

Game-Based Learning in ESL Context: A Systematic Literature Review (2020-2024)

Dassmeera Earichappan^{1,2}

¹SK Seksyen 6 Kota Damansara, Petaling Jaya, ²Faculty of Education, Universiti Kebangsaan Malaysia, Bangi 43600, Selangor, Malaysia

Harwati Hashim^{1,2,3}

¹Faculty of Education, Universiti Kebangsaan Malaysia, Bangi 43600, Selangor, Malaysia,

²University Research Group on Edexcellence: Development of Innovative Curriculum & Pedagogy, ³University Research Group on ELITEE: Enhanced Learning for Inclusive

Transformational Education Experience

Corresponding Author Email: harwati@ukm.edu.my

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Abstract

Game-based learning is a well-known trend in education, which provides an interesting strategy for teaching English as a second language (ESL). However, it might be difficult for educators to choose the best game-based learning platform for their students, especially Generation Z, who are easily distracted by their phones and rapidly lose interest. Thus, this review systematically identifies the types of gaming platforms utilized and language skills that are prioritized for English as a second language (ESL) acquisition. 24 articles out of 145 from 2020 to 2024 were extracted using three databases such as Scopus, Web of Science (WoS), and Educational Resources Information Centre (ERIC) with the application of exclusion and inclusion criteria. The findings revealed that the most widely used approach of gamifying education is through the implementation of online platforms like Quizizz and Kahoot, where grammar and vocabulary are taught naturally and practiced with other language skills rather than separately. The results of the selected articles showed that game-based learning environments increase ESL students' interest and engagement while also assisting them in acquiring particular skills successfully. However, most research on gamified platforms in ESL acquisition focused on college and university students. undoubtedly creates a new path for future research.

Keywords: Game-Based Platforms, Gamified Learning, English As A Second Language (ESL), Online Platforms, Language Skills

Introduction

The United Nations has established the Sustainable Development Goals (SDGs), a collection of 17 interrelated global objectives to create a more balanced future for everyone by 2030. According to Sustainable Development Goal 4 (SDG4), providing quality education is

imperative to guarantee universal access to opportunities and facilitate lifelong learning for all individuals (Pazilah et al, 2024). These goals are intended to address a variety of social, economic, and environmental concerns. SDG 4 is one among these objectives that focuses especially on education. In Malaysia, the use of technology in education is growing and it is continuing to change the strategies used by both educators and students in teaching and learning (Iberahim et al, 2023). The use of technology in the classroom has increased in the 21st century to improve both the way that instructors present the materials and the way that students comprehend them. This corresponds to the fourth Sustainable Development Goal (SDG), "Quality Education," which aims to guarantee inclusive and equitable quality education and to encourage opportunities for lifelong learning for everyone. It acknowledges that education is a crucial human right and is important in advancing sustainable development.

The education sector in Malaysia has stressed that students are currently living in the era of globalization (Huei et al., 2021). Globalization has had a significant influence on education globally, changing how information is acquired, shared, and valued. The contemporary era is experiencing an abrupt rise in digitalization. With the advancement of technology, the way individuals gain knowledge has undergone a transition (Wei et.al., 2023). Innovations and new technology are influencing every aspect of human endeavor. In the era of the Industrial Revolution (4.0), the inculcation of technology in education has now taken a front seat among teachers and students alike (Sanjilatheeaban & Yunus, 2024). It is becoming increasingly impracticable to ignore the widespread tendencies of technology integration in society, which has a big influence on teaching methods. Thus, it is undeniable that modern education is heavily reliant on technology, which makes it possible for innovative teaching and learning strategies including virtual classrooms, online learning, and interactive multimedia materials. Plus, digital platforms and technologies make education more accessible, encourage engagement, and allow for the customization of learning to fit each learner's requirements.

Game-based learning has become more popular as a dynamic teaching method in recent years, specifically for teaching English as a second language (ESL). Game-based applications have been used and implemented widely in almost every sector of our life (Jun et al., 2020). The integration of game-based components makes learning and teaching more interactive and enjoyable as well as enhances students' motivation and engagement in learning a language. According to López-Martínez et al (2022), educational games may be a tool to provide a user-centered, autonomous, and flexible learning environment, encouraging users to pursue their own goals and engage in deeper-level activities more persistently. A game-based learning platform is a digital environment created to engage and educate users through interactive games. These platforms employ game design elements like rewards, challenges, and progression, to help with learning and skill development across a range of topic areas. Moreover, the integration of these platforms in education increases the fun, motivation, and efficacy of learning for students of all ages by incorporating instructional content into games. However, it can be a daunting task for educators to ascertain which of the currently available game-based learning platforms best suits their learners' needs (Husin et al., 2022). This is particularly the case for Generation Z, who use their phones excessively and easily become bored. Therefore, this paper offers a systematic literature review of gamified platforms in learning English as a second language (ESL) based on the following research questions:

RQ 1: What are the types of online platforms used for game-based learning in ESL acquisition?

RQ 2: Which language skills are prioritized in game-based learning for ESL instruction?

Game-Based Learning

21st-century skills refer to the core competencies such as collaboration, digital literacy, critical thinking, and problem-solving that need to be taught to help learners to thrive in today's world (Mee Mee et al., 2020). Teachers are required to be able to employ gamified learning in lessons to develop engaging content that entices students to acquire knowledge that will be helpful in the future as well as to possess those abilities. Otto, et al (2020) and Nurieva (2020) investigated game-based learning, the effectiveness of the platforms, its elements, players' types, and the drawbacks. The researchers implemented the "ABC model of game design," emphasizing 'Affect (A), Behaviour (B), and Cognition (C)' as the three essential components in designing gamified platforms. The results of the studies indicated positive outcomes. Students in the class during the pre-stage were disruptive, passive, and active. However, in the post-stage, a third of the group improved their marks as a result of several inactive students becoming more engaged through teamwork.

