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FROM BOREDOM TO ENGAGEMENT: THE IMPACT OF KAHOOT AND QUIZIZZ ON STUDENTS' LEARNING PARTICIPATION IN ECONOMICS CLASSES

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Abstract: *Game-based learning enhances both enjoyment and effectiveness in the classroom by incorporating elements such as scoring, competition, and teamwork to maintain student engagement and assess knowledge. In this study, Kahoot and Quizizz were used as online tools to reinforce previously learned economics concepts, aiming to reduce boredom and fatigue in online learning environments. The results show that these platforms increased student participation and engagement in class. Furthermore, the study emphasizes the need to equip teaching staff with skills in digital learning tools as game-based learning continues to gain traction in higher education.*

Keywords: *Digital Learning, Game-Based Learning, Kahoot, Quizizz, Students Engagement*

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Introduction

The advancement of digital learning technologies has transformed the educational landscape, promoting a shift from traditional lecture-based instruction to more interactive and student-centered approaches. Higher education globally encounters considerable challenges in maintaining student engagement, attributed to information overload, technological distractions, and restricted attention spans (Baker et al., 2010). These challenges are especially pronounced in economics, a subject that known for its reliance on abstract theories, mathematical models, analytical reasoning and disconnected from daily experiences. Low motivation and declining classroom participation often hinder students' ability to grasp economic concepts effectively. To address these issues, game-based learning (GBL) platforms have emerged as promising tools that transform traditional lectures into interactive, enjoyable, and competitive activities.

Game-based learning (GBL) is digital strategy that combines entertainment with educational value. GBL integrates gameplay elements such as scoring, leaderboards, peer competition, and collaboration into the learning environment, helping students retain information, maintain their interest, and stay engaged in economic classes. During digital age, students are more interested in digital game formats because they belong to a generation that is continuously surrounded by technology. Using digital games to enhance learning is one such strategy to effectively cultivate students' interest in economics an able to give number of benefits such as enhance student understanding and engage with complex economic concepts (Adnan & Majid, 2024). According to Platz (2022), the integration of commercial game elements in educational contexts enhances learning experiences and promotes practical skill development. Moreover, Zaina et al. (2019) and Gachkova & Somova (2016) emphasize that gamified content in higher education improves concept retention, fosters creativity, and increases motivation.

Two of the most well-known gamified learning tools are Kahoot and Quizizz, which use quizzes, real-time feedback, and game features to turn conventional classroom exercises into interactive experiences (Maraza-Quispe et. al., 2024). They are especially helpful in subjects like economics because they promote peer competition, active engagement, and immediate feedback, which improves digital skills and keeps students interested throughout the classes, particularly during online classes. Therefore, this study specifically aims to evaluate how Kahoot and Quizizz enhance student participation and engagement in economics, offering insights into their role as digital solutions specifically to improved learning outcomes in economics classes and generally to persistent global and local educational challenges.

Literature Review

The advancement in digital technology has drastically changed the educational landscape. Among these advances, game-based learning (GBL) and digital learning tools have become well-known due to their capacity to encourage deeper engagement in the classroom and actively engage students. In contrast to conventional lecture-based approaches, digital and game-based platforms offer dynamic, student-centered settings that promote inspiration, teamwork, and instant feedback. These characteristics work especially well for engaging students, maintaining their interest, and encouraging a sense of participation in their educational process. In order to improve academic results and provide meaningful learning experiences, it is now more crucial than ever to include digital learning and GBL in educational practices.

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Digital Learning

Teaching and learning processes have undergone substantial change because of the implementation of digital learning platforms into classrooms, especially in terms of raising student participation and engagement. Active learning is promoted by dynamic and engaging settings offered by digital tools like Google Classroom that can be used for interactive simulations and online tests. Research by Gameil and Al-Abdullatif (2023) showed that Google Classroom successfully enhanced preservice teachers' cognitive, behavioral, and social engagement levels as well as their instructional design abilities. In a similar vein, Carlos's (2024) study has shown that students' involvement in science classes is positively impacted by the availability of a variety of digital learning aids, highlighting the function of digital resources in encouraging focus and active engagement.

Learning is an activity that has implications for a change towards progress regarding knowledge, attitudes and skills. Digital learning is a tool used to present contextual, audio, and visual learning materials in an engaging and interactive manner. Digital learning refers to technology-assisted platforms such as LCD projectors and applications like Canva, Powtoon, and PowerPoint. Therefore, it can be concluded that digital learning media is a technology-supported tool used in the learning process that incorporates interesting and interactive contextual, audio, and visual elements through platforms such as Canva, Powtoon, PowerPoint, and others (Fresdiana & Sutirman, 2025)

The study by Pagutayao and Paglinawan (2024) reveals that the use of digital learning tools has shown a significant positive correlation with student engagement. These tools, including online simulations and interactive software, enhance students' behavioral, emotional, and cognitive engagement. The study emphasizes the importance of enhancing the variety of digital learning resources to boost student motivation and interest mentions that digital learning significantly boosts student engagement.

