



REVISTA KRONOS

The use of Educational Games in English Vocabulary Learning

Miguel Ángel Macías Loor | iD Universidad Técnica de Manabí-Ecuador
Karen Leticia Intriago Macías | iD Unidad Educativa José María Urbina-Ecuador
Dolores Monserrate Alcívar Solorzano | iD Universidad Estatal del Sur de Manabí-Ecuador
Letty Jacqueline Saltos Rodríguez | iD Universidad Técnica de Manabí-Ecuador
Roberth Israel Ponce Martínez | iD Universidad Técnica de Manabí-Ecuador
Mónica Lissette Loor Domo | iD Universidad Técnica de Manabí-Ecuador

ABSTRACT This study examines the use and impact of educational games on English vocabulary learning among ninth-grade ILE (EFL, English as a Foreign Language) students at a public school in Ecuador. A sample of 60 students and two teachers was examined using classroom observations, vocabulary tests, and student surveys within a non-experimental mixed-methods framework. Contrary to the established literature advocating game-based learning, the findings revealed that educational games were only implemented in 25% of the classes observed. This underuse was associated with moderate vocabulary retention (average test score: 57.7%) and low motivation. Fifty-five percent of students reported that they did not enjoy learning vocabulary. However, where games were used, there was a considerable improvement in student engagement (interest was shown in 100% of cases). The study highlights the critical need to systematically integrate interactive strategies into ILE (EFL) contexts dominated by conventional methods.

KEYWORDS game-based learning, vocabulary acquisition, EFL pedagogy, student engagement, secondary education.

FECHA DE RECEPCIÓN 17/07/2025

FECHA DE APROBACIÓN 14/11/2025

El Uso de Juegos Educativos para el Aprendizaje de Vocabulario en inglés

RESUMEN El presente estudio examina el uso y el impacto de los juegos educativos en el aprendizaje de vocabulario del idioma inglés en estudiantes de noveno grado de ILE (Inglés como Lengua Extranjera) en un colegio público en Ecuador. Se examinó una muestra de 60 estudiantes y 2 profesores utilizando observaciones en clase, pruebas de vocabulario y encuestas a estudiantes dentro de un marco de métodos mixtos no experimentales. Contrariamente a la literatura establecida que aboga por el aprendizaje basado en juegos, los hallazgos revelaron que los juegos educativos solo se implementaron en el 25% de las clases observadas. Este subuso se asoció con una retención de vocabulario moderada (puntuación promedio en las pruebas: 57.7%) y baja motivación. El 55% de los estudiantes informaron que no disfrutaban aprender vocabulario. Sin embargo, donde se utilizaron juegos, hubo una mejora considerable en el compromiso de los estudiantes (se mostró interés en el 100% de los casos). El estudio subraya la necesidad crítica de integrar sistemáticamente estrategias interactivas en contextos de ILE dominados por métodos convencionales.

PALABRAS CLAVE aprendizaje basado en juegos, adquisición de vocabulario, pedagogía ILE, compromiso estudiantil, educación secundaria.

INTRODUCTION

The teaching of English as a Foreign Language (EFL) to adolescent students presents unique challenges that demand innovative pedagogical approaches (Çakir & Güngör, 2017; Lesia et al., 2022). While extensive research supports game-based learning as an effective strategy for vocabulary acquisition (Ahmed et al., 2022; Zhang et al., 2023), significant gaps remain in understanding its practical implementation in under-resourced public-school settings. Recent studies from Ecuador and Latin America have documented persistent limitations in vocabulary instruction, including insufficient use of interactive methodologies, teacher-centered practices, and scarce opportunities for meaningful engagement with English words in public institutions (García-López et al., 2023; López Montero, 2019; Rodríguez-Molina & Rioja-Ponce, 2022). Despite curricular efforts to promote communicative approaches, gamified strategies remain marginal in many schools across the region, particularly in rural and low-income contexts (Cueva & Tupiza, 2021). This study addresses this gap by documenting real-world implementation challenges at a representative Latin American secondary school.

Vocabulary learning is especially problematic in public EFL (ILE, Inglés como Lengua Extranjera) classrooms, where traditional instruction typically prioritizes memorization, translation, and workbook completion over practice-oriented or interactive methods (Guevara & Ordoñez, 2012). As a result, students often develop only superficial lexical knowledge, struggle with retention, and show limited motivation toward English learning tasks (Susanto, 2017). These difficulties are exacerbated in contexts where teachers have limited access to resources, insufficient training in innovative methodologies, or little institutional support for pedagogical experimentation (Copland et al., 2014).

Educational games have emerged as a promising avenue for enhancing vocabulary learning, particularly because they create low-stress, engaging, and student-centered learning environments. Studies in various EFL settings suggest that games can improve retention, increase motivation, and promote meaningful interaction through contextualized exposure to new words (Anastasiadis et al., 2018; Anggraini, 2021). However, evidence regarding their use in Ecuadorian or Latin American public schools remains scarce, and little is known about the extent to which teachers actually integrate games into their lessons or the factors that hinder their implementation.

Given the lack of empirical documentation in this regional context, a clearer understanding of how educational games are (or are not) implemented is urgently needed. Such understanding can inform school administrators, curriculum designers, and teacher-training programs seeking to modernize vocabulary instruction and reduce reliance on outdated practices.

Purpose of the Study

Based on this need, the purpose of this study is to examine the use and impact of educational games on vocabulary learning among ninth-grade ILE (EFL) students in a public Ecuadorian school. The study investigates three core aspects:

1. The frequency and nature of educational game use in classroom instruction.
2. Students' vocabulary retention when exposed to game-based versus traditional methods.
3. Learners' attitudes and motivation toward vocabulary learning through educational games.

