

Game-based Learning: Utilising Quizizz (Wayground) in Face-to-Face Class Environment

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DOI: <https://dx.doi.org/10.47772/IJRISS.2025.909000745>

Received: 22 September 2025; Accepted: 27 September 2025; Published: 29 October 2025

ABSTRACT

The pandemic has significantly changed the educational landscape, including English language education. Technology has played a central role in shifting from traditional to modern classrooms, where game-based learning has become increasingly important for digital natives. However, research on game-based learning in higher education remains limited. This study therefore investigates students' perceptions of using Quizizz (Wayground) in English classrooms and its effectiveness as a teaching and learning tool. A cross-sectional questionnaire, adapted from previous studies, was used to collect quantitative data from students. The findings reveal that students generally responded favorably to the application, describing it as effective, engaging, and supportive of their language learning. Future studies may consider exploring qualitative perspectives from both students and educators, extending research to other faculties and student populations, and conducting longitudinal or discipline-specific studies to gain deeper insights into the use of Quizizz in English language classrooms.

Keywords: Game-based Learning, Quizizz, Wayground, English Language Education

INTRODUCTION

The post-pandemic era poses significant and novel challenges to teachers and lecturers alike. The conventional traditional classes, where the lecturers are the sole providers of knowledge and students passively consume knowledge bestowed by the lecturer, are not satiable anymore. With hybrid and online learning becoming readily available and more engaging content activities found online, the need to improve traditional methods of delivery through board and marker becomes increasingly pressing. Integrating web-based learning or game-based education has exponentially increased the level of engagement and interaction in class [20]. The technological medium facilitated learning and has allowed the students to be more autonomous and enhanced individual motivation in learning.

Students' ability to construct meaning through their learning aligns with Bruner's constructivist theory, where students are encouraged to learn in an environment that allows them to actively engage in their learning [7]. Additionally, devising technology as part of a language learning approach is relevant, considering students are digital natives who interact with technologies in their daily lives [21]. They have been exposed to technologies since they were young. This familiarity should be taken advantage of to ensure effective language learning in the ESL classroom.

Harvesting the rapid progress of technological use in education following the pandemic, this study highlights Quizizz (Wayground), an online platform that allows the instructor to create interactive learning sessions and quizzes as part of continuous learning assessment, which has become more popular in recent years following the COVID-19 pandemic and the emergence of online learning. Reference [17] shows its popularity among educators in various subjects as an effective technology-based learning medium that can make students feel curious, be creative, and encourage peer learning.

Problem Statement

In an ideal setting, face-to-face classroom environments would actively engage students and foster motivation to ensure interaction with learning experiences that result in deep understanding and retention. Game-based learning tools such as Quizizz can essentially convert traditional pedagogy into a more dynamic and student-based methodology, incorporating fun, competition, and quick feedback [14].

However, many face-to-face educational settings still rely heavily on traditional lecture-based methods [6]. This approach can result in passive learning, which is the least engaging for students. Though Quizizz is made available for use by its creators, the limiting factors of lack of awareness, reluctance to change, or unfamiliarity with its application outside of a computer-based or hybrid setting have resulted in its minimal integration into the brick-and-mortar ambiance.

As such, students may suffer from lowered motivation, decreased participation, and reduced possibilities for active learning, all of which can have a negative impact on their academic achievement and interest in the subject. Without making use of such game-based platforms to their full potential, lecturers may even be forgoing an opportunity to establish an engaging and impactful learning environment.

With that in mind, the current study was conducted to investigate students' perceptions of using Quizizz in physical classroom settings, with the aim of shedding light on their experiences. It explores not only the use of Quizizz for formative quizzes during lecture sessions but also its role as a tool to facilitate teaching and learning, as well as its function as a teaching aid.

Additionally, this study will bridge a gap in the research by contributing insights into the use of games at the tertiary level, which is limited in educational studies. Reference [17] highlights that the focus on the use of games is often given to primary and secondary school levels. The gap is noticeable when it comes to utilising games at higher or tertiary levels of education. Thus, investigating undergraduates' perceptions of using Quizizz in face-to-face language classes adds meaningful value to the ESL context.

LITERATURE REVIEW

Language Learning After the Pandemic

Despite the challenges faced by lecturers in integrating technologies in their teaching practices due to the pandemic, most of them are prepared to adapt their teaching according to the students' needs, including conducting their classes online [16]. This reflects the future of language learning in higher education. Reference [3] highlighted that the COVID-19 pandemic transformed various aspects of life, including expanding students' language learning experience via online platforms and language learning apps that could be easily accessed for interactive language learning materials and resources. The involvement of technologies in language learning after the pandemic is relevant due to the trends and needs of today's generation, who are digital natives [21].

