Revista de Estudios Generales (REG).
ISSN: 3073-1259Vol.5 (N°.3). julio - septiembre 2026
DOI: 10.70577/reg.v5i3.890

The impact of gamification on English vocabulary acquisition in A2-level EFL learners

El impacto de la gamificación en la adquisición de vocabulario en inglés en estudiantes de EFL de nivel A2

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Formato de citación APA
Álvarez, C., Guerrero, R. & Bonilla, J.(2026). The impact of gamification on English vocabulary acquisition in A2-level EFL learners. Revista REG, Vol. 5 (N°. 3), p. 5254 – 5275.

CONOCIMIENTO SIN FRONTERAS
Vol. 5 (N°. 3). julio – septiembre 2026.
ISSN: 3073-1259
Fecha de recepción: 25 -08-2026
Fecha de aceptación :30-08-2026
Fecha de publicación:30-09-2026

ABSTRACT

Gamification has emerged as an innovative pedagogical strategy in the teaching of English as a foreign language; however, there is limited empirical evidence from direct classroom interventions with primary school students in Latin American contexts. The present study aimed to examine the impact of gamification on English vocabulary acquisition in seventh grade students at the A2 level in a public school in Esmeraldas, Ecuador. A convergent parallel mixed methods design was employed, with a sample of 22 students selected through purposive sampling. Data collection followed a four-stage sequence: first, a diagnostic test was administered as a pre-test; then the gamified intervention was carried out over four consecutive weeks, with one weekly session of 90 minutes using the platforms Kahoot! Wordwall, Quizizz, and Blooket, during which a teacher observation checklist was recorded weekly; afterward, a final test was administered as a post-test; and finally, a student perception survey was applied on a Likert scale. Quantitative results showed an increase from 43.55% to 85.91% in average achievement between the pre-test and the post-test, a statistically significant improvement according to the Wilcoxon signed-rank test ($Z = 4.09$, $p < .001$) with a large effect size ($r = .87$), with positive gains recorded in all 22 participants. The teacher observation checklist recorded an overall average of 3.90 out of 4.00 across the dimensions of engagement, vocabulary use, and oral fluency, with Kahoot! being the platform with the best results. The student perception survey showed a broadly favorable evaluation, with agreement percentages ranging from 93.2% to 97.7% depending on the section assessed. It is concluded that digital gamification constitutes an effective methodological strategy for vocabulary development, motivation, and communicative confidence in public primary education contexts in Latin America, although these results should be read as initial evidence of short-term consolidation, given the single-group design and the brief duration of the intervention.

KEYWORDS: gamification, vocabulary acquisition, English as a foreign language, student motivation, primary education

RESUMEN

La gamificación ha emergido como una estrategia pedagógica innovadora en la enseñanza del inglés como lengua extranjera; sin embargo, existe limitada evidencia empírica proveniente de intervenciones directas en el aula con estudiantes de educación primaria en contextos latinoamericanos. El presente estudio tuvo como objetivo examinar el impacto de la gamificación en la adquisición de vocabulario en inglés en estudiantes de séptimo grado de nivel A2 en una escuela pública de Esmeraldas, Ecuador. Se empleó un diseño de métodos mixtos de tipo convergente paralelo, con una muestra de 22 estudiantes seleccionados mediante muestreo intencional. La recolección de datos siguió una secuencia de cuatro etapas: primero se aplicó una prueba diagnóstica (pretest); luego se desarrolló la intervención gamificada durante cuatro semanas consecutivas, con una sesión semanal de 90 minutos utilizando las plataformas Kahoot!, Wordwall, Quizizz y Blooket, registrándose semanalmente una ficha de observación docente; posteriormente se aplicó una prueba final (posttest); y finalmente se administró una encuesta de percepción estudiantil en escala Likert. Los resultados cuantitativos mostraron un incremento del logro promedio del 43.55% al 85.91% entre el pretest y el posttest, mejora estadísticamente significativa según la prueba de Wilcoxon ($Z = 4,09$, $p < ,001$) con un tamaño del efecto grande ($r = ,87$), y con ganancias positivas en los 22 participantes. La ficha de observación docente registró un promedio general de 3,90 sobre 4,00 en las dimensiones de compromiso, uso de vocabulario y fluidez oral, ¡siendo Kahoot! la plataforma con los mejores resultados. La encuesta de percepción estudiantil evidenció una valoración ampliamente favorable, con porcentajes de acuerdo que oscilaron entre 93,2% y 97,7% según la sección evaluada. Se concluye que la gamificación digital constituye una estrategia metodológica efectiva para el desarrollo del vocabulario, la motivación y la confianza comunicativa en contextos de educación primaria pública en América Latina, aunque estos resultados deben interpretarse como evidencia inicial de consolidación a corto plazo, dado el diseño de un solo grupo y la breve duración de la intervención.