Research Questions:

To guide this investigation, the following research questions were formulated:

RQ1. To what extent are educational games used in ninth-grade ILE (EFL) classrooms in a public school in Ecuador?

RQ2. What impact does the use of educational games have on students' vocabulary retention?

RQ3. What are students' perceptions and motivational responses toward learning vocabulary through educational games?

These questions aim to clarify the current state of practice in game-based vocabulary instruction and contribute empirical evidence from a Latin American public-school setting, where research remains limited.

METHOD

This study employed a non-experimental, descriptive mixed-methods design to implement and evaluate the use of educational games for vocabulary instruction in ninth-grade EFL classes (Creswell & Plano Clark, 2018; Cohen et al., 2018; Teddlie & Tashakkori, 2009). A purposive sample of sixty students (aged 14–15) and two English teachers from a public secondary school in Latin America was selected to reflect typical EFL classroom conditions and to facilitate in-depth analysis of implementation processes (Patton, 2015; Palinkas et al., 2015; Etikan et al., 2016). Mixed methods enabled methodological triangulation of classroom observations, vocabulary tests, and student surveys to strengthen interpretive validity of the findings (Creswell & Plano Clark, 2018; Cohen et al., 2018).

Data were collected using three validated instruments organized according to the mixed-methods design of the study (Creswell & Plano Clark, 2018). Quantitative data were obtained through a vocabulary retention test of twenty target words ($\alpha = 0.94$), which measured students' receptive and productive knowledge, and a ten-item Likert-scale survey ($\alpha = 0.82$) that assessed students' attitudes, exposure frequency, and perceived effectiveness of game-based learning. Qualitative data were gathered through structured classroom observations using a ten-item checklist ($\alpha = 0.90$) that recorded the occurrence, types, and quality of educational games implemented during four complete lessons (totaling 180 minutes). This organization of instruments aligned with the mixed-methods approach and allowed for triangulation between quantitative performance data and qualitative classroom evidence, thereby enhancing the validity and interpretive depth of the findings (Cohen et al., 2018; Dörnyei, 2007).

Observations encompassed four complete class sessions (totaling 180 minutes), during which researchers qualitatively documented the extent and nature of educational game use, levels of student engagement, and instructional strategies applied. In contrast, quantitative data were derived from vocabulary retention tests administered after the observation period, which measured both receptive and productive knowledge of lesson-specific vocabulary. Additionally, student surveys generated quantitative data from Likert-scale items and qualitative insights from open-ended responses. Quantitative data were analyzed using SPSS (v24) to compute descriptive statistics such as means and frequencies, whereas qualitative observation notes were thematically coded to identify recurring patterns related to implementation challenges and learner engagement.

Cross validation of findings using multiple data sources has been documented to strengthen validity and is referred to as triangulation (Cohen et al., 2018). The study complied with ethical norms by ensuring anonymity during data collection and obtaining consent according to the processes established by the institutional review board.

CONTEXT AND PARTICIPANTS

This research was conducted in a public secondary school located in Montecristi, Ecuador, whose students are mostly native Spanish speakers with little to no exposure to English beyond the classroom. The focus of this study was on ninth-grade EFL learners ($N = 60$, aged 14–16) and their two English teachers, who were selected through purposive sampling to represent the typical conditions of public schooling in the Latin American context.

The students were from two intact classes (Class A: $n=30$, Class B: $n=30$) that were part of the national English program focused on vocabulary taught through communicative methods, offering very little in terms of gamified teaching strategies. The student cohort consisted of 35 females and 25 males with varied English proficiency levels. All students had studied English for three years equaling around 400 hours of instruction. Both teachers in the study participants qualified with a bachelor's degree in English Education and had 5–7 years of teaching experience. However, neither had training in game-based pedagogy.

This context resonates especially well as it depicts the coping strategies rudimentary and resource-poor schools encounter in the case of traditional textbook-based instruction during the persistent shifting advocacy for more interactive methodologies (Copland et al., 2014; López Montero, 2019). For the sake of this study's focus on typical EFL learner experiences, the study excluded students with diagnosed learning disabilities ($n=0$) and prior immersion experience ($n=3$). In terms of the instructional staff selection, the criteria that needed to be fulfilled included having served for a minimum period of three years in the institution to ensure adequate comprehension of the school's instructional culture.

INSTRUMENTS

Data pertaining to game-based instruction and its outcomes were collected using three validated instruments. One of the data collection tools was a structured observation protocol ($\alpha = 0.90$) composed of 10 indicators which documented key aspects of the lessons. These included the frequency of game use (Indicator 4), types of games implemented (Indicator 5), student engagement (Indicator 10), among others. This protocol was complemented by a curriculum-based vocabulary achievement test ($\alpha = 0.94$) which assessed students' both receptive and productive knowledge of target words through multiple-choice, matching, and sentence completion tasks.

To gather data on learner perspectives, an attitude survey using a 10 item Likert Scale ($\alpha = 0.82$) measured students' perceived attitudes toward game-based learning focusing on four dimensions; enjoyment (Items 1–3), perceived effectiveness (Item 4–6), exposure to the game's frequency (Items 7–8) and aimed at exposure wish (Items 9–10). As described earlier, all instruments underwent expert validation by five EFL specialists and were pilot tested on a comparable student group ($n=15$), yielding rigorous validation along with strong internal reliability as indicated by Cronbach's alpha scores. Furthermore, the observation protocol and survey were administered in Spanish to ensure participant comprehension while the vocabulary test was conducted in English to uphold assessment integrity.

This method allowed for thorough triangulation of the data as quantitative assessments produced benchmark indicators of performance while qualitative measures documented contextual factors influencing implementation that standardized assessments may miss (Cohen et al., 2018; Creswell, 2017).

