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Contextualised Game-Based Learning and Its Effects on Motivation and Classroom Engagement in Rural EFL Contexts

Ivanna Pamela Barre Parrales*

Student at Eloy Alfaro University, Manabí-Ecuador, Master's in English Language Teaching

https://orcid.org/0009-0007-0932-2785

Cintya Maribel Zambrano Zambrano

MSc. Research Professor at Eloy Alfaro University, Manabí-Ecuador, Major in English Language Teaching

https://orcid.org/0000-0002-0129-9134

***Corresponding authors:** *ivanna.barre@pg.uleam.edu.ec.*

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Abstract: This study evaluates the effect of contextualised Game-Based Learning on students' motivation and classroom engagement within a rural English as a Foreign Language (EFL) context. Conducted in a resource-constrained school in Manabí, Ecuador, the research addresses affective barriers to language acquisition. Utilising a mixed-methods, pre-experimental single-group design, data were collected from 22 students and 3 English teachers over an academic year. The intervention integrates the EFL curriculum with local agricultural practices and traditions through non-digital game mechanics, including physical challenges, team missions, and role-play. Quantitative results indicate a significant improvement in academic performance with a mean increase of 1.51 points ($p < 0.001$), accompanied by a measurable rise in active classroom engagement metrics. Qualitative findings confirm that contextualising these activities reduced language anxiety and fostered intrinsic motivation by aligning target-language use

with students' immediate reality. The study concludes that contextualised Game-Based Learning provides an efficient and sustainable pedagogical strategy to optimise both engagement and affective motivation in rural environments.

Keywords: Game-based learning, rural education, EFL, affective motivation, local contextualization, low-resource settings.

Introduction

Learning English as a foreign language (EFL) is fundamental in today's globalised world, where it is widely acknowledged as a key driver of career advancement, academic mobility, and access to specialised knowledge (Dörnyei, 2009). However, putting this global mandate into practice in various local contexts presents significant challenges. This study is based on a practical issue observed in resource-limited zones, particularly in Manabí, Ecuador, where EFL learners frequently exhibit a persistent and detrimental lack of motivation. This motivational deficiency aligns with their limited exposure to the target language outside the classroom, directly contributing to systematic student disengagement. The Ministry of Education of Ecuador, through its English Language Strengthening Program, establishes proficiency levels aligned with international standards for language learning (Ministry of Education of Ecuador, 2021). However, in practice, these standards do not always reflect the actual conditions of all educational contexts, where structural and resource constraints hinder linguistic achievement.

The study implements a pedagogical model that incorporates locally contextualised, game-based activities and examines their effects on students' communication and engagement in the classroom. A pre-experimental, single-group pretest-posttest design was deployed by combining non-digital game mechanics designed to enhance behavioural engagement with local cultural contextualization. The intervention sought to lower affective barriers. Finally, a paired-samples *t*-test was utilised to assess the statistical significance of the observed empirical variances following the instructional intervention.

Research Problem

Addressing the ongoing lack of motivation and disengagement among teenage EFL learners in rural areas is urgent. While the Ministry of Education sets standardised proficiency levels, these benchmarks often fail to account for the structural constraints of resource-poor settings.

On a scientific level, this research provides empirical data on motivational dynamics under resource constraints, a context frequently overlooked by studies that primarily focus on digital game-based learning. It addresses a significant gap by demonstrating that non-digital games can greatly improve student performance and active participation.

Research Aim and Research Questions

This research aims to evaluate the effect of contextualised Game-Based Learning on students' motivation and classroom engagement within a rural English as a Foreign Language (EFL) context in Manabí, Ecuador.

The following research questions guide this study:

1. What is the effect of contextualised game-based learning on middle school EFL students' motivation and classroom engagement in a rural context?
2. How do students' motivation and classroom engagement manifest during the implementation of contextualised game-based learning?

3. How do teachers in rural EFL settings perceive the contextualised game-based learning?

Literature Review

The motivational Framework: From Utility to Identity in Rural EFL

In the field of Second Language Acquisition, a central challenge lies not only in fostering linguistic competence but, more fundamentally, in supporting the affective factors that promote learning. Motivation, recognised as a crucial indicator of student effort and persistence, has been decisively established as the central factor of success in English as a Foreign Language (EFL) environments. This explanation is crucial for rural regions, where the lack of direct interaction with the language demands a strong internal drive to maintain active participation.

Within the multiple motivational perspectives, the "Instrumental Motivation" is defined as the interest in learning English for clear, particularly professional development or career progress. This is commonly considered a significant and powerful factor in persistence, especially in traditional learning environments.

The key finding of this study is that functional orientation requires effort, corroborating the finding that learners who recognised high utility in the language excerpt exhibited more self-regulation (Aspuri et al., 2019). For the present research, it is proposed that if learners in middle education in rural areas do not identify a practical use for English, their commitment will inherently decrease.