Game-based learning

Reference [17] explains that game-based learning is based on the social learning theory developed by Bandura (1977) and Vygotsky (1977). They highlighted that this learning approach is on the rise due to the importance of students' engagement in their learning process. This type of learning combines several skills into the learning process, offering an immersive, effective, and creative approach that captures student interest [1]. The same study also listed several advantages of game-based learning, including maximising students' motivation, engagement, teamwork, feedback, progress record, creativity, lateral thinking, risk-taking, experimentation, and future job preparation. Furthermore, it offers students a constructivist learning environment where they can independently use their existing knowledge to complete the tasks and comprehend the materials. This also aligns with Bruner's constructivist theory, in which students should learn in an engaging environment that would lead them to be autonomous in their learning experience [7].

Quizzes (Way ground)

Research on the use of Quizizz has focused mainly on its use as both a gamified learning platform and a formative assessment tool. Across diverse contexts in language learning from primary to tertiary learning environments, Previous studies [11] – [19] report that Quizizz can enhance students' motivation, participation, and enjoyment in learning. The features like the leaderboard and its competitive quiz interface create a student-centered and lively learning session, encouraging active participation. [14]. An experimental design study by [11] from its empirical pre- and post-test suggests that Quizizz can improve academic performance. Another study by [18] found that using Quizizz as a gamification tool in the classroom increases the effectiveness in enhancing students' attention and motivation towards learning. A study on "The Impact of Gamified Learning using Quizizz on ESL Learners' Grammar achievement also found similar results, where it was reported that students were able to master the grammar topic through the use of Quizizz as games in class [13].

Despite the reported advantages in the use of Quizizz in the classroom, some studies have noted several challenges when Quizizz is used for lectures and formative assessment in classroom settings. A recurring issue in studies [4], [15] and [17] highlighted internet connectivity as the main obstacle in using Quizizz in the classroom. Some students felt frustrated and anxious when the internet connection was unstable, especially since they are competing and those who answered faster will get higher marks [17]. There are also instances where students feel more stressed and discouraged when their names consistently rank lower [2], [18].

Overall, the literature emphasizes that Quizizz is most effective when used as a complementary tool, i.e. quiz and formative assessment, used at the end of lectures. This approach ensures the excitement of gameplay supports understanding of content knowledge [20]. However, most existing literature focuses on Quizizz as an assessment or revision tool, leaving a gap in exploring its features and potential as an instructional medium. Hence, this present research addresses this gap by examining the use of Quizizz as more than just an assessment platform by integrating lecture slides with embedded quizzes throughout the lesson. This study will investigate the students' perceptions of using Quizizz for in-class exercises and as a platform for lecture slides.

METHOD

Research Design

This study employed a cross-sectional research design in an educational setting. It focuses on investigating students' perceptions of the use of the Quizizz application in the English classroom at higher education.

Data Collection Methods

This study employed a questionnaire survey, adapted from [20] and [14]. The questionnaire was used as the instrument to collect quantitative data from the participants. It gathers students' perceptions of Quizizz in English classrooms and its use as a tool to facilitate teaching and learning.

The survey was administered via Google Form for two weeks. 51 respondents were recorded participating in the survey when the form was closed.

Research Population

The research population focuses on pre-diploma students from a public university in Malaysia. They were selected as they are deemed fit for the targeted study population. These students just joined the university after leaving high school. This is their first experience as university students.

At the time of the study, they were expected to still remember their school experiences. Therefore, they should be able to distinguish their new learning experience with technology like Quizizz in higher education from their traditional face-to-face learning at school. Even if they had used Quizizz in school, they could recognize the differences between the two settings.

Research Participants

Convenience sampling was applied in this study for participant selection. The participants were selected based on their accessibility. This approach is practical yet manageable in gathering data for the study.

The students enrolled in an English course, English Proficiency for Pre-Diploma III, were selected as the research participants. These students are in their first semester of the Business Administration Pre-Diploma programme offered by the Faculty of Business Management. They are Malaysian students, ranging from 18 to 22 years old.

Data Analysis

The data was analysed using descriptive analysis. This is an essential part of this study. The analysis was used to address the aims in investigating students' perceptions of using the Quizizz application in their English classrooms.

