

Teaching English Language Journal

ISSN: 2538-5488 – E-ISSN: 2538-547X – <http://tel.journal.org>

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Please cite this paper as follows:

Arévalo Chuquín, M. A., & Orellana Mora, S. X. (2026). The Impact of Gamification on Engagement in an EFL Classroom: A Case Study at Universidad de Cuenca, Ecuador. *Teaching English Language*, 20(1), 37-71. <https://doi.org/10.22132/tel.2025.499102.1766>

Research Paper

The Impact of Gamification on Engagement in an EFL Classroom: A Case Study at Universidad De Cuenca, Ecuador

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Abstract

Using gamification in education is a strong method to boost student engagement and motivation when learning a new language and it has been proven by many different studies. This research identifies five key factors that its success. The emotional and intrinsic engagement emphasizes the role of positive emotions, enthusiasm, and intrinsic motivation in fostering a rewarding classroom experience. Social Interaction and Educational Value highlights how gamification promotes peer interaction and is perceived as an enriching educational strategy. Cognitive engagement focuses on the mental effort and concentration required during gamified activities. The competitiveness and extrinsic motivation factor address the motivational impact of competition and external rewards. Lastly, instrumental motivation and attention underline the heightened attention and goal-oriented interest elicited by gamification, primarily through the anticipation of achieving

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specific outcomes. The results highlight the solid foundation for creating interactive educational opportunities.

Keywords: Gamification, Engagement, EFL, Motivation

Received: January 13, 2025

Accepted: December 24, 2025



1. Introduction

Using warm-ups and games in the classroom is a way to reach students in an entertaining way, increase motivation for learning, spark additional interest in students when they receive a class, and increase language learning in a more relaxed, appealing, and fun context. This paper aims to demonstrate how gamification can serve as a tool for stimulating language learning through game-based mechanics in non-game environments.

Nowadays, gamification has become a trend in education because of its ability to motivate and engage students through game-based mechanics in non-game contexts. Students' perception of the importance of incorporating games into class drives this research (Navarro-Espinosa et al., 2022).

Thus, the research questions for this study are: 1. To what extent does the implementation of gamification strategies in EFL classes influence students' motivation to learn English at the Universidad de Cuenca? And 2. How does the use of game-based activities and digital platforms affect students' affective, behavioral, and cognitive engagement in English language learning?

1.1 Background of the Study

Motivation is a critical component of language learning, and games and technology are practical tools to enhance this cognitive process. Today, thanks to the technological revolution and its applications at all levels, it is entering the educational system and even more so in learning a second or foreign language. Gamification is the use of game design elements in a non-gaming context to enhance motivation in cognitive processes. Following this idea, this case study takes place at the Universidad de Cuenca and focuses on a selected sample of 82 students; the ages of these participants were between 18 and 26, working towards their B1 language level. After realizing that most students came to the course feeling unmotivated and uninterested, the researchers decided to implement gamification strategies to see if it would increase engagement and motivation. Since English is a graduation requirement, studying it can feel tedious.

1.2 Objectives

The objectives of this study, which will be combined to determine the effect of gamification on the motivation and engagement of students at Universidad de Cuenca, Ecuador, are the following:

- 1) We aim to determine whether the use of didactic games in EFL classes affects students' motivation to learn the target language.
- 2) We aim to determine whether using an interactive game-based platform and different applications in EFL classes affects affective, behavioral, and cognitive engagement aspects of students.

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1.3 Significance of the Study

This study was designed to pay more attention to students' wishes and playful needs since they can be underrepresented in educational systems, as adults design many curricula. Consequently, students are forced to learn without any interest in what they are being taught and without a proposed learning method that values their potentialities, curiosities, or aspirations, and that seeks to satisfy their motivational needs.

Gamification is a strategy to approach contexts more meaningfully and stimulatingly. Using games in formal or informal learning processes provides the necessary background for successfully acquiring knowledge. Allowing students to manage study topics, compete, and progress at their own pace makes classroom dynamics more accommodating, fun, and inclusive.

2. Literature Review

Research on gamification has shown that a person's performance may improve by introducing game attributes such as "rewards, feedback, points, badges, leaderboards, levels, progress bar, challenges, and avatar" (Syed Khuzzan et al., 2021). Alnuaim (2024) has shown the benefits of using these at different educational levels. The benefits of implementing gamification start with "increasing motivation through gaming elements," passing through "enhanced educational experience through gaming context," and continuing with "improved learning outcomes from gaming-based learning experiences" (Duterte, 2024). Furthermore, serious games can "provide multiple feedback channels and respond to different learning assessment styles, tailoring the learning process to the specifics of each individual" (Oliveira, 2021).

There is a crucial distinction in the literature between games, gamification, game-based learning, and learning through playing games. The

first refers to a non-educational form of a game, whether or not it is motivating. The second is the teaching adaptation of a game: transforming something into a game. The third refers to knowledge the player wants and learns through an educational game, but not from that interaction. The fourth refers to the teaching process of using games to benefit learners by making them more attractive. This research will focus on the relationship between English as a Foreign Language (EFL) students' motivation and gamification.

2.1 Definition of Gamification

Gamification is a way of making dull activities more exciting. Students may find the same tasks boring that they will need to do at work. If students find real-life dull, they may not cope with the stress of maintaining this working behavior for several years (Meşe & Sevilen, 2021).

Gamification is also defined as the use of game dynamics such as points, leaderboards, and badges in non-game contexts, such as a language classroom, to enhance students' motivation and engagement (Khaldi et al., 2023). Numerous studies have shown that implemented programs do increase motivation and engagement, but some questions remain unanswered, such as how to measure students' motivation and engagement. We followed the self-determination theory (Ryan & Deci, 2000), a widely accepted psychological theory considered particularly suitable for second language learning

The impact of introducing gamification also depends on sociocultural factors. We have therefore decided to look at how introducing an incentive program based on what we consider the characteristics of games in an EFL classroom (Elementary 2 of EFL) in a public university in Cuenca, Ecuador, affected motivation, engagement, and academic performance and to compare

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it with the findings for a similar program but with incentives not based on game dynamics.

2.2 Theoretical Frameworks in Gamification and Education

We must analyze play and learning together to understand how games emerge. Studies showed that the game and play (free play) are important models for theoretical frameworks (West, 2022). Games are an essential part of education today, as they motivate students to feel engaged in learning (Yu et al., 2021). EFL teachers have come to realize, particularly in the post-pandemic era, that incorporating playful activities such as games into their lessons significantly enhances student engagement and improves academic performance, especially in language learning contexts (Guillén-Yparrea & Hernández-Rodríguez, 2023).

This study aims to show that the benefits of gamification can be framed within categories or disciplines. The literature has widely discussed the benefits of gamification, particularly in teaching and learning. According to Hamari, Koivisto, and Sarsa (2014), gamification has been the subject of empirical studies, and their literature review presents insights into its effectiveness.

2.3 Previous Studies on Gamification in EFL Classes

Some studies have investigated the impact of these techniques on English learning in EFL university students in the Ecuadorian context. Digital gamification has increasingly been explored in the context of second language learning, and Using gamification to support learning English as a second language: a systematic review (Dehghanzadeh et al., 2019) offers a comprehensive overview of this area. The authors reviewed 22 empirical studies conducted between 2008 and 2019 that applied gamified techniques

in EFL environments. They found that gamification was consistently associated with positive learner experiences such as increased enjoyment, engagement, motivation, and fun outcomes that align with key theoretical motivations for incorporating game elements in learning. However, the review also highlighted a notable gap: none of the reviewed studies clearly specified which gamification elements (for example, badges, leaderboards, levels, or virtual assets) were tied to particular learning outcomes, thus limiting the ability to draw precise conclusions about the mechanisms by which gamification supports EFL learning. In terms of learning outcomes, Dehghanzadeh et al. (2019) reported that gamified EFL interventions targeted a range of outcomes, including content language learning (e.g., vocabulary and grammar), learner engagement, motivation, and satisfaction. Their synthesis suggests that when properly designed, gamified instructional environments for English language learners can reduce the gap between learner motivation and educational practice by making tasks more interactive and game-like. Nonetheless, the authors stressed the importance of future research more carefully articulating which specific game design elements are used, how they map to learner experiences, and ultimately how they influence measurable learning outcomes. Also, previous research has addressed the potential of gamification to foster language learning. O'Donovan et al. (2013) investigated the use of gamification in an IT module in an undergraduate course. The study revealed that students viewed leaderboards as the primary source of motivation, as they enjoyed seeing their names among the top performers. Despite encountering some technical issues and disappointment with the rewards, the study noted a significant impact on motivation and peer learning. The study focused on using gamification to improve students' self-awareness and self-esteem in three subjects. Tang (2023) focused on using gamification to improve students' self-awareness and self-esteem in three

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subjects. The students showed more confidence in themselves and their classmates and felt more integrated and motivated. Finally, other studies, such as Lampropoulos & Sidiropoulos (2024) and Howard et al. (2021), have demonstrated that gamification across educational disciplines has psychological effects that increase student motivation. Furthermore, Coelho (2025) confirms that the use of digital and didactic games in class is of enormous help to ESL students since they get eager to learn.

3. Methodology

3.1 Settings and Participants

The Universidad de Cuenca in Ecuador is one of the most prestigious universities in southern Ecuador. It offers both onsite and semi-presential programs at undergraduate and postgraduate levels. It follows a bilingual curriculum: subjects are taught in Spanish and English. The students admitted to the university are academically high-performing. Most students lack the opportunity to travel and experience cultural diversity. Most have not met native English speakers, culture, or teaching methodologies. On the one hand, the EFL methodology has tended to be traditional at this university. Conversely, the Universidad de Cuenca and its students exhibit a strong motivation to modernize the methodology and attain multicultural competencies.

The Languages Department of the Universidad de Cuenca is in charge of preparing university students to achieve proficiency in different languages. English courses are the most demanding. Their groups contain thirty or thirty-five students, and the traditional class consists of lectures of two hours, 4 days per week. The EFL class is taught by a teacher with a Master's degree and a permanent position at the university. During the academic year, not all

students have a personal computer, but they have internet access on university computers and in Wi-Fi areas. The English class comprises students from different provinces and socio-economic backgrounds, and their motivation to learn English varies widely.

The English classes in which the case study was developed were required courses that students of all the different areas of the university needed to graduate. This required course is one of the three courses of 150 hours each that aim to reach the B1 level of English, according to the Common European Framework of Reference for Languages (CEFR). Objectives raised by the English syllabus for the first semester of the academic year were improving reading, listening, writing, and oral communication skills, using academic English expressions, developing organizational skills for text production, and reinforcing vocabulary presented in the Social Sciences subjects. The academic context of the present research is Universidad de Cuenca, a public institution with an enrollment of approximately 20,000 students across various degree programs.

From 2019 until 2024, 8 groups were part of this case study. The method used a combined qualitative and quantitative approach; the focus group was selected, with a sample of 82 students who actively participated in class.

3.2 Research Design

This research approach relies on the analysis of experience. It focuses on examining a particular instance within the general phenomenon of interest and capturing the dynamics of the situation. It also focuses on qualitative and quantitative analyses, as well as survey data. The choice of a qualitative or quantitative research technique is driven by the research question.

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3.3 Instruments

An 18-item Likert-scale questionnaire was utilized to assess student motivation and engagement. This survey was adapted from the original 30-item instrument developed by Mahmoud and Tanni (2014) and subsequently modified by Pratama (2020) to emphasize two primary dimensions: motivation and engagement. In the current study, the motivation dimension was further divided into intrinsic and extrinsic motivation, while the engagement dimension was separated into cognitive, emotional, and behavioral engagement, resulting in five distinct subscales. All items were presented as agreement statements, ranging from 1 (“strongly disagree”) to 5 (“strongly agree”). Expert review ensured the questionnaire’s relevance to EFL learning. The instrument previously demonstrated high internal consistency “Cronbach’s $\alpha = 0.85$ ” (Mahmoud & Tanni, p.3, 2014) and was further refined and validated for higher-education contexts (Huseinović, 2023).

Reliability of the questionnaire was assessed by calculating Cronbach’s alpha (α) and McDonald’s omega (ω) for each subscale using R (psych package). Table 5 in Section 4.2 presents these reliability coefficients for all five factors. All subscales demonstrated strong internal consistency, with each α exceeding the conventional .70 threshold that is considered "acceptable," and ω values were comparably high. These findings indicate that the adapted 18-item survey reliably measures the intended constructs within this EFL context.

Validity was assessed using exploratory factor analysis (EFA). Preliminary analyses confirmed the suitability of the data for factor analysis: the Kaiser–Meyer–Olkin (KMO) measure exceeded 0.60, and Bartlett’s test of sphericity was significant ($p < .001$), indicating adequate sampling and

sufficient inter-item correlations. EFA was conducted in Jamovi (The jamovi project, 2023) and R packages (Revelle, 2024) using principal-axis factoring and oblique (oblimin) rotation. Factors were retained based on the criterion of eigenvalues greater than 1 and scree plot inspection. The resulting factor solution comprised five factors, aligning with the theorized subscales. This structure is consistent with previous validation studies and supports the instrument's construct validity in the Ecuadorian university EFL sample.

The survey was administered online in accordance with ethical standards. Participants received the questionnaire via Google Forms, distributed through email and social media, accompanied by an informed consent preamble. Respondents were informed of the study's purpose, assured of voluntary participation and anonymity, and required to indicate consent prior to participation. This procedure aligns with established ethical guidelines for educational research.

The present study adopts two research designs: (1) instrumental, and (2) descriptive (Cabrera-Tenecela, 2023). 81 students participated in this study, all aged between 18 and 31 years. These students were part of five pre-established groups in which the authors of this study conducted classes. Therefore, it is a convenience sample, as shown in Table 1. This group of students achieved an average academic performance, with a median of 79.70, indicating that half scored at or above this value. Performance averages ranged from a minimum of 50.60 to a maximum of 94.00. It is also important to consider that all the participants were medicine students of the second semester.

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Table 1

Participants' demographic information

Variab le	Category	Frequency	Percentage
<i>Schedul e</i>	<i>07h00-09h00</i>	39	48.1
	<i>13h00-15h00</i>	27	33.3
	<i>17h00-19h00</i>	2	2.5
	<i>19h00-21h00</i>	13	16.0
<i>Semest er</i>	<i>March 2023- August 2023</i>	37	45.7
	<i>March 2024- August 2024</i>	20	24.7
	<i>September 2020- February 2021</i>	3	3.7
	<i>September 2021- February 2022</i>	4	4.9
	<i>September 2023- February 2024</i>	17	21.0
<i>Gender</i>	<i>Female</i>	60	74.1
	<i>Male</i>	21	25.9

To enhance the description of the results, measures of central tendency were employed, accompanied by an error bar chart. In addition, a thematic analysis of two qualitative questions was conducted: one regarding the most significant experiences of working with games in the classroom and another

about the game they liked the most during the semester. The responses were processed with five tags, using the software Taguette (Rampin et al., 2021).

3.4 Games used to engage students

Several games were selected to engage students in learning English. Table 2 presents the games implemented in the study, along with their definitions and instructional purposes. These tools created an interactive learning environment where students could practice their language skills.

This section outlines the activities and games implemented in a traditional classroom setting to engage students in language learning. The classrooms at Universidad de Cuenca, where the study was conducted, are equipped with basic furniture, including chairs and desks, a screen for projecting content, and sufficient space to allow for movement. Given these conditions, active warm-up games were well suited to this environment, as they provided students with opportunities to engage physically and cognitively in their learning.

3.4.1 Games without technology

A series of interactive warm-up games was used in the classroom, allowing students to review content, practice language skills, and build rapport within the group. The following games were among those used in the classroom.

Table 2

Games played with their definitions and activities in the present study

Games	Definition and Use	Activities in Class
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<i>Stop Your Hand</i>	<i>A word game where students take turns saying words in a category until someone hesitates or repeats a word.</i>	<ul style="list-style-type: none"> - Practice vocabulary by choosing categories (e.g., animals, food). - Use as a quick review warm-up.
<i>Paper Planes Throw to the Board</i>	<i>Students write answers or ideas on paper planes and throw them at the board to “land” in target areas.</i>	<ul style="list-style-type: none"> - Answer comprehension questions and aim for a specific target. - Use for brainstorming or sharing ideas.
<i>The Letter Man: Have You Ever</i>	<i>A student stands and asks, “Have you ever...?” Students respond and swap seats if they have done the action.</i>	<ul style="list-style-type: none"> - Practice “Have you ever” and past participles. - Encourage conversation by sharing experiences.
<i>Change Seats</i>	<i>A quick-moving game where the teacher calls a category, and students who match it must switch seats.</i>	<ul style="list-style-type: none"> - Review vocabulary (e.g., “Switch seats if you like pizza”). - Use to practice conditional sentences.
<i>True/False with Chairs</i>	<i>Students race to sit in the “true” or “false” chair after hearing a statement.</i>	<ul style="list-style-type: none"> - Reinforce grammar rules (e.g., “The sun rises in the west”). - Use for reviewing factual statements about a reading.
<i>Four Corners</i>	<i>Each corner of the room represents a different answer or opinion, and students move to their chosen corner.</i>	<ul style="list-style-type: none"> - Practice decision-making with questions like “Which is better: reading, listening, speaking, or writing?” - Use for surveys or warm-ups.

<i>Spoon and Egg</i>	<i>A physical challenge where students race while balancing an egg on a spoon.</i>	<ul style="list-style-type: none"> - Pair the race with answering a question before continuing. - Use for team-building or as a fun break.
<i>The Hangman</i>	<i>A classic word-guessing game where students guess letters to form a word or phrase.</i>	<ul style="list-style-type: none"> - Review vocabulary or phrases related to a specific topic. - Use as a filler or warm-up activity.
<i>Jeopardy on the Board</i>	<i>A quiz game where students choose categories and point values to answer questions and earn points.</i>	<ul style="list-style-type: none"> - Divide the class into teams to compete on grammar, vocabulary, or cultural facts. - Use for exam review.

3.4.2 Games with technology

In addition to traditional classroom games, the case study included technology-based games conducted in the computing laboratory of the university. Every Wednesday, students visited this lab, a spacious room with 40 computers featuring Windows 11, 12th-generation processors, and high-speed internet. These modern resources allowed students to explore various digital games designed to enhance language learning in engaging, interactive ways. The following games (Table 3) were integrated into the study, each supporting different language skills.

Table 3

Digital games with their definitions, uses, and activities in the present study

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<i>D. Games</i>	<i>Definition and Use</i>	<i>Activities in Class</i>
<i>Gimkit</i>	<i>A game-based learning platform where students answer questions to earn in-game cash, which they can use to buy upgrades or advantages. It is competitive and promotes active learning.</i>	<ul style="list-style-type: none"> - Create a live quiz for vocabulary review. - Conduct a team-based competition to reinforce grammar points. - Use for homework with "KitCollab" mode, where students contribute questions.
<i>Lyrics Training</i>	<i>A platform that uses song lyrics to help students improve their listening and language comprehension by filling in missing words while listening to music.</i>	<ul style="list-style-type: none"> - Practice listening skills by choosing songs at different difficulty levels. - Assign songs as a fun activity for learning idioms and slang. - Use it to introduce cultural aspects of music from English-speaking countries.
<i>Quizlet</i>	<i>A study tool that uses flashcards, games, and quizzes to help students learn and memorize vocabulary, concepts, and definitions.</i>	<ul style="list-style-type: none"> - Create flashcard sets for new vocabulary or key terms. - Use "Match" or "Gravity" games as class warm-ups.

- Assign study sets for independent practice.

Semantris *An AI-powered word association game where players must respond with related words to score points. Two modes: Arcade (fast-paced) and Blocks (strategy).*

- Practice synonyms, antonyms, and word associations.

- Challenge students to beat the teacher's high score in "Blocks" mode.

- Use as a creative writing warm-up to spark ideas.

Type Z *A typing game that combines speed and accuracy by requiring players to type sentences quickly. Designed to improve typing and language skills.*

- Speed typing races for commonly used phrases.

- Reinforce sentence structures by typing model sentences.

- Use as a timed activity for error correction practice.

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<i>Quizizz</i>	<i>A game-based learning platform with customizable quizzes and live or homework modes. Offers a wide variety of question types and a fun, engaging interface.</i>	<ul style="list-style-type: none"> - <i>Conduct live quizzes for formative assessment.</i> - <i>Use the "Homework" mode for self-paced review.</i> - <i>Create a collaborative quiz where students contribute questions.</i>
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Incorporating technology-based games into a structured, resource-rich environment such as the computing lab enabled students to engage in language learning through dynamic, interactive digital tools. These games offered diverse learning experiences, from vocabulary building and listening practice to real-time quizzes and cognitive association exercises. Using digital games as part of the language learning curriculum proved to be an effective way to support traditional learning methods while fostering enthusiasm, collaboration, and competition among students. Combining traditional and digital games contributed to a well-rounded, engaging language-learning experience in this case study.

3.5 Classroom Setting

The classrooms were arranged in a traditional way. The space included rows of chairs and desks, and a screen or projector was used to present instructional material. The design allowed students to walk around or engage in movement-based activities, making it possible to play games that encourage physical activity as part of the warm-up . This arrangement supported the effectiveness of interactive and movement-oriented games, ideal for language practice and student engagement in an EFL context.

4. Results

The results of this study are presented in accordance with the two research questions formulated for this research. The first research question examines the extent to which the implementation of gamification strategies in EFL classes influences students' motivation to learn English. The second research question explores how the use of game-based activities and digital platforms affects students' affective, behavioral, and cognitive engagement in English language learning. Quantitative data were analyzed through exploratory factor analysis, reliability measures, and descriptive statistics, while qualitative responses were thematically analyzed to provide a deeper understanding of students' experiences.

4.1 Results Related to Research Question 1: The Influence of Gamification on Motivation

4.1.1 Structural Validity

To determine the underlying factors that represent motivation and engagement in the implementation of gamification programs, a factor analysis was conducted. The scree plot (Figure 1) was used to determine the number of factors, selecting those with an eigenvalue greater than 0.5 as the primary criterion. This approach ensures that each factor contributes significant variance to the construct being measured.

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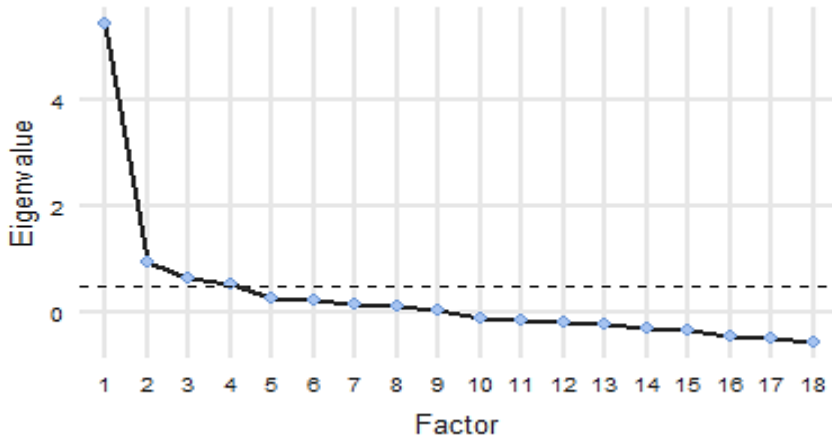


Figure 1. Factors with an eigenvalue greater than 0.5

The data were validated using the KMO index (above 0.8) and Bartlett's test of sphericity ($p < 0.001$), confirming suitability for factor analysis. The minimum residual method and Oblimin rotation were applied to interpret correlated factors, consistent with theories of motivation and engagement. Five factors were identified, explaining 50.5% of the total variance, which is acceptable in research of this nature.

Table 4

Factor loadings

	Factor					Uniqueness
	1	2	3	4	5	
<i>Q4</i>	0.973					0.0783

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<i>Q6</i>	<i>0.557</i>			<i>0.4450</i>
<i>Q5</i>	<i>0.542</i>		<i>-0.362</i>	<i>0.5328</i>
<i>Q18</i>	<i>0.339</i>		<i>0.334</i>	<i>0.3503</i>
<i>Q20</i>		<i>0.634</i>		<i>0.4502</i>
<i>Q1</i>		<i>0.632</i>		<i>0.6605</i>
<i>Q13</i>		<i>0.443</i>		<i>0.4867</i>
<i>Q3</i>		<i>0.393</i>		<i>0.6944</i>
<i>Q2</i>		<i>0.345</i>	<i>0.312</i>	<i>0.6652</i>
<i>Q8</i>			<i>0.670</i>	<i>0.4326</i>
<i>Q12</i>			<i>0.436</i>	<i>0.4940</i>
<i>Q7</i>			<i>0.371</i>	<i>0.6130</i>
<i>Q14</i>			<i>0.337</i>	<i>0.5961</i>
<i>Q19</i>			<i>0.313</i>	<i>0.4943</i>
<i>Q17</i>			<i>0.784</i>	<i>0.3670</i>
<i>Q9</i>			<i>0.644</i>	<i>0.5238</i>
<i>Q10</i>				<i>0.4484</i>
<i>Q11</i>			<i>0.449</i>	<i>0.4484</i>
				<i>0.5803</i>

These results provide empirical support for the existence of coherent motivational and engagement factors, establishing a foundation for analyzing how gamification influences students' motivation to learn English .

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4.1.2 Reliability and Validity of the Results

To assess the reliability of the identified factors, Cronbach's Alpha and McDonald's ω coefficients were calculated (Table 5). The indices showed moderate to high reliability for most factors (e.g., 0.767 and 0.791 for the first factor), indicating that the motivational constructs measured were consistent and reliable.

Table 5

Internal consistency indices

Factors	Cronbach's Alpha	McDonald's Omega
<i>Factor 1: Emotional and Intrinsic Engagement</i>	<i>0.767</i>	<i>0.791</i>
<i>Factor 2: Social Interaction and Educational Value</i>	<i>0.645</i>	<i>0.676</i>
<i>Factor 3: Cognitive Engagement</i>	<i>0.760</i>	<i>0.769</i>
<i>Factor 4: Competitiveness and Extrinsic Motivation</i>	<i>0.611</i>	<i>0.611</i>
<i>Factor 5: Instrumental Motivation and Attention</i>	<i>0.507</i>	<i>0.507</i>

While certain scales showed lower reliability (e.g., 0.507), the overall results confirm that gamification positively affects motivational components such as emotional engagement, competitiveness, and instrumental motivation.

4.1.3 Motivation Dimensions

The factor analysis revealed five key motivational dimensions associated with gamified classroom activities: Emotional and Intrinsic Engagement, reflecting enjoyment and enthusiasm; Competitiveness and Extrinsic Motivation, linked to rewards and leaderboards; and Instrumental Motivation and Attention, related to focus and persistence in completing tasks.

Descriptive results show that the Emotional and Intrinsic Engagement factor achieved the highest median ($Md = 4.50$), suggesting strong intrinsic motivation generated through gamified activities. Competitiveness and Extrinsic Motivation and Instrumental Motivation and Attention followed closely ($Md = 4.00$ each), indicating that both external incentives and task-focused learning played relevant roles in sustaining motivation.

These results suggest that gamification enhances student motivation by creating a fun, emotionally positive, and competitive learning environment.

4.2 Results Related to Research Question 2: The Effect of Gamification on Student Engagement

4.2.1. Engagement Dimensions

The remaining dimensions—Social Interaction and Educational Value and Cognitive Engagement—represent the key elements of students' engagement. The median score for Social Interaction and Educational Value was 4.40, demonstrating that students perceived gamified activities as socially and academically beneficial. Cognitive Engagement ranked third ($Md = 4.20$), showing that students maintained a solid level of focus and mental effort during gamified learning tasks.

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These findings indicate that game-based learning promotes not only motivation but also deeper levels of engagement, both socially and cognitively.

4.2.2 Qualitative Findings on Engagement

The thematic analysis of open-ended responses provided further insight into how gamification influenced students' engagement. Five key themes emerged: Engagement and Intrinsic Motivation, Social Interaction and Cohesion, Effectiveness in Learning, Overcoming Stress and Boredom, and Development of Complementary Skills. Students emphasized that games made learning "dynamic and interesting," helped them "socialize with more classmates," and "removed the pressure of normal classes."

Furthermore, when asked about their favorite games, students frequently mentioned Kahoot, Gimkit, Quizizz, and Lyrics Training. These platforms promoted teamwork, competition, creativity, and self-confidence. Comments such as "It allows us to gain more confidence in correcting our mistakes in a fun way" and "Gimkit has many mini-games, and we never get bored" highlight the positive emotional and cognitive engagement these tools foster.

These qualitative results complement the quantitative findings, confirming that gamification fosters enjoyment, collaboration, and meaningful learning in the EFL classroom.

4.3 Summary of the Findings

Overall, the results show that gamified instruction significantly enhances both motivation and engagement among EFL students. Motivation was particularly influenced by emotional enjoyment, intrinsic interest, and healthy competition, while engagement was strengthened through social interaction, cognitive involvement, and collaborative learning experiences (Figure 2).

These findings address both research questions by demonstrating that gamification is not only effective at stimulating motivation but also at deepening engagement in language-learning contexts.

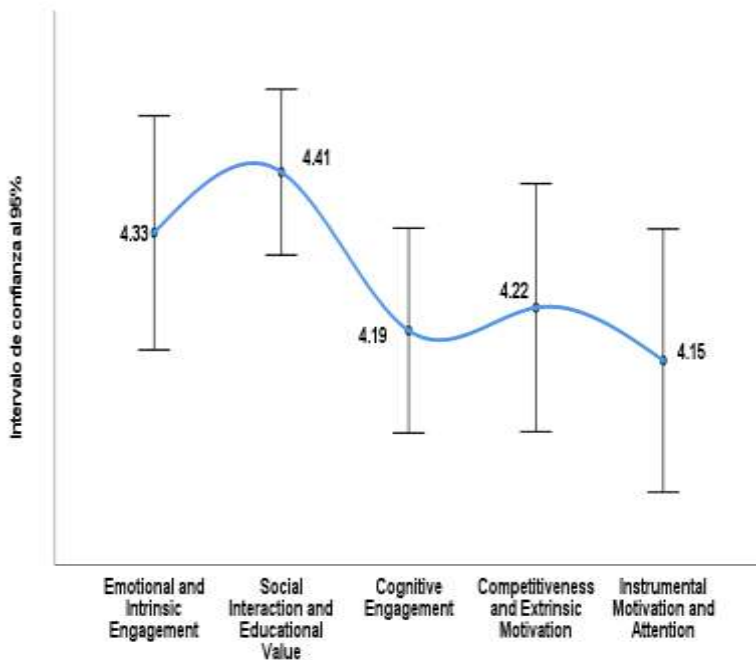


Figure 2. Factors that influence motivation

5. Discussion

The present study demonstrates that gamification serves as an effective pedagogical approach in the EFL context, significantly enhancing students' engagement and motivation across five key dimensions.

The most prominent dimension identified was Emotional and Intrinsic Engagement, as participants reported feeling encouraged and genuinely enjoying gamified tasks. This suggests that gamification not only creates a

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stimulating and enjoyable learning environment but also reduces the stress and anxiety often associated with acquiring a new language.

Social Interaction and Cohesion emerged as the second most influential dimension, highlighting the collaborative nature of gamified activities. Team-based games such as Kahoot and Tic Tac Toe fostered teamwork and friendly competition, strengthening peer relationships and cultivating a sense of belonging within the classroom community.

Cognitive Engagement was also evident, as gamified tasks required sustained attention, problem-solving, and critical thinking. This demonstrates that the enjoyable and interactive elements of games can be seamlessly aligned with learning objectives, maintaining students' academic focus while enhancing their involvement in the learning process.

In addition, Competitiveness and Extrinsic Motivation proved to be strong drivers of participation. External incentives such as points, badges, and leaderboards captured students' interest and sustained their engagement. Although extrinsic rewards may occasionally overshadow intrinsic motives, in this study, they complemented each other by maintaining enthusiasm and encouraging consistent effort.

Finally, Instrumental Motivation and Attention reflected the students' ability to remain focused on their learning tasks while experiencing tangible outcomes. The immediate sense of accomplishment provided by winning or completing a challenge helped maintain concentration and persistence throughout lessons.

In summary, integrating gamification into the curriculum enables teachers to design learning experiences that are both enjoyable and meaningful. By combining emotional stimulation, collaboration, cognitive challenge, and

healthy competition, gamified instruction fosters a learning environment where students remain motivated, engaged, and actively involved in their language development.

6. Conclusion

This research demonstrates that gamification is a powerful pedagogical tool in the EFL classroom, significantly enhancing student participation, engagement, and motivation across multiple dimensions. Grounded in Self-Determination Theory (Ryan & Deci, 2000), the findings reveal that gamified activities effectively satisfy the three core psychological needs proposed by the theory: autonomy, competence, and relatedness.

Students experienced autonomy through active participation in interactive tasks that allowed for decision-making and self-paced learning. Competence was strengthened as learners received immediate feedback, rewards, and recognition, which reinforced their sense of progress and mastery. Meanwhile, relatedness was fulfilled through cooperative games that fostered peer interaction, teamwork, and a sense of belonging. These factors collectively contributed to the observed increase in emotional and intrinsic engagement, creating a positive and supportive learning environment where students felt both confident and connected.

The results further indicate that while extrinsic motivators such as points, badges, and leaderboards-maintained enthusiasm and friendly competition, intrinsic motivation—driven by enjoyment, curiosity, and personal growth—remained the core driver of sustained engagement. Balancing these two forms of motivation is essential: when gamified strategies focus too heavily on external rewards, they risk undermining intrinsic interest. Therefore, teachers should intentionally design activities that use extrinsic rewards as entry

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points but emphasize meaningful learning and self-improvement as the ultimate goals.

The implications of these findings extend to various educational stakeholders. For teachers, gamification provides an innovative methodology to increase participation, reduce anxiety, and make learning more interactive and student-centered. For curriculum designers, incorporating gamified components—such as progress tracking, collaborative challenges, and reflective feedback—can create programs that appeal to students' psychological needs for autonomy, competence, and relatedness. For teacher education programs, the results highlight the importance of training pre-service and in-service teachers to integrate gamification principles effectively and ethically, ensuring that game-based learning supports motivation without overshadowing pedagogical objectives.

In summary, gamification in the EFL curriculum represents a dynamic approach to fostering both language proficiency and personal development. By combining enjoyment, collaboration, cognitive challenge, and balanced incentives, educators can cultivate a stimulating learning environment that nurtures intrinsic motivation and meaningful engagement—key ingredients for long-term success in language learning.

7. Implications, limitations, and suggestions for further research

The findings of this study have significant implications for EFL instruction, curriculum development, and educational policy. The evidence indicates that carefully implemented gamification can enhance learner engagement across several dimensions. Emotional and intrinsic engagement increased, as students regarded gamified tasks as both enjoyable and motivating. These results suggest that integrating game-based learning strategies can create a

low-anxiety, emotionally supportive environment in EFL classrooms, consistent with outcomes reported in previous research.

Additionally, the study identifies social benefits associated with gamification. Collaborative and team-based games promoted peer interaction and enhanced classroom cohesion. These dynamics are especially advantageous in linguistically diverse classrooms, where games can function as social equalizers and foster a sense of community. Regarding cognitive involvement, the study found that games stimulated mental effort, focus, and problem-solving abilities. These outcomes highlight the potential of gamification to support higher-order thinking and sustained academic engagement, particularly when game tasks align with curricular objectives.

From a pedagogical standpoint, the results indicate that educators should consider integrating diverse game mechanics, such as point systems, leaderboards, team challenges, and digital quizzes, to enhance motivation and sustain student attention. Curriculum designers may also benefit from embedding gamification frameworks into instructional materials, particularly at transitional proficiency levels such as B1. For policymakers, these findings provide evidence to support investment in infrastructure, professional development, and digital resources that increase engagement through gamified instruction.

Despite these positive outcomes, several limitations should be acknowledged. First, the sample comprised approximately 80 students from a single public university in Ecuador, limiting the generalizability of the findings to other populations or educational systems. Second, the study was conducted over a single academic semester, preventing assessment of the long-term effects of gamification on language acquisition, retention, or sustained motivation. Third, technological and institutional constraints, such

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as limited access to personal devices or inconsistent internet connectivity, may have affected the consistency and intensity of students' gamification experiences.

Furthermore, the study primarily utilized self-report instruments to assess engagement and motivation, introducing potential bias and subjectivity into the data. Although the questionnaire was validated and demonstrated strong reliability, the lack of observational data or objective performance measures remains a methodological limitation. Consequently, these results should be interpreted with caution and regarded as an initial contribution rather than conclusive evidence.

To address these limitations and advance understanding of gamification in language education, future research should pursue several directions. Longitudinal studies are needed to determine whether observed increases in motivation and engagement persist over time and lead to improved language proficiency. Following models such as Lampropoulos and Sidiropoulos (2024), extended observations across multiple semesters would enable researchers to examine retention effects and long-term learner outcomes.

Additionally, comparative research involving learners at various proficiency levels or age groups would clarify whether gamification is equally effective for beginners, intermediate, and advanced students or if its benefits are influenced by linguistic readiness or maturity. Similarly, studies could isolate and examine the effects of specific game mechanics, such as points, badges, or narrative structures on specific aspects of learner engagement. This research would inform the refinement of gamification design and implementation strategies.

Finally, replicating this study in diverse educational contexts, including online learning environments, secondary education, or institutions in other

regions, would provide important insights into how cultural, technological, and institutional factors affect gamification outcomes. Researchers should also supplement subjective measures of motivation and engagement with objective assessments of language acquisition and learner autonomy to obtain a more comprehensive understanding of gamification's educational value.

In conclusion, although this study demonstrates the potential of gamification to enhance EFL engagement in university settings, further research is necessary to validate these findings in broader contexts and to optimize game-based methodologies for diverse learner populations.

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