Furthermore, Harvey et al (2020) developed a digital resource for game-based learning, using gamified elements and competitiveness as a foundation to entice students and keep them interested in the course. The results indicated that students are more motivated and engaged when using digital tools in the classroom since learning is more dynamic and creative. Plus, students become more committed to the course and completing it when game-based features are used. In addition, based on Yunus et al, (2020) and Mee Mee et al, (2020), game-based platforms make the teacher's job more of a facilitator than a sole provider of knowledge. Teachers find it useful as an additional teaching tool for vocabulary learning because it is also user-friendly. The outcomes of the studies demonstrated how game-based learning enhanced learners' critical, creative, and problem-solving abilities when it was included in language learning by educators. As a result, learners are subtly motivated to acquire languages through engaging and fascinating activities. In general, game-based learning offers enormous educational promise as an innovative approach to teaching English as a second language. Lessons became conversational instead of teacher-centered. Hence, there is no denying its importance in the discourse around education, especially when it comes to helping pupils become more proficient language users.

Gaming Platforms

Educational innovations frequently arise from inventive lesson designs, especially gaming platforms which are a promising source for transformative learning experiences. Although most people identify gaming with amusement, educators all around the world are beginning to realize how valuable a tool it can be for teaching. Embracing innovation to satisfy the changing requirements of students in the digital era is just as important as embracing technology when it comes to integrating gaming platforms into education.

There are several studies have been conducted to evaluate the efficacy of gaming platforms on students' learning outcomes. A GamAnalytics tool was created by Tenório et al. (2020) and incorporated into a gamified adaptive learning environment. The technology has a beneficial effect on students' learning, motivation, and engagement—all of which are crucial since it also demonstrates how teachers may actively use gamification learning analytics to develop gamified adaptive learning systems. Moreover, Islam et al (2022), Wang et al (2021), Annamalai et al (2022), and Saraubon (2021) applied gamified mobile applications in studies

to examine the usage of the platform to enhance English language learning. The gaming platforms were effective and it was confirmed through the results of the studies. English language acquisition is aided by gaming applications that use gamification and repetitive practice. With the use of the application, learning results were noticeably enhanced and it proved to be effective, practical, and beneficial, especially in terms of improving students' cognitive abilities.

Anak Yunus (2021), López-Martínez et al (2022) and Maraza-Quispe et al (2024) employed quiz applications such as Quizizz, Kahoot! And Vevox respectively in their studies. These online game-based platforms enable teachers to design games and educational quizzes that include students in the learning process enjoyably and interactively. Students can use computers or mobile devices to respond to questions in real-time, and they can get immediate feedback on their answers. These resources give students a fun and competitive environment while offering a useful means of evaluating their learning and development. The tools also allow for fast review questions, ranking visualization, and participation summary. This can be seen in the results of those studies where it affects student motivation, improving learning, and providing feedback. With the use of virtual gamified technologies, pupils showed high levels of intrinsic motivation, and their learning performances were increased. To conclude, educators are recommended to encourage students to pursue lifetime learning by utilizing the intrinsic motivation and engagement that come with game-based learning. This will help students become more curious and passionate learners.

Students' Learning Outcomes

Learning outcomes are the desired knowledge, skills, attitudes, and competencies that students should acquire from their educational experiences. This can be achieved with various approaches, but gamified learning is a significant method to attain positive learning outcomes. The usage of game-based platforms in English acquisition can significantly improve the learning outcomes for students. These platforms generally include students in immersive and interactive learning environments, enhancing the fun, motivation, and efficiency of language acquisition. Waluyo & Tran (2023) and Anak Yunus & Hua (2021) used online web platforms such as Quizizz and Kahoot in their studies. Both researchers used Quizizz as a gamified learning tool to explore the impact of the tool on students' learning outcomes. The post-test results show an improvement in the students' performance over the pre-test. This can be seen in the findings of the studies which revealed that students' vocabulary learning practice in asynchronous mode and irregular English verbs learning had positive outcomes and could significantly predict their in-class learning results.

Besides that, Yu (2023) examined how Kingsoft Powerword affected the learning outcomes of gamified English vocabulary instruction. The gamified Kingsoft Powerword encourages students to acquire vocabulary through engaging games, lively sounds, animated graphics, stories, and recordings of native speakers. This certainly raises the frequency of learning and improves word retention. Thus, learning outcomes enhanced by game-based learning are comparatively and significantly superior to those of a non-gamified strategy for acquiring English vocabulary. Furthermore, Casanova-Mata (2023) looked at how the popular game "Among Us" affected students' motivation, attention span, and feelings towards learning English as a second language (ESL). Meanwhile, Bagunaid et al. (2022) investigated how to use an interactive gamified social visualization tool, a car race game to track the progress of English language learners without jeopardizing student privacy or concealing important

progress information. According to both researchers, the gamification elements of the tools increased student engagement and motivation to finish the task, which had a favorable impact on their academic achievement. The variables that were analyzed demonstrated considerable improvements as a result of the gamified learning, and there was also an increase in active involvement and a decrease in negative attitudes towards mistakes, which indicates a more favorable attitude towards the English subject.

Hence, adding game-based platforms to English language learning can improve student performance and perhaps aid in bridging the gap in language proficiency levels and promote equal access to language learning resources. In general, using gamified learning platforms to teach English to second language learners can result in more thorough and significant learning outcomes, giving students the tools they need to become competent language users.