However, converting this instrumental value into tangible, local importance persists as a substantial pedagogical challenge. Qualitative research demonstrates that even high schools' learners that are advanced in languages face difficulties to identify the true authentic significance of English or first-language speaker standards. This research highlights a reflective gap between global usage and local pedagogical practice, reinforcing the need for educators to unequivocally demonstrate the immediate value of English (Yücedağ, 2019). This gap validates the intervention design, which aims to use gamification to bridge the distance between the ideal English and the learner's daily reality.

It is important to mention that the theoretical framework is substantiated by conceptual perspectives that clarify and determine the human engagement. This research is aligned with the "Self-Determination Theory" and "Expectancy-Value Theory"; therefore, when the information is analysed in depth, it highlights the synergy of motivational constructs (Bandhu et al., 2024).

These theories provide information that explains the value and expectations of autonomous motivation and outlines methods to foster its development. This premise reinforces that implementing the utility value in English classes through game-based learning activities is indispensable for sustaining long-term motivation among language learners.

These constructs converge in the L2 motivation Self System (L2MSS), that has been employed to examine how the learner's perception of English influence and effect their motivational learning contexts. Within these theoretical lenses, it is crucial to note that the ideal L2 Self (the internal driver of motivation) and the perception of teacher support are considered the most compelling precursors of participation and value among learners in rural secondary schools (Cavenaghi et al., 2013).

The validity of these conceptual frameworks leads to the ability to link identity with class dynamics, and a substantial Ideal L2 Self incorporates a direct and meaningful correlation with high Willingness to communicate ideas and perceptions (Safranj et al., 2021). Thus, this research introduces a framework that consolidates the learner's ability to navigate the traditional limitations of communication anxiety and optimise the efficacious experience in a rural English Classroom.

The nexus among the L2 Motivational Self System and Game-based pedagogical interventions offers a development trajectory for the education of learners who are in difficult areas and have a lack of resource settings. While instrumental utility continues to function as a fundamental determinant of engagement, it is the acquisition of vivid Ideal L2 Self-support through culturally receptive, interactive games aligned with the mechanics that guarantee long-term determination and reduce communicative anxiety and apprehension.

Rural School Context

The geographic socioeconomic landscape of the rural school is of gradual concern, that's why learners face continuous challenges throughout the time they acquire a new language, especially in rural areas, as a result, students perceive English as irrelevant and associate it as unnecessary for them in the future. Rahmat & Akbar (2019).

Rahmat & Akbar (2019) claim that learners in complicated contexts face problems related to identity and disengagement. A crucial analysis of motivational barriers among rural and urban learners, grounded in Garner's socio-economic framework, reveals that rural students exhibit lower motivation in specific aspects. This deficit is directly attributed to minimal exposure to language and to exchanging ideas; as a result, learners have a low perceived utility of English in their immediate context.

These circumstances are deeply rooted in Ecuador's education system, directly affecting students from rural areas. According to a comparative study conducted by Andrade-Molina et al. (2021) in rural areas and urban contexts of Ibarra and Atuntaqui, statistics show that students in rural areas have a different perception of the importance of English as a foreign Language.

Furthermore, qualitative literature examining rural settings emphasises that systematic barriers and low motivation are endemic, necessitating a localised, resource-sensitive teaching model (Lopèz-Obregòn & Rodas-Auquilla, 2022). In addition, the analysis by Echzarra & Radinger (2019) indicates that students often feel disconnected due to lower educational expectations and a lack of specialised staff, which further negatively affects their "Ideal L2".

Addressing this motivational and educational gap requires more than just standard execution; it requires a change in how education is managed in rural areas and the implementation of activities that motivate students to learn English. As Cuong (2021) posits, Educational interventions should generally be situated in local contexts, integrating students' integrity and identity into their learning process, to mitigate the tendency of materials to focus on an urban context far removed from the realities learners face daily.

In summary, the geographical isolation these students feel in classroom dynamics, coupled with a lack of motivation, is an ongoing barrier in traditional EFL methods, preventing meaningful learning. This systematic gap highlights the critical need for creative teaching methods that rely on contextual and psychological relevance rather than high-tech resources. In order to investigate how game-based learning, grounded in the local rural environment, may turn this perceived lack of value into active, emotive engagement within the rural school classroom, the current study goes beyond traditional education.

Game-Based Learning in Low-Resource Settings

It is crucial to note that the implementation of game-based learning must be grounded in resources that are suitable and accessible to students in their area. This requires careful planning based on meaningful experiences that do not depend exclusively on technological resources but rather focus on context. The literature argues that the success of game-based learning intervention does not depend exclusively on "superficial" elements such as badges, points, etc., but rather on satisfying the need to generate challenges that highlight the relevance of English in the student environment (Botra et al., 2014).

