USE OF GAMIFICATION IN ENGLISH LEARNING IN HIGHER EDUCATION: A SYSTEMATIC REVIEW

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Abstract

Digital gamification is a dynamic technique for enhancing English learning and closing the barrier across student learning and pedagogical praxis. The review offers a summary of gamification in digital English learning environments. In addition, this review investigates the learning experiences and outcomes of foreign language students using gamification. For this study, 18 articles published between 2014 and March 2021 were analyzed to highlight the key characteristics of this research topic. Studies have demonstrated the positive effects of gamification on English as a Foreign Language Educational Experiences from University Learners. In gamified English learning environments, pleasantness, attractiveness, motivation, and enjoyment were all desirable qualities. Gamification's intended learning goals were language content learning, involvement, motivation, and satisfaction. This study's findings include recommendations for the design of digital gamification for the English learning of students, as well as their perspectives and corresponding learning achievements.

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1. Introduction

Recent times have shown a tremendous increase in the results of the different technologies related to share information and exchange communication, owing to their role as the primary management and practice platforms for generating meaningful learning. As Sosa, Peligros and Díaz (2010) remark, when educational practices are linked with the use of technology resources and when correctly integrated, they increase the teaching and learning process. Similarly, Vélez (2020) notes that ICTs have improved the educational industry by enabling students to access content, customize their own learning, and overcome space-time constraints to knowledge acquisition.

One of the most extensively used and preferred languages in the cultural globalization is English; even in a survey of United Nations members choosing the language to be used in their embassies, a majority of respondents approved of the usage of English (Ortiz, 2013). English proficiency is critical for academic and professional development at the graduate level, as it enables access to international agreements, exchanges, and events, as well as to current and relevant scientific material on a worldwide scale (Chávez-Zambrano, Saltos-Vivas & Saltos-Dueñas, 2017).

According to the UNESCO Institute for Statistics, 82 percent of Latin American and Caribbean countries have considered at least a formal framework for programs that incorporate digital resources at all educational levels, while the other 18 percent are informal. On the other hand, the educational reality in Latin American countries demonstrates a poor level of English proficiency. According to 2016 research by Education First, the majority of countries have a low level: Uruguay (51.63), Brazil (50.66), Chile (50.10), Mexico (49.88), Peru (49.83) & Ecuador (49.13).

With this in mind, second language teachers must seek out fresh and novel methods for capturing students' interest (Al-Dosakee & Ozdamli, 2021), as teaching a language is frequently viewed as a difficult challenge by students. Hong (2016) argues that teaching a new language requires the teacher to incorporate cognitive activities and tasks that are challenging for the learner; Farahani, Kashi and Isazadeh (2019), moreover, highlight the significance of collaboration in this subject for the establishment of a comfortable classroom atmosphere. When these components are considered, gamification emerges as a viable choice because it incorporates both the collaborative abilities of learners and a motivational approach for them.

The term "gamification" does not refer to the incorporation of a game into a classroom setting. As Shahri, Hosseini, Phalp, Taylor and Ali (2019) note, gamification is the action of incorporating entertainment aspects and concepts into a formal setting in order to engage people and improve their recall of certain knowledge. Gamification in education is a tactic that brings students into contact with entertainment design elements into the classroom to encourage and captivate them, while also facilitating teacher–student interaction and the development of academic, cognitive, and social skills and competencies (Manzano-León, Camacho-Lazarraga, Guerrero, Guerrero-Puerta, Aguilar-Parra, Trigueros et al., 2021). Gamification incorporates a variety of educational aspects, such as game ideas and frameworks (Attali & Arieli-Attali, 2015). This system is founded on the premise that pupils learn and retain information more effectively when they are having fun during the growth process (Molina Álvarez, Ortiz Colón & Agreda Montoro, 2017).

There's no doubt that games and gamification in particular are excellent teaching methods for stimulating and energizing students during acquisition processes while learning (Jackson & McNamara, 2013; Millis, Forsyth, Wallace, Graesser & Timmins, 2017). Additionally, gamification is regarded as a highly entertaining and effective way of language learning (Dehghanzadeh, Fardanesh, Hatami, Talaee & Noroozi, 2019; Lui, 2014; Perry, 2015; Sundqvist & Wikstrom, 2015; Munday, 2016; Nahmod, 2017). Some reasons that explain those results are the addition of various characteristics from entertainment that increase interest and attention from learners (Dehghanzadeh et al., 2019; Wu & Huang, 2017); the fact that alleviate learners' anxiety and nervousness when interacting in another language different to their mother tongue (Arnold, 2014); and eventually, the power to inspire learners to engage in a better way of learning (Deterding, Dixon, Khaled & Nacke, 2011; Deterding, Sicart, Nacke, O'hara & Dixon (2011); Kapp, 2012; Werbach, 2014) that indicates that learning English through competitive activities is more effective than studying in a non-gaming environment (Zarzycka-Piskorz, 2016). In summary, the literature reveals that gamification may be associated with the increase of lexicon, engagement, motivation, and pleasure in English language learning (Kapp, 2012; Werbach & Hunter, 2015).

In higher education, teaching is predominantly magisterial in nature, with the teacher taking the lead and presenting the contents and knowledge in front of a passive student role, who must assimilate the information imparted from their seats; however, new educational trends emphasize the incorporation of methodologies that allow for the student's participation and active role in their own learning (Corchuelo, 2018). As a consequence, gamification is gaining traction as a tool for motivating pupils throughout their

learning process (Lozada & Betancur, 2015). As a result of the background examination, it can be concluded that the game serves as an attention activator and serves as a supplement to standard teaching methods. This fact motivated the interest to investigate how gamification has been used at universities. Similarly, it was determined that to understand its application in this context, a strategy based on the diverse domains of expertise associated with group language acquisition is necessary.

There are numerous studies that demonstrate the possible benefits and consequences of using computer and digital games, as well as serious games, for English language learning (Dehghanzadeh et al., 2019; Peterson, 2013; Reinhardt & Thorne, 2016; Reinhardt, 2019). Nevertheless, the use of game - based learning in English language lessons and the effect on various educational practices and influences has not been thoroughly studied. Therefore, this systematic review intends to support a more overall picture of the published research on gamification for English language learning and to evaluate how and which gamification elements are also used for English Learning.

This review is intended to assess students' learning impressions (emotions and attitudes) and educational results (English topics, commitment, inspiration, and pleasure) when they participate in gamified English in digital environments.

To accomplish these goals, a conceptual framework and the details of the methodology used to gather and select the articles for analysis are offered. Following that, the review's findings are presented, naming each of the proposed topics. Finally, the findings and a set of recommendations and perspectives regarding the future of English learning using gamification are discussed.

2. Method
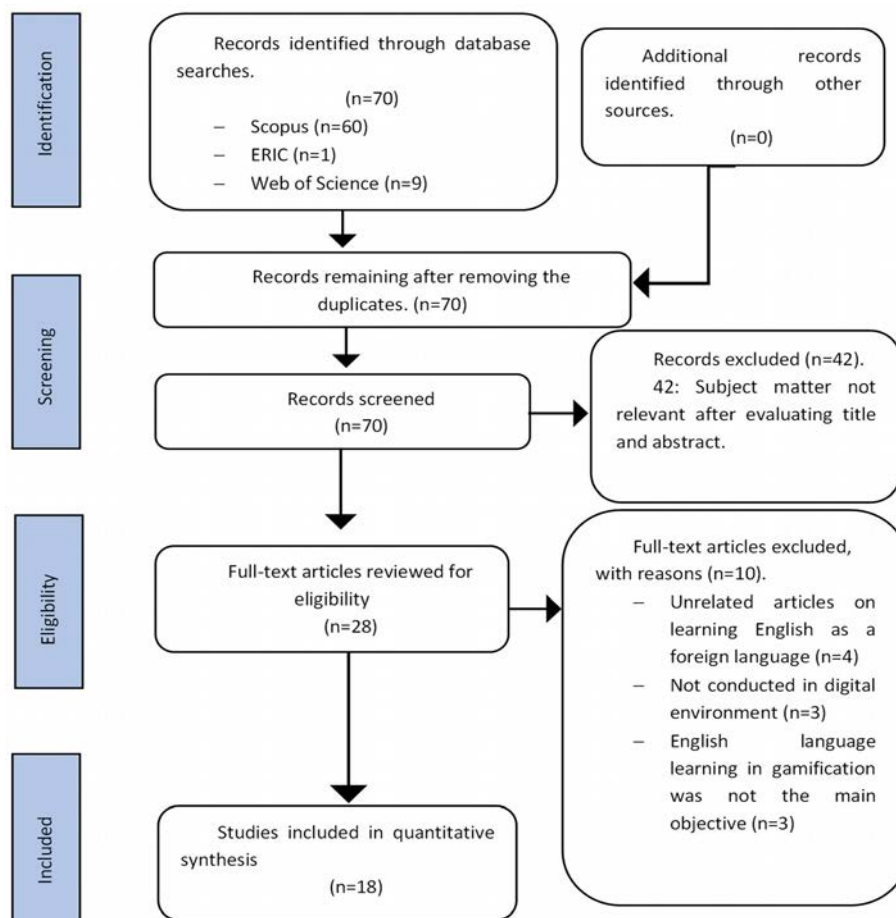### 2.1. Database and Search Strategy

Figure 1. Flowchart process selection

To conduct the systematic review, relevant papers were selected and a search technique was used in databases such as ERIC, Scopus, & Web of Science. The following search terms were used in this study: (gamification or gamification, strategizing or engagement, "game learning" or "applied game design") AND (teach or teacher or teaching), AND English. These terms were chosen based on the latest literature on English language instruction and gamification; the search period for the current systematic review was limited to publications published between 2006 and 2020 in order to capture the most current and relevant research on the subject. It is critical to remember that only publications in the English language were considered.

For the selection of studies, the following inclusion and exclusion criteria are taken into account, which are identified according to the objective of the review:

2.2. Inclusion Criteria

- Works published from 2006 onwards.
- Search in academic databases such as: ERIC, Scopus, & Web of Science.
- All geographical contexts.
- Publications such as indexed journal articles or conference papers on gamification in education and English language learning in digital environments.

2.3. Exclusion Criteria

- Research prior to 2006.
- Articles related to gamification in organizations, customer management, training, among others.
- Research that does not come from reliable academic sources.
- Publications that work on gamification in the teaching of English in elementary education or other types of academic environments other than higher education.

Once the inclusion and exclusion criteria have been applied, eighteen articles were covered for inclusion in the review.

2.4. Screening Questions

- Has the study been conducted in a university context?
- Has the study been conducted in educational institutions?
- Is the research design experimental or non-experimental?
- Does the study deal with the gamification process?
- Is there a specific intervention in students?
- Is there evidence of improvement in English language learning?
- Are there technological applications for gamification of results in language teaching?

3. Results
3.1. Search Results

As previously stated, the search procedure consisted of four major parts. The first step is to do a database search; the second step is to eliminate duplicate articles; the third step is to apply inclusion and exclusion criteria; and the last step is to read the whole text in order to establish the set of primary articles.

By looking at the title, keywords, and abstract of each article, any results that weren't specifically about collaborative systems were eliminated. This led to a set of 70 articles, which included those that were included incorrectly due to the erroneous use of one of the terms. After reading the articles in their entirety, a total of 28 new primary studies were discovered. Those publications that implemented game

mechanics or provided complete games or serious games but did not put them into context with a cooperative structure were disqualified from publication.

Using this mapping's filtering steps, the article exclusion rate is comparable to that of relevant studies.
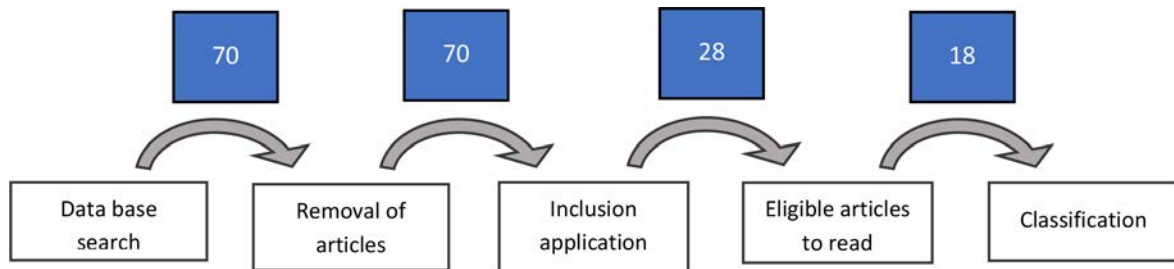

Figure 2. Search and filtering process

Title	Authors	Year	Source
Use of Gamification in Vocabulary Learning: A Case Study in Macau	Lui, S.	2014	Conference
An English vocabulary learning support system for the learner's sustainable motivation	Hasegawa, Koshino & Ban	2015	Article
Kahoot it or not? Can games be motivating in learning grammar?	Zarzycka-Piskorz	2016	Article
Developing a gamification-based interactive thesaurus application to improve English language vocabulary: a case study of undergraduate students in Malaysia	Mchucha, Ismaeil & Tibok	2017	Article
Clickers in the flipped classroom: bring your own device (BYOD) to promote student learning	Hung, H.	2017	Article
Impromptu speech gamification for ESL/EFL students	Girardelli, D.	2017	Article
Benefits of using a mobile application in learning a foreign language	Bustillo, Rivera, Guzmán & Acosta	2017	Article
A Qualitative Investigation of Student Perceptions of Game Elements in a Gamified Course	Tugce, Berkan & Goknur	2017	Article
Applying gamifications to asynchronous online discussions: A mixed methods study	Ding, L.	2018	Article
Gamification in LMS Courses	Klubal, Kostolanyova & Gyvas	2018	Article
Gamified Learning in Higher Education: A Systematic Review of the Literature	Subhash & Cudney	2018	Article
WordBricks: Mobile Technology and Visual Grammar Formalism for Gamification of Natural Language Grammar Acquisition	Purgina, Mozgovoy & Blake	2019	Article
The rise of motivational information systems: A review of gamification research	Koivisto & Hamari	2019	Article
Gamification and serious games: A literature meta-analysis and integrative model	Baptista & Oliveira	2019	Article
The impact of gamification on learning and instruction: A systematic review of empirical evidence	Zainuddina, Chu, Shujahat & Perera	2020	Article
Gamification in the classroom: Examining the impact of gamified quizzes on student learning	Sanchez, Langer & Kaur	2020	Article
A web-based collaborative reading annotation system with gamification mechanisms to improve reading performance	Chen, Li & Chen	2020	Article
Multimedia tools in the teaching and learning processes: A systematic review	Abdulrahaman, Faruk, Oloyede, Surajudeen-Bakinde, Olawoyin, Mejabi et al.	2020	Article

Table 1. Primary sources

Table 1 exposes primary studies from 2014 to 2021, categorizing between conferences and journal articles. The majority of research dates from 2017 (5 publications), followed by work conducted in 2020 (4 publications).

Figure 3 gives a summary of the categorization of articles mapped between these sources. It is noted that the quantity of journal articles is higher (95%) than the amount of conference (5%).
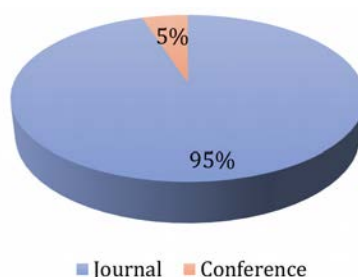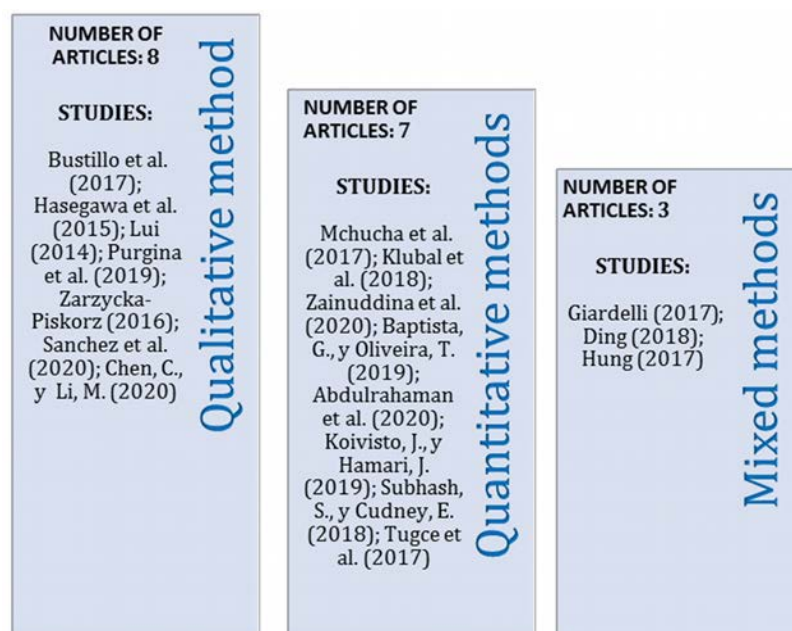

Figure 3. Types of sources

Note: This figure exposes an overview of the methodological approaches adopted. It was found that most studies used a qualitative approach, followed by quantitative and mixed methods approaches.

Figure 4. Methods used in Gamification studies

3.2. Gamification in English Language Teaching

A table covers the authors, dates, publication sources, educational levels, data collection methods, study kinds, the number of participants, gamification components, learning experience, and the learning outcomes for each work.

In addition, it is implied that the use of gamification in advanced-level English language education remains limited, with only 18 papers matching the required conditions. The studied articles were issued between 2014 and 2020, indicating that the use of gamification in the study field for higher level English education is relatively new. Numerous digital learning environments (WordBricks, Duolingo, Kahoot, EchoLu, Jeopardy, Clickers, virtual platforms, and gamified online quizzes) have been utilized to gamify English language instruction, demonstrating that acquiring a new language may be simply gamified using simple digital tools. The research of gamification for foreign language learning has been conducted using quantitative (7 papers), qualitative (8 publications), and mixed techniques (3 publications). The most often

utilized data collection methods for gamification in English language teaching were survey (7 papers), interview (3 publications), observation (1 publication), reviews (6 publications), and test (2 publications). As shown in Table 2, the duration of the intervention in the reviewed publication ranged significantly from twenty minutes to six months. Moreover, six of the evaluated papers lacked an experimental design, and the number of participants in the listed publications ranged from five to four hundred seventy-three.

Authors	Source publication	Learning environment	Methodology	Data collection method	Experimental	Time	Sample	Gamification elements	Learning experience	Learning outcomes
Bustillo et al. (2017)	Systems and Telematics	Duolingo	Quantitative	Questionnaire	Yes	Two months	12	Reward, level system, badge, points, challenge, feedback, leaderboard	Fun Curiosity Playful Motivational	Listening skill
Giardelli (2017)	Docent Communication	–	Mixed method	Questionnaire Report	Yes	75 minutes	24	Freedom to fail, quick feedback	Increasing confidence Organizing learning Autonomous learning Fun Participation	Vocabulary Pronunciation Oral practice
Ding (2018)	Computers in human behavior	gEchoLu EchoLu	Mixed method	Written test Interview Open-ended questions	Yes	Two months	70	Badges, rewards, scoring, leaderboard	Positive attitude towards learning Participation Cognitive thinking	Speaking: oral skill (debate)
Hasegawa et al. (2015)	Springer Plus	–	Quantitative	Questionnaire	Yes	One week	56	Character system, timer, questions, leaderboards, system, level, result, score, point, feedback	Fun Interesting Visualize students' efforts and abilities Self-improvement Self-sufficient learning	Vocabulary
Hung (2017)	Interactive learning environments	Clickers Kahoot	Mixed method	Questionnaire Interview	Yes	Two weeks	44	Points Ranking table Time limit Effect sounds Avatars	Fun Interaction Attention	English Skills: Vocabulary
Lui (2014)	4th CELC Symposium proceedings	Jeopardy Fling the teacher	Quantitative	Questionnaire	Yes	20 minutes	91	Character system, challenge, points, time pressure, feedback	Sense of positive attitudes towards learning Commitment Control of learning Fun Repeating mistakes to learn	Vocabulary
Mchucha et al. (2017)	International Journal of Management and Applied Sciences	fDigital learning platform	Qualitative	Interview	No	25 minutes	5	Challenge Points Feedback	Interest Commitment Improved attention span and persistence Reduced stress and anxiety Ease of accuracy Motivation	Vocabulary
Purgina et al. (2019)	Journal of Research in Educational Informatics	WordBricks	Quantitative	Questionnaire	Yes	5 weeks	21	Feedback	Learning exploration Enjoyment Fun Engagement	English grammar
Zarzycka-Piskorz (2016)	Journal: Teaching English with technology	Kahoot	Quantitative	Questionnaire	Yes	3 weeks	11	Likes and dislikes Level Rules Leaderboard Emotions Feedback	Participation Cooperation Autonomy Fun Competitiveness Enjoyment Observation of progress Learning mastery	English grammar

Authors	Source publication	Learning environment	Methodology	Data collection method	Experimental	Time	Sample	Gamification elements	Learning experience	Learning outcomes
Klubal et al. (2018)	ICTE Journal		Qualitative	Systematic mapping	No	–	–	Badge Score Levels Leaderboard Challenge Feedback	Cooperation Participation Observation of progress Self-improvement Playful	English learning
Zainuddina et al. (2020)	Educational Research Review		Qualitative	Systematic review	No	–	–	Score Badge Levels Leaderboard Avatars	Autonomy Competitiveness Motivation Control of learning Curiosity	English learning
Sanchez et al. (2020)	Computers & Education	Gamified online exams	Quantitative	Test	Si	16 weeks	47	Challenge Progress bar Level system Feedback	Increasing confidence Playful Observation of progress Fun	English learning
Baptista & Oliveira (2019)	Computers in Human Behavior		Qualitative	Meta-analysis	No	–	–	Badge Leader board Avatars Feedback Level system Sound effect Challenge	Intention Positive Attitude Enjoyment Usefulness Learning opportunity Recognition	English learning
Chen, Li & Chen (2020)	Computers & Education	Cooperative website	Quantitative	Test	Yes	2 months	55	Freedom to fail Fast feedback Level system	Observation of progress Mastery of learning Positive attitude	Reading: Reading proficiency in English
Abdulrahaman et al. (2020)	Heliyon		Qualitative	Systematic review	No	–	–	Animation Character systems Videos	Learning opportunity Participation Learning mastery	English learning
Koivisto & Hamari (2020)	International Journal of Information Management		Qualitative	A review	No	–	–	Score Challenge Badge Levels Leaderboard Time limit Effect sounds Avatars	Observation of progress Competition Personalization Positive attitude	English learning
Subhash & Cudney (2018)	Computers in Human Behavior		Qualitative	Systematic Review	No	–	–	Leaderboard Score Reward Levels Badge Objectives Challenge Feedback	Commitment Interest Motivation Performance Enjoyment Trust	English learning
Tugce et al. (2018)	Computers in Human Behavior		Qualitative	Observation Interview	No	–	–	Feedback Repetition Challenge Score Teamwork Badge	Team skills Commitment Emotion Collaboration Self-assessment Fun	English learning

Table 2. *Quantitative description of scientific research on gamification for English language teaching.*

3.3 Gamification Experiments in English Classroom

As shown in Table 2, ten of the research studies gathered were experimental. Thus, concise explanations of the procedures used are included in order to convey pertinent information about the research.

To begin, in the study by Bustillo et al. (2017), the Duolingo program aided in the development of learners' listening comprehension. Thus, following a two-month period of testing with the app, considerable gains in academic performance were attained, with peaks of more than 80% inaccurate responses compared to around 60% of the sample's causes of mistake. Similarly, students demonstrated a favorable attitude towards the instructional program's utilization.

Girardelli (2017) used accessible technology tools and gamified them in order to improve vocal expressiveness. Thus, the utilization of narrative slides and student engagement as assessors and participants in the gamified experience aided in achieving favorable outcomes in fluency and nonverbal resource development in the English language. Additionally, students felt considerably more comfortable practicing orally using technology aids. Finally, there was a noticeable increase in their intonation and accuracy in speaking. The experimentation revealed increased student attentiveness on achieving the highest possible score and increased student engagement in the resolution of text comprehension exercises. The research showed that the gamified presentation motivated students to participate actively.

On the other hand, Ding (2018) employed the tool gEchoLu, which facilitated student-to-student discussion, therefore enhancing students' practice and performance in English writing. Similarly, their classmates evaluated a total of five conversation experiences via comments and badges, while the teacher evaluated them using a rubric; a higher cumulative score meant a prize and, so, encouragement to continue writing. Additionally, it promotes active engagement in writing. According to the review, it was an effective instrument for reinforcing students' writing abilities and exposing them to a variety of challenges, while also boosting focus and efficiency in the production of tasks.

With the aim of increasing vocabulary, Hasegawa et al. (2015) developed an application that improved it through levels, progress bars, avatars and test-type questions, resulting in an approximately 80% retention of the vocabulary presented. Lui (2014) developed an application called Fling the Teacher that, when combined with Jeopardy, assisted students in automatically retaining language, which reflected not just their academic success but also their viewpoint. Hung (2017), on the other hand, employed Kahoot and the students' own electronic devices as clickers to develop lexical skills, achieving outcomes around 10 points higher than the control group. This indicates the high rate of vocabulary retention associated with English language learning using gamification components such as avatars, progress, music, images, and opportunity to repeat tasks.

Additionally, WordBricks was an app redesigned and modified by Purgina et al. (2019) that consisted of sorting words into blocks of different colors depending on their grammatical purpose. Experimentation with WordBricks helped in the improvement of English grammar knowledge; however, its application demonstrates slightly higher results than traditional teaching, showing that WordBricks and grammar learning from a book can be used interchangeably to obtain similar results. In contrast, Kahoot proved to be a tool that increased the perception of grammatical learning in content divided as difficult in students (Zarzycka-Piskorz, 2016).

Additionally, Purgina et al. (2019) updated and changed the WordBricks app, which consisted of sorting words into blocks of varying colors based on their grammatical function. Experimentation with WordBricks aided in improving English grammar knowledge. Its application achieves better outcomes than traditional instruction, demonstrating that WordBricks and traditional grammar learning may be used interchangeably to get similar results. By contrast, Kahoot demonstrated that it was a tool that improved students' perceptions of grammar learning in topics classified as challenging (Zarzycka-Piskorz, 2016). The dynamism of the mentioned programs aids in comprehending vocabulary and grammar throughout the university students' learning experience. Additionally, the free version of the programs is quite beneficial and reinforces the notion of inductive learning, which involves learning by practice and then

internalizing the knowledge. As a consequence, it can be said that having fun and learning by doing are two of the most efficient ways to acquire a foreign language, according to the reviews.

Moreover, Sanchez et al. (2020) employed gamified quizzes to boost student learning at the global level of English language learning, using three exams throughout the study. The collected findings demonstrated a more significant percentage difference in academic achievement than standard quizzes, indicating their efficacy in the language. Furthermore, students were eager to use various gamified websites to reinforce their learning throughout the shared experience, proving their contribution to the students' independent learning. Additionally, students must show an improved level of English in the following class sessions.

Similarly, Laura-De La Cruz, Roque-Coronel, Noa-Copaja & Rejas-Junes (2022)and Laura-De La Cruz, Gebera & Copaja (2022) demonstrate their practical experience with Nearpod, Peardeck, and Quizizz in boosting medical English vocabulary development among Human Medicine students. The findings advocate for more student involvement, participation, and focus. Additionally, users discover enhanced options for feedback and reflection in the apps, as mentioned above. Students assume a more active and self-sufficient role (Laura, Franco & Luza, 2020). Finally, students gain proficiency in using the relevant digital technologies in other courses, enhancing their learning and professional skills.

3.4. Gamification Elements for English Language Teaching

The articles analyzed incorporated a number of gamification components into their instructional designs for teaching English in digital spaces. Feedback, challenge, points, badges, leaderboard, and level were the most frequently gamified features. Video, timer, sound effect, and animation were the least often employed game features when it came to gamifying English learning environments. Figure 5 summarizes the gamification features and their frequency of application in the publications assessed to gamify English language acquisition. As a result, the most frequent feature of manuscript review is synchronous and asynchronous feedback. When creating gamified exercises, the participant visualizes the answers throughout execution, and at the completion, they may analyze the exercise's progress in detail. Students take charge of their learning and reflect on their progress, which fosters critical and meaningful learning.
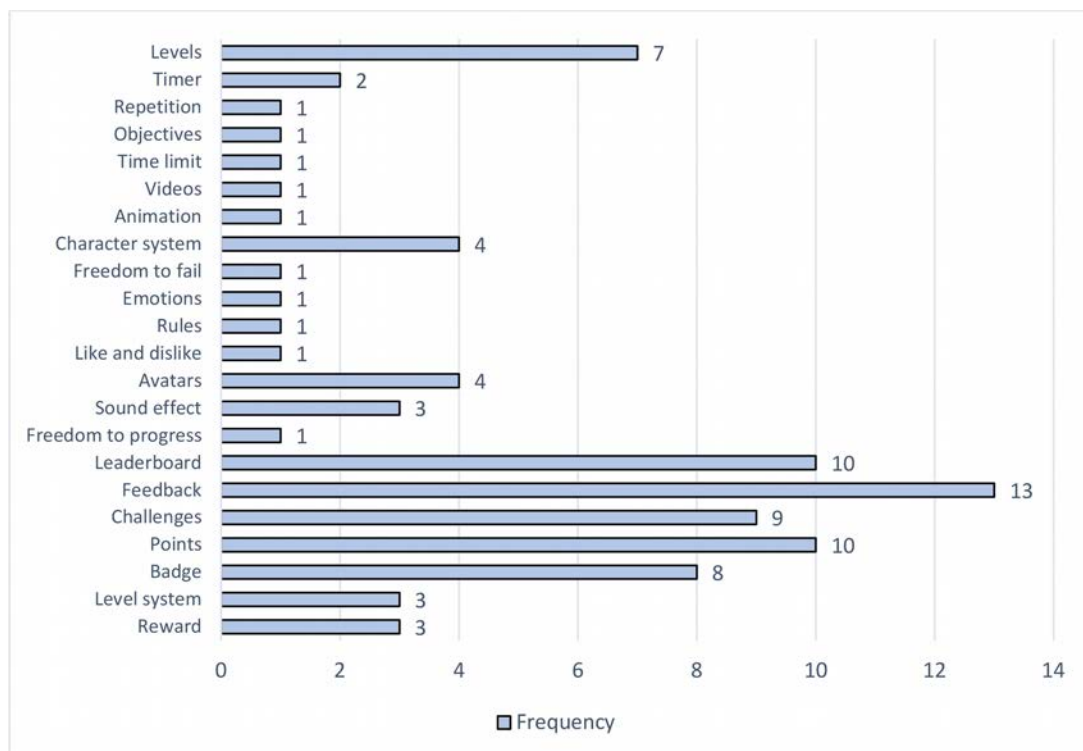

Figure 5. The elements of gamification used for Teaching English at Higher Education level

3.5. Experiential Learning Using Gamification in English Teaching at the University Level.

The majority of the research evaluated concluded that gamification improved students' learning experiences when used for higher-level English language acquisition (Table 2). The most frequently used adjectives to describe gamification learning environments were "motivating," "fun," "self-improvement," "engagement," "cooperation," "competitive," "participatory," "exciting," and "interesting," indicating that students have a favorable attitude toward incorporating various gamification elements into their English learning.

3.6. Learning Outcome of Gamification in English Language Teaching at Higher Education Level

Results of the study of the English language were focused on teaching English vocabulary (5 publications), grammar (2 publications), pronunciation (1 publication), writing (1 publication), listening comprehension (1 publication), reading (3 publications), and general English learning (7 publications) in the reviews of the various gamification elements resulted in significant consequences through gamified spaces in classrooms when acquiring English.

4. Discussion

This study seeks to give readers with up-to-date information on the most recent research on the use of gamification in digital contexts for English learning, particularly at the higher education level worldwide. A targeted search technique using relevant keywords from multiple databases was used to identify 18 publications for inclusion in this systematic review. These papers were then examined from a variety of angles to produce a quantitative overview of the scientific study conducted in this field.

The relevance of this article is in the collection of academic research on university students' English language learning through the implementation of gamified characteristics in classrooms. The gamification aspects with the highest impact have been highlighted. Finally, the significance of their learning to take international examinations that assess their level of English is acknowledged, as is their use of the student's professional, social, academic, and scientific fields. Moreover, this enhances their autonomy, critical thinking, and reflective learning.

Despite the fact that the application of games in virtual environments and gamification have been utilized in educational settings for a number of objectives with successful outcomes, there is still scope for improvement (Shaffer, 2007; McAlister, 2016; Millis et al., 2017), the use of gamification for teaching English as a foreign language at the advanced level is a relatively new field for researchers (Dehghanzadeh et al., 2019; Garland, 2015). So, this explains why there were so few papers that were eligible for inclusion in this review as they didn't satisfy the criteria for eligibility. The majority of studies in this topic have been published since 2014, however an increasing number have been published in the last three years (Dehghanzadeh et al., 2019). This increment can perhaps be attributed to the fact that this job has become more popular in recent years, that distance education is available, and that it could help people learn English. In this regard, Huotari and Hamari (2016) note that while the term gamification was first used in 2008, it gained increased relevance and prominence in the educational sphere only in 2010, which may explain the subject's gradual advancement over the years.

Furthermore, the present review revealed that the reviewed publications on gamification for English language teaching employ a variety of methodologies, including quantitative, qualitative, and mixed methods, as well as different types of data collection, such as survey, test, interview, observation, and literature reviews, with participants ranging from a few to a large number. This variety of methodologies could be a result of the researchers' desire to thoroughly investigate the potential of gamification in English classrooms, and to cover the necessity to discover new and relevant knowledge in the field that will aid in the improvement of educational methodology in order to achieve quality education.

The findings indicate that this subject of research is gaining popularity at the university level, which is useful and significant in terms of exhibiting an interest in enhancing knowledge acquisition among society's future professionals. English has also been taught in a number of gamified virtual classroom settings in the form of online applications. This variety indicates that study in this area and the use of games to teach English at the university level have a promising future in the coming years.

Besides, the type of gamification aspects that have been applied for advanced English language learning are discussed. Although a variety of gamification features have been utilized in English language instruction, there has been no consensus on which types of gamification elements are most beneficial, for which portions of the learning process, and for which outcomes. The aspects most frequently employed to gamify English language training were feedback, scoring, and student advancement. This is not surprising given that teachers' responses and recommendations are frequently utilized not only in English education, but also in the learning of other disciplines, such as critical thinking, assessing student progress, and self-learning (McAlister, 2016; Weinberger & Shonfeld, 2018; Noroozi, Kirschner, Biemans & Mulder, 2018). Pupils find scoring and progress intriguing because peer comparison pushes them to perform and to feel valued in front of the class; hence, gamification also plays a substantial role in the emotional domain of students (Jun, Jiao & Lin, 2020). At the same time, the progress component of the gamification tool enables learners to identify their assets and weaknesses in relation to the topic at hand, as well as to become aware of the actions necessary to achieve the target or successful score in comparison to their classmates.

Other gamification aspects that, according to the data, are widely employed for English learning are challenges, badges, and levels. Learning challenges increase the student's desire and dedication to completing the assignment. Manzano-León et al. (2021) claim that when students are given meaningful work in a pleasant and attractive environment, they increase their motivation and reinforce study habits that enable them to grow autonomously. With regards to badges, it is widely accepted that the usage of distinctions and rewards is a form of external motivator used to shape behavior and can be beneficial in education if utilized appropriately and in sufficient quantities (Kyewski & Krämer, 2018). Students perceive levels and obstacles as a challenge, pushing them to direct and shape their conduct, as well as to implicitly focus on their learning.

Several of the gamification elements that are less frequently used by the various researches in analysis are videos and animations; this is because other educational alternatives incorporate such features; additionally, videos and animations are frequently used as everyday teaching resources and thus cannot be considered an innovative added value in gamified tools. The low use of gamified environments with elements such as the timer may be attributed to the fact that such an element can operate as a barrier, limiting the way and pace at which students acquire knowledge. It is commonly recognized that teachers may encounter a range of learning rhythms and styles among their students in a classroom setting, necessitating the use of flexible techniques.

The current study expands on previous research by examining students' experiences and various learning outcomes associated with gamification of English language instruction in digital contexts. In general, students' experiences and perceptions of English language training via gamified technologies were favorable. Students generally described participating in gamified environments in English teaching as motivating, enjoyable, cooperative, competitive, participatory, engaging, exciting, and interesting (Bustillo et al., 2017; Girardelli, 2017; Hasegawa et al., 2015; Hung, 2017; Mchucha et al., 2017; Klubal et al., 2018; Sanchez et al., 2020) because it allows them to actively engage in English learning processes (Lui, 2014; Koivisto & Hamari, 2020; Abdulrahaman et al., 2020). Thus, it is concluded that students are driven to study English when they sense independence and autonomy in the process of learning. De-Marcos, García-Cabot and García-López (2017) argue that when designing and creating gamified environments, it is critical for teachers to incorporate intrinsic motivations to keep students motivated. This is reflected in the students' confidence in their autonomy for learning, feeling confident that they can overcome all the challenges and activities required.

The majority of the reviewed publications focus on vocabulary acquisition in English, which is understandable given the significance of vocabulary in language learning. As Susanto (2017) argues, a student who does not possess a sufficient percentage of the language lexicon will face numerous difficulties in other areas of English, implying poor comprehension of oral and written texts. Along with vocabulary, English language learning play spaces emphasize other abilities and components (such as writing, speaking, listening, and reading) (pronunciation and grammar). Additionally, the majority of the publications analyzed reported favorable effects in terms of engagement, learning control, motivation, and learner satisfaction (Bustillo et al, 2017; Mchucha et al., 2017; Hasegawa et al., 2015; Purgina et al., 2019). The diverse learning outcomes indicate the potential benefits of gamification for higher-level English instruction, as seen by the quantitative advancement of students' grades following the implementation of the gamified tool (Laura, Morales, Clavitea & Aza, 2021). However, research on the effectiveness of gamified tools in the areas of listening comprehension and English pronunciation is sparse in comparison to the other skills investigated; as a result, it can be inferred that there are few gamified tools in these areas, posing a limitation on the research developed. This scenario is concerning, as Bustillo et al. (2017) note, because the skill of listening comprehension in English is typically a significant problem for a foreign language student.

5. Limitations and Recommendations

This systematic review utilized a predetermined time frame, a certain language, a variety of selected databases, and a search approach that gives a representative sample of this field of study. While the study focuses on the implementation of gamification in advanced English learning, it also examines the effects of gamification on student engagement and is possible that other game-based learning methods, such as those found in instructional and serious games as well as video games, could make a significant contribution to this field of study. There has been a lot of research on gamification for various aspects of learning, but there isn't nearly as much on the topic of gamification for advanced English language learning.

On the other hand, concerns with strategy, design, procedure, and evaluation in the most highly cited articles require researchers to evaluate the outcomes of these investigations with caution. Examples incorporate, but are not restricted to, the lack of an experimental group, the omission of a pre-post-test design, self-reported assessments, a short timeframe of the research, and a little sample number in some articles that have been peer-reviewed. All of these limitations and shortcomings in the studied papers demonstrate the need for additional empirically robust study on this topic. Future research should therefore address these concerns and conduct empirical research on the topic of gamification for English language instruction under stricter conditions (concerning experimental design, control group incorporation, innovative and blended methods of data collection, and longer time of game - based tasks with a bigger sample) in order supply students with tangible effects that can be expanded to other learning contexts. Additionally, the majority of the publications under examination collected data via survey, interview, test, systematic review, and focus groups. This means that the majority of the findings in this investigation are based on language learners' emotional experiences and, in a few circumstances, on actual learning. This is surprising, given that learners' views of education are not always consistent with the learning outcomes (Noroozi et al., 2018), which can result in misleading and superfluous language acquisition experiences.

Other limitations to the analysis of the selected research concerned sample selection, as this was done by convenience in the majority of studies, and it was not mentioned if participation in the studies was voluntary. Similarly, the date of administration of the tests or instruments used to determine students' progress or perceptions of gamified educational environments was not specified, and it had to be presumed that they were administered following the implementation of the innovation in the classroom. Gamification's potential for long-term learning could potentially be an interesting area of future research.

6. Conclusions

Gamification in digital environments for higher-level English language learning is the subject of this systematic study, which compiles recent literature. The review is required since gamified contexts for English language learning have evolved into an attractive issue that draws investigators, experts, and professors keen on gamifying their school environment, especially at the higher education institutions.

According to the study's primary objective and after conducting a systematic review of the analyzed research, it can be stated that studies on gamified environments in higher education for English language learning lacks a sufficient number of papers, as well as showing the existence of flaws that should be considered in later studies, with the primary criticism being that scholars' focus on the perspective of learners. Nonetheless, the prevalence of gamification aspects in students' motivation, attention, and autonomy for the purpose of learning a foreign language such as English is commended.

A rapidly increasing understanding on the design of game-based educational experiences can be found in this research, which provides information to researchers on how best to use gamification for English language learning, as well as how to develop virtual environments that support students' educational mechanisms and effects. Additionally, it is believed that this research will contribute to the advancement of the scientific area by addressing the limits and, as a result, the acceptance of the study's recommendations.

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