Method

As seen in Figure 1, this systematic review follows the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) approach, which consists of four processes:

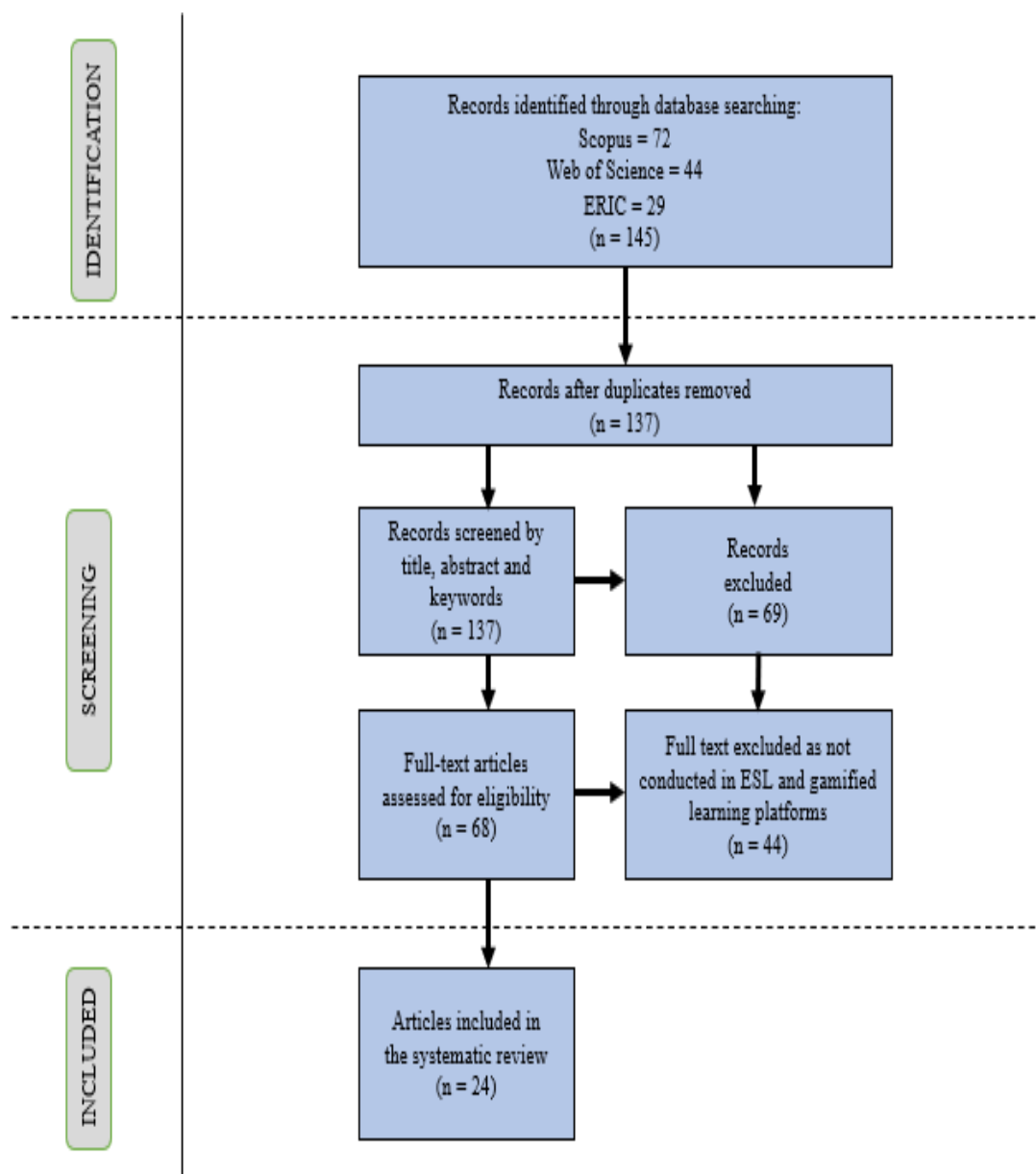


Figure 1. PRISMA systematic review adapted from (Page, M.J et al, 2021)

identification, screening, eligibility, and included. PRISMA has been utilized extensively by researchers because of its versatility and comprehensiveness. Therefore, the following are the steps involved in the systematic review method.

Identification

As stated in the PRISMA guidelines, the Identification process is covered in the first phase of the systematic review. Three databases such as Scopus, Web of Science (WoS), and the Educational Resources Information Centre (ERIC) were selected as they are appropriate for this study. The constructs intended to be studied were carefully reflected in the main phrases included in this systematic study. Words related to gamified learning platforms and English as a second language (ESL) were included. The search string for each database utilized in this research is revealed in Table 1 below.

Table 1

Search String used in this Study

Database	Search string
Scopus	TITLE-ABS-KEY (("English as a second language*" OR "ESL" OR "English language*") AND ("Game-based learning*" OR "gamified learning" OR "gamified teaching and learning" OR "game-based platforms*"))
Web of Science (WoS)	TS = (("English as a second language*" OR "ESL" OR "English language*") AND ("Game-based learning*" OR "gamified learning" OR "gamified teaching and learning" OR "game-based platforms*"))
ERIC	Gamified learning platforms in ESL classroom

Screening

Following the identification of articles, the screening procedure is carried out. The initial step in this phase was the removal of duplicate articles that appeared in many databases. After 8 duplicate articles were eliminated based on the first screening phase, 137 articles were left suitable for additional screening. The title, abstract, and keywords were used to filter these 137 articles with the expectation that they would be relevant to gamified learning platforms and English as a second language (ESL). After screening, 69 publications were disqualified since they had nothing to do with the study's objectives. Table 2 displays the screening criteria used for the 68 articles that remained after elimination.