This approach is offered as a crucial tactic to improve English language instruction in Ecuador, enabling learning to be tailored to the emotive requirements of rural pupils. (Cantos Villao & Inzhivotkina, 2026).

An important part of ensuring that educational intervention is successful and properly integrated is the use of "local wisdom" in the mechanics of the game.

According to Patras et al. (2023), public schools use a learning model that has a greater impact on students when it is aligned with their cultural values, thereby avoiding "empty" learning. This idea of "culturally responsive game-based learning" proposes aligning games so that they have an identity, thereby activating a psychological commitment in the learner and promoting educational equity. (Hammed et al., 2025). In this way, game-based learning of a foreign language. (Hippler & Suntrayuth, 2015).

At an empirical level, evidence from Latin America supports the fact that game-based learning significantly increases task engagement and intrinsic motivation (Araya et al., 2019). It is important to mention that gamified assessment tools are accessible and adaptable, allowing students to progress accurately and avoiding the stress associated with formal, rigid assessment. (Bhaynani et al., 2019). Specifically, in the field of English as a Foreign Language (EFL), the use of these tools favours vocabulary and language acquisition and strengthens students' affective attitudes in rural areas (Liu et al., 2025). These results align with studies from the province of Manabí, which demonstrate that game-based learning fosters an engaging atmosphere that improves academic achievement by helping students overcome indifference (Intriago-Cobeña et al., 2024).

However, there are significant obstacles in rural areas in Ecuador, such as inadequate infrastructure and a lack of prepared teachers (Basantes Vinueza et al., 2024). Game-based learning plays a crucial role and could transform the way rural education is viewed from the perspective of low-income students, as it "unlocks potential" and reinforces their autonomy and confidence. (Mbukanma et al., 2024). By motivating the "player", progress is achieved that transcends the technological limitations of the classroom, in addition to giving the language social recognition and meaningful learning. (Sanmugam et al., 2016). As a result, creating a gamified evaluation for the rural school makes sense as a powerful teaching tool. (Uchima-Marin et al., 2025). Oriented toward measuring and enhancing the affective motivation of students within their own context.

Materials and Methods

This study employed a mixed-methods approach with a pre-experimental single-group pre-test and post-test design. It measured changes in student communication, competencies, and classroom engagement during the intervention through a pre-test and post-test. A systematic classroom observation tracked ongoing changes throughout the academic year, thereby demonstrating the difference in motivation and learning. Additionally, semi-structured interviews were conducted with professionals specialising in the teaching of English as a foreign language who have experience in both areas (EFL); this helps contextualise the motivational gap between urban and rural settings. This design allows for an analysis of how game-based learning consistently influences students' motivation and highlights the results and achievements obtained after the educational intervention.

Sample and Participants

The target population consists of a group of middle school students aged 13-14 from a rural school in Manabi, Ecuador, that faces limited technological and educational resources; furthermore, students in this area have minimal exposure to and interaction with English. For this reason, a purposive sampling strategy was used, and an entire class of 22 students was selected to carry out the intervention appropriately and obtain the expected results. In addition, three English teachers participated in semi-

structured interviews. They have experienced working in rural or non-urban educational contexts and teaching in resource-limited settings, providing insights into classroom realities and pedagogical practices in these environments.

Instruments and Procedure

Pre-Test and Post-Test. - To measure the academic impact of the intervention, a pre-test and post-test design was implemented. The pre-test was administered before the intervention to establish a quantitative baseline of students' competency. Both instruments used identical criteria to ensure internal validity and metric consistency. It was necessary to ensure that the subsequent paired-samples t-test measured the effect of the instructional intervention on academic performance. While the primary function of these tests was cognitive assessment, they were accompanied by a structure evaluation rubric designed to quantify observable metrics of active participation and collaborative engagement.

Observation Checklist - This instrument was designed to observe student responses to the educational intervention within their rural context, measuring active participation, collaborative work, motivation and engagement. Ultimately, this tool evaluates learners' behavioural patterns and the depth of their involvement during instructional activities.

Semi-structured interviews. - These interviews were conducted with the participating English teachers to get qualitative data regarding the pedagogical realities of the rural intervention setting. This instrument was selected to systematically assess teachers' experiences while maintaining the flexibility to identify unanticipated constraints in EFL instruction.

An experimental study concluded that by focusing on content relevance and aligning it with students' learning objectives and real-life situations, it is possible to predict significantly greater effort and motivation in learning (Frymier & Shulman, 1995). In this study, gamification serves as a framework that transforms static materials, aligning them with the realities learners face in their daily lives.

In line with this evidence, Schoenherr (2024) argues that motivation should be fostered by introducing English as a foreign language into students' daily lives, using game-based approaches tailored to a rural, non-technological educational context. Several rigorous studies have shown that personalised gamified instruction involves students solving everyday problems within a competitive and collaborative game-based structure, which significantly increases perceived utility and self-efficacy.

