education settings. The present findings also support the assertion that traditional assessments often create pressure and anxiety, which may negatively affect learner motivation and engagement (Atmasani et al., 2025).

The findings can further be interpreted through Self-Determination Theory (SDT). According to Ryan and Deci (2020), learners are more motivated when their needs for autonomy, competence, and relatedness are satisfied. In this study, immediate feedback allowed students to experience competence, while competition and participation promoted social interaction and relatedness. Consequently, gamified quizzes created a learning environment that fulfilled key psychological needs, thereby enhancing motivation and enjoyment.

Furthermore, the findings support the behaviourist perspective that reinforcement through rewards, points, and achievements can encourage desired learning behaviours (Lampropoulos & Sidiropoulos, 2024). Students' willingness to prepare for classes and actively participate suggests that gamified rewards successfully reinforced positive academic behaviours.

THEME 3: LEARNING AND UNDERSTANDING OF EMS CONCEPTS

The findings indicate that gamified quizzes contributed positively to students' understanding of EMS concepts. Students explained that gamified quizzes simplified complex topics into manageable questions, promoted active participation, and enhanced knowledge retention. The lecturer similarly stated that gamified quizzes reinforced key concepts through repetition, active recall, and immediate application. These findings are consistent with the work of Andretta et al. (2026), who found that gamified assessments improve knowledge retention and conceptual understanding through immediate feedback and repeated practice opportunities. Similarly, Gupta (2024) argues that gamified learning environments encourage learners to actively engage with content, thereby strengthening understanding and memory retention. The findings further support Constructivist Learning Theory, which emphasises that learners build knowledge through active engagement and continuous interaction with learning materials (Yildiz, 2025). Students' reports of improved retention and understanding suggest that gamified quizzes facilitated meaningful learning experiences where learners actively constructed knowledge rather than passively receiving information.

However, while students perceived improvements in understanding and retention, the literature suggests that gamification may not necessarily result in significantly higher academic performance than traditional assessments. Kyung-Mi (2022) found that although students generally perceive gamified assessments positively, differences in overall academic achievement between gamified and traditional assessments may not always be statistically significant. Therefore, while gamification appears to enhance the learning experience, its direct influence on academic performance may vary depending on implementation and context.

THEME 4: PEDAGOGICAL EFFECTIVENESS

The lecturer perceived gamified quizzes as valuable pedagogical tools that promote classroom interaction and facilitate formative assessment. The lecturer noted that gamified quizzes provided immediate feedback, allowed continuous monitoring of student progress, and created a more student-centred learning environment. These findings align with Mahaseth, Bajpai, and Gupta (2025), who found that gamified quizzes enhance classroom participation and create dynamic learning environments. Similarly, Zhang and Crawford (2024) argue that gamified assessments support formative assessment by providing continuous information about student learning, enabling lecturers to identify misconceptions and address learning difficulties promptly. The findings suggest that gamified quizzes are particularly effective as formative assessment tools because they provide immediate feedback that supports learning while enabling lecturers to adjust instructional approaches when necessary.

THEME 5: CHALLENGES AND CONSTRAINTS

Despite the generally positive perceptions, both students and the lecturer noted several challenges associated with gamified quizzes. The lecturer pointed out issues related to question design,

time management, unstable internet connectivity, and limited access to technological devices. Additionally, some students faced difficulties stemming from a lack of familiarity with digital platforms. These observations reinforce previous research that has identified technological and implementation hurdles as significant barriers to effective gamification. Atmasani et al. (2025) found that inadequate technological infrastructure and insufficient digital resources can diminish the effectiveness of gamified learning environments. Similarly, Mirica (2026) argues that poorly designed gamified activities may result in superficial engagement, diverting learners from the intended educational objectives. These findings suggest that the successful implementation of gamified quizzes demands adequate institutional support, reliable technological infrastructure, and thoughtful instructional design. Without these essential conditions, the educational advantages of gamification may be undermined.

THEME 6: ACADEMIC RIGOUR AND ASSESSMENT QUALITY

The findings revealed significant concerns regarding the capability of gamified quizzes to effectively assess higher-order thinking skills. The lecturer acknowledged that while gamified quizzes excel in evaluating foundational knowledge and conceptual understanding, they may fall short in measuring critical thinking, analytical reasoning, and written communication skills. Traditional assessments were viewed as more appropriate for evaluating these complex cognitive abilities. This perspective aligns with the work of Joshi and Joshi (2024), who posit that gamified assessments often emphasize recall and recognition over deeper cognitive processes. Furthermore, the lecturer's observations resonate with existing literature suggesting that traditional assessments are crucial for gauging deep understanding, analytical reasoning, and problem-solving abilities within higher education contexts. Consequently, the findings advocate for the use of gamified quizzes to complement rather than substitute traditional assessments. While gamified quizzes effectively enhance engagement and promote formative learning, traditional assessments remain essential for comprehensively evaluating academic achievement and higher-order thinking skills.