Table 2

Inclusion and Exclusion Measures

Inclusion	Exclusion
Studies conducted between 2020 and 2024 (5 years timespan)	Studies conducted before 2020
Articles from journals	Book chapters, reviews, conference proceedings, and reports
The article was composed in the English language.	The article was not composed in the English language.
Concerning game-based learning platforms and English as a second language (ESL)	Not concerning game-based learning platforms and English as a second language (ESL)

Overall, 24 papers were carefully chosen based on the inclusion and exclusion criteria and included in this systematic review. The 24 articles underwent a thorough analysis.

Included

The papers included in this systematic review were mostly concerned with gamified learning platforms for English language acquisition. Table 3 shows the articles that are included in this paper. Eleven papers were chosen from Scopus, six from WoS, and seven from ERIC based on

the table above. The quality of the papers, especially on the subject of education, led to the selection of these databases. The research objectives were all connected to gamified learning for ESL students. Most of the studies were done at the higher education level, which includes colleges and universities, and are covered by 12 articles. However, six research concentrated on primary school children, two on high school students, and one on children with special needs, while other studies examined the perspectives of educators.

Table 3

An Overview of The Chosen Studies

STUDY	DATABASE	AIM	PARTICIPANTS	RESULTS
Anak yunus, c. C., & hua, t. K. (2021)	Scopus	To investigate how Quizizz might help young Malaysian ESL learners master irregular verb tenses in English	30 primary school pupils 11 years of age	Among young ESL learners, Quizizz is a great tool for teaching and memorizing irregular past verbs in English. It also helps to create a passion and enthusiasm in learning the language.
Wang, d., et al (2021)	Scopus	To investigate how students in a gamified setting at a vocational college establish interests and comprehend how this process could maintain students' drive to study English.	Thirty-eight naïve students from a vocational college	The demands of the students in terms of relatedness, competence, and autonomy were met. Learners' motivation was maintained by the cyclical development of interest that gamified AR settings created over time.
Idris, m. I., et al (2020)	Scopus	To determine if the game-based learning platform Kahoot! may help young people learning English as a second language (ESL) acquire simple present tense verbs more effectively.	31 pupils from year 3 at a national primary school in the central region of peninsular Malaysia	The affective filter was decreased and gamification's appealing aspects raised learning motivation during grammar classes.
Annamalai, n., et al (2022)	Scopus	To examine how Malaysian undergraduate students are using smartphone applications (apps) for language learning to improve their English language proficiency.	30 students from the general English language course of the final semester	According to the participants, the applications assisted them in speaking, listening, writing, reading, and vocabulary.
Halim, m. S. A. A., et al. (2020)	Scopus	To investigate students' motivation and perspectives on ESL classes using online games, specifically Kahoot! and Quizizz.	60 primary school learners	The students' opinions on the use of online quizzes in English classes were favorable, and their motivation level was higher.
Mee mee, r. W., et al. (2020)	Scopus	to investigate the perspectives of 33 pre-service teachers about the use of gamification in language instruction while interning for sixteen weeks at local primary schools in Selangor, Malaysia.	33 pre-service teachers	Learners' critical, creative, and problem-solving abilities were enhanced by the gamification of language instruction. Participants felt that using extremely engaging and compelling gamification exercises could encourage students with low competence levels to

				participate in class instruction.
Pham, a. T. (2023)	Scopus	To investigate how English as a second language (ESL) learners' grammatical achievement is affected by gamified learning with Quizizz.	63 English-majored freshmen	Pupils in the treatment group outperformed those in the control group on the achievement test, even though both groups' post-test scores increased from the pre-test.
John, p. W., et al. (2021)	Scopus	To investigate how students' experiences with "balloon vocabulary" learning have affected their vocabulary.	125 tertiary-level IBAN learners	Through the use of gamification and language games, learners have been able to identify their vocabulary-related skills. In addition, the use of technology in the classroom heightened their enthusiasm for learning.
Yunus, m. M., et al. (2020)	Scopus	To ascertain the efficacy and perception of the respondents about Gopic with QR code for vocabulary acquisition among primary school pupils.	64 low proficiency primary school students, that is, 58 years 1 students from Selangor and 6 years 5 students from Sabah	Students who used Gopic with a QR code showed an increase in their vocabulary in English.
Saraubon, k. (2021)	Scopus	To assess the performance of a mobile game that ESL students use to learn English.	Sixty-four tenth-grade students	The learning outcomes of students who utilized the mobile game as a supplementary tool were statistically considerably greater.
Krishnan, s. D., et al. (2021)	Scopus	To improve instructors' proficiency in teaching and learning languages via the use of experiential learning methods on the Classcraft online game platform.	100 English language instructors at CEFR level b2	In addition to improving teachers' abilities, it has given them a clear and well-organized foundational direction for creating an online gamified learning platform and encouraging them to try innovative ideas with their students.
Wahyuni, S., & Etfita, F. (2023)	Wos	To learn about the views and experiences of the students using Kahoot as a method for evaluation after each of the fourteen sessions of their English grammar course.	Seventy-five private university students in the English language education study program.	The majority of the participants expressed support for the use of Kahoot as an evaluation tool, and pupils prefer it over paper exams.
Voreopoulou, A., et al (2024)	Wos	Introduces the concept, creation, and user testing of a cutting-edge augmented reality	Ten in-service English language teachers	This escape game can help improve vocabulary retention, receptive and productive English abilities,