As a result, incorporating context-specific activities into a gamified evaluation validates this method as an appropriate teaching strategy for increasing perceived relevance. There are two goals for this game-based learning intervention:

To strengthen the Ideal L2 Self through gamified immersion, students can experience themselves as proficient English speakers in situations they are familiar with through context-based gaming elements.

To increase Willingness to Communicate via low-stakes competition: By creating a sense of safety within the game environment, this decreases "Affective Filters" and creates the desire, resulting in increased participation in classrooms.

Finally, this study followed a systematic chronological sequence to ensure reliability and was structured into three strategic stages during the academic year.

1.- Pre-Intervention stage: At the start of the school year, a baseline was established using a dual-instrument approach to ensure academic rigour and construct validity to identify the English level of the students. A standardised test, adapted from validated Cambridge databases and aligned with the Common

European Framework of Reference for Languages (CEFR), was administered to evaluate foundational language knowledge. The speaking rubric was implemented to assess oral production and interaction, providing a structured measurement of communicative competence that a multiple-choice test cannot capture. The assessment was conducted in a low-pressure environment to ensure that students' performance accurately reflected their actual abilities before the intervention.

2.- Intervention Stage. - Following the diagnostic phase, the pedagogical intervention was implemented throughout the academic year, which consisted of three academic partials. In each of these academic partials, four instructional sessions were conducted, each lasting two 45-minute class periods. The intervention was structured progressively and integrated into the teaching units, combining contextualised, game-based activities, workshops and collaborative tasks to support language development.

Partial 1.- During the first partial, corresponding to units 1-4, the intervention was implemented at the beginning of each instructional unit. In this phase, learners were gradually introduced to language elements that enable basic interaction and classroom participation with an emphasis on lexical strengthening through communicative and contextualised activities that facilitated comprehension.

Partial 2.- In the second partial, corresponding to units 5-8, the activities promoted greater student interaction and the application of previously acquired knowledge in more meaningful and collaborative contexts. Emphasis was placed on improving fluency, participation and the use of language for communication in structured tasks using strategies that supported comprehension and retention through the English language learning process.

Partial 3.- During the third partial, corresponding to Units 9-12, the intervention aimed to consolidate and extend students' communicative abilities through more complex, context-driven and collaborative activities, encouraging greater autonomy and effective classroom interaction.

Across all stages, the intervention was reinforced throughout each unit through workshops, games, and classroom activities. Each session included brief feedback at the beginning and guiding questions related to the topic, promoting active engagement. While vocabulary served as initial support due to students' proficiency level in this context, it functioned as a means to gradually develop broader communicative competence rather than as the sole focus of instruction.

Subsequently, an initial pedagogical intervention was implemented. This phase comprised the continuous application of a relevance model rooted in game-based learning, in which the researcher utilised diverse games and contextualised curricular adaptations focused on the rural context. These activities were categorised into three main approaches:

Table 1

Categorisation of Contextualised game-based activities.

Activity Category	**Description and Dynamics**	**Pedagogical Objective in the rural context**	**Examples**
Competitive Challenges	Quiz-style games adapted to the learners` local context.	To encourage active participation and faster a spirit of healthy competition with minimal risk.	Quiz game using questions about familiar topics like school, community life or team-based board race where students answer prompts to move forward on a game board.
Collaborative Missions	Task-based games where students work in teams to	To foster meaningful learning based on the	"Treasure hunt" activity around the classroom or school to find hidden cards that represent diverse elements of rural identity, these

	solve real-world problems.	specific rural context of the school.	include traditional festivities and daily household tools and requires students to solve a linguistic riddle in English that connects the vocabulary with their reality.
Role-Playing Scenarios	Simulations of interactions where students use English in familiar situations.	To reinforce language acquisition through engagement with local community traditions and regional tourism.	A tourist-guide simulation where students describe local landmarks such as the church, central plaza and a marketplace game for practicing transactions. To ensure relevance, students "buy/sell" familiar items like seasonal fruits, regional snacks etc. This allows them to use functional phrases, connecting language to their daily reality.

The pedagogical design of these activities followed a context-aware game-based learning model. By incorporating competitive challenges, the intervention aimed to reduce the emotional barriers for learners in the rural community, enabling them to connect with English through recognisable local references. Additionally, the collaborative missions and role-play scenarios were designed to shift from passive to active language production. These missions involved students addressing issues in their immediate environment, such as local tourism and traditions, thereby making the language-learning experience both significant and culturally pertinent.

3.- Post Intervention Stage. - Upon completion of the academic year, the final evaluation phase was conducted. This stage involved administering the gamified Final exam, supported by a rubric used to assess students' overall performance, including content, understanding, ability to respond to questions, interaction, and participation. This instrument measured the final impact on learning outcomes and academic competencies. Simultaneously, semi-structured teacher interviews were conducted to provide expert perspectives that contextualised the observed results and supported the model's relevance to the rural motivational gap.