THEME 7: RECOMMENDATIONS FOR FUTURE USE OF GAMIFIED QUIZZES

Both students and the lecturer advocated for the expanded use of gamified quizzes while simultaneously maintaining a balance with traditional assessments. Students proposed incorporating a greater variety of questions, real-life EMS scenarios, detailed explanations for answers, enhanced interactivity, and motivational incentives such as rewards. The lecturer suggested the inclusion of scenario-based questions, case studies, and justification-based responses to bolster academic rigour. These recommendations are in line with existing literature that supports the strategic integration of both gamified and traditional assessment methods. According to Joshi and Joshi (2024), integrating authentic and scenario-based tasks into gamified assessments can enhance their effectiveness in evaluating higher-order thinking skills. Similarly, Zhang and Crawford (2024) underscore the significance of combining formative gamified assessments with traditional summative assessments to optimize learning outcomes. Thus, the findings advocate for a blended assessment approach in which gamified quizzes serve to enhance engagement, revision, and formative assessment, while traditional assessments are retained for evaluating deeper conceptual understanding and academic performance.

CONCLUSION

In conclusion, the findings demonstrate that both students and the lecturer see gamified quizzes as a valuable addition to EMS teaching and assessment. Gamified quizzes enhance engagement and conceptual understanding while creating a more enjoyable learning experience. These findings support Constructivist Learning Theory, Self-Determination Theory, and Behaviourist principles, all of which explain the positive influence of gamification on learning. However, challenges related to technology, assessment design, and academic rigour suggest that gamified quizzes should not

replace traditional assessments entirely. Instead, a balanced approach that combines the strengths of both gamified and traditional assessment methods appears most appropriate for promoting meaningful learning and achieving optimal educational outcomes in EMS education.

RECOMMENDATIONS

Based on the findings, the study recommends that lecturers regularly integrate gamified quizzes as formative assessment tools to enhance student engagement. It is essential to maintain a balanced assessment strategy that combines gamified quizzes with traditional assessments to ensure both student engagement and academic rigour. Furthermore, incorporating real-life EMS scenarios and case studies into gamified quizzes can strengthen critical thinking and problem-solving skills. Immediate and detailed feedback during gamified activities is crucial for supporting learning and conceptual understanding. To facilitate effective implementation, it is important to invest in technological infrastructure, including reliable internet connectivity and access to digital devices. Additionally, offering professional development opportunities focused on gamification design and implementation for lecturers will further enhance this approach.

Developing higher-order gamified assessment tasks that extend beyond factual recall to include analysis, evaluation, and application of knowledge is also recommended. Gamified quizzes should primarily be utilised for revision and continuous assessment, while traditional assessments can be retained for summative evaluation and measurement of deeper learning outcomes. To sustain student interest and motivation, it is advisable to increase the variety of gamified activities, including rewards, collaborative challenges, and scenario-based questions. Lastly, establishing institutional support systems that provide technical assistance and access to suitable gamification platforms for both lecturers and students is essential for success.

References

- Andretta, V., Elia, R. A., Colangelo, M., Rubbi, I., Santoro, E., Boccia, G., Cascella, M., & Cerrone, V. (2026). Effectiveness of Gamification Versus Traditional Teaching Methods on Learning, Motivation, and Engagement in Undergraduate Nursing Education: A Systematic Review. *International Medical Education*, 5(1), 5. <https://doi.org/10.3390/ime5010005>
- Atmasani, D., Suhaeb, S., & Munir, N. S. (2025). The Effectiveness of Kahoot! in Increasing Student Participation and Learning Outcomes in Higher Education. *Information Technology Education Journal*, 255-262. <https://doi.org/10.59562/intec.v4i2.8393>
- Bhandari, P. (2020). *An introduction to qualitative research*. Scribbr.
- Duterte, J. P. (2024). The impact of educational gamification on student learning outcomes. *International Journal of Research and Innovation in Social Science*, 8(10), 477-487. <https://doi.org/10.47772/IJRIS.2024.8100040>
- Fernando, S. Y., & Marikar, F. M. (2017). Constructivist teaching/learning theory and participatory teaching methods. *Journal of curriculum and teaching*, 6(1), 110-122. <https://doi.org/10.5430/jct.v6n1p110>
- Gagné, M., Parker, S. K., Griffin, M. A., Dunlop, P. D., Knight, C., Klonek, F. E., & Parent-Rochelleau, X. (2022). Understanding and shaping the future of work with self-determination theory. *Nature reviews psychology*, 1(7), 378-392. <https://doi.org/10.1038/s44159-022-00056-w>
- Geetha, V. (2025). Teaching-Learning Pedagogy: Contemporary Approaches. *Multidisciplinary Research Area in Arts, Science & Commerce* (vol. 9), p. 6.
- Ghorbani, F., Kamali, M., Ranjbar, H., Kamyab, M., Razavi, H., & Babaei, T. (2024). Brace compliance process in adolescents with spinal deformities: A qualitative study. *PloS one*, 19(8), p.e0305754. <https://doi.org/10.1371/journal.pone.0305754>
- Grossman, R. W. (2024). *Encouraging critical thinking using the case study method and cooperative learning techniques*.
- Gupta, A. K. (2024). Gamification in Education: Evaluating its Impact on Student Engagement and Learning Outcomes. *TPJ* 2(4), 5-8.