		escape game designed to teach English.		and cultural awareness. It is a good pedagogical instrument for meaningful and in-depth language learning.
Panmei, B., & Waluyo, B. (2022)	Wos	To examine the results of employing the Quizizz app to gamify vocabulary acquisition.	100 first-year undergraduate students	The way that Quizizz was implemented was still seen favorably by the pupils.
Casanova-Mata, I. (2023)	Wos	To determine if the creation of an eight-session gamified experience based on the well-known "Among us" game has any noticeable impact on the growth of English language competency, motivation, attention, and feelings towards ESL.	24 primary students	The findings demonstrate how gamification improved the factors examined, with the experimental group demonstrating notable improvements in reading as well as a more positive attitude towards the study of English, greater active involvement, and fewer negative tendencies towards errors.
Bagunaid, W., et al (2022)	Wos	To provide a method of monitoring the advancement of English language learners using an engaging, gamified social visualization tool in the form of a racing car game, simultaneously protecting student privacy and keeping important progress data hidden.	61 King Abdulaziz University female students	The study's findings demonstrated how social comparison of students' progress and the tool's gamification features increased student engagement and motivation to win the race, which had a favorable impact on their academic achievement.
Cruz, P. J. A., & Guayara, H. A. Á. (2021)	Wos	to investigate how high school students felt about using the gamified classroom activities that accompanied the usage of the serious game Bethe1Challenge during the pandemic.	Nineteen 10 th Grade students	The results showed that the students viewed Bethe1Challenge as an interesting, enjoyable, and engaging game that boosts and stimulates English learning.
Dindar, m., ren, l., & järvenoja, h. (2021).	Eric	To examine the effects of gamified collaboration and competition on task effort, learning success, motivation, and social relatedness when learning vocabulary in English through the use of a mobile application.	75 Chinese university students	Compared to the gamified competition group, the social relatedness in the cooperative group was much greater.
Husin, m. Z. M., & Azmuddin, r. A. (2022)	Eric	To discover if higher education institutions can employ Kahoot! to support and engage	80 students enrolled in an "English for Academic	The participants believed that playing Kahoot! was interesting, entertaining, fun, and engaging.

		students' academic learning.	Communication" course	
Koç, g., & sütçü, s. S. (2023)	Eric	To look at the academic achievement of sixth-grade pupils in a gamified grammar course using an online tool, as well as their thoughts on the program.	80 6th graders from 500 school Children.	Gamification of grammar courses facilitates students' understanding of grammar concepts that are frequently thought to be the least enjoyable and challenging to master. Along with their willingness and motivation, it also increases pupils' achievement.
Nozhovnik, o., et al. (2023)	Eric	To investigate how students' motivation, English language competency in reading and language usage, engagement, and attitudes towards the platform may be affected by gamifying and automating l2 e-classes using the smart sender platform.	Twenty-seven students (aged between 21 and 22) and twenty-eight students (aged between 21 and 23)	Both the experimental and control groups showed rises in their motivation, engagement, and English language competency scores from the pre-test to the post-test.
Islam, m. N., et al. (2022)	Eric	To create, develop, and assess a serious gaming platform for children with autism spectrum disorder (ASD) that is based on the Internet of Things (IoT).	15 special needs children	For the kids on the autism spectrum, the gaming platform was practical, efficient, and helpful. It also clearly helped them with their cognitive abilities.
Waluyo, b., & tran, h. M. (2023)	Eric	To investigate the use of asynchronous gamified vocabulary acquisition and assess its effects on students' classroom learning goals.	300 2nd year students at a Thai university	There were favorable correlations and strong predictive capacity between students' asynchronous vocabulary learning practice and their in-class vocabulary outcomes.
Yu, z. (2023)	Eric	To ascertain the impact of digital games on the acquisition of English vocabulary	71 students from a public university located in Beijing, China,	When learning vocabulary in English through gaming, learning outcomes, motivation, and satisfaction are all noticeably greater than in non-gamified English vocabulary learning.

Data Analysis Procedure

Every chosen article was exported to Mendeley, a reference software. Thematic analyses were then conducted to recognize the core themes to answer the research questions of this paper.

What are the types of online platforms used for gamified learning in learning ESL?

Which language skills are prioritized in gamified learning for ESL instruction?

By classifying the themes for the research questions, this review conducted an interpretative analysis of the papers. The platform for the first research question, as stated in the literature review, was used to categorize the themes. The gamified learning platforms that were discussed in each article were divided into eight types. Furthermore, based on the gamified learning described in the articles, educational outcomes were investigated for the second research question. In the following section, the papers' findings are examined.

Results

RQ 1: What are the types of online platforms used for game-based learning in ESL acquisition?

In this systematic review, game-based platforms are categorized into (1) Online web platforms, (2) gamified educational tool, (3) chatbot-based tools, (4) Augmented reality games, (5) mobile applications, (6) learning module, (7) gamified social visualization tool, (8) apps for engagement and motivation. After a thorough literature review, these categories were established to more accurately classify the use of gamified platforms for English language acquisition. The categorization type and the corresponding articles utilized in this study are displayed in Table 4.

Table 4

Types of Platforms Used in Gamified Learning For ESL Acquisition

Types	Examples
Online web platforms	Quizizz [Anak Yunus et al (2021), Halim et al (2020), Pham (2023), Panmei & Waluyo (2022), Waluyo & Tran (2023)] Kahoot [Idris et al (2020), Halim et al (2020), Wahyuni & Etfita (2023), Husin et al (2022), Koç & Sütçü (2023)]
Gamified educational tool	GoPic with QR Code [Yunus et al (2020)]
Chatbot-based tool	Smart Sender platform [Nozhovnik et al (2023)]
Augmented reality games	Escape Classroom Game (ECG) [Voreopoulou et al (2024)] XploreRAFE+ [Wang et al (2021)]
Mobile applications	balloon vocabulary [John et al (2021)] Among us [Casanova-Mata (2023)] Bethe1Challenge game [Cruz & Guayara (2021)] Baicizhan [Dindar et al (2021)] The Kingsoft Powerword [Yu (2023)]
Learning module	Classcraft [Krishnan et al (2021)]
Gamified social visualization tool	Track My Progress (Car racing game) [Bagunaid et al (2022)]
Not specified	[Annamalai et al (2022), Mee Mee et al (2020), Saraubon (2021), Islam et al (2022)]