Data Analysis

The data analysis operationalised a mixed methods framework to triangulate the findings. The quantitative component processed pre-test and post-test performance scores using descriptive statistics, calculating means and standard deviations. Subsequently, inferential statistical analysis, utilising a paired-samples *t*-test, was applied to determine the statistical significance of the academic variance observed following the pedagogical intervention.

Currently, the quantitative data from the classroom observation checklist and semi-structured interviews are undergoing thematic analysis. This procedure involved systematically coding the narrative and observational records to extract and categorise recurrent patterns related to affective motivation, language anxiety, and active classroom engagement within the rural setting. Finally, this analytical integration enabled the quantitative performance metrics to be cross-validated against the participants' observed behavioural tendencies and experiential realities.

Results

This section presents the findings obtained from the implementation of a contextualised game-based learning in a rural setting. The research was conducted with a group of 22 students throughout the academic year, allowing the researcher to organise the instruments. The results are organised based on data collection using quantitative and qualitative instruments, including pre-test and post-test, observation sheets and semi-structured interviews.

The purpose of this section is to highlight changes in academic performance as well as in students` levels of motivation, engagement, and participation throughout the intervention. This study presents numerical results, observational and testimonial evidence and a comprehensive overview of the impact of game-based learning in a rural educational context.

Pre-test and post-test Results

To analyse the impact of the intervention based on contextualised game-based learning, a systematic comparison was conducted between the pre-test and post-test results.

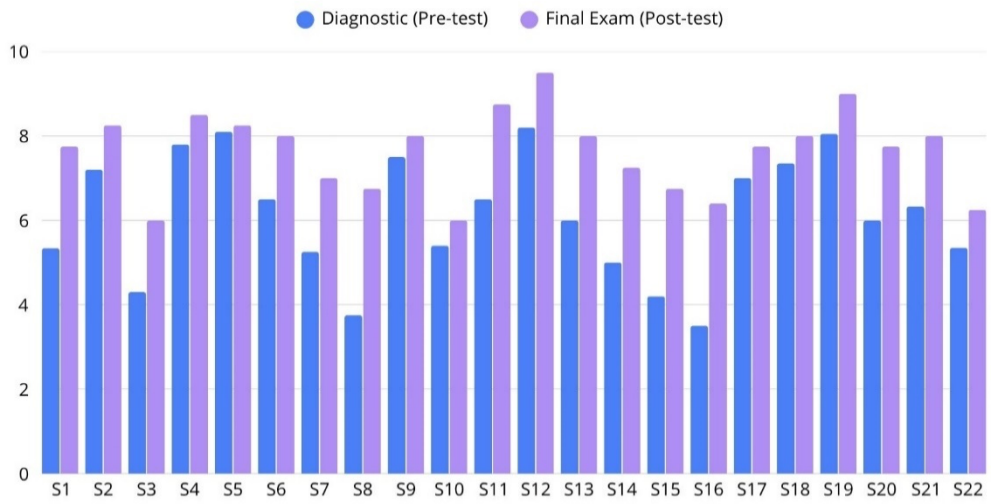
The scores obtained in both evaluations were operationalised using an identical 10-point assessment scale, establishing an objective metric to quantify structural shifts in student academic performance and target-language communicative competencies. Beyond indexing cognitive gains, these statistical variations serve as cross-validated indicators of broader affective and behavioural changes, primarily in classroom engagement and learner motivation.

Consequently, the empirical tracking data provide a robust quantitative foundation to map individual trajectories across the instructional lifecycle.

Figure 1 illustrates the comprehensive individual student tracking, comparing diagnostic pre-test scores against the final post-test examination for all 22 participants (S1 to S22) on the established 10-point scale.

Figure 1

Comparison of pre-test and post-test results.



The individual graphical representation reveals an overall improvement in students' communicative skills following the implementation of the contextualised game-based learning intervention. At the group level, it is observed that most of the students increased their post-test scores compared to the pre-test, demonstrating positive changes in motivation, classroom engagement, collaborative work and active participation. Specifically, students who initially exhibited critical baseline deficiencies, such as S1, S8, S15 and S16, achieved significant statistical increases in their final results.