- Joshi, N., & Joshi, M. (2024). Gamified AI-driven assessments. *Journal of Scientific and Engineering Research*, 11(11), 108-114. <https://doi.org/10.22214/ijraset.2023.56393>
- Kyung-Mi, O. (2022). A comparative study of gamified and conventional online quizzes. *International Journal of Emerging Technologies in Learning (IJET)*, 17(3), 152-172. <https://doi.org/10.3991/ijet.v17i03.26349>
- Lampropoulos, G., & Sidiropoulos, A. (2024). Impact of gamification on students' learning outcomes and academic performance: A longitudinal study comparing online, traditional, and gamified learning. *Education Sciences*, 14(4), 367. <https://doi.org/10.3390/educsci14040367>
- Lumadi, R. I. (2025). Reimagining Education Systems for Curriculum Justice in the Fourth and Fifth Industrial Revolutions. *Africa Education Review*, 21(3), 30-45. <https://doi.org/10.1080/18146627.2025.2578356>
- Mahaseth, H., Bajpai, A., & Gupta, A. (2025). Gamified Learning in Education: How Online Quizzes like Kahoot Transform Classroom Dynamics. *Engineering Proceedings*, 107(1), 41. <https://doi.org/10.3390/engproc2025107041>
- Martí-Parreño, J., Seguí-Mas, D. and Seguí-Mas, E. (2016). Teachers' attitude towards and actual use of gamification. *Procedia-Social and Behavioural Sciences*, (228), 682-688. <https://doi.org/10.1016/j.sbspro.2016.07.104>
- Mirica, A. (2026). Using Kahoot! in Teaching Statistics and Econometrics to Undergraduate Students in Economic Higher Education in the Post-Pandemic Era. *Ovidius University Annals, Economic Sciences Series*, 25(2), 273-281.
- Moncada, S. M., & Moncada, T. P. (2014). Gamification of learning in accounting education. *Journal of Higher Education Theory & Practice*, 14(3).
- Montero-Benavides, P., Albort-Morant, G., & Masero-Moreno, I. C. (2025). Evaluating a gamified assessment model to enhance performance and engagement in finance education: A quasi-experimental study. *The International Journal of Management Education*, 23(3), 101266. <https://doi.org/10.1016/j.ijme.2025.101266>
- Murillo-Zamorano, L. R., López Sánchez, J. Á., Godoy-Caballero, A. L., & Bueno Munoz, C. (2021). Gamification and active learning in higher education: is it possible to match digital society, academia and students' interests? *International Journal of Educational Technology in Higher Education*, 18(1), 15. <https://doi.org/10.1186/s41239-021-00249-y>
- Ngwenya, J.C. and Nzuza, S., 2022. Teachers' views on the role of economic and management sciences in preparing learners for accounting in the Further Education and Training Phase. *South African Journal of Education*, 42(4), 1-8. <https://doi.org/10.15700/saje.v42n4a2131>
- Patcas, A., 2025. Navigating educational change: Embedding adaptability, critical thinking, communication, and digital literacy. In *INTED2025 Proceedings* (pp. 1757-1760). IATED. <https://doi.org/10.21125/inted.2025.0525>
- Patton, M. Q. (2015). *Qualitative research and evaluation methods* (4th Ed.). SAGE Publications.
- Pechenkina, E., Laurence, D., Oates, G., Eldridge, D., & Hunter, D. (2017). Using a gamified mobile app to increase student engagement, retention and academic achievement. *International Journal of Educational Technology in Higher Education*, 14(1), 31. <https://doi.org/10.1186/s41239-017-0069-7>
- Ryan, R. M., & Deci, E. L. (2020). Intrinsic and extrinsic motivation from a self-determination theory perspective: Definitions, theory, practices, and future directions. *Contemporary educational psychology*, (61), 101860. <https://doi.org/10.1016/j.cedpsych.2020.101860>
- Sharma, A. V. N. S., Jayalakshmi, S., Tripathy, A., Katekhaye, D., & Sharma, A. (2024). Exploring innovative pedagogical approaches for enhanced student engagement. *Decision making: Applications in management and engineering*, 7(1), pp. 175-188.
- Yildiz, T. (2025). From Constructivism To Cultural Cognition: A Comparative Analysis Of Piaget, Vygotsky, And Tomasello's Theories Of Cognitive Development. *Humanitas-Uluslararası Sosyal Bilimler Dergisi*, 13(25), 411-429. <https://doi.org/10.20304/humanitas.1601228>
- Zainuddin, Z., Shujahat, M., Haruna, H., & Chu, S. K. W. (2020). The role of gamified e-quizzes on student learning and engagement: An interactive gamification solution for a formative assessment system. *Computers & Education*, (145), 103729. <https://doi.org/10.1016/j.compedu.2019.103729>
- Zhang, Z., & Crawford, J. (2024). EFL learners' motivation in a gamified formative assessment: The case of Quizizz. *Education and Information Technologies*, 29(5), 6217-6239. <https://doi.org/10.1007/s10639-023-12034-7>