According to Table 4, eleven articles explored online web platforms in ESL classrooms. The results from the study [Pham (2023)] reported the participants improved their marks in the post-test associated with learning via Quizizz compared to the pre-test. The results of this study show that game-based learning helps with language instruction as it increases students' engagement and grammatical comprehension. The authors [Halim et al (2020)] believe that Quizizz is an interactive tool that enhances students' motivation and engagement in learning ESL. Furthermore, the studies [Panmei & Waluyo (2022), Waluyo & Tran (2023)] reported a similar view, with substantial positive correlations and predictions between students' asynchronous vocabulary learning practice and their in-class vocabulary outcomes. Plus, both studies have shown that gamified asynchronous vocabulary acquisition significantly helps students learn target words. The authors [Idris et al (2020), Wahyuni & Etfita (2023), Koç & Sütçü (2023)] incorporated Kahoot as an online web tool to conduct studies. A notable disparity was observed in the outcomes favoring the students who were provided with gamified grammar instruction. Based on the findings, it is evident that students prefer Kahoot over paper-based exams. Based on the study [Husin & Azmuddin (2022)], the findings showed that Kahoot! was entertaining, captivating, and interesting for the students to use for learning ESL. The author [Halim et al (2020)] used both online web platforms, Quizizz and Kahoot, and discovered that the pupils reflected their positive motivation, perceptions, and acceptance towards learning English with the integration of online quiz games using both tools.

A gamified educational tool integrates elements of gameplay into the learning process. The tool [Yunus et al (2020)] used is 'GoPic with QR code' which revealed that pupils' vocabulary in English increased when they used GoPic with QR Codes. Another type of gamified learning platform in this systematic review is a chatbot-based tool for learning ESL. In order to provide a dynamic and engaging learning experience, chatbot-based gamified learning tools integrate the concepts of chatbot technology and gamification elements. The author [Nozhovnik et al (2023)] introduced SMART Sender as a chatbot-based tool in the study. According to the study, using chatbot-driven online courses on the Smart Sender platform boosted students' reading and language use skills in English, raised their motivation levels, and improved their participation in L2 online courses. Next, both studies [Wang et al (2021) & Voreopoulou et al (2024)] focused on Augmented Reality (AR) technology in learning ESL. According to the findings, students' curiosity piqued in a gamified augmented reality setting, which sparked their attention. This produced the best possible learning environments, and as a result, the students' perceptions gradually improved. Also, students were able to improve vocabulary retention and the development of receptive and productive skills in English as well as students' motivation and satisfaction level.

In [John et al (2021), Dindar et al (2021), Yu (2023)], the authors studied the effectiveness of mobile applications in English vocabulary learning. The learners have discovered their vocabulary-related skills as a result of engaging with game-based learning and language games. Plus, the use of technology in the classroom enhanced their enthusiasm for learning ESL. The study [Casanova-Mata (2023)] determined whether the creation of game-based platform, which was based on the well-known "Among Us game," had any notable effects on the development of English language competency, motivation, attention, and emotions toward English as a Second Language (ESL). The findings demonstrate that game-based learning improved the variables examined, with the experimental group demonstrating significant improvements in reading as well as a more positive attitude towards English learning, encouraged active participation, and fewer negative tendencies towards errors.

Likewise [Cruz & Guayara (2021)], the ref studied the usage of the gamified classroom activities which are supported by the 'Serious Game Bethe1Challenge'. Even though the game had limitations, the tests and interviews ultimately showed that the students thought of "Bethe1Challenge" as an engaging, enjoyable, and interesting game that encourages and enhances English learning.

In order to expand the competency of English language instructors, this research [Krishnan et al (2021)] was conducted utilizing Classcraft, a fully online digitalized instructional gamified platform. The experts determined the module's content and the proper gamification features that should be incorporated into its development through the use of the Fuzzy Delphi approach, which yielded the design phase findings. Moreover, the development phase's insights were used to produce the online gamified learning module, as decided upon by expert consensus. Overall, The findings demonstrated how the teachers' proficiency in teaching English was enhanced by the integration of Classcraft into the gamified online learning environment. The author [Bagunaid et al (2022)] introduced a method to track English language learners' progress through an interactive gamified social visualization tool, a car race game without jeopardizing student confidentiality or concealing important progress data. As a result of the gamification features of the tool and social comparison of students' progress, the study's findings demonstrated that students were more interested and driven to succeed, which had a favorable impact on their academic outcomes.

The types of gamified learning that were employed in other studies were not made clear. The studies [Annamalai et al (2022), Mee Mee et al (2020), Saraubon (2021), Islam et al (2022)], all examined from the perspectives of learners, teachers, or both in gamified learning for ESL acquisition. In [Annamalai et al (2022)], the students were able to increase their vocabulary, speaking, listening, reading, and writing abilities using the applications. These applications include elements like gamification, interaction, extended learning spaces, and repetition of certain language abilities that help in the acquisition of the English language. The author [Saraubon (2021)] created a mobile game to aid ESL learners in learning English and helping them memorize irregular verbs. After students had utilized the mobile game as a supplementary tool for six weeks, the results were assessed. It is revealed that pupils' learning outcomes were statistically considerably greater, according to the data. In [Mee Mee et al (2020)], the views of pre-service teachers in using game-based platforms in language teaching during their 16-week practicum were analyzed. Based on the findings, learners' critical thinking, creativity, and problem-solving abilities were enhanced when game-based learning was incorporated into language instruction. Furthermore, the authors [Islam et al (2022)] created, implemented and assessed a serious gaming platform that is based on the Internet of Things (IoT) for children with autism spectrum disorder (ASD). Fifteen special needs kids participated in an evaluation of the gaming platform. The researchers discovered that the gaming platform helped the kids on the spectrum significantly with their cognitive abilities and was practical, efficient, and helpful for them.