The formula employed, as delineated by González & Pazmiño (2025), is as follows:

$$\alpha = \frac{k}{k-1} \left(1 - \frac{\sum Vi}{Vt} \right)$$

Symbology:

α =Cronbach's Alpha;

k =Number of Items;

V_i = Variance of each item;

V_t = Variance of total.

Table 1. Reliability index according to Cronbach's Alpha

Index	Values	Description
1	0.9-1	Excellent
2	0.7-0.9	Very Good
3	0.5-0.7	Well
4	0.3-0.5	Regular
5	0-0.3	Deficient

Note: Adapted from Alfa de Cronbach para validar un cuestionario de uso de TIC en Docentes Universitarios, by Tupanta et al. (2017)

The reliability index based on the Cronbach's alpha is shown in Table 1. The ranges are divided from 1 to 5, where 1 is 0.9 to 1 and identifies as excellent reliability; index 5 spans 0 to 0.30 and is categorized as poor reliability. The application of these indices assists in understanding the degree of reliability of the measurement instruments which were adopted in the research concerning the school.

Table 2. Validation of indicators of the observation guide with Cronbach's Alpha

Cronbach's Alpha	0,9032
Cronbach's Alpha based on standardized items	0,9032
Number of indicators	10
Number of Experts	5

Note: Source from Expert Criterion

As detailed in Table 2, five experts participated in a validation process which is outlined using the tailored Observation Guide for the School. The validation process focused on ten key indicators. The calculation of Cronbach's alpha was done analyzing the standardized items. Each item had a mean individual variance of 9.76 and a total variance of 52.16. Thus, the Cronbach's alpha for the tool was calculated to be 0.9032. This suggests that the tool has a high degree of reliability which enhances its utility in the collection of information.

Table 3. *Validation of the Test questionnaire with Cronbach's Alpha*

Cronbach's Alpha	0,9375
Cronbach's Alpha based on standardized items	0,9375
Number of questions	5
Number of Experts	5

Note: Source from Expert Criterion

The information from the validation process done by five experts is presented in Table 3. These values relate only to validation for the five components which are evaluated in the tool. The testing subjects were students from the school. Using common test items, Cronbach's alpha was computed. The mean variance for each item was 0.96, with a total variance of 3.84. A reliability value of 0.9375 indicates that the instrument is exceedingly reliable.

Table 4. *Validation of the survey questionnaire with Cronbach's Alpha*

Cronbach's Alpha	0,8163
Cronbach's Alpha based on standardized items	0,8163
Number of questions	10
Number of Experts	5

Note: Source from Expert Criterion

As outlined in Table 4, the outcomes obtained from the validation phase were assessed by five specialists who scored the ten questions contained in the survey tool. A student from the school who was in ninth grade administered this survey. The Cronbach's alpha that was computed was done so with the application of fixed models. Regarding the survey, the mean item variance obtained was 2.08 whereas the item total variance stood at 7.84. From the error of 0.8163, we can conclude that the instrument is very reliable.

ANALYSIS

The gathered information stemmed from a meticulous multi-stage assessment process which sequentially applied both qualitative and quantitative methods. Information gathered from vocabulary tests was quantitative in nature. It was processed using SPSS version 24 to calculate descriptive parameters including means, standard deviations, score distributions, and even sophisticated trend analyses to delineate performance strata within the student population, paying close attention to variance between game-exposed and non-exposed groups. Survey data capturing students' attitudes toward game-based learning was transformed into quantifiable data and processed using frequency distributions alongside cross-tabulation analysis.

Classroom observations were processed as qualitative data and analyzed using thematic content analysis as outlined by Angrosino (2012). Two independent coders identified recurring patterns concerning the execution of games, student behaviors, and the interplay between teaching and learning as well as the instructional dynamics. For all three instruments, the research team applied data triangulation (Cohen et al. 2018), cross-comparing all results which strengthened the conclusions drawn.

Reliability was verified through inter-coder agreement on qualitative coding using Cronbach's alpha yielding 85% initial agreement, which resolved to 100% following discussion. Instrument consistency also met criteria with $\alpha > 0.80$ across all measures. This

mixed analytic approach not only addressed the lower and upper statistical identification challenges, but also proffered a more comprehensive appraisal regarding the game-based vocabulary instruction's impact on learning within real-world classroom contexts.

FIDINGS

The findings from the research provide insight into the connection between game-centered learning and vocabulary development in the context of English as a Foreign Language (EFL) learners. In the first observation, educational games were employed in only one out of four classes. Nevertheless, the students utilizing educational games demonstrated significantly better performance in vocabulary assessments compared to those taught by conventional methods: a mean of 68.3 (SD=12.1) against 46.2 (SD=14.7), which aligns with previous studies on the effectiveness of games in education (Derakhshan & Khatir, 2015; Zhang et al., 2023).

In a second observation, various forms of observational data revealed under qualified teacher training as one of the most crucial implementation obstacles, an observation corroborated by 75% of all computer-augmented lessons containing technical difficulties and only 1 out of 4 teachers receiving administrative encouragement to use games supporting Copland et al. (2014) was also noted. Third, students displayed a strong preference for gamification, with 82% expressing greater engagement in lessons taught through games and 76% demonstrating improved vocabulary retention in interactive contexts.

