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A Systematic Review on Gamified Learning for Improving Language Skills in ESL Classrooms

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Abstract
Digital gamification has been argued to be a fun and enjoyable method to support English as a Second Language (ESL) and to ease the gap between students' learning and educational practice. This systematic review presents an overview on the use of gamification in learning language skills in ESL classrooms. Furthermore, this review study maps learning experiences of learners and their learning outcomes when they deal with language skills through gamification. For this systematic review, 16 publications dating from 2016 through 2021 were studied. These studies reported positive effects of gamification on learners' learning experiences and their learning outcomes. Being enjoyable, engaging, motivating and fun were positive learning experiences of gamification learning in ESL environments. Content language learning, engagement, motivation, and satisfaction were targeted learning outcomes of gamification learning. This review provides suggestions on how to design digital gamification for students and their corresponding learning experiences and outcomes.
Keywords: Gamification, ESL, Learning Outcomes, Learning Experiences, Systematic Review, Language Skills

Introduction
With the advancement of new digital technology, there has been a rapid escalation regarding the need for learning English as Second Language (ESL) using different learning platforms. For learners to possess language skills, teachers are expected to be able to create inspiring content to attract learners to attain useful knowledge for the future (Mee et al., 2020) . One of the many ways teachers may use making lessons fun and interesting is by implementing games into their classroom teaching. Learners have greater interest in lessons that utilise games as part of the learning experience and those games manage to give learners motivation they need when carrying out learning activities during lessons (Mee et al., 2020).
Gamified learning is one the platforms that is being used by the teachers nationwide to engage students in ESL classrooms (Dindar, 2021). Gamification also can be related to Mobile Assisted Language Learning (MALL) where teachers create various games and activities using mobile

applications to attract and engage pupils in ESL classrooms. One of the most efficient ways to learn ESL is to master the four skills of language learning which is listening, speaking, reading, and writing (Dindar et al., 2021; Hashim et al., 2019; Idris et al., 2020; Kaur et al., n.d. & Lim et al., 2021). However, despite learning the language since preschool education, mastering the language skills is still a task for most of the learners (Abdul Halim et al., 2020; Dindar et al., 2021 & Singh et al., 2020).

Despite the wide research and studies on the use of various gamification platforms in ESL learning, systematic reviews are mostly presented on specified gamification platform such as Quizziz (Kaur et al., n.d.; Yunus et al., 2021; Yunus et al., 2013) and Kahoot (Kaur et al., n.d. & Kaur et al., n.d.) in the language learning environment there leaving a gap to review the effect of gamification in learning the language skills in ESL classroom. Therefore, this systematic review aims to review the effect of gamified learning in improving language skills in ESL classroom, with three research questions as follows:

RQ1 : What are the types of platforms used for gamified learning in enhancing language skills in ESL classroom?
RQ2 : What are the language skills focused on in gamified learning in ESL classroom?

Language Skills Mastery in ESL classroom

The acquisition of the English language is greatly emphasized in the Malaysian education system, whereby it is taught as a compulsory subject in elementary, secondary, and tertiary education. Although the English language is strongly highlighted in the education system, Malaysians are still far from achieving the aspirations of the country to have a nation that is proficient in the English language (Yunus, 2013). Teachers are required to produce students who are proficient in the English language to support the national aspirations, in line with the Blueprint "English Language Education Reform in Malaysia: The Roadmap 2015-2025". The main objective of this blueprint (English Language Education Reform in Malaysia: The Roadmap 2015-2025, 2016, p. 5) is to produce students who can converse and use the English language confidently for employability in the globalized world (Wen, 2020). The main four skills that is given importance in ESL syllabus are listening, speaking, reading, and writing. Grammar on the other hand is the basics of the English language, which allows ESL learners to read, write, speak and understand English effectively (Hashim et al., 2019).

Reviews in Gamified Learning

There are several studies done regarding the usage of certain gamification apps in ESL classrooms. For instance, Abdul Halim (2020) studied pupils' motivation and perceptions on ESL lessons through online quiz-games. The study proved that pupils have positive motivation and perception in learning ESL lessons through selected gamification platforms such as Kahoot and Quizziz regarding the fun and engaging nature of the learning platforms. The use of Wordwall online games (Wow) increases pupils' comprehension and understanding of vocabulary (Hasram et al., 2021). The use of online games promotes engagement via repetition and contributes to a deeper understanding of the vocabulary and the ability to recall spelling easily. Meanwhile, integrating gamification into language learning improved learners' creative, critical, and problem-solving skills (Mee et al., 2020). Thus, interesting, and engaging activities spark learners' interest in language learning subconsciously. Recent systematic reviews focus more on teachers' perceptions towards usage of gamification platforms in learning language (Lim et al., 2021).

Materials and Methods
Database and Search Strategy

Figure 1 shows the selection process of publications for this systematic review. To identify relevant publications, a systematic search strategy was executed in the bibliographic databases such as Scopus, ERIC and Google Scholar. The method of Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) has been used to find the relevant publications. The four processes in PRISMA are shown in figure 1 which is identification, screening, eligibility and included.
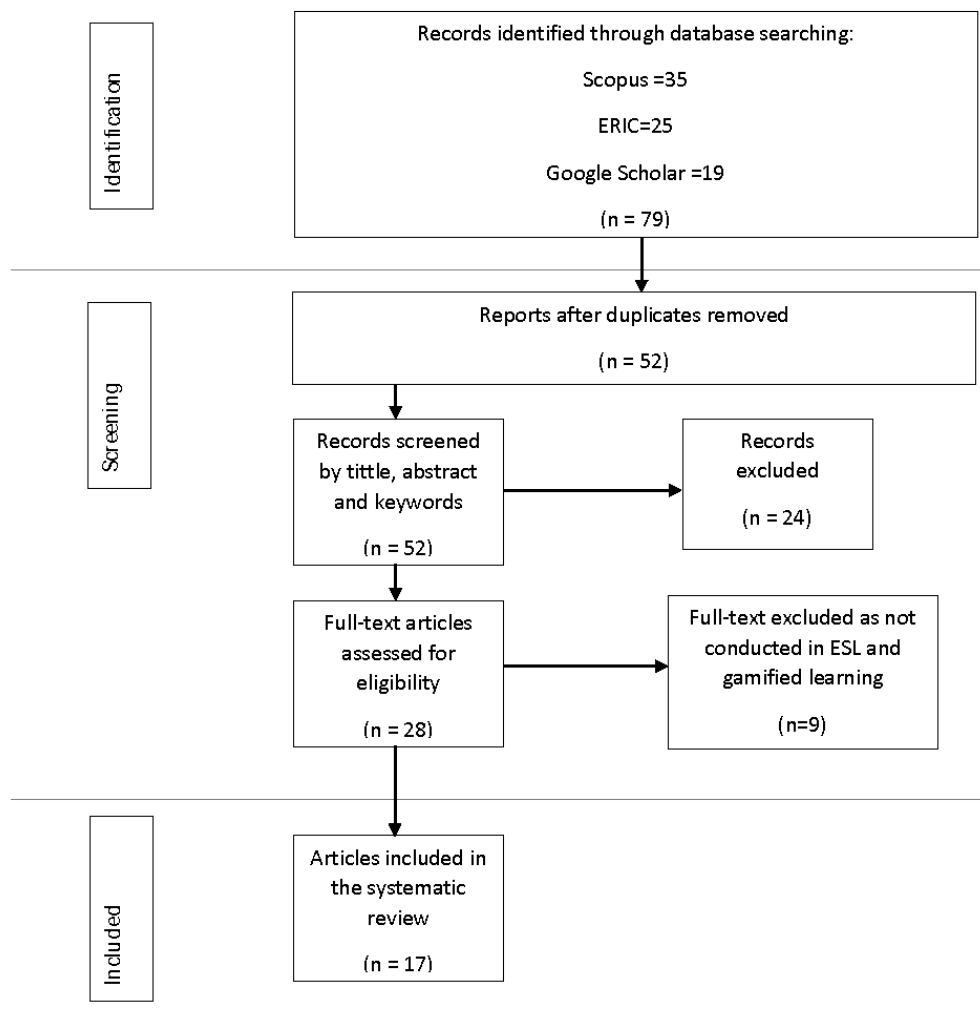

Figure 1 PRISMA systematic review

Identification

The systematic review covers the Identification process as reported in the PRISMA Guidelines. Three databases were chosen for this review: Scopus, Educational Resources Information Centre(ERIC) and Google Scholar. The key terms included as in Table 1 were constructed based on the constructs meant to be reviewed. The search terms used in this study included 'Gamification and English Language Teaching', 'Gamification and English Language Learning', 'Gamification for Language Skills' and' Gamification and English as a Second Language'. These keywords were based on relevant literature on ESL and gamification. The search period of this review was limited to 2016 until 2022 to capture the most relevant and up to date literature in the field. Only English publications were included.

Table 1
Search string used in this study

DATABASE	SEARCH STRING
SCOPUS	TITLE-ABS-KEY (("Gamification and English Language Teaching" OR "ESL" OR "Gamification and English Language Learning" OR "Gamification for Language Skills" AND "Gamification and English as a Second Language"))
ERIC	Gamification in ESL Classroom, Gamification to Enhance Language Skills in ESL Classroom
GOOGLE SCHOLAR	Gamification in ESL Classroom, Gamification to Enhance Language Skills in ESL Classroom

Screening

Upon selecting the publications, the screening process is done whereby duplicated articles existing in more than one database are removed. Then, the articles were screened by title, abstract and keywords. After exclusion, the remaining 28 articles were screened by inclusion and exclusion criteria as shown in Table 2.

Table 2
Inclusion and exclusion criteria

Inclusion Criteria	Exclusion Criteria
Studies carried out between the year 2016 and 2022 (7 years timespan)	Studies carried out before the year 2016
Articles from journals	Conference proceedings, review articles, book chapters and reports
The publication is written in English	The publication is not written in English
Related to gamification in ESL Classroom	Not related to gamification in ESL classroom

Included
Table 3
Summary of the selected studies

Study	Participants/Samples	Aim	Findings
Abdul Halim et al (2020)	60 primary school learners	To study pupils' motivation and perceptions of ESL lessons through online quiz-games	Learners had an elevated motivation and positive perceptions on the inculcation of online quiz-games in English lessons
Azar & Tan (2020)	3 university interns selected from a private university in Malaysia,	1. To contextually understand the university interns' perception of ICT Techs (MALL, Gamification, and VR) in teaching English for secondary school students during the	Online learning can be more effective for students where they can control their own learning pace, compared to learning in a classroom environment.

		Covid-19 Pandemic in Malaysia, 2. to determine which of these ICT Techs (MALL, Gamification, and VR) would be most preferred by the interns for teaching English to secondary school students in Malaysia.	
Dindar et al (2021)	75 Chinese university students recruited from four different universities in China.	To compare how gamified cooperation and competition impact task effort, learning achievement, motivation and social relatedness in English vocabulary learning with a mobile application	The positive influence of gamified cooperation on creating meaningful connections amongst learners should not be ignored, even though it facilitates similar learning and motivational outcomes as gamified competition.
Hashim et al (2019)	30 students in a secondary school	To explore the effectiveness of using online language games in improving ESL learners' grammar	Gamified-learning is effective in teaching grammar to ESL learners.
Hasram et al (2021)	121 Year 5 pupils from a national primary school in Negeri Sembilan	to determine the degree of improvement in year 5 pupils' vocabulary performance after using wordwall online games(Wow)	The findings show a moderate level of Satisfaction, Attention, Relevance, Confidence and Volition. In addition, a paired sample t-test indicates a to determine the degree of improvement in pupils' vocabulary performance
Idris et al (2020)	31 Year 3 students (aged 9) at a national primary school in the central region of Peninsular Malaysia	To examine the effectiveness of Kahoot!, a game-based learning platform, in reinforcing simple present tense verb learning amongst young	Gamification, through its captivating features, was responsible for lowering the learners' affective filter during grammar lessons and

		English-as-a-second-language (ESL) learners.	subsequently increasing their learning motivation
Kaur & Naderajan (2019)	50 secondary students in an international school	To study pupils' language learning experiences when they used Kahoot	Almost all the participants had positive experiences when they had lessons that integrated Kahoot!. Majority of the participants reported that they were able to engage actively in their language lessons when using the Kahoot! platform in their language lessons.
Singh et al (2016)	90 Diploma students	To study on students' experiences and challenges that they have been facing for 14 weeks of BIL1033 English Grammar 1 course.	Students really enjoy most of the English Grammar flipped lessons. They like to learn English Grammar via Kahoot and Quizizz. The class activities are full of fun and bring joy to learning. The findings from the students' reflection journals and focus group interviews also revealed that they are always excited to come to English Grammar class because of collaborative activities and games.
Lim & Yunus (2021)	45 articles	teachers' perception on the use of Quizizz in the teaching and learning of English.	Quizizz is accepted positively among teachers due to its effectiveness, feasibility, ease of use, and motivating nature for learners

Mee Mee et al (2020)	33 pre-service teachers	To explore views of pre-service teachers in using gamification in language teaching during their 16-week internship at local primary schools around Selangor, Malaysia.	Integrating gamification into language learning improved learners' creative, critical and problem-solving skills.
Noordin & Darmi (2022)	11 ESL teachers	To investigate and analyse in-service teachers' alternative assessment strategies in selected Malaysian ESL classrooms	Besides alternative assessment, teachers still showed preference for employing summative assessment in the classroom. Some teachers embedded assessment activities to ensure students are given sufficient opportunity to perform, create, produce based on the tasks given in the classroom
Rafiq et al (2019)	30 suburban secondary school students in Malaysia	to find out the perceptions of students towards gamified-learning.	Most students favour the usage of gamified-learning in learning grammar because it is amusing, motivating, improves learning experience and provides a better understanding of the ESL grammar concepts. This paper implied that gamified-learning can be used by teachers to teach ESL grammar.
Rajendran et al (2019)	40 participants from a secondary school in a rural area in Melaka	To investigate the motivation and perceptions in learning English using Quizvaganza among secondary school pupils'	Findings of the study shows that it increased the interest of pupils in the class, and had a positive impact on pupils' motivation. They enjoy learning English using games

			and wish to have more games in future.
Singh et al (2020)	ESL teachers	This study focuses on ESL teachers' strategies that foster higher-order thinking skills when teaching writing to weak ESL learners in two selected secondary schools in Malaysia.	The ESL teachers' selected strategies encourage higher-order thinking skills when teaching writing, particularly for strategies that include the general procedures in implementing higher-order thinking skills for teaching writing and the major considerations at each stage of its implementation
Wen & Hua (2020)	153 Malaysian ESL teachers	To examine the relationship amongst these three factors and teachers' intention to adopt online educational technologies.	This study found accessibility to infrastructure and online resources to be the most significant factors that affected teachers' behavioural intentions.
Yunus & Hua (2021)	30 primary pupils	To explore the influence and effects of Quizziz in enhancing young Malaysian ESL learners learning irregular English verbs.	The use of Quizizz has enhanced young learners learning irregular English verbs (increased pupils' performance)

Results
RQ1: What are the types of platforms used for gamified learning in enhancing language skills in ESL classrooms?

There are multiple platforms suggested to be used for gamified learning in enhancing language skills in ESL classrooms. Table 4 shows the types of platforms suggested and studied in the articles reviewed.

Table 4
Types of gamification platforms suggested

TYPE	EXAMPLES
GAMIFICATION TOOLS	Kahoot! [1,6,7,8] Wordwall [5] Quizziz [1, 7, 8, 9, 15, 16] Baicizhan Mobile Language Learning Application [3] Socrative [4] PowerPoint Challenge Game [4] Quizvaganza [13]
NOT SPECIFIED	[2, 10, 11, 12, 14]

As stated in table 4, Quizziz app is one of most suggested gamification platforms in the articles (Abdul Halim et al., 2020; Kaur et al., n.d.; Lim et al., 2021; Yunus et al., 2021; Yunus et al., 2013) followed by Kahoot! (Abdul Halim et al., 2020; Idris et al., 2020 & Kaur et al., n.d.). These two platforms are argued to provide an engaging and fun field for the students to learn English. The findings of the study also reveals the feedback of the students where they feel less nervous and motivated to participate in the ESL lesson when it includes games in Quizziz and Kahoot!.

Moreover, Wordwall is a great tool to boost vocabulary learning among students(Hasram et al., 2021). Wordwall gamification tool is said to increase students' comprehension and understanding of vocabulary as the vocabulary can be found in the form of images and the pronunciation of the word can be listened to and seen in the form of audio or video.

On the other hand, researchers have also stated that gamification platforms such as Baicizhan mobile Language Learning Application (Dindar et al., 2021), Socrative (Hashim et al., 2019), PowerPoint Challenge Game (Hashim et al., 2019) and Quizvaganza (Singh et al., 2020) as gamification tools in enhancing students' language learning efficacy. It is argued that these platforms encourage students in exploring their language learning capabilities as well as choose the most suitable gamification platform to suit their learning styles.

RQ2 : What are the language skills focused on in gamified learning in ESL classroom?

Among 17 articles reviewed, most of the articles focused on using gamified learning in ESL classrooms to improve vocabulary and grammar acquisition among students (Dindar et al., 2021; Hashim et al., 2019; Hasram et al., 2021; Idris et al., 2020 & Kaur et al., n.d.). Dindar (2021) suggests that English grammar through gamification can make the lessons easier to understand. The use of online games promotes engagement via repetition and contributes to a deeper understanding of the vocabulary and the ability to recall spelling easily (Hasram et al., 2021).

These articles also suggest that gamified learning promotes communication among students in the classroom which eventually promotes their speaking skills. Students engage in ESL lessons actively when gamification is implied by teachers. Especially tools like Quizziz and Kahoot! Motivated pupils to communicate and collaborate with their classmates to complete a task which eventually improves their listening and speaking skills (Yunus et al., 2021; Yunus et al., 2013). Moreover, authors also have argued that gamified learning enhanced students' interests in reading and writing as the gamification platforms contain pictures and word clues as well as interesting presentation which captures the interest of the students to read the content and write (Hashim et al., 2019; Hasram et al., 2021 & Yunus et al., 2013).

Discussion

This systematic review aimed to provide readers with the types of gamified learning platforms used for language teaching in ESL classrooms. The results interpret the positive usage of gamified learning in ESL classrooms and the benefits are reflected in the language skill acquisition of the students.

Most studies on this field of research have been published since 2016 with a rising number from the last 3 years. Such a rise in recent years could be attributed to the growing popularity of this field and certain benefits it could bring to ESL classrooms. Gamified learning has been applied in different educational levels ranging from primary to higher education). This again shows the growing popularity of this field of research across different levels of education. Likewise, diverse digital learning environments in the forms of web applications have been used for ESL through gamification. Such diversity implies that research in this field of research and the use of gamification for ESL is likely to be promising in coming years. The review also explored students' experiences and various learning outcomes of gamified learning in digital environments.

In general, the learners' experiences were positive when dealing with gamified learning. Students often expressed that engaging in gamified ESL environments is enjoyable, fun, attractive, interactive, and interesting. Learning vocabulary was the most commonly reported positive learning outcome of the gamification learning as for the language skills. Almost most of the reviewed publications targeted content language learning in terms of learning vocabularies. Next to this, gamified learning environments also target other language skills (e.g. writing, speaking, listening, reading) Such diverse targeted learning outcomes point out to the potential benefits of the gamified learning in ESL classroom.

Conclusions

To conclude, this systematic review presents papers related to gamified learning in improving language skills in ESL classrooms. Three databases which are Scopus, ERIC and Google Scholar have been used as source of publication and a total of 17 articles were finalised to be reviewed. The main findings of the review present the types of gamification platforms used by ESL teachers and students and also the language skills involved and acquired by ESL learners through gamified learning in ESL classrooms.

Namely Quizizz, Kahoot!, Wordwall,, Baicizhan mobile Language Learning Application , Socrative, PowerPoint Challenge Game and Quizvaganza has been suggested as useful and effective gamified learning platforms in aiding the students' language skills proficiency.

According to the review, vocabulary acquisition is the most beneficial skill among the rest when it comes to learning language via gamification methods in ESL classrooms. Students also mastered listening, speaking, reading and writing skills alongside vocabulary acquisition while learning ESL through gamified learning.

The limitation of this review would be that the majority of studies on the use of gamification for ESL did not include articles that explains or proves which gamification platform can exclusively be used for improving which specific learning outcome. It is not clear what game elements are more effective for improving various aspects of the learning experiences and outcomes of ESL. The recommendation for future research to tackle this issue is to investigate how each single game element at a micro level could contribute to each aspect of the language learning outcomes. This would allow researchers to study, advantages and disadvantages of gamification elements and thus provide suggestions on the usage of specific gamification tools to be used in ESL classrooms.

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