RQ 2: Which language skills are prioritized in game-based learning for ESL instruction?

The language skills applied by the various gamified learning platforms for ESL acquisition were examined to answer the second research question. Reading, writing, grammar, vocabulary, and all language skills in general are included in this list. Listening and speaking skills are not included in the results below since those aspects were not the focus of any of the research.

Table 5 below reveals the language skills prioritized in gamified learning for ESL instruction.

Table 5

Language Skills Prioritized in Gamified Learning For ESL Instruction

Language skills	Study
Reading	[John et al (2021), Nozhovnik et al (2023)]
Grammar	[Anak Yunus & Hua (2021), Idris et al (2022), Pham (2023), Saraubon (2021), Wahyuni & Etfita (2023), Koç & Sütçü (2023)]
Vocabulary	[Yunus et al (2022), Voreopoulou et al (2024), Panmei & Waluyo (2022), Dindar et al (2021), Waluyo & Tran (2023), Yu (2023)]
All skills (listening, speaking, reading, writing, vocabulary)	[Wang et al (2021), Annamalai et al (2022), Mee Mee et al (2020), Casanova-Mata (2023)]
Not specified (Perception, Engagement & Motivation)	[Halim et al (2020), Krishnan et al (2021), Bagunaid et al (2022), Cruz & Guayara (2021), Husin & Azmuddin (2022), Islam et al (2022)]

In order to answer the second research question for this systematic review, the articles were examined and classified based on their English language skills. In [John et al (2021), Nozhovnik et al (2023)], the researchers used gamified platforms to aid students in enjoying their reading and developing vocabulary repertoire. These included reading techniques, contextual understanding, and note-taking which were helpful for learners to discover their vocabulary-related skills by engaging with game-based platforms that incorporated language games. Hence, learners achieved greater results in vocabulary and reading using technology and participating in collaborative learning with others. The studies [Anak Yunus & Hua (2021), Idris et al (2022), Pham (2023), Saraubon (2021), Wahyuni & Etfita (2023), Koç & Sütçü (2023)] examined the impact of gamified learning on students' grammar achievements. The results of the studies showed a substantial difference in favor of the pupils who had gamified grammar instruction. The studies showed a positive effect on grammar learning where gamified learning facilitates students' comprehension of grammatical concepts, commonly thought to be least interesting and challenging to learn.

The results of the studies [Yunus et al (2022), Voreopoulou et al (2024), Panmei & Waluyo (2022), Dindar et al (2021), Waluyo & Tran (2023), Yu (2023)] showed that gamified vocabulary acquisition using gamified platforms can be an effective replacement for traditional methods of teaching and learning vocabulary, especially when it comes to the issue of class schedule restrictions. Thus, the outcomes of learning English vocabulary through gaming are noticeably superior to those obtained through non-gamified vocabulary acquisition. However, limitations such as not being familiar with gamified platforms were prominent. The interventions' short duration could have affected the results since learners might need some time to adjust to the gamified platforms.

The authors of [Wang et al (2021), Annamalai et al (2022), Mee Mee et al (2020), Casanova-Mata (2023)] investigated how gamified learning influences pupils' language skills. The researchers [Wang et al (2021)] discovered students were eager to find solutions to the issues they ran across when studying AR materials, by participating in group discussions, writing essays, and reading essays, and also having so much fun seeking markers that they

forgot how much time was passing. This finding was consistent with IDC theory which states, “When students experience flow, they seek out increasingly greater challenges while devoting more attention to stretch their skills to confront such challenges, resulting in personal development as well as feelings of efficacy (Wong et al., 2020). In [Annamalai et al (2022)], the researchers found that the applications utilized greatly impacted participants' vocabulary, speaking, listening, reading, and writing skills. These apps include elements like gamification, interaction, expanded learning spaces, and repetition of certain language skills to help with English language acquisition. Moreover, points, badges, and spots on leaderboards were among the external rewards that encouraged students to advance their English language skills. The authors [Mee Mee et al (2020)] discovered how gamified learning enhanced language learners' critical, creative, and problem-solving skills. Learners' interest in language acquisition is subtly piqued when intriguing and engaging activities are incorporated. Likewise, ref. [Casanova-Mata (2023)] explored the influence of a gamified platform called “Among Us” on students' language skills. Writing, reading, speaking, and listening skills were evaluated using four ad hoc tests, while attention and motivation were measured using a variety of test adaptations. The findings demonstrate that game-based learning improved the variables examined, with the experimental group demonstrating notable improvements in reading as well as a more positive attitude towards English language acquisition, such as greater active involvement, and fewer negative tendencies towards errors.

Even though many studies did not include the skills in their papers, they all nevertheless emphasize the use of gamified learning to improve English language acquisition. The studies [Halim et al (2020), Krishnan et al (2021), Bagunaid et al (2022), Cruz & Guayara (2021), Husin & Azmuddin (2022), Islam et al (2022)] looked into language learners' perceptions, motivations, and engagements in ESL lessons through gamified learning. The results showed that the students were more motivated, engaged, and positively perceived the use of online quizzes and games in English lessons. Thus, the students' favorable feedback has demonstrated their positive perceptions, motivations, engagement, and acceptance of learning English through gamified platforms. On the other hand, ref. [Islam et al (2022)] developed an Internet of Things (IoT)-based gaming platform for children on the spectrum to enhance their cognitive skills and reported that the platform is practical, efficient, and helpful for children on the spectrum and significantly enhances their cognitive abilities. It will help them learn and develop their cognitive abilities by tracking their development over time and allowing them to compare.