Table 2

Pre-test and Post-test results

Students	(Pre-test)	(Post-test)	Difference
S1	5.34	7.75	**+2.41**
S2	7.20	8.25	+1.05
S3	4.30	6.00	+1.7
S4	7.80	8.50	+0.7
S5	8.10	8.25	+0.15
S6	6.50	8.00	+1.5
S7	5.25	7.00	+1.75
S8	3.75	6.75	**+3**
S9	7.50	8.00	+0.5
S10	5.40	6.00	+0.6
S11	6.50	8.75	+2.25
S12	8.20	9.50	+1.3
S13	6.00	8.00	+2
S14	5.00	7.25	+2.25
S15	4.20	6.75	**+2.55**
S16	3.50	6.40	**+2.9**
S17	7.00	7.75	+0.75
S18	7.35	8.00	+0.65
S19	8.05	9.00	+0.95
S20	6.00	7.75	+1.75
S21	6.33	8.00	+1.67
S22	5.35	6.25	+0.9

Table 3

Descriptive Statistics of Academic Competences

Measure	Diagnostic (Pre-Test)	Final Exam (Post-Test)
Mean	**6.12**	**7.63**
Minimum	**3.50**	**6.00**
Maximum	**8.20**	**9.50**
Std. Deviation	**1.44**	**0.97**

According to Creswell (2014), descriptive statistics such as the mean, minimum, maximum and standard deviation are essential for understanding changes in students' performance after the intervention. In this study, the results show a clear improvement following the game-based learning strategy. The mean score increased from 6.12 in the diagnostic test to 7.63 in the final exam, indicating overall academic progress. The minimum score rose from 3.50 to 6.00, suggesting that lower-performing students improved significantly. Similarly, the maximum score increased from 8.20 to 9.50, reflecting continued advancement among higher-achieving students. In addition, the standard deviation decreased from 1.44 to 0.97, indicating less variability and more consistent performance on the post-test. These

findings suggest that game-based learning positively affects students' learning outcomes in this rural educational context.

According to Field (2018), the *t*-test is used to determine whether there is a meaningful difference between two sets of scores, particularly in pre-post intervention studies. To further support these findings, a paired-samples *t*-test was conducted to compare pre- and post-test scores. The inferential analysis revealed that academic improvement was statistically significant, t (21) = 8.64, $p < 0.001$, indicating that the observed progress is highly unlikely to be due to chance. Furthermore, the analysis yielded a Cohen's d of 1.84, indicating an extremely large effect size that confirms the substantial practical impact of game-based intervention on the students' learning outcomes.

Observation Rubric Results

To explore the qualitative dimension of the study and understand the attitudinal factors that drove academic performance, an observation checklist was applied. This instrument, validated based on criteria of relevance, clarity, and theoretical alignment, assessed seven key indicators, including active participation, collaborative work, motivation, and engagement. Data were collected using a frequency scale (1: Never, 4: Always) to measure students' responses to the intervention in the rural school context.

Table 4

Consolidated results of the Observation Rubric

Dimension	Pedagogical/Behavioral indicator	Predominant Level
Contextualized Game-based learning.	Gamification dynamics (points, levels, challenges) are applied effectively.	Frequent
	Teaching resources and activities connect English to the rural context.	Sporadic
Extrinsic Motivation	Game-based learning rewards (badges, point systems) are used as stimuli.	Frequent
	Healthy competition and sense of achievement are promoted.	Sporadic
Utility Value	Students find personal meaning by applying English to their rural context.	Moderate
	Students show enjoyment when solving real-world problems.	Frequent
	Reduction in anxiety and increase in willingness to communicate.	Frequent

According to Deterding et al. (2011), gamification involves using game elements to enhance engagement and motivation in educational contexts. In line with this perspective, the observation checklist results show that gamification was implemented with varying degrees of consistency. The dimension of contextualised gamification, game dynamics such as points, levels and challenges were frequently applied, indicating effective integration into classroom practices. Nonetheless, the link between educational resources and the rural setting was only occasional, indicating that this element could be enhanced further.

In terms of motivation, the use of rewards such as badges and points was noted frequently, indicating that external motivators were regularly employed to engage students. However, the encouragement of positive rivalry and a sense of success seemed less consistently applied, indicating a potential area for improvement in enhancing student motivation and involvement.

Finally, in terms of usefulness, students showed a moderate to high level of engagement. While their perception of the personal relevance of English in their rural context was moderate, students frequently enjoyed solving real-world problems. Additionally, a clear decrease in language anxiety and an increase in willingness to communicate were observed. This shows the positive emotional and communicative effects of game-based learning.

Interviews Analysis Results

To examine experts' perceptions, a qualitative analysis based on semi-structured interviews was conducted. To ensure scientific rigour and transparency in interpreting the data, a descriptive coding process was employed. This procedure enabled the organisation of the teachers' testimonies and direct experiences into thematic categories aligned with the study's objectives.

The following table (Table 5) illustrates the progression of this analysis, presenting the transition from the original narrative excerpts in perception codes that support the findings on student motivation and engagement in the rural context.

Table 5

Evolution of the coding analysis process.