Авела Нгунгуза – бакалавр освіти за спеціальністю «Подальша освіта та професійна підготовка (економічні та управлінські науки)», бакалавр освіти з відзнакою за спеціальністю «Інклюзивна освіта», магістр освіти, здобувач ступеня доктора філософії в галузі освіти, викладач кафедри освіти у сфері бізнес-менеджменту факультету освіти Університету Волтера Сісулу, Південно-Африканська Республіка.
Коло наукових інтересів: освіта у сфері комерції.

ГЕЙМІФІКОВАНІ ТЕСТИ І ТРАДИЦІЙНІ ФОРМИ ОЦІНЮВАННЯ В НАВЧАННІ ЗДОБУВАЧІВ ОСВІТИ ДРУГОГО КУРСУ ЗА НАПРЯМОМ «ЕКОНОМІЧНІ ТА УПРАВЛІНСЬКІ НАУКИ»

Анотація. Інтеграція цифрових технологій у систему вищої освіти трансформувала підходи до організації навчання, викладання та оцінювання результатів навчальної діяльності. Серед інноваційних підходів до оцінювання особливого значення набувають гейміфіковані тести, що розглядаються як альтернативна стратегія оцінювання, спрямована на підвищення залученості студентів до навчання, їхньої мотивації та академічної успішності. Водночас традиційні форми оцінювання продовжують домінувати в університетській практиці завдяки їхній усталеній репутації як надійного та ефективного інструменту вимірювання результатів навчання. Метою дослідження є порівняння досвіду студентів і викладача щодо використання гейміфікованих тестів і традиційних форм оцінювання під час навчання здобувачів освіти другого курсу за напрямом «Економічні та управлінські науки» (Economic and Management Sciences, EMS) в університеті. Дослідження здійснено на засадах якісного підходу в межах інтерпретативної парадигми. Для вивчення сприйняття та досвіду учасників застосовано дизайн дослідження окремого випадку (case study). Збір даних здійснювався за допомогою напівструктурованого інтерв'ю з викладачем і фокус-групових обговорень за участю студентів другого курсу за напрямом EMS. Для аналізу отриманих даних використано тематичний аналіз.

Результати дослідження дали змогу виокремити чотири ключові тематичні напрями: залученість студентів до навчання, мотивація, ефективність навчання та проблеми, пов'язані з технологічним забезпеченням і дизайном оцінювання. І студенти, і викладач позитивно оцінюють використання гейміфікованих тестів у процесі викладання дисциплін економічного та управлінського спрямування, оскільки вони сприяють підвищенню залученості й мотивації студентів, поглибленню розуміння навчального матеріалу та створенню більш позитивного емоційного досвіду навчання. Отримані результати узгоджуються з положеннями конструктивістської теорії навчання, теорії самодетермінації та біхевіористськими принципами. Водночас гейміфіковані тести доцільно використовувати як доповнення, а не як заміну традиційних форм оцінювання, що дасть змогу зберегти належний рівень академічної вимогливості та об'єктивності оцінювання. Рекомендовано інтегрувати гейміфіковані тести до стратегій оцінювання результатів навчання, приділяючи особливу увагу використанню реальних життєвих ситуацій і забезпеченню оперативного зворотного зв'язку. Важливими передумовами ефективного впровадження гейміфікованого оцінювання визначено належне технологічне забезпечення та професійний розвиток викладачів.

Ключові слова: гейміфікація; гейміфіковані тести; традиційне оцінювання; залученість студентів до навчання.