Discussion

The results show several types of gamified learning used in ESL instruction. Overall, the study's findings show that gamified ESL learning platforms aid in language acquisition. Many platforms, such as mobile apps and websites, created gamified learning experiences that promoted student engagement in ESL learning. Students have been indirectly encouraged to construct their personalized learning through the gamification component of language platforms. Game-based learning in the classroom is emerging as an effective method for increasing student involvement and engagement. Games provide a feeling of challenge and excitement for learners to improve their ESL acquisition. According to Maraza-Quispe et al (2024), this approach shifts the roles of both educators and students, transforming them from mere transmitters and receivers of knowledge into active participants in a dynamic educational journey. The studies also support holistic learning, which includes critical

thinking, cooperation, and adaptation when it comes to the acquisition of ESL. This agrees with the idea that education should cultivate well-rounded individuals with skills beyond mere content comprehension (Maraza-Quispe et al, 2024).

Subsequently, this research further examined the language skills that ESL learners prioritized when using gamified learning. In gamified learning, vocabulary acquisition is one of the ESL skills that is prioritized in most of the studies. The researchers examined the effectiveness of various gamified platforms in improving students' vocabulary learning. It is found that a significant challenge in acquiring English vocabulary is maintaining students' motivation over time. Based on previous studies, it is recommended that game-based learning in English vocabulary acquisition should shift from individual to group learning environments to tackle the challenge. The individual accountability of each individual for the group success can yield sustained engagement with the vocabulary learning tasks (Dindar et al, 2021).

Aside from vocabulary, one interesting aspect is the focus on grammar. Several studies have shown that learning grammar using gamified platforms can be quite effective. According to those studies, students who used gamified grammar exercises significantly improved their grammatical skills when compared to those who used traditional approaches. Game-based learning enhanced students' cognitive and achievement levels, whereas learning grammar via a textbook had minimal impact on students' performance with grammar, according to a comparison of gamification and traditional techniques (Koç & Sütçü, 2023). These platforms usually include interactive components, real-time feedback, and flexible learning pathways that support the reinforcement of grammar principles and their application in real-world contexts. Gamified grammar learning is both pleasurable and successful since it combines competition, enjoyment, and instant rewards to keep learners engaged and encourage constant practice. Overall, vocabulary and grammar are taught naturally, practiced with other language skills, and never in isolation.

Numerous studies have shown that learning English as a second language (ESL) using gamified platforms that emphasise mainly all four skills (listening, speaking, reading, and writing) is beneficial. Gamified language learning environments have the potential to greatly enhance students' overall language skills and readiness to speak in English. These platforms use gaming features such as challenges, levels, and prizes to keep learners interested and motivated throughout the teaching and learning process. This is supported by Annamalai et al (2022), students were motivated to improve their English language skills to gain extrinsic rewards such as points, badges, and positions in leader boards. Thus, gamified learning is an effective tool for comprehensive ESL instruction as it is immersive and participatory.

Conclusion

In conclusion, this systematic review has examined research on gamified learning in the context of learning English as a second language. Based on the inclusion and exclusion criteria, 24 final publications were included in this study from three databases such as Scopus, Web of Science (WoS), and Educational Resources Information Centre (ERIC).

The main findings draw attention to the aspects of gamified learning in ESL acquisition. There are seven types of gamified learning in this review: Online web platforms, Gamified educational tools, Chatbot-based tools, Augmented reality games, Mobile applications, Learning modules, Gamified social visualization tools, and 4 unknown gamified platforms. Nonetheless, using online web platforms such as Quizizz and Kahoot is the most popular

method of gamifying education. They offer adaptable access to a vast range of materials, accommodating different learning methods with interactive exercises, video tutorials, and language games. These platforms frequently provide personalized learning pathways that let students concentrate on particular areas for development and advance at their own pace. Thus, educators can utilize this information to create or employ particular tools for ESL instruction and various applications as additional resources for gamified learning and make the lesson more engaging and fun.

In gamified learning, reading, grammar, vocabulary, and all skills are the main areas of concentration. The majority of the gamified tools do not address other language skills instead, they concentrate on improving ESL vocabulary and grammar overall. This research contributes to the particular game-based platforms that teachers might utilize to enhance the different skills of ESL learners.

According to the findings, game-based learning environments help ESL students acquire certain skills because gamified platforms are extremely effective at boosting student engagement and motivation in ESL education. Hence, educators need to use the platforms in ESL classes so that students from diverse backgrounds can become fluent in the language. The idea itself creates more opportunities for gamified learning as an additional resource for students to study ESL at their own pace. One of the review's limitations is the majority of ESL studies concentrated on university and college students. This limitation, however, undoubtedly creates a new path for future research, especially in terms of identifying ESL research for other levels of studies. Additionally, the connection between language skills and the ambiguity of gamified learning in ESL acquisition can be explored in future studies. This systematic review makes a substantial contribution to gamified learning in ESL acquisition, which benefits individuals in related fields, even with limitations that may pave the way for future study. The knowledge gap in gamified learning and ESL acquisition as a means of promoting lifelong learning is also widened by this review, which may be crucial in attaining the fourth Sustainable Development Goal (SDG) objective. Moreover, expanding the scope of study to encompass a range of educational environments and age groups may yield a more profound understanding of how to adapt gamified learning in ESL classrooms to meet the requirements of various learners, ultimately enhancing its efficacy and accessibility throughout the educational spectrum.

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