RESULTS AND DISCUSSION

Demographic Analysis

Table 1Demographic Profile

Item	Demographic Profile	Categories	Percentage (%)
1	Age Group	18-22 years old	100%
		23-27 years old	0%
		28-32 years old	0%
		33 years old and older	0%
2	Gender	Male	68.6%
		Female	31.4%
3	Programme	Pre-Diploma	100%
4	Faculty	Faculty of Business and Management	100%

Table 1 shows the demographic profile of the participants. All participants were pre-diploma students from the Faculty of Business Management, aged between 18 and 22 years. The majority of them were male (68.6%), compared to female participants (31.4%).

Descriptive Statistics

This section is divided into three parts. The first part focuses on students' general perception of the Quizizz application. The second part examines their perceptions of the Quizizz application, which is used for in-class exercises in the English classroom. The final part features students' perceptions of the Quizizz application used for lecture slides in the English classroom.

Perceptions of the Quizizz Application in General

Table 2 perceptions of The Quizizz Application in General

No	Item	Mean	SD
1.	Using Quizizz is easy	5.25	0.77
2.	Using Quizizz is effective in enhancing my engagement in the classroom	5.31	0.76

3.	Using Quizizz can lower students' anxiety towards learning.	4.80	1.41
4.	Using Quizizz doing in-class exercises helps me review the topic.	5.29	0.73
5.	Using Quizizz helps me concentrate in class.	5.33	0.74
6.	The ranking list in Quizizz motivates me to study more	5.33	0.68
7.	I would like to use Quizizz more in the future	5.41	0.70

Table 2 presents the overall perceptions of the Quizizz application. Item 7 indicates the highest mean (Mean=5.41, SD=0.70), whilst Item 2 represents the middle mean (Mean=5.31, SD=0.76). The lowest mean recorded was Item 3 (Mean=4.80, SD=1.41). Overall, the results show that the participants have positive perceptions of the Quizizz application.

Perceptions of the Quizizz application used for in-class exercises in the English classroom

Table 3 Perceptions Of The Quizizz Application Used For In-Class Exercises In The English Classroom

No	Item	Mean	SD
1.	Using Quizizz doing in-class exercises is fun.	5.55	0.81
2.	Using Quizizz doing in-class exercises stimulates my interest in studying English.	5.45	0.81
3.	Using Quizizz doing in-class exercises helps me review the topic.	5.35	0.77
4.	Doing in-class exercises using Quizizz is more helpful in my learning than doing in-class exercises on paper	5.43	0.76

Table 3 shows the perceptions of the Quizizz application used for in-class exercises in the English classroom. Item 1 reports the highest score (Mean=5.55, SD=0.81). In contrast, Item 3 displays the lowest (Mean=5.35, SD=0.77). Based on the result, it is found that the participants perceived the Quizizz application positively for in-class exercises.

Perceptions of the Quizizz Application used for Lecture Slides in the English Classroom

Table 4 Perceptions of The Quizizz Application Used For Lecture Slides in The English Classroom

No	Item	Mean	SD
1.	Joining Quizizz in class is easy.	5.41	0.83
2.	Using Quizizz for lecture slides is fun.	5.57	0.61
3.	Using Quizizz for lecture slides stimulates my interest in studying English	5.41	0.67
4.	Using Quizizz for lecture slides helps me review the topic	5.49	0.64
5.	Using Quizizz for lecture slides is more helpful in my learning than having the conventional slides (PowerPoint slides, PDF, etc)	5.35	0.74
6.	I would like to use Quizizz more in the future	5.47	0.70

Table 4 reveals the perceptions of the Quizizz application used for lecture slides in the English classroom. Item 2 shows the highest mean (Mean=5.57, SD=0.61). Meanwhile, item 6 presents the average score (Mean=5.47, SD=0.70). Item 5 represents the lowest (Mean=5.35, SD=0.74). The overall findings indicate that participants agreed with the use of the Quizizz application as teaching and learning materials in their language classroom.

DISCUSSION

The findings of this study address its primary aim of investigating the use of Quizizz beyond an assessment platform by integrating lecture slides with embedded quizzes throughout the lesson. The first part of the findings reveals that students generally viewed Quizizz favorably. They found it easy to use, engaging, and supportive in reducing language learning anxiety. In addition, it aided their revision, helped them stay focused, and increased their motivation to study. These findings align with [20], who reported that gamified tools such as Quizizz enhance learner engagement and reduce classroom anxiety. Similarly, [13] found that students were able to perform better when exposed to gamified approaches in teaching and learning. Participants in this study also expressed interest in continuing to use Quizizz in the future.