Flexibility, interactivity, and personalized experiences have made digital learning is needed in modern education to enhance student engagement and performance in online learning environments. They integrate multimedia content, gamification, and real-time feedback, creating an immersive and participatory learning environment. Data analytics enable educators to track progress and tailor content to individual student needs, leading to more effective learning outcomes. Technology-driven approaches improve motivation, collaboration, and active participation (Bajaj, 2024; Alqahtani et al., 2024).

Game-based Learning in Teaching and Learning

Game-based learning (GBL) has emerged as a widely recognized educational method to enhance student engagement, motivation, and academic achievement. According to Adipat et. al. (2021), the use of GBL or digital games in the classroom is beneficial for student motivation, engagement, teamwork, quick feedback, creativity, lateral thinking, risk-taking, and preparation for future jobs. These games use images, sounds, and color to foster responsiveness and maximize user attention. Teachers can assign groups to play challenging games that call for students to use teamwork skills like communication and negotiation. Additionally, games also provide instant feedback and allow students to return to completed levels to improve their scores. Creativity and lateral thinking are promoted through independent decision-making and the capacity to imagine practical viability. Furthermore, technology provides access to high-

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quality resources, helping students maintain their curiosity in technology-related ideas as they progress through learning institutions, college, and the workforce.

GBL is best suited for the education system because it is useful to plan the education. Students preferred and were more involved in the game-based lecture because it involve engagement and teamwork (Hartt et al., 2020). The study investigated the usefulness of game-based learning in planning education and found positive results on this matter.

This is supported by Liu et al. (2020), who reported that the study showed that students were very interested in continuing their studies through game-based learning. Furthermore, none of the participants expressed disinterest in the learning process. The participants' level of enthusiasm, curiosity, and participation also was quite high.

Among the tools used in GBL, Kahoot and Quizizz are prominent ones that convert traditional classroom evaluations into engaging and interactive game-like experiences. These platforms use components like competition, prompt feedback, and visual stimulation to cultivate a more enjoyable and interesting learning atmosphere.

The study by Maraza-Quispe et. al. (2024) offers strong proof of the beneficial effects of online gamification platforms like Kahoot and Quizizz. Gamification affects feedback, improves learning, and inspires students. Instant review questions, ranking display, and participation summary are made possible by the technologies. These results support the usefulness of gamification in the classroom and its role in the learning feedback process.

Kahoot is a game-based quiz platform that helps educators design multiple-choice tests that students may take alone or in groups in real time. This can improve classroom dynamics by boosting student engagement and participation. In the context of higher education, Kahoot has been shown to raise students' desires for success, their attention spans, and their engagement in the class. Additionally, it was discovered that this approach improved student motivation (Bicen & Kocakoyun, 2018).

Meanwhile, according to Niek & Abdul Aziz (2022), with its ability to overcome problems like boredom, cheating, poor motivation, and boring instruments, Quizizz is a great evaluation tool for online lectures. According to the findings, Quizizz improves students' online education and promotes usage over time. It reacts to examinations in a scientific manner and offers useful learning assessment tools for advancement. This is a useful tool for teaching and learning.

Student Participation and Engagement

Student engagement refers to the degree of attention, curiosity, interest, and passion that students show when learning or being taught. It plays an important role in academic success, particularly in subjects like economics, which are often perceived as abstract and challenging. According to Fredricks, Blumenfeld, and Paris (2004), student engagement encompasses behavioral, emotional, and cognitive aspects. High engagement not only need the deeper learning but also diminish disruptive behavior and dropout rates.

Technology-enhanced tools like gamification tools in online learning have been shown to increase student engagement by making lessons more interactive and stimulating. For example,

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Wang (2015) found that using game-based platforms such as Kahoot! significantly increased student motivation and classroom participation. Similarly, Quizizz, which incorporates gamification elements like leaderboards, real-time feedback, and point systems, can transform traditional economics lessons into dynamic learning experiences, encouraging sustained attention and active involvement.

Student participation is defined as the active involvement of students in classroom activities, including discussions, problem-solving tasks, and digital interactions. Study by Prince (2004) highlights that active learning strategies, such as the use of educational games and quizzes, foster greater retention and application of knowledge. In the context of economics education, which often requires critical thinking and application of abstract theories, active participation becomes even more essential.