Expert	Initial Theme	English Translation/Quotes	Perception Code
Interviewer 1	**Motivational Gap**	"Students do not perceive English as useful for their immediate future due to the isolated rural environment"	***Lack of Relevance***
Interviewer 2	**Active Learning**	"Physical competition games are used……the lesson is transformed from passive to active"	***Kinesthetic Engagement***
Interviewer 3	**Affective Filter**	"By mastering vocabulary about what they already know….the affective filter drops"	***Anxiety Mitigation***

According to Dörnyei (2020), learners' motivation is strongly influenced by the perceived relevance of the learning context. In this regard, the interview findings exposed an important motivational gap among students in rural settings. One expert noted that learners do not perceive English as useful for their immediate future because of the isolated nature of their environment, which limits their commitment to the language. This lack of relevance suggests that contextual factors play a key role in shaping students` attitudes and willingness to learn.

Additionally, the interviews highlighted the importance of active and emotionally supportive learning environments. Experts highlighted that incorporating competitive physical games transformed lessons

from passive to dynamic activities, enhancing student involvement through movement-based interaction. Additionally, when learners encountered familiar terms related to their own backgrounds, such as farming or tourism, they felt more self-assured. These results underline the significance of combining engaging methodologies with relevant material to boost both enthusiasm and emotional connections in language acquisition.

Finally, the triangulation of quantitative, observational and qualitative data confirms the overall effectiveness of game-based learning intervention. The statistical results showed a significant improvement in students' performance, with the mean increasing from 6.12 to 7.63 and a statistically significant difference confirmed by the t-test ($p < 0.001$). These findings are supported by the observation checklist, which indicated frequent use of game-based learning elements, increased student engagement, reduced anxiety and greater willingness to communicate. Together with the interview data, these results demonstrate that game-based learning, when combined with contextual relevance and active learning strategies, positively impacts students' academic performance and motivation in rural educational contexts.

Discussion

The findings from the study show that contextualised game-based learning is essential for reducing affective barriers to learning English in rural educational settings. The quantitative measures indicated a significant academic improvement of 1.51 points ($p < 0.001$), but conceptual progress is primarily driven by a notable enhancement in students' emotional motivation. The pedagogical design of the English activities, by incorporating familiar elements of agriculture and local traditions, successfully validated Dörnyei's (2009) perspective that connecting target-language content with learners' immediate social background is a primary driver of classroom engagement. Furthermore, these findings reinforce prior documentation of motivational disparities between rural and urban sectors (Rahmat & Akbar, 2019) and validate Frymier and Shulman's (1995) assertion that a meaningful didactic link was established between complex grammatical structures and the students' daily socioeconomic reality.

Systematic records of changes in observable behaviour were collected during the intervention phase to document increased motivation. Direct classroom observations provided qualitative insights into a substantive shift in students' behavioural patterns, with participants transitioning from passive listeners to active contributors. This behavioural shift corresponds directly to Krashen's (1989) Affective Filter Hypothesis; specifically, non-digital game mechanics such as physical missions and interactive role-playing tended to reduce students' communicative anxiety and create a secure environment for oral production. The cooperative and goal-oriented nature of these tasks also contributed to students' feelings of autonomy and daily engagement in lessons, providing empirical evidence that supports the foundations of Deci and Ryan's (2000) Self-Determination Theory. These same qualitative instances of student behaviour are consistent with findings from other low-resource educational environments (Araya et al., 2019; Liu et al., 2025), affirming that basic game-based strategies can fundamentally alter how students interact in the standard classroom environment without advanced technological resources.

Data gathered from semi-structured interviews reveal that rural EFL instructors attribute the intervention's success primarily to the program's culturally responsive nature. Specifically, teachers stated that integrating students' local traditions into the curriculum effectively mitigated the complete lack of digital infrastructure. This perspective supports Lave and Wenger's (1991) situated learning theory, which suggests that meaningful knowledge acquisition inherently depends on maintaining authentic contextual connections to that information, an assertion that remains highly relevant in contemporary low-resource educational evaluations (Patras et al., 2023). However, the educators emphasised that developing these localised materials demands a significant departure from traditional lesson planning. Consequently, while

game-based learning represents an operationally viable approach to enhancing both motivation and academic performance in under-resourced EFL settings, its long-term sustainability will heavily rely on institutional support systems that enable rural teachers to systematically align the standardised national curriculum with local contexts.

Limitations

Although the findings demonstrate substantial pedagogical and motivational gains, certain limitations must be acknowledged. First, the utilisation of a pre-experimental, single-group design lacks a counterfactual control group, which limits the ability to fully isolate threats to internal validity from history and maturation. Second, the small sample size *(n=22)* drawn from a single intact classroom restricts the immediate generalizability of the outcomes to broader rural or urban educational populations. Finally, the single-group pre-test-post-test structure introduces potential testing effects, as familiarity with the initial evaluation instruments may influence performance on subsequent summative assessments. Future longitudinal research incorporating a multi-school comparison group is required to fully validate the scalability of this contextualised model.

Conclusions

In conclusion, the outcomes of this investigation demonstrate that Contextualised Game-Based Learning is a highly effective pedagogical approach in low-resource rural EFL classrooms.