Despite these positive responses, question 3 asked whether “Using Quizizz can lower students’ anxiety towards learning”, and the result showed a significant standard deviation. This suggests that while some students felt their anxiety reduced, others may have experienced heightened stress when using the platform. This echoes the findings of [2] and [18], which reported that although students often perceive game-based platforms as fun and interactive, some become discouraged when consistently ranked lower, leading to feelings of exclusion. In particular, [18] highlighted that while high-achieving students often thrive in gamified environments, weaker students may disengage due to fear of embarrassment or repeated failure.

The second part of the findings highlights students’ favourable responses to Quizizz as a lecture delivery tool when combined with in-class exercises in the English classroom. This resonates with [1], where participants regarded Quizizz as not only engaging but also helpful for learning compared to traditional formats. They found it relevant and effective as a tool to support their learning process. This finding also aligns with [17], who emphasized the importance of continuous interaction in gamified learning to maintain focus and reinforce subject retention.

Moreover, students perceived the Quizizz application used for lecture slides in the English classroom positively. They showed interest in using it now and in the future. They agreed that it made them feel more interested in studying English. These encouraging feedback align with [17], who note that game-based learning is gaining popularity for its focus on enhancing student engagement in the learning process. This also aligns with [1], who highlight game-based learning as engaging, effective, and suited to both teachers’ and students’ preferences.

In general, the favorable outcomes of using Quizizz in a physical classroom are consistent with findings on other game-based platforms, such as Mentimeter and Kahoot. For instance, [10] reported that Mentimeter contributes positively to students’ learning attitudes, performance, and classroom environment while also improving technical engagement. Similarly, [5] found that Mentimeter promotes a dynamic and participatory learning environment. Kahoot has also been shown to encourage constructive student attitudes, supported by healthy competition and a fun, engaging atmosphere [2].

Nevertheless, it is imperative to recognize the challenges associated with integrating technology applications into higher education. Both students and educators may encounter issues such as unstable internet connection, unequal access to devices, and insufficient training support [15]. Other challenges include the lack of a holistic learning system, limited face-to-face interaction, and the potentially distracting nature of entertainment features embedded in digital tools [4]. These challenges are particularly relevant as [8] highlights that technological advancements significantly shape students’ engagement and learning preferences, especially among the “app generation” who have grown up surrounded by mobile applications and digital tools.

CONCLUSION, LIMITATIONS, AND RECOMMENDATIONS

In conclusion, the Quizizz application is viewed positively by students. They found it relevant and effective as a learning tool in their English classrooms. The findings conclude that the use of this application would benefit both students and educators. While this study provides valuable insights into the perceptions of pre-diploma students regarding the use of Quizizz in face-to-face English classrooms, there are notable limitations to consider. Firstly, the sample size was limited to 51 pre-diploma students from the Faculty of Business and Management. Hence, the findings may not fully represent the perceptions of students from other faculties, programmes, or

institutions. Additionally, as this is a cross-sectional study, it captured students' perceptions at only one point in time. Therefore, the results do not reflect how these perceptions might change with prolonged use of Quizziz, particularly once the novelty effect has diminished [18] – [13]. Finally, potential technological challenges such as unstable internet connections or a lack of suitable devices were not explored in this study. These factors could also influence the practicality and effectiveness of Quizziz in different classroom settings [12] – [21].

To address these limitations, future studies could expand the scope by including larger and more diverse samples from different faculties and institutions to improve the generalisability of findings. Comparative studies examining the use of Quizziz in online, hybrid, and traditional classroom environments would offer deeper insights into its adaptability across different modes of delivery [3] – [6]. In addition, adopting approaches that integrate quantitative findings with qualitative insights gathered through interviews or focus group discussions could yield richer and more nuanced understandings of students' experiences and challenges [1]– [14]. Longitudinal studies tracking students' academic performance, engagement levels, and retention rates over a semester or academic year would also be beneficial in assessing the sustained impact of Quizziz [20] – [9]. Finally, discipline-specific research could explore how Quizziz can be tailored to suit the learning needs of different subject areas, ensuring that gamified learning remains relevant and effective across diverse educational contexts [11] – [19].

ACKNOWLEDGMENT

The researchers want to thank the students, and all stakeholders involved for volunteering to participate in this study.

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