Bunce, Flens, and Neiles (2010) found that when students were required to participate in game-based activities, they demonstrated improved comprehension and long-term recall of complex subjects. Moreover, digital tools like Quizizz facilitate inclusive participation by reducing the anxiety associated with public speaking or traditional assessments, especially among less confident students (Cheung & Slavin, 2013).

Although previous research consistently supports the beneficial impact of digital tools and game-based learning (GBL) on engagement (Adipat et al., 2021; Wang, 2015; Maraza-Quispe et al., 2024), inconsistencies persist over their long-term effectiveness. Research indicates that novelty effects might diminish over time, leading to a decrease in sustained motivation (Wang, 2015). Additionally, although Kahoot has been extensively researched in the fields of science and language, empirical information regarding economics is still rather limited. Furthermore, comparative analyses of various platforms such as Kahoot and Quizizz are inadequately investigated, resulting in unresolved enquiries on their respective advantages for fostering behavioural, cognitive, and emotional engagement. This study fills existing gaps by evaluating the effectiveness of Kahoot and Quizizz in economics courses, thus broadening the literature into a subject area that is both highly abstract and essential for the academic development of students.

Methodology

This study employed a quantitative research design involving a sample of 81 students enrolled in the diploma and bachelor's degree at UiTM Kelantan Branch during the October to February 2024 and March to August 2025 semesters. According to Roscoe (1975), sample sizes of more than 30 to less than 500 participants are often regarded as adequate for most types of research. Additionally, Krejcie and Morgan's (1970) sample size determination table reveals that a sample of approximately 80 is statistically enough to represent a population of several hundred students, ensuring the reliability of the findings. According to methodological literature, a minimum of approximately 30 participants is generally sufficient for reliability testing, and pilot studies commonly recruit between 50 and 100 participants overall (Bujang et al., 2024). Reviews of contemporary practice support this approach, indicating that most pilot and feasibility studies employ sample sizes ranging from 20 to 60 participants per group, or up to 100 in total, with sample size decisions grounded in study objectives rather than arbitrary thresholds (Kaba et al., 2023; Walters et al., 2025). A standardized questionnaire with 13 Likert-scale items was used to gather data, and this method was used consistently throughout the study.

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Based on the selected chapter, the students were instructed to complete the tutorial or quiz using Kahoot and Quizizz. They were then asked to complete an online survey to share their thoughts about these two tools.

The online game-based learning platforms Quizizz and Kahoot were used in the study. By adding gamification components to the learning process, Kahoot and Quizizz aim to increase student participation and engagement in the classroom without sacrificing academic content. Students compete in a friendly race to the finish line by successfully answering questions in this entertaining and engaging quiz-based setting. This structure aids in converting traditional tests into an engaging and inspiring educational exercise.

The collected data was analysed using descriptive statistical methods by looking at the effectiveness of implementing Kahoot and Quizizz in Economics Classes. This provided a comprehensive view of how game-based learning influenced the educational experience from multiple perspectives.

Result

The result that will be discussed here will be divided into three (3) parts. First part is to see the gender of the respondent, and the second part is to see the level of education and program taken by the respondent. The last part is to see the result of the effectiveness of implementing Kahoot and Quizizz in economics classes.

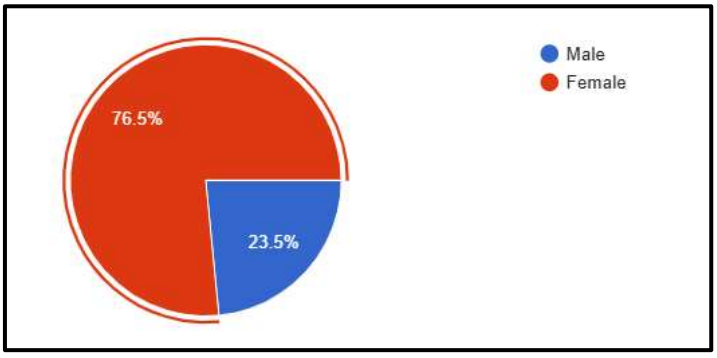

Figure 1: Number of Respondent based on Gender

Figure 1 shows the number of respondents, which is representative of both male and female students that participate in this study. Based on the figure, 76% of respondents are female students, which is slightly higher compared to male students with 23.5%.

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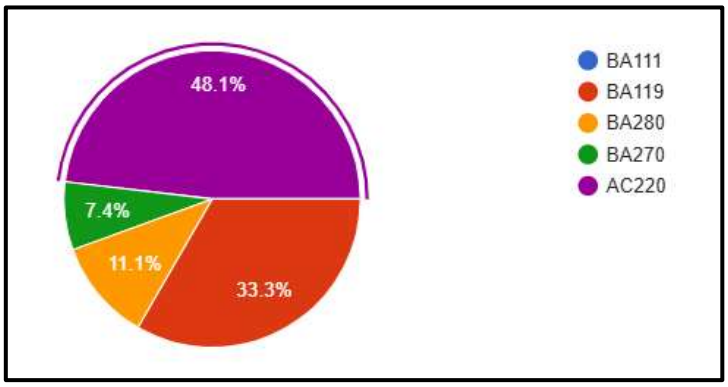

Figure 2: Number of Respondent based on Program Taken

Figure 2 represents the distribution of participants across these programs. Based on the figure, the feedback primarily reflects the views of students from the diploma program and bachelor's degree program. 48.1% of respondents come from Bachelor of Accounting, 33.3% of respondents come from Diploma in Banking Studies, 11.1% of respondents come from Bachelor of Business Economics, and 7.4% of respondents come from Bachelor of Business in Marketing.

Table 1: Result of the Effectiveness of Implementing Kahoot and Quizizz in Economics Classes

Question	Percentage of Respondents (%)		
	Agree	Neutral	Disagree
Kahoot and Quizizz enables visual collaboration during learning session	88.89%	9.88%	1.23%
Kahoot and Quizizz encourage visual participation in teaching and learning activity	90.12%	8.64%	1.23%
Kahoot and Quizizz help to increase engagement in learning economics subject.	85.19%	12.35%	2.47%
Kahoot and Quizizz able to develop an interactive learning environment	91.36%	6.17%	2.47%
Kahoot and Quizizz are fun and enjoyable	92.59%	4.94%	2.47%
Kahoot and Quizizz are easy to participate.	88.89%	9.88%	1.23%
Kahoot and Quizizz assist students to understand the topic effectively	86.42%	13.58%	0
Kahoot and Quizizz make economics interesting and not boring.	93.83%	3.70%	2.47%
Kahoot and Quizizz are beneficial tools to be applied in learning economics subject.	91.36%	6.17%	2.47%
Kahoot and Quizizz make students feel motivated to learn economics subject.	90.12%	7.41%	2.47%
Kahoot and Quizizz reduces boredom during economics classes.	93.83%	3.70%	2.47%
Kahoot and Quizizz should be used in other subjects as well.	90.12%	7.41%	2.47%
Kahoot and Quizizz should be used by the lecturers or educators	92.59%	4.94%	2.47%

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According to the findings in Table 1, students have a very positive perception of Kahoot and Quizizz when the tools are used in economics classes. More than 85% of respondents agreed with the positive remarks for almost all questions, indicating that students believe these GBL tools are useful, interesting, and helpful for their learning process.

Besides, more than 90% feel and believe that Kahoot and Quizizz can develop an interactive learning environment that is fun and enjoyable, able to make learning economics interesting and not boring, and increase motivation in class. Very few students expressed neutral or negative opinions, with disagreement percentages generally below 2.5%, and in one case (effective understanding), no disagreement at all. These results suggest that Kahoot and Quizizz are not only effective in capturing students' interest but also contribute meaningfully to their engagement and comprehension of economic subject.

Conclusion and Recommendation

The findings of this study clearly demonstrate that the integration of Kahoot and Quizizz as a game-based learning (GBL) tool has a positive impact on student learning experiences in macroeconomics. An overwhelming majority of respondents (92.59%) agreed that Kahoot and Quizizz provides a fun and enjoyable learning environment, indicating that the gamified approach effectively transforms traditional, often monotonous lessons into engaging activities. This supports existing literature asserting that GBL increases student motivation and enjoyment in learning (Plass, Homer, & Kinzer, 2015; Qian & Clark, 2016).

Additionally, 85.19% agree that Kahoot and Quizizz help to increase engagement in learning economics subject and 91.36% agree that Kahoot and Quizizz able to develop an interactive learning environment. More importantly 93.83% agree that Kahoot and Quizizz make economics interesting and not boring. This demonstrates that GBL can contribute to enjoyment and meaningful learning through interactive engagement. These outcomes affirm the cognitive benefits of GBL, particularly in complex or abstract subjects like economics.

Based on these findings, it is recommended that teachers or educators think about including Kahoot, Quizizz, or other game-based platforms in their teaching, particularly for those teaching abstract or difficult subjects like economics. These technologies not only promote student interest and participation but also enhance subject retention through active learning. Institutions should give instructors the assistance and training they need to successfully use these resources in the classroom.

In order to confirm the findings' generalizability, future studies might increase the sample size and incorporate students from other programs or academic levels. Finally, designing gamified activities using input from students can assist in customizing learning experiences to better suit the requirements and preferences of students.

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