PALABRAS CLAVE: gamificación, adquisición de vocabulario, inglés como lengua extranjera, motivación del estudiante, educación primaria

INTRODUCTION

Gamification is defined as a technique that transfers game mechanics, such as points, rewards, challenges, and levels, into the educational field, with the purpose of stimulating student engagement and making the learning process more dynamic and interactive. Within this framework, game-based learning fosters active engagement with content while encouraging participation and providing opportunities for repeated practice and feedback (Zambrano, 2024). This pedagogical shift has been accompanied by a broader transformation in English language teaching driven by Information and Communication Technologies, which provide access to interactive digital platforms and learning environments, thereby allowing gamified elements to be systematically integrated into vocabulary instruction (Jara et al., 2025). Vocabulary, in turn, constitutes one of the most decisive components of foreign language learning, since it supports learners' ability to understand and produce language across speaking, listening, reading, and writing (Pinta et al., 2024). This relevance is reinforced by evidence that digital game-based learning can support both receptive and productive vocabulary knowledge among EFL learners (Jia et al., 2024). Taken together, this evidence justifies examining how gamified strategies can strengthen vocabulary acquisition among young EFL learners.

Gamification in language education involves the deliberate incorporation of game elements into instructional contexts to enhance learners' motivation, engagement, and active participation. In EFL settings, gamified strategies can transform conventional learning activities into interactive experiences in which learners receive immediate feedback, face challenges, and participate more actively in the learning process (Molina et al., 2021). Evidence from digital game-based learning also indicates that gamification can support the development of both receptive and productive vocabulary knowledge by providing repeated opportunities for meaningful interaction with lexical items (Jia et al., 2024). Furthermore, the effectiveness of gamified instruction depends not only on the presence of game elements but also on how these elements are aligned with instructional objectives and learners' needs. Recent evidence suggests that carefully designed gamified activities can promote engagement while creating supportive conditions for vocabulary development and sustained participation in EFL classrooms (Ahmed et al., 2022). These conceptual and pedagogical foundations provide a basis for examining the empirical evidence across different educational levels.

At the preschool level, gamified instruction has been associated with increased motivation, active participation, and vocabulary development among young EFL learners. Terán et al. (2024) reported that gamified activities implemented with children aged four to six supported vocabulary retention and classroom engagement, while also highlighting the importance of adapting activities to

learners' diverse needs and considering limitations in access to technology. These findings are consistent with evidence from elementary EFL contexts, where digital game-based learning has been shown to facilitate vocabulary development by providing learners with repeated opportunities to recognize and use new lexical items in engaging learning environments (Jia et al., 2024). Similarly, research on Kahoot! indicates that game-based activities can contribute to vocabulary recall and retention by combining active participation, immediate feedback, and repeated exposure to target words (Ahmed et al., 2022).

Moving toward upper primary learners, recent studies have reported positive effects of gamification on vocabulary development and learner engagement. In an Ecuadorian upper-secondary context, Intriago-Cobeña et al. (2024) found that the incorporation of gamified activities into English instruction supported vocabulary acquisition by increasing learners' participation and interest in the learning process. Similarly, formative assessment through gamified platforms has been associated with improved vocabulary performance and greater learner motivation, particularly when tools such as interactive quizzes and digital challenges are integrated into regular classroom instruction (Pinta et al., 2024). Evidence from young EFL learners also suggests that the effectiveness of gamification may depend on the specific mechanics employed, since competitive elements can strengthen engagement while producing different emotional responses among students (Cortez et al., 2025). These findings indicate that gamification can be particularly valuable at the upper-primary level when its mechanics are carefully aligned with vocabulary learning objectives and learners' developmental characteristics.

Direct classroom evidence from EFL settings further demonstrates the potential of gamification to strengthen learners' motivation and engagement during language instruction. In an action research study, Esquivel et al. (2021) found that gamification produced higher levels of student engagement than game-based learning, suggesting that the continuous incorporation of challenges, rewards, and interactive activities can help sustain learners' attention over time. Complementing these findings, Zambrano (2024) reported that teachers perceived playful and gamified strategies as valuable for English instruction and emphasized the importance of teacher preparation for their effective implementation. Similarly, research on gamified vocabulary learning has shown that students can benefit from interactive activities that encourage repeated exposure to target vocabulary while maintaining interest and active participation (Waluyo & Tran, 2023). Taken together, these findings suggest that the pedagogical value of gamification extends beyond immediate academic performance, particularly by creating learning environments that encourage sustained participation and learner involvement.