By utilising analogue game mechanics, such as goal-driven challenges and situational role-plays connected to the students' immediate environment, the instructional progress was effectively shifted toward a dynamic, student-centred paradigm. Within this secure educational framework, linguistic errors ceased to be perceived as punitive failures, allowing learners to embrace them as an organic component of language acquisition, which significantly boosted voluntary classroom involvement compared to conventional practices. Furthermore, the quantitative progression in academic performance, evidenced by a significant increase in the mean score of 1,51 points, empirically validates the model's capacity to minimise existing learning blockages.

Another substantial takeaway, aligning pedagogical practices with the students 'direct realities, fundamentally alleviated language apprehension while reinforcing internal motivation. Integrating themes centred on local agricultural traditions, familial routines, and daily community activities rendered English instruction deeply purposeful and contextualised. Consequently, learners developed greater self-confidence and autonomy.

These insights strongly imply that EFL programs in vulnerable areas must recalibrate curriculum design to prioritise regional relevance over standardised, generic global textbooks. Ultimately, this study confirms that the efficacy of game-based learning is anchored in thoughtful instructional design and cultural synchronisation rather than digital infrastructure. Capitalising on local identity through well-structured game mechanics provides a highly pragmatic, economically accessible and sustainable pathway to elevate both student engagement and academic achievement in rural educational settings.

Suggestions for future research

First, future research should expand its scope by using larger sample sizes that include multiple rural schools across various geographic regions. Broadening the participant base would allow researchers to evaluate how distinct regional identities, local dialects and agricultural traditions, when integrated into game mechanics, influence student vocabulary acquisition and classroom engagement. This would help validate the adaptability beyond a single community.

Second, it is highly recommended that future research focus on the design and evaluation of specialised teacher-training frameworks and institutional support systems. Given that rural instructors face significant preparation hurdles in adapting standardised curricula to local contexts, future studies should explore practical administrative strategies to streamline the process. Investigating collaborative teacher networks could provide sustainable solutions for sharing localised EFL materials.

Finally, future works should explore how to gradually blend these successful analogue game mechanics with accessible, low-cost digital tools. Researching a hybrid pedagogical approach could help prepare resource-constrained classrooms for future technological integration. The goal of these future studies should be to find a balance that introduces digital literacy while maintaining the deep cultural alignment that drives students` intrinsic motivation and self-expression.

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References

Andrade-Molina, C., Bastidas-Amador, G., Fabre-Merchan, P., & Portilla-Torres, G. (2021). Comparative study of English language learning motivation of senior high school students in rural and urban contexts of Ibarra and Atuntaqui. *Universal Journal of Educational Research.* https://doi.org/10.13189/ujer.2021.090405

Araya, R., Arias Ortiz, E., Bottan, N. L., & Cristia, J. P. (2019). *Does Gamification in Education Work?: Experimental Evidence from Chile*. Inter-American Development Bank. https://doi.org/10.18235/0001777

Aspuri, N., Samad, I. A., Fitriani, S. S., & Abdul Samad, N. M. (2019). The role of instrumental motivation among EFL students in the language learning process. *Journal of English Education*, *4*(1), 48–53. https://doi.org/10.31327/jee.v4i1.892

Bandhu, D., Mohan, M. M., Nittala, N. A. P., Jadhav, P., Bhadauria, A., & Saxena, K. K. (2024). Theories of motivation: A comprehensive analysis of human behavior drivers. *Acta Psychological, 244, 104177.* https://doi.org/10.1016/j.actpsy.2024.104177

Basantes Vinueza, B. D. C., Carvajal Peñafiel, V. A., Travez Osorio, S. E., & Jiménez Zambrano, B. A. (2024). Gamificación: Capacitación y popularidad; desafíos en su implementación en el aula de instituciones educativas en las zonas rurales de Ecuador. *Explorador Digital*, *8*(4), 32–45. https://doi.org/10.33262/exploradordigital.v8i4.3221

Bhavnani, S., Mukherjee, D., Dasgupta, J., Verma, D., Parameshwaran, D., Divan, G., Sharma, K. K., Thiagarajan, T., & Patel, V. (2019). Development, feasibility and acceptability of a gamified cognitive Developmental assessment on an E-Platform (DEEP) in rural Indian pre-schoolers a pilot study. *Global Health Action*, *12*(1), 1548005. https://doi.org/10.1080/16549716.2018.1548005

Botra, A., Rerselman, M., & Ford, M. (2014). Gamification beyond badges. *2014 IST-Africa Conference Proceedings*, 1–10. https://doi.org/10.1109/ISTAFRICA.2014.6880651

Cantos Villao, N. C., & Inzhivotkina, Y. (2026). Gamification as a strategy to strengthen online English education in rural areas in Ecuador. *Multidisciplinary Collaborative Journal*, *4*(1), 13–21. https://doi.org/10.70881/mcj/v4/n1/106

Cavenaghi, A R. A., