

Gamified Remote Learning: Exploring Secondary Students' Engagement Via Quizizz

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Abstract. Gamification has emerged as a transformative pedagogical strategy aimed at enhancing learner engagement and interactivity, particularly within digital learning environments. Grounded in connectivist learning theory, this study explores the extent to which secondary school students demonstrate interest and readiness in adopting gamification through the Quizizz platform—a widely used digital game-based tool in Malaysian classrooms. Utilizing a quantitative descriptive research design, data were collected from 128 Form One students at a secondary school in Kedah via a structured questionnaire comprising 16 dichotomous items. The instrument, adapted from validated constructs of interest and readiness, demonstrated strong internal consistency with Cronbach's alpha values ranging between 0.74 and 0.85. Descriptive analysis revealed that a majority of students reported heightened motivation, enjoyment, and willingness to participate in future gamified lessons. Additionally, most participants found Quizizz effective in reinforcing understanding and identifying learning gaps. In terms of readiness, students expressed confidence and comfort in using gamified platforms, particularly due to its interactive and collaborative features. This study contributes to the limited body of research on gamification at the lower secondary level in Malaysia, offering practical insights into student perceptions. The findings underscore the pedagogical potential of gamified tools like Quizizz and highlight the importance of equipping educators with relevant digital competencies to ensure sustainable and meaningful technology integration in classrooms.

Keywords: gamification, quizizz, student readiness, engagement, remote learning

INTRODUCTION

In recent years, educational systems worldwide have witnessed a paradigm shift in the way learning is delivered and experienced, largely influenced by rapid technological advancements. Among the various approaches, gamification—defined as the use of game design elements in non-game contexts—has gained traction as an innovative strategy to enhance student engagement, motivation, and learning outcomes (Lee & Lim, 2023; Wahid, 2020). By incorporating elements such as points, leaderboards, instant feedback, and competition, gamification transforms passive learning into an interactive experience.

While several studies have demonstrated the positive impact of gamification in higher education and corporate training (Tan & Abdullah, 2024), there is still a gap in understanding its effectiveness at the secondary school level, especially in Malaysian classrooms. Quizizz, a leading gamification platform, has gained widespread usage in schools, offering interactive assessments and promoting learner participation (Rahim & Ariffin, 2022). However, the actual readiness and interest of students, particularly those in lower secondary education towards gamified tools remain underexplored.

Motivation and interest in Quizizz as a formative tool have been supported in recent studies (Zhang & Crawford, 2024; Miserom, 2023; Shahidan & Kamarol Ariffin, 2024), further emphasizing its relevance in promoting engagement and interactive learning, especially in secondary education. Moreover, diverging opinions exist in the literature. Some scholars argue that the novelty of gamification may wear off, limiting its long-term impact on learning motivation (Aini, 2019), while others assert that, when implemented effectively, gamification

can become a sustainable component of instructional design (Baruch & Holtom, 2008). These differing views underscore the importance of empirical studies to evaluate how students genuinely perceive and respond to gamified platforms in real classroom settings.

This study is underpinned by the connectivist learning theory proposed by Siemens (2004), which emphasizes the significance of technology and social networks in constructing knowledge. Accordingly, the purpose of this study is to examine the levels of engagement and readiness among Form One students in using Quizizz during teaching and learning (PdP). By understanding student perceptions and experiences, the findings aim to guide educators and policymakers in designing more meaningful, student-centered digital learning experiences.

To address the identified gaps, this study aimed to explore students' perceptions of gamification by focusing on two main objectives: first, to identify the level of student interest in using gamification during PdP through the Quizizz platform; and second, to determine the level of student readiness to engage with such gamified learning tools in the classroom.

METHODOLOGY

This study adopted a quantitative descriptive research design to investigate the interest and readiness of secondary school students in adopting gamified learning via Quizizz. The design was selected to enable systematic collection and analysis of data regarding students' perceptions without manipulation of variables, consistent with prior research methodologies in educational technology (Sekaran, 2003).

The study population consisted of Form One students at a public secondary school in the northern region of Malaysia. A total of 128 students were selected using purposive sampling, as they had prior exposure to PdPR and digital learning tools, making them appropriate respondents for the study objectives.

Data were collected using a structured questionnaire developed and adapted based on existing validated gamification and learner readiness instruments. The final version of the questionnaire comprised 16 dichotomous items (Yes/No) organized under two primary constructs: student interest and student readiness in gamified learning. Sample items include statements such as *"I enjoy answering Quizizz quizzes during learning sessions"* and *"I feel confident when using gamified platforms like Quizizz"*. The questionnaire was administered online via Google Forms, and all ethical considerations were adhered to, including voluntary participation and data anonymity. No personally identifiable information was collected. Prior to the main data collection, the instrument was pilot tested with 15 students to ensure clarity and usability. The instrument demonstrated acceptable internal consistency, with Cronbach's alpha values ranging from 0.74 to 0.85, confirming its reliability. These values align with standards for educational research instruments (Baruch & Holtom, 2008).

Data analysis was conducted using descriptive statistics, focusing on frequencies and percentages to capture students' levels of agreement with each item. The analysis was performed using SPSS software (Version 26.0), and all relevant materials, including the full questionnaire and raw data, are available upon request. There are no restrictions on the availability of the materials or data used in this study.

The development of the research design in this study was guided by a conceptual framework adapted from Garris et al. (2002), which illustrates the relationship between instructional content, gamification features, learner interaction, and learning outcomes. This framework, tailored for the context of Quizizz integration in PdP, is presented in Figure 1.

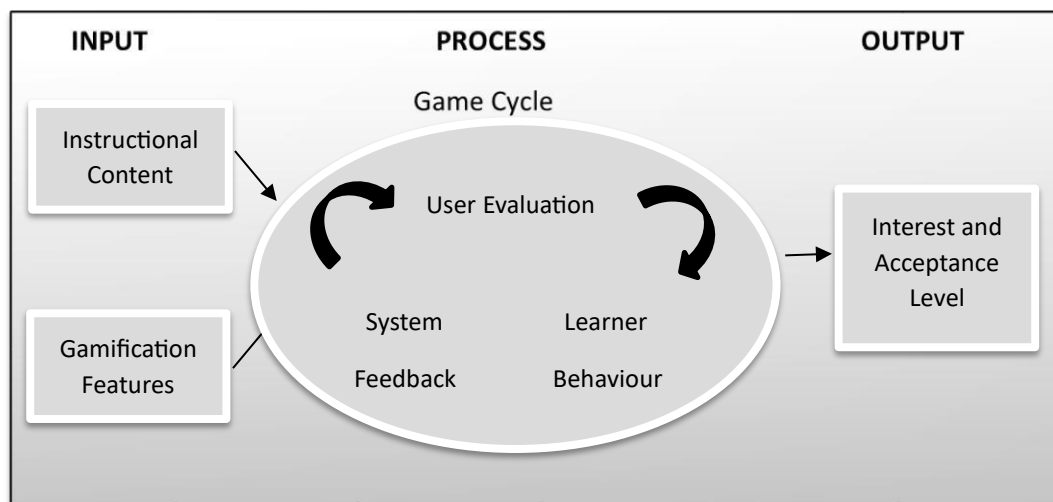


FIGURE 1-Conceptual Framework of The Study (Adapted from Garris Et Al., 2002)

RESULTS

This section presents the findings obtained from the questionnaire distributed. The results are structured according to the two main objectives of the study: student interest and student readiness in using gamification via the Quizizz platform during PdP.

Student Interest in Gamification

Table 1 presents the descriptive statistics of students' perceptions based on the interest construct. The findings show that the majority of students expressed increased motivation when using Quizizz for learning activities. Specifically, 93.0% (n = 119) of students agreed that they would be willing to repeat similar gamified activities in future lessons. The same percentage also reported an increase in learning interest when using Quizizz. Furthermore, 94.5% (n = 121) of the students believed that the activity format used in Quizizz was appropriate for checking their understanding of the content and identifying their own weaknesses. The highest agreement was recorded for the item stating that the gamified elements of Quizizz motivated students to engage in learning, with 95.3% (n = 122) responding "Yes". In addition, 63.3% (n = 81) felt that they learned more through this platform compared to traditional learning environments. Interestingly, 65.6% (n = 84) stated that they remained aware of their surroundings while playing, indicating a balanced level of focus and engagement.

Overall, the total number of "Yes" responses for all items related to student interest was 767, representing 85.6% of the total responses. These results support the notion that Quizizz contributes positively to student motivation and engagement in classroom learning.

TABLE 1-Distribution of Descriptive Statistics for Student Interest

Item	Yes (n)	Yes (%)	No (n)	No (%)
Willing to repeat this activity	119	93.0	9	7.0
Interest increased	119	93.0	9	7.0
Activity format suitable for assessing understanding	121	94.5	7	5.5
Activity helped identify weaknesses	121	94.5	7	5.5
Learned more than in traditional class	81	63.3	47	36.7
Gamified elements motivated me	122	95.3	6	4.7
I remained aware of my surroundings	84	65.6	44	34.4
Total	767	85.6	129	14.4

Student Readiness in Gamified Learning

Table 2 shows the distribution of frequency and percentage of students' responses related to their readiness to use Quizizz. According to the findings, the highest agreement was observed for the statement that the activity enhanced their knowledge and made them feel comfortable and meaningful while using Quizizz as a learning tool, with 124 students (96.9%) responding "Yes." Additionally, 123 students (96.1%) reported enjoying the fun activity and felt capable of completing the tasks given. Moreover, 122 students (95.3%) felt motivated while participating, and 121 students (94.5%) found the activity fun due to its gamified features. A majority of students, 119 (93.0%), agreed that the activity helped them understand the lesson content, while 100 students (78.1%) agreed that they could communicate and learn from their teammates. However, a smaller portion, 83 students (64.8%), stated they learned from peers during the Quizizz activity.

Overall, the total number of 'Yes' responses related to readiness was 1039, representing 90.2% of the responses, indicating that most students felt ready to accept and engage with the gamified learning approach offered by Quizizz.

TABLE 2-Distribution of Descriptive Statistics for Student Readiness

Item	Yes (n)	Yes (%)	No (n)	No (%)
Activity increased knowledge and felt comfortable	124	96.9	4	3.1
Enjoyed the activity and felt capable	123	96.1	5	3.9
Felt motivated during the activity	122	95.3	6	4.7
Gamified activity was fun	121	94.5	7	5.5
Helped understand lesson content	119	93.0	9	7.0
Able to communicate and learn from teammates	100	78.1	28	21.9
Able to learn from peers	83	64.8	45	35.2
Total	1039	90.2	113	9.8

DISCUSSION

The findings of this study support previous research suggesting that gamification tools, such as Quizizz, can enhance student engagement and learning motivation (Lee & Lim, 2023; Tan & Abdullah, 2024). The high levels of interest and readiness observed align with the work of Rahim and Ariffin (2022), who emphasized the importance of interactivity in digital learning environments. Similarly, Zhang and Crawford (2024) found that Quizizz significantly improved EFL learners' motivation in formative assessment, while Shahidan and Kamarol Ariffin (2024) highlighted its benefits in English language classrooms. These results reinforce the assumptions of connectivist learning theory (Siemens, 2004), which highlights the role of networks and technology in shaping knowledge acquisition.

However, not all findings in the literature are consistent. For example, while Miserom (2023) reported strong engagement in gamified online learning, Hashim et al. (2023) cautioned that the effectiveness of gamification may vary depending on the design of activities and learners' prior exposure to game-based tools. This contrast indicates that although Quizizz is effective in sustaining student interest, its success may depend on contextual and instructional factors.

These outcomes indicate that gamified platforms are not only suitable for increasing attention and participation but also contribute to learners' ability to self-regulate and collaborate. The implications of this are significant in designing future classroom strategies that blend fun and functionality.

Nevertheless, this study was limited to a single sample of Form One students, and the findings cannot be generalized to all secondary school contexts. In addition, the study did not examine which specific subjects students preferred when using Quizizz, leaving discipline-based engagement unexplored. The reliance on a purely quantitative design also restricted deeper insights into students' emotional and cognitive experiences. Future research should therefore investigate broader demographic groups, explore subject-specific patterns of interest, and adopt mixed-method approaches to capture more nuanced perspectives and long-term impacts of gamified learning on performance and motivation.

CONCLUSION

This study successfully addressed its objectives by examining students' interest and readiness in using gamification through Quizizz during teaching and learning (PdP). The findings revealed that a large majority of Form One students demonstrated strong motivation and positive perceptions towards gamified learning activities. Furthermore, students showed a high level of readiness to engage with the platform, indicating that gamification can be an effective and accepted instructional approach in secondary classrooms.

These results support the integration of tools like Quizizz in pedagogical strategies to enhance student-centered learning. It is recommended that educators receive continuous training to effectively implement gamification, and that future studies expand the sample scope and explore long-term impacts on learning performance.

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