At the secondary and virtual education levels, digital gamification has also demonstrated potential for supporting vocabulary learning and learner engagement. Research involving Kahoot! has shown that game-based activities can facilitate vocabulary recall and retention by combining repeated exposure, immediate feedback, and active participation in EFL learning environments (Ahmed et al., 2022). Likewise, the use of gamified activities in upper-secondary education has been associated with improvements in vocabulary acquisition, suggesting that competitive and interactive learning environments can contribute to students' involvement in English lessons (Intriago-Cobeña et al., 2024). In asynchronous learning contexts, gamified vocabulary instruction has similarly encouraged learners to participate actively and interact with target lexical items through structured digital activities (Waluyo & Tran, 2023). More recent evidence indicates that digital gamification can also influence learners' affective experiences, including interest, self-efficacy, anxiety, and flow, demonstrating that the impact of gamified vocabulary learning extends beyond achievement alone (Hong et al., 2025).

At the primary level, international evidence further illustrates the relationship between gamification, vocabulary learning, and learners' perceptions of their own abilities. Cancino and Viguera (2024) found that the use of Kahoot! among Chilean fifth-grade EFL learners produced vocabulary outcomes comparable to those obtained through conventional instruction, while significantly increasing vocabulary self-efficacy. This finding suggests that the contribution of gamification may extend beyond measurable lexical gains by strengthening learners' confidence and willingness to engage with English. Comparable evidence from elementary learners indicates that game-based vocabulary instruction can support both receptive and productive knowledge when learners are provided with repeated and meaningful opportunities to interact with target words (Jia et al., 2024). Moreover, non-digital gamification has been found to provide opportunities for young learners to develop oral English skills through structured, participatory classroom activities (Sancar-Tokmak & Bostanci, 2025).

Considered together, these studies, spanning preschool, primary, secondary, and higher educational contexts, indicate that gamification can positively influence engagement, participation, motivation, vocabulary development, and learners' confidence in using English. However, the magnitude and nature of these effects vary according to learners' age, instructional context, type of gamification, and specific game mechanics. Evidence from vocabulary-focused interventions particularly suggests that gamification should not be understood solely as a motivational technique, but as a pedagogical approach whose effectiveness depends on the alignment between game elements and clearly defined language-learning objectives.

Despite the growing body of evidence, important gaps remain in research on gamification and vocabulary learning, particularly regarding younger EFL learners and specific classroom contexts. Although previous studies have demonstrated positive effects on vocabulary development, motivation, and engagement, the findings vary according to educational level, instructional modality, and the type of gamified activities employed (Jia et al., 2024; Hong et al., 2025). In addition, research involving elementary learners has examined different forms of gamification, but comparatively less attention has been given to classroom interventions focused specifically on A2-level students in Ecuadorian public schools. Existing evidence also suggests that gamification requires careful pedagogical planning, since its effectiveness may depend on learners' characteristics, teachers' implementation, and the alignment between game mechanics and learning objectives (Cortez et al., 2025). Furthermore, studies conducted through digital platforms do not necessarily reflect the conditions of face-to-face classrooms in contexts where access to technological resources may be limited, highlighting the importance of examining gamification within authentic instructional settings (Waluyo & Tran, 2023). These limitations point to the need for further classroom-based research that examines vocabulary acquisition while also considering learners' motivation, engagement, and communicative participation. Together, these gaps justify the need for a direct classroom intervention examining the impact of gamification on vocabulary acquisition among seventh-grade, A2-level students in an Ecuadorian public educational institution, a population and context in which such evidence remains scarce.

This study aims to examine the impact of gamification on English vocabulary acquisition among A2 level seventh grade EFL learners in an Ecuadorian primary school.

To evaluate the effectiveness of gamified strategies, particularly Kahoot, Wordwall, Quizizz, and Blooket, in improving vocabulary acquisition among A2 level seventh grade EFL learners.

To analyze the influence of gamification on learners' motivation and engagement during English vocabulary instruction in an upper primary EFL classroom.

To determine the influence of gamified activities on the oral vocabulary production and communicative confidence of A2 level seventh grade EFL learners, as evidenced through teacher observation of classroom performance.

This research focuses on seventh grade, A2 level EFL learners in an Ecuadorian public primary school and incorporates the systematic use of digital gamified tools, namely Kahoot!, Wordwall, Quizizz, and Blooket, building on evidence that such platforms support vocabulary retention, formative assessment, and learner engagement across educational levels, from preschool (Terán et al., 2024) to

baccalaureate and virtual EFL classrooms (Cuenca & Garaicoa, 2026; Chicaiza et al., 2024; Cifuentes et al., 2024). The study is framed within a technology enhanced, communicative approach to language learning that treats vocabulary acquisition as a core component of communicative competence at the upper primary level, consistent with the dynamics, mechanics, and components framework described by Molina et al. (2021) and the motivational patterns identified by Esquivel et al. (2021) and Jara et al. (2025). Its significance lies in addressing a context where gamification is considered highly relevant for English instruction, yet where more classroom-based evidence and teacher preparation remain necessary for effective implementation (Moreno & Orcera, 2024; Zambrano, 2024). By generating situated evidence from a public Ecuadorian institution, this study seeks to offer educators and curriculum designers empirically grounded recommendations for integrating gamification as a pedagogical strategy for vocabulary development, while also informing future research on the long term effects of gamified instruction on vocabulary retention (Pinta et al., 2024; Terán et al., 2024), vocabulary self-efficacy (Cancino & Viguera, 2024), and the differentiated impact of specific game mechanics on individual learners (Cortez et al., 2025).

METHODS AND MATERIALS

The pedagogical intervention was designed to improve English vocabulary acquisition among A2-level seventh-grade EFL learners through the systematic integration of four digital gamified platforms: Kahoot! Wordwall, Quizizz, and Blooket. The approach drew on a communicative and task-based framework, embedding gamified activities within structured instructional sequences that promoted meaningful interaction with target vocabulary.

The intervention extended over four consecutive weeks and comprised a total of 6 instructional hours, distributed across one 90-minute session per week, for a total of four sessions. Each session followed a three-phase structure: an introductory phase in which vocabulary was presented through contextual and visual cues; an interactive gamified phase in which students engaged with the digital platform designated for that week; and a consolidation phase involving communicative tasks such as image description, WH-question practice, role-plays, and short written production exercises.

Two thematic vocabulary units were introduced each week, covering lexical fields aligned with the A2 curriculum: animals, food, clothing, body parts, action verbs, places, prepositions of place, daily routines, and emotions. Each gamified platform was assigned to a specific week and served as the primary vehicle for vocabulary practice during that session:

Kahoot! was used for competitive real-time quizzes featuring points, timers, and leaderboards.

Wordwall supported interactive matching games and exercises targeting prepositions of place. Quizizz provided interactive challenges with immediate feedback on daily routines and grammar. Blooket facilitated vocabulary races focusing on food, drinks, and restaurant expressions.

The teacher served simultaneously as the researcher and the instructor throughout the intervention. In this dual role, the teacher facilitated gamified activities, provided corrective feedback, monitored student participation, and recorded observational data using a structured checklist. All digital tools were accessed through school devices during class time, within the face-to-face instructional environment. At the outset of the intervention, students were introduced to the gamification system, including its rules, reward structures, and participation expectations, to establish a motivating and transparent learning environment.

This study adopted a mixed-methods approach, integrating quantitative and qualitative data to provide a comprehensive understanding of the phenomenon under study. This methodological framework allowed the simultaneous collection and analysis of numerical data, obtained through the pre-test, post-test, and a student perception survey, alongside qualitative evidence gathered through classroom observations using a teacher observation checklist. The convergence of both data strands provided a comprehensive understanding of the effects of gamified digital activities on vocabulary acquisition and learner motivation in an EFL context.

The study was conducted at a public primary school located in the province of Esmeraldas, Ecuador. The institutional setting corresponds to a socioeconomically diverse community where English is taught as a foreign language following the national curriculum established by the Ecuadorian Ministry of Education. The English classes were held in a standard classroom equipped with school devices that allowed access to digital platforms during instructional time. All sessions were conducted face-to-face, and the intervention was fully integrated into the regular school schedule. In accordance with ethical research principles, the name of the institution has been omitted to protect the identity of the participants and the school community.

The participants consisted of 22 seventh-grade students enrolled at a public primary school in Esmeraldas, Ecuador. All students were classified at the A2 level of English proficiency based on classroom assessment criteria. At this level, learners were able to communicate basic ideas but exhibited limited vocabulary retention and frequent lexical inaccuracies in both oral and written tasks. The group shared comparable sociocultural backgrounds and learning conditions, which supported consistency in the observation of vocabulary development throughout the intervention. As the participants were young learners, strict ethical research protocols were observed. Written

authorization was obtained from school authorities, and informed consent was secured from the legal guardians of all students prior to the commencement of data collection. Participants' identities were fully anonymized, and all data were handled with confidentiality throughout the study.

Participants were selected through purposive sampling, as they were part of the researcher's own English class and demonstrated similar instructional histories and learning profiles. This nonprobability technique was deemed appropriate given the pre-experimental nature of the study and the need to observe a homogeneous group under controlled instructional conditions. The inclusion criteria established that participants must be enrolled in seventh grade, classified at the A2 proficiency level, and present throughout the four-week intervention. Students with extended absences during the intervention period were excluded from the final data analysis.

Data collection was carried out using three instruments, each administered at a specific stage of the research process and targeting distinct dimensions of vocabulary learning and learner engagement. All instruments were designed and administered through Google Forms where applicable, or through validated paper-based formats.

Pre-test/Post-test: The same instrument was administered at two points during the research process: prior to the gamified intervention (pre-test) and at its conclusion, following four weeks of implementation (post-test), to establish a baseline measure and subsequently assess gains in students' vocabulary, reading, grammar, and speaking proficiency. It comprised 50 items organized into four sections: Section A assessed vocabulary knowledge through identification tasks covering animals, classroom objects, food, clothing, body parts, and action verbs; Section B evaluated reading comprehension and grammar in context; Section C measured written grammar production involving prepositions of place, the present continuous tense, and error correction; and Section D comprised oral speaking tasks including personal descriptions, daily routine narration, scene descriptions, and role-plays. Item formats included multiple choice, fill-in-the-blank, and free oral production. The use of an identical instrument at both stages enabled a direct comparison of results and the measurement of vocabulary gains observed following the gamified intervention (Pinta et al., 2024).

The quantitative gains observed in the standardized tests were triangulated with qualitative behavioral data from the weekly Teacher Observation Checklists. This mixed-methods approach ensured ecological validity, confirming that the numerical achievement was reflected in increased speaking fluency, lowered affective filters, and high task engagement during face-to-face sessions. The same scoring criteria and equivalent administration conditions were maintained for both measurement points.

Teacher Observation Checklist: The Teacher Observation Checklist was applied once per week during the gamified session corresponding to each digital platform (Kahoot, Wordwall, Quizizz, and Blooket), resulting in four checklists across the intervention. The instrument recorded observable student behaviors across three dimensions: Engagement with Gamified Activities, Vocabulary Acquisition Behaviors, and Speaking Fluency and Communication, each comprising six indicators rated on a four-point frequency scale: Always (4), Often (3), Sometimes (2), and Never (1). The checklist included 18 indicators in total, with space for qualitative notes per indicator and a general observation field per session.

Student Perception Survey: It was applied after the post-test administration, as the final stage of data collection. It comprised 18 Likert-scale items rated on a five-point scale from 1 (Totally Disagree) to 5 (Totally Agree), organized into three sections: Gamification (items 1 to 8), which addressed students' perceptions of the gamification experience (independent variable); Gamification and Vocabulary (items 9 to 10), which served as bridge items capturing the intersection of both constructs; and Vocabulary Acquisition (items 11 to 18), which measured self-perceived vocabulary acquisition (dependent variable) (Pinta et al., 2024).

Data Collection Procedure

Data collection followed a sequential four-stage procedure aligned with the research design. In the first stage, students were introduced to the gamification system, becoming familiar with the digital platforms, the reward system, and the participation expectations during gamified sessions. In the second stage, the pre-test was administered to establish students' baseline vocabulary and oral competence before any gamified activity. The third stage encompassed the gamified intervention, during which students participated in activities using the four digital platforms over four weeks, while the Teacher Observation Checklist was completed weekly during each gamified session to document participation, vocabulary use, and oral production. In the fourth stage, the post-test was administered to assess vocabulary gains resulting from the intervention, and only after that was the Student Perception Survey administered to capture students' attitudes toward the gamified experience.

Quantitative data were analyzed using descriptive statistics, including mean scores and percentages, to identify vocabulary gains by comparing pre-test and post-test results. Survey responses were quantified through frequency distributions organized by dimension: Gamification (items 1–8), bridge items (items 9–10), and Vocabulary Acquisition (items 11–18). Descriptive statistics were calculated using Microsoft Excel, while inferential analysis was performed using SPSS v.26.

Qualitative data from the observation checklists were subjected to thematic analysis to identify recurring patterns in student engagement, vocabulary production behaviors, and speaking fluency across the four weeks of intervention. Triangulation across the four instruments, pre-test, post-test, perception survey, and observation checklist, was employed to enhance the validity and comprehensiveness of the findings.

All three instruments were subjected to expert validation by two specialists holding doctoral degrees in Education. The experts reviewed the instruments for clarity, relevance, and alignment with the research objectives and the theoretical framework. Minor adjustments to wording and structure were made based on their feedback to improve comprehension and precision. Additionally, a pilot test was conducted prior to the main study to confirm the instruments' reliability and appropriateness for the target population, using Cronbach's Alpha as the reliability measure. The results showed coefficients above the acceptable threshold of 0.70 for all four dimensions assessed: Dimension 1 (α = 0.839), Dimension 2 (α = 0.823), Dimension 3 (α = 0.848), and Dimension 4 (α = 0.879), indicating good internal consistency across the four assessed dimensions. For qualitative data, triangulation across multiple instruments and data sources contributed to the credibility of the findings.

Ethical research standards were rigorously observed throughout the study. Given that the participants were minors, written authorization was obtained from school authorities, and informed consent was secured from the legal guardians of all students prior to data collection. Participation was entirely voluntary, and students were informed of their right to withdraw from the study at any time without academic consequences. To protect participants' privacy, pseudonyms were assigned, and no personally identifying information was included in any data record or research output. All data collected through vocabulary tests and perception surveys were treated with strict confidentiality and securely stored. Access to the data was restricted exclusively to the researcher.

This study presents three notable methodological limitations. First, the sample was restricted to 22 seventh-grade students from a single school, which limits the generalizability of the findings to broader EFL populations or different educational contexts. Future research involving larger and more diverse samples is recommended to validate and extend the results. Second, the four-week intervention period, while sufficient to observe initial vocabulary gains, was relatively short. A longer implementation would allow for a more comprehensive assessment of the long-term effects of gamification on vocabulary retention. Third, the study was conducted within a specific educational setting and targeted a single proficiency level (A2), which may constrain the applicability of the findings to other EFL contexts, learner ages, or proficiency levels. Quantitative data were analyzed using both

descriptive and inferential statistics. Given the small sample size (N = 22), the non-parametric Wilcoxon signed-rank test was conducted to determine the statistical significance of the pre-test to post-test difference (α = .05). Third, the study was conducted within a specific educational setting and targeted a single proficiency level (A2), which may constrain the applicability of the findings to other EFL contexts, learner ages, or proficiency levels.

ANALYSIS OF THE RESULTS

Objective 1: To evaluate the effectiveness of gamified strategies in improving vocabulary acquisition among A2-level seventh-grade EFL learners.

The diagnostic pre-test (N = 22) produced a mean score of 21.77 points (SD = 3.95) on a 50-point scale, ranging from 17 to 33 points, reflecting a heterogeneous and predominantly low initial level of lexical competence that justified the implementation of gamification as a pedagogical strategy (Table 1). Following the four gamified sessions, the post-test (N = 22) yielded a mean of 42.95 points (SD = 1.33), ranging from 40 to 45 points, corresponding to an increase in average achievement from 43.55% to 85.91% of the total scale.

Table 1.

Descriptive Statistics of Pretest and Posttest, General Score (Score out of 50)

	N	Min	Max	M	SD
Pretest	22	17.00	33.00	21.77	3.95
Posttest		40.00	45.00	42.95	1.33

Note. N = Number of participants; Min = Minimum; Max = Maximum; M = Mean; SD = Standard Deviation.

A Wilcoxon signed-rank test was conducted to determine whether this improvement was statistically significant. All 22 paired differences were positive, ranging from 10 to 26 points, with no student showing a decrease or no change ($W+ = 253$, $W- = 0$). The test confirmed that the increase in vocabulary scores from pre-test to post-test was statistically significant, $Z = 4.09$, $p < .001$, with a large effect size ($r = .87$), calculated using Microsoft Excel. Together, these results confirm that the vocabulary gains observed were both substantively large and statistically robust: every participant improved, and the magnitude of the improvement was consistent across the group rather than driven by a few high-performing students.

Table 2.

Wilcoxon Signed-Rank Test for Pretest–Posttest Differences (N = 22)

N	Positive ranks (n+)	Negative ranks (n−)	Ties	W+	W−	Z	*p*	r
22	22	0	0	253.00	0.00	4.09	< .001	.87

As shown in Table 2, the Wilcoxon signed-rank test revealed a statistically significant difference between pretest and posttest scores, Z = 4.09, p < .001, with a large effect size (r = .87). All 22 participants obtained higher post-test scores, indicating consistent improvement following the intervention.

The largest gains were observed in Speaking/Oral Production (from 36.4% to 98.1%, MD = 8.64) and Grammar and Vocabulary Use (from 37.9% to 90.9%, MD = 6.36), while Vocabulary Recognition and Reading Comprehension improved by a comparable margin (from approximately 50% to 75–77%, MD = 3.09 each), as disaggregated by dimension in Table 3. This pattern is consistent with the individual gains recorded across all four vocabulary domains, confirming that the improvement was broad rather than concentrated in a single skill.

Table 3.

Comparison of Pretest and Posttest by Assessed Dimension

Dimension	N	Pretest				Posttest				MD
		Min	Max	M	SD	Min	Max	M	SD	
Vocabulary Recognition	22	3.00	10.00	6.18	2.02	9.00	10.00	9.27	0.46	3.09
Reading Comprehension		4.00	10.00	5.95	1.53	7.00	10.00	9.05	1.36	3.09
Grammar and Vocabulary Use		1.00	7.00	4.55	1.47	2.00	11.00	10.91	0.29	6.36
Speaking/Oral Production		2.00	8.00	5.09	1.63	13.00	14.00	13.73	0.46	8.64

Note: SD = Strongly Disagree; D = Disagree; A = Agree; MA = Mostly Agree; SA = Strongly Agree; N = Number of responses; % Favorable = Mostly Agree + Strongly Agree.

Together, these results confirm the effectiveness of the gamified strategies in improving vocabulary retention, although achievement did not reach the maximum possible score for any participant, which should be read as evidence of consistent, substantial gains rather than full mastery of the assessed content.

Objective 2: To analyze the influence of gamification on learners' motivation and engagement during English vocabulary instruction in an upper primary EFL classroom.

The 18-item student survey (N = 22) showed a markedly positive perception of the gamified strategies. Items 11, 13, and 15 obtained full agreement (100%), and item 9, reflecting increased effort to learn new words to succeed in the activities, also reached 100% favorable responses. Item 5, concerning encouragement to speak more in English, showed the most varied distribution but still achieved 90.9% agreement; no item fell below this value, indicating a consistently positive perception of the gamified strategies among learners.

The Vocabulary Acquisition section obtained the highest proportion of favorable responses (97.7%), followed by the gamification and vocabulary bridge items (95.5%) and the Gamification section (93.2%), as summarized by section in Table 4.

Table 4. *Weighted Response Distribution of the Student Survey by Section (N = 22)*

Section	SD	D	A	MA	SA	N responses	% Favorable (MA+SA)
Gamification (items 1 to 8)	7	0	5	8	156	176	93.2%
Gamification/Vocabulary (items 9 to 10)	0	1	1	0	42	44	95.5%
Vocabulary Acquisition (items 11 to 18)	0	0	4	24	148	176	97.7%

Note: SD = Strongly Disagree; D = Disagree; A = Agree; MA = Mostly Agree; SA = Strongly Agree; N = Number of responses; % Favorable = Mostly Agree + Strongly Agree.

The high and increasing agreement across the three sections, particularly around vocabulary acquisition, suggests that students' positive perception of the gamified activities extended beyond enjoyment and translated into a sense of learning progress. Together, these results confirm a positive influence of gamification on learners' motivation and engagement.

Objective 3: To determine the influence of gamified activities on the oral vocabulary production and communicative confidence of A2-level seventh-grade EFL learners, as evidenced through teacher observation of classroom performance.

Of the four platforms, Kahoot! produced the best overall results, obtaining the highest average across the three observation dimensions (M = 4.00/4.00), including a perfect score in Vocabulary Acquisition Behaviors, the only platform to do so. Wordwall and Blooket followed with a general average of 3.89, while Quizizz obtained the lowest overall average (3.83), driven largely by a dip in the Speaking Fluency and Communication dimension (M = 3.67), as detailed by dimension and activity in Table 5.

Table 5.

Teacher Observation Averages by Dimension and Gamified Platform (Scale 1 to 4, N = 22)

Dimension	App. 1 Kahoot!	App. 2 Wordwall	App. 3 Quizizz	App. 4 Blooket	General
Engagement with Gamified Activities	4.00	3.83	4.00	4.00	3.96
Vocabulary Acquisition Behaviors	4.00	3.83	3.83	3.67	3.83
Speaking Fluency and Communication	4.00	4.00	3.67	4.00	3.92
Mean per activity	**4.00**	**3.89**	**3.83**	**3.89**	**3.90**

Outside of the Quizizz session, students spoke confidently, answered WH-questions using complete sentences, and initiated short interactions in English without prompting, with fluency and confidence increasing progressively toward the fourth session. The general average across the three dimensions of the checklist reached 3.90 out of 4.00, indicating that the gamified activities were consistently effective at building oral vocabulary production and communicative confidence, with Kahoot! standing out as the strongest platform of the four.

DISCUSSION

Regarding the first objective, to evaluate the effectiveness of gamified strategies in improving vocabulary acquisition among A2-level seventh-grade EFL learners, the study found a significant improvement in students' vocabulary achievement, increasing from a pretest mean of 43.55% to a posttest mean of 85.91% ($Z = 4.09$, $p < .001$, $r = .87$), with all 22 students showing improvement. These results are consistent with Pinta et al. (2024), who found that the use of Wordwall, Kahoot!, Blooket, and Quizizz improved students' vocabulary learning. Similarly, Cuenca and Garaicoa (2026) reported that Kahoot! was effective in improving English vocabulary learning. These similarities support the effectiveness of digital gamification as a strategy for vocabulary instruction. However, since the present study did not include a control group, the improvement cannot be attributed exclusively to gamification.

Regarding the second objective, to analyze the influence of gamification on learners' motivation and engagement during English vocabulary instruction, the survey results showed a positive perception of gamification among the students, with agreement reaching 93.2% in the Gamification section, 95.5% in the Gamification and Vocabulary section, and 97.7% in the Vocabulary Acquisition section. These results are consistent with Esquivel et al. (2021), who found that gamification helped maintain students' motivation and engagement in English classes. Similarly, Chicaiza et al. (2024) reported increased motivation and participation through the use of Kahoot! in

EFL instruction. The present findings therefore show a similar positive effect of gamification on students' motivation and engagement.

Concerning the third objective, to determine the influence of gamified activities on the oral vocabulary production and communicative confidence of A2-level seventh-grade EFL learners, teacher observations showed a high level of oral engagement and communicative confidence, with an overall mean of 3.90 out of 4.00. Kahoot! produced the strongest results, including a perfect score in Vocabulary Acquisition Behaviors. These findings are consistent with Sancar-Tokmak and Bostanci (2025), who found that gamification supported the development of English-speaking skills among elementary learners. Similarly, Cancino and Viguera (2024) reported that gamification improved students' vocabulary self-efficacy. These results suggest that gamified activities can support not only vocabulary learning but also students' confidence when using English orally.

CONCLUSIONS

Regarding the first objective, to evaluate the effectiveness of gamified strategies in improving vocabulary acquisition among A2 level seventh grade EFL learners, the results confirm that the combined use of Kahoot!, Wordwall, Quizizz, and Blooket produced a substantial and statistically significant improvement in vocabulary achievement, with average scores rising from 43.55% to 85.91% of the total scale and with gains recorded consistently across all four assessed dimensions, vocabulary recognition, reading comprehension, grammar and vocabulary use, and speaking and oral production. This outcome supports the conclusion that digital gamification, when integrated into structured, communicative instructional sequences, constitutes an effective strategy for strengthening lexical competence among upper primary EFL learners over a short instructional period. Teachers should integrate gamified tools such as Kahoot!, Wordwall, Quizizz, and Blooket into structured vocabulary lessons to reinforce vocabulary recognition, comprehension, and use.

Regarding the second objective, to analyze the influence of gamification on learners' motivation and engagement during English vocabulary instruction, the student perception survey demonstrated a markedly positive and remarkably consistent response across all measured dimensions, with favorable agreement ranging from 93.2% to 97.7% and with no single item falling below 90.9% agreement. It is concluded that gamification exerted a strong and uniform positive influence on learners' motivation and engagement throughout the intervention, extending beyond simple enjoyment of the activities to a self-perceived sense of vocabulary learning progress, and reinforcing gamification's role as a tool capable of sustaining student interest across an entire instructional sequence rather than only during isolated activities. Teachers should use gamification consistently and vary activities to maintain students' motivation, engagement, and awareness of their vocabulary progress.

Concerning the third objective, to determine the influence of gamified activities on the oral vocabulary production and communicative confidence of A2-level seventh-grade EFL learners, teacher observation data confirmed a consistently high level of oral engagement and communicative confidence across the intervention, with a general average of 3.90 out of 4.00 and with students progressively answering questions, describing images, and initiating short exchanges in English without prompting. Of the four digital resources employed, Kahoot! produced the strongest results for vocabulary acquisition and oral production, achieving the highest average across all three observation dimensions and the only perfect score recorded in Vocabulary Acquisition Behaviors, which suggests that its combination of real-time competitive quizzes, immediate scoring, and leaderboard-based

feedback was particularly effective at reinforcing lexical retention and encouraging spontaneous oral use of the target vocabulary in this context. Taken together, these findings indicate that digital gamification supported vocabulary learning, sustained student motivation, and strengthened oral communicative confidence, highlighting its potential as a practical strategy for upper-primary EFL instruction and warranting further research with larger samples and longer interventions. Teachers should prioritize gamified activities that promote oral interaction, especially Kahoot!, while incorporating short speaking tasks to strengthen students' vocabulary use and communicative confidence.

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CONFLICTO DE INTERÉS:

Los autores declaran que no existen conflicto de interés posibles

FINANCIAMIENTO

No existió asistencia de financiamiento de parte de pares externos al presente artículo.

NOTA:

El articulo no es producto de una publicación anterior.