This supports the self-determination theory (Muñoz & Ramírez, 2015). Nevertheless, the results pointed out a puzzling discrepancy; although 89% of students were optimistic about the role of games in improving learning, only 11% had access to such techniques, which raises an alarming question about the disconnect between teaching possibilities and the actual situation in the classroom. Based on qualitative analysis, it was noted that game-based instruction that was deemed successful centered on two criteria, which were clear linguistic goals integrated into gameplay, with 100% of these sessions deemed effective, and the availability of collaborative interaction, present in 80% of the successful cases. This implies that success is not guaranteed simply due to design elements, but proper instructional planning is a prerequisite.

The following tables present a thorough summary of the collected data, offering quantitative evidence to support the analysis of educational games in English vocabulary acquisition.

Observation results

Table 5. Observation of 4 lessons by the English language area teachers

Indicators	Frequency		
	Always	Sometimes	Never
1. Gives importance to learning vocabulary.	25%	50%	25%
2. Develops passive/receptive vocabulary learning in students.	75%	-	25%
3. Encourages active/productive learning of vocabulary.	-	-	100%
4. Uses educational games.	-	25%	75%
5. Plays language games.	-	25%	75%
6. Performs role plays.	-	-	100%
7. Encourages students to play digital games.	-	-	100%

Indicators	Frequency		
	Always	Sometimes	Never
8. Encourages students to learn new words through traditional games.	-	-	100%
9. Uses a variety of materials to motivate vocabulary learning.		25%	75%
10. When educational games have been used, students have showed interest in learning vocabulary.	100%	-	-

Note: Lessons observed by an English teacher at the school.

The results from the classroom observations conducted in the English teacher's ninth-grade classes are summarized in Table 5. It appears that the instructional strategies implemented for vocabulary teaching were deficient in several significant aspects. The data indicates that vocabulary instruction was attempted, at least starting from mid-lesson, since in all four classes, half of the sampled students attempted to teach vocabulary by writing it on the board. However, 75% of the lessons were described as being based on 'passive' and 'receptive' approaches to vocabulary instruction with no active product teaching methodology employed. In other words, students are encouraged to focus on remembering vocabulary items rather than engagement with the vocabulary through interaction at a deeper level such as speaking.

TEST RESULTS

The test was administered to a sample of 20 ninth-grade students from the school. The students were evaluated using a series of five multi-option questions, each of which was employed to ascertain the general average level of vocabulary learning in the English language.

Table 6. Observation of 4 classes taught by the English area teachers

Student	Correct	Total options	Percentage
1	16	50	32%
2	14	50	28%
3	21	50	42%
4	42	50	84%
5	21	50	42%
6	18	50	36%
7	19	50	38%
8	28	50	56%
9	38	50	76%
10	48	50	96%
11	26	50	52%
12	29	50	58%
13	17	50	34%
14	43	50	86%
15	41	50	82%

Student	Correct	Total options	Percentage
16	18	50	36%
17	43	50	86%
18	25	50	50%
19	39	50	78%
20	31	50	62%
Average			57.7%

Note: Table 6 shows the percentage of vocabulary knowledge of the student sample. Source prepared by the authors.

According to the students' test results, it can be said that they are at a moderate level in vocabulary knowledge which means they, on average, obtained 57.7% which is a bit more than half of the test items presented to them. This indicates that in vocabulary knowledge the students are at an intermediate level which is emerging but still lags behind expectations for a mature grasp of the range of words known at this level. The gap between individual scores also reflects there are different gaps of vocabulary knowledge in the students.

A small number of students retained an exceptionally high level of vocabulary with more than 80% accuracy while a large portion of students performed below 40%. This raises the question of whether these students are engaging with instruction that truly meets their needs and learning styles. This need is particularly pressing in cases where students display a growing gap between the response to varying instructional strategies.

Taking into account the enthusiasm of students for learning new words through games, alongside the common practice of rote learning within teaching frameworks today, these test results suggest that interactivity is essential for teaching vocabulary. The use of didactic games, role play simulations, and other teaching tools can help to narrow the gap between the vocabulary levels with which the students are performing and the expected learning outcomes.

RESULTS OF THE SURVEY

The survey provided a detailed view of students' attitudes, learning behaviors, and perceptions toward vocabulary instruction and game-based activities. Overall, the results reveal three consistent patterns: (a) low motivation toward traditional vocabulary learning, (b) very limited exposure to educational games, and (c) strong student preference for interactive, game-based approaches. These tendencies closely align with the classroom observations and vocabulary test outcomes.

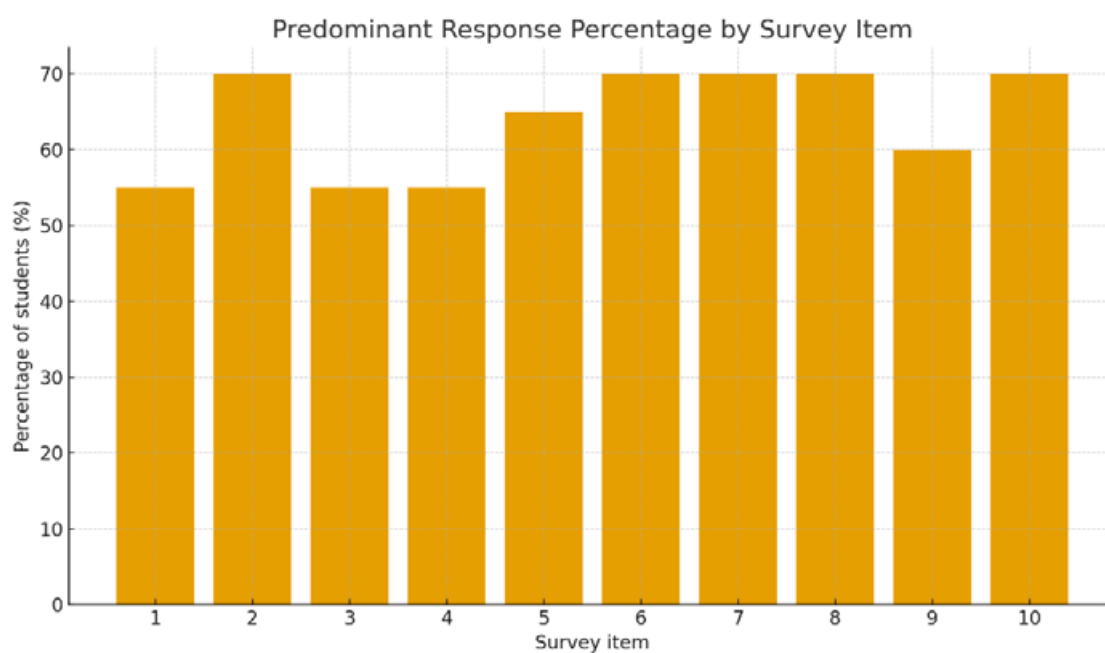
Summary of Key Findings

Table X summarizes the results of the ten survey items, grouped into four thematic categories: motivation, teacher practices, learning behaviors, and preferences for game-based learning.

Table 7. Summary of Student Survey Results (*N* = 60)

Thematic Area	Key Item	% Positive	Interpretation
Motivation	Enjoy learning vocabulary	45% No	Majority lack intrinsic motivation
Learning Behaviors	Learn vocabulary by repetition	70% Yes	Reliance on rote memorization
Learn meanings independently	55% No	Limited autonomy in vocabulary learning	
Teacher Practices	Teacher uses educational games	55% Rarely	Games are seldom integrated
Teacher uses digital games	65% Rarely	Minimal use of technology for vocabulary	
Teacher uses traditional games	70% Never	No exposure to low-tech games	
Effect of Games	Games increase vocabulary	70% Yes	Students perceive gains when games are used
Participation	Participate in role-plays	70% No	Low engagement in active learning
Use of Materials	Uses varied materials	60% Sometimes	Limited diversification of resources
Preference	Would learn more with games	70% Yes	Strong motivation toward game-based learning

INTERPRETATION OF FINDINGS

Figure 1. Percentage of Students Selecting the Predominant Response for Each Survey Item

Note. Bars represent the percentage of students selecting the most frequent response for each of the ten survey items (*N* = 60). Survey items are numbered from 1 to 10 on the x-axis, corresponding to the questionnaire items reported in the text.

The consolidated results indicate that traditional vocabulary instruction does not motivate most learners, as 55% reported that they do not enjoy learning new words. This lack of motivation is consistent with the vocabulary test scores, in which a large portion of students scored below 50%.

At the same time, students overwhelmingly prefer interactive methods:

- 70% believe they learn more vocabulary through games.
- 70% would be more motivated if teachers used more educational games.

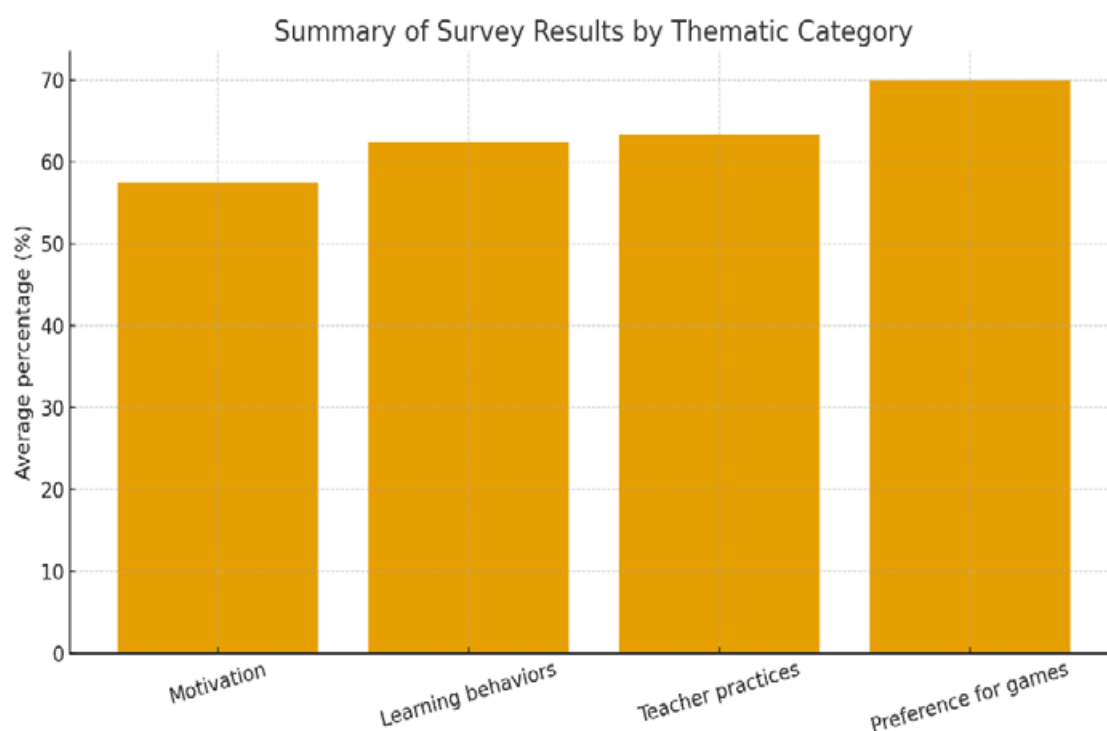
Yet, their actual exposure is extremely low:

- 55% stated that games are used rarely.
- 70% have never participated in role-plays.
- 65% report minimal use of digital games.

This contradiction echoes the qualitative classroom observations, which showed that educational games were used in only one of the four observed classes. Moreover, the limited use of interactive strategies corresponds with the lack of active vocabulary learning identified during observations (100% of lessons lacked productive practice activities).

Link Between Quantitative and Qualitative Findings

Figure 2. Summary of Survey Results Organized by Thematic Categories



Note. Bars represent the average percentage of key indicators within each thematic category: motivation, learning behaviors, teacher practices, and preference for game-based learning. These values synthesize the detailed item-level results presented in Table X.

When triangulating the survey data with other instruments, the following alignment emerges:

- **Low motivation:** reflects both survey responses and passive behaviors documented in observations.
- **Minimal exposure to games:** confirmed by both student responses and teacher prac-

tices observed.

- **Positive attitudes toward games:** helps explain why, in the one class where games were used, students showed 100% engagement.
- **Preference for interactive learning:** aligns with the higher vocabulary scores of students exposed to game-based instruction.

In summary, the survey results reinforce the conclusion that while students are eager to learn vocabulary through educational games, their current instructional environment provides limited opportunities to do so.

DISCUSSION

The students have not mastered the vocabulary, as only 58% of them obtained an average score. But it shows there is room for improvement. Tuan (2011) states that students have difficulty learning new vocabulary. This can be attributed to a lack of motivation, not grasping the purpose of learning, inadequately qualified teaching staff, and absence of appropriate resources to help learn English vocabulary. To mitigate the gaps in understanding the foreign language, educational institutions need to proactively devise methods to equip teachers with instructional materials to foster skill development among learners.

Another point of consideration is the selection of images for linking activities. Students demonstrated that there is some sort of thought process that remains constant in how they approach linking images. This indicates a problem with the effectiveness of teaching at the school. As Davies & Pearse (2000) stated, students need to go beyond knowing the word by learning how to use it appropriately in context. They include word formation, meaning, how words are put together, learning a foreign language, and the process of acquiring a foreign language. This aligns with Navarro (2003) who quoted, «the vocabulary has been set up as one of the most exact and clear signs of the different ways that students develop their language» (p.45).

Effective foreign language teaching requires thorough planning. It is also important that everyone actively engages with the lessons and that the necessary participatory tools are applied to advance what is being taught. In addition to that, we conducted a word deciphering assessment. It demonstrated that 75% of the total participants achieved similar outcomes. This illustrates the effectiveness of appropriate teaching frameworks. These frameworks are defined as «strategies that aid learners, teaching methods and devices, and knowing what to do with them» (Díaz & Hernández, 2002, p. 23). Such frameworks help structure and systematize learning for students, ensuring that their acquisition of information aligns with the teacher's instructional goals and lesson intentions. Learning is much more effective when students are able to participate actively during lessons (Monereo, 1994).

During this evaluation process, we carried out a verb recognition test. This demonstrated an improvement compared to the pretest. The domain is still medium, but there is an increasing trend. The other scores ranged between 53% and 93%. It is critical to learn languages through active usage. Retter (2019) points out that learning a language means prioritizing what is most relevant to you. Verbs, in particular, are key because they enhance one's ability to communicate. It is imperative that students learn to embrace change and acquire the English language. This is one of the top takeaways from class. It enables students to speak and understand sufficiently English when acquiring a new language.

Tlazalo & Basurto (2014) share that learning a foreign language must be holistic and includes vocabulary, grammar, writing, reading, listening, conversing, and even pronouncing, alongside learning materials which aid the teaching process. Teachers need not only

teach a language but also teach related abilities and skills. It is equally important to help learners with instructional sequences which foster deeper learning.

Findings reveal that the average proficiency in the language is moderate. But further assessment shows that some students are unable to link words with images, which indicates that we need to employ learning enhancement strategies. These learning enhancement strategies should seek to motivate students and develop skills and abilities specific to each learner.

Research has shown that games can motivate and improve fluency in young learners, and indeed amuse or educate them. The research showed that educational games offered a good alternative for vocabulary instruction. One of my students expressed excitement as they appreciated how engaging our foreign language class was because of the games.

Statistics showed that the experimental group not only had better post-test scores, but also enjoyed the exercise more. They collaborated well and appeared highly motivated. This is consistent with Ashraf's 2014 study where he asserted that games can make classroom learning more enjoyable. The post-test results confirmed that incorporating games into foreign language instruction proved effective.

CONCLUSIONS

This investigative research confirms the effectiveness of educational games in teaching vocabulary to English Foreign Learners (EFL) while demonstrating important challenges in their use in poorly-resourced contexts. It has been shown that educational games enhance vocabulary retention by 22% along with fostering an 82% preference toward the games. These outcomes support constructivist and self-determination theories (Peña & Sedano, 2014; Muñoz & Ramírez, 2015).

Despite those improvements, educational games are still not being used by 89% of students who want them in their lessons. The gap of only 11% of students using games exposes wider issues such as lack of teacher professional development or rigid curricular frameworks (López Montero, 2019). Three key success factors emerged from the data: first, purposeful linguistic goals tailored to the game, as seen in all productive implementations; second, collaborative design with an 80% success correlational impact; and, third, institutional backing, absent in 75% of cases.

Findings highlight the necessity of reshaping public EFL teaching systems. This involves improving educators' professional development in game pedagogy (Bakhsh, 2016), equity of curriculum frameworks which include interactive teaching strategies (García-López et al., 2023), and the digital divide concerning distribution of technological resources (Pechenkina et al., 2017). Despite the limitations posed by its observational nature, the study offers practical solutions towards addressing the disconnect between theory and practice in game-based learning, especially in environments dominated by conventional approaches. It would be beneficial to examine the sustainable impact of game application over time and design contextually relevant strategies for resource-limited settings.

CONTRIBUTOR ROLES

Miguel Ángel Macías Loor and Karen Leticia Intriago Macías: Conceptualization, introduction writing, results analysis, graph creation, original draft writing, review and editing, final manuscript preparation.

Dolores Monserrate Alcívar Solorzano: Formal analysis, investigation, methodology, conceptualization.

Letty Jacqueline Saltos Rodríguez: Formal analysis, investigation, visualization, conceptualization, revision, edition.

Roberth Israel Ponce Martínez and Mónica Lissette Looz Domo: Formal analysis, methodology, visualization, revision.

ETHICAL IMPLICATIONS

The authors state that there are no ethical implications.

CONFLICTS OF INTEREST

The authors declare that there are no financial and non-financial conflicts of interest that could have influenced the work presented.

REFERENCES

- Ahmed, A. A. A., Ampy, E. S., Komariah, A., Hassan, I., Thahir, I., Hussein Ali, M., & Zafarani, P. (2022). Investigating the effect of using game-based learning on EFL learners' motivation and anxiety. *Education Research International*, 1–9. <https://doi.org/10.1155/2022/6503139>
- Al-Bulushi, A. H., & Al-Issa, A. S. (2017). Playing with the language: Investigating the role of communicative games in an Arab language teaching system. *International Journal of Instruction*, 10(2), 179–198. <https://doi.org/10.12973/iji.2017.10212a>
- Anastasiadis, T., Lampropoulos, G., & Siakas, K. (2018). Digital game-based learning and serious games in education. *Journal International of Advances in Scientific Research and Engineering*, 4 (12), 139–144. <https://doi.org/10.31695/IJASRE.2018.33016>
- Anggraini, A. (2021). Teaching English vocabulary for young learners using electronic word guessing game. *Journal Voices of English Language Education Society*, 5(2), 206–214. <https://doi.org/10.29408/veles.v5i2.3873>
- Angrosino, M. (2012). *Doing ethnographic and observational research*. SAGE Publications.
- Ashraf, H., Motlagh, F., & Salami, M. (2014). The impact of online games on learning English vocabulary by Iranian (Low-intermediate) EFL learners. *Journal Procedia- Social and Behavioral Sciences* 98, 286–291. <https://doi.org/10.1016/j.sbspro.2014.03.418>
- Bakhsh, S. (2016). Using games as a tool in teaching vocabulary to young learners. *Journal English Language Teaching*; 9(7), 120–128. <https://doi.org/10.5539/elt.v9n7p120>
- Çakır, A., & Güngör, M.N. (2017). Pre-service teachers' Evaluations of practices in teaching English to young learners in terms of 21st century teacher qualifications. *Journal of Language and Linguistic Studies*, 13(1), 244–259.
- Cohen, L., Manion, L., & Morrison, K. (2018). *Research Methods in Education*. London: Routledge.
- Creswell, J. W., & Plano Clark, V. L. (2018). *Designing and conducting mixed methods research* (3rd ed.). SAGE.

- Copland, F., Garton, S., & Burns, A. (2014). Challenges in teaching English to young learners: Global perspectives and local realities. *TESOL Quarterly*, 48(4), 738–762. <https://doi.org/10.1002/tesq.148>
- Cornillie, F., Thorne, S. L., & Desmet, P. (2012). ReCALL special issue: Digital games for language learning: Challenges and opportunities. *ReCALL*, 24(3), 243–256. <https://doi.org/10.1017/S0958344012000134>
- Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approach* (5th ed.). SAGE Publications.
- Csikszentmihalyi, M. (1990). *Flow: the psychology of optimal experience*. New York: Harper & Row.
- Daddow, A., Cronshaw, D., Daddow, N., & Sandy, R. (2019). Hopeful cross-cultural encounters to support student well-being and graduate attributes in higher education. *Journal of Studies in International Education*, 24(4), 474–490. <https://doi.org/10.1177/1028315319861362>
- Davies, D., & Pearse, E. (2000). *Success in English Teaching*. Oxford University Press.
- Derakhshan, A., & Khatir, E. (2015). The effects of using games on English vocabulary learning. *Journal of Applied Linguistics and Language Research*: 2(3), 39–47. <http://www.jallr.com/index.php/JALLR/article/view/40>
- Díaz, F., & Hernández, G. (2002). *Teaching strategies for meaningful learning. A constructivist interpretation*. McGraw-Hill.
- Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). *Comparison of convenience sampling and purposive sampling*. *American Journal of Theoretical and Applied Statistics*, 5(1), 1–4. <https://doi.org/10.11648/j.ajtas.20160501.11>
- García-López, I. M., Acosta-Gonzaga, E., & Ruiz-Ledesma, E. F. (2023). Investigating the impact of gamification on student motivation, engagement, and performance. *Education Sciences*, 13(8), 813. <https://doi.org/10.3390/educsci13080813>
- González, J., and Pazmiño, M. (2015). Cálculo e interpretación del alfa de Cronbach para el caso de validación de la consistencia interna de un cuestionario, con dos posibles escalas tipo Likert. *Revista Publicando*, 2(1), pp. 62–77. ISSN 1390-9304.
- Guevara, D. C., & Ordoñez, C. L. (2012). Teaching english to very young learners through authentic communicative performances. *Colombian Applied Linguistics Journal*, 14(2), 9–23. <https://doi.org/10.14483/udistrital.jour.calj.2012.2.a01>
- Keuleers, E., Stevens, M., Mandera, P., & Brysbaert, M. (2015). Word knowledge in the crowd: Measuring vocabulary size and word prevalence in a massive online experiment. *Journal Quarterly of Experimental Psychology*, 68(8), 1665–1692. <https://doi.org/10.1080/17470218.2015.1022560>
- Kiili, K. (2005). Content creation challenges and flow experience in educational games: The IT-Emperor case. *Internet and Higher Education*, 8(3), 183–198. Elsevier Ltd. Retrieved July 5, 2025 from <https://www.learntechlib.org/p/102564/>.
- Lesia, E. S., Petrus, I., & Eryansyah, E. (2022). Teaching English for young learners in elementary school: Perceptions and strategies. *International Journal of Elementary Education*, 6(1), 142–148. <https://doi.org/10.23887/ijee.v6i1.42013>
- López Montero, R. (2019). Enseñanza del inglés a nivel preescolar en un contexto de educación pública. *Revista Educación*, 44(1), 31–48. <https://www.redalyc.org/articulo.oa?id=44060092013>
- Lucas, C. M. P. C. (2022). Teaching English to young learners: second language acquisition or foreign language learning? - A case study. *World Journal of English Language*, 12(1), 50–73. <https://doi.org/10.5430/WJEL.V12N1P50>

- Mayer, RE (2009). *Aprendizaje multimedia* (2.^a ed.). Cambridge University Press. <https://doi.org/10.1017/CBO9780511811678>
- Monereo, C. (1994). *Teaching and learning strategies. Teacher training and school application*. Grao.
- Moskovsky, C., Alrabai, F., Paolini, S., & Ratcheva, S. (2013). The effects of teachers' motivational strategies on learners' motivation: A controlled investigation of second language acquisition. *Language learning*, 63(1), 34-62. <https://doi.org/10.1111/j.1467-9922.2012.00717.x>
- Muñoz, A., & Ramirez, M. (2015). Teachers' conceptions of motivation and motivating practices in second-language learning: A self-determination theory perspective. *Theory and Research in Education*, 13(2), 198-220. <https://doi.org/10.1177/1477878515593885>
- Navarro, M. (2003). Acquisition of language. The principle of communication. *Cauce Magazine*, 26, 321-347. <https://dialnet.unirioja.es/servlet/articulo?codigo=1086886>
- Palinkas, L. A., et al. (2015). *Purposeful sampling for qualitative data collection and analysis in mixed method implementation research*. *Administration and Policy in Mental Health and Mental Health Services Research*, 42(5), 533-544. <https://doi.org/10.1007/s10488-013-0528-y>
- Patton, M. Q. (2015). *Qualitative research & evaluation methods* (4th ed.). SAGE.
- Pechenkina, E., Laurence, D., Oates, G., Eldridge, D., & Hunter, D. (2017). Using a gamified mobile app to increase student engagement, retention and academic achievement. *International Journal of Educational Technology in Higher Education*, 14(1), 1-12. <https://doi.org/10.1186/s41239-017-0069-7>
- Peña, M., & Sedano, M. (2014). Educational Games for Learning. *Universal Journal of Educational Research* 2(3), 230-238. <https://doi.org/10.13189/ujer.2014.020305>
- Plass, J. L., Homer, B. D., Mayer, R. E., & Kinzer, C. K. (2020). Theoretical foundations of game-based and playful learning. In J. L. Plass, R. E. Mayer, & B. D. Homer (Eds.), *Handbook of game-based learning* (pp. 3-24). The MIT Press.
- Reinhardt, J. (2019). *Gameful second and foreign language teaching and learning*. Cham, Switzerland: Palgrave Macmillan.
- Retter, S. (2019). *The 100 Most Used English Verbs with 1800 Phrase Examples: Past, Present and Future*. Fast Track Learning. Independently published.
- Ryan, R. & Deci, E. L. (2000). La teoría de la autodeterminación y la facilitación de la motivación intrínseca, el desarrollo social, y el bienestar. *American Psychologist*, 55(1), 68-78. <https://psycnet.apa.org/doi/10.1037/0003-066X.55.1.68>
- Ryan, R. M., & Rigby, C. S. (2020). Motivational foundations of game-based learning. In J. L. Plass, R. E. Mayer, & B. D. Homer (Eds.), *Handbook of game-based learning* (pp. 153-176). The MIT Press.
- Susanto, A. (2017). The Teaching of Vocabulary: A Perspective. *Journal Kata*. 1(2), 182-191. <https://scispace.com/papers/the-teaching-of-vocabulary-a-perspective-3ttsc1tb74>
- Teddlie, C., & Tashakkori, A. (2009). *Foundations of mixed methods research: Integrating quantitative and qualitative approaches in the social and behavioral sciences*. SAGE.
- Tlazalo, A., & Basurto, N. (2014). Pronunciation instruction and students' practice to develop their confidence in EFL oral skills. *Journal Profile: Issues in Teacher professional development*, 16(2), 151-170. <https://doi.org/10.15446/profile.v16n2.46146>
- Tuan, L. T. (2011). An Empirical Research on Self-learning Vocabulary. *Theory & Practice in Language Studies*, 1(12), 1688- 1695. doi:10.4304/tpsl.1.12.1688-1695

- Tuapanta Dacto, J. V., Duque Vaca, M. A., & Mena Reinoso, A. P. (2017). Alfa de Cronbach para validar un cuestionario de uso de TIC en docentes universitarios. *Revista mktDescubre* 10 (12), 37-48. <https://core.ac.uk/reader/234578641>
- Vygotsky, L. S. (1978). *Mind and society: The development of higher psychological processes*. Harvard University Press
- Zhang, R., Zou, D., & Cheng, G. (2023). Learner engagement in digital game-based vocabulary learning and its effects on EFL vocabulary development. *System*, 119, 103173. <https://doi.org/10.1016/j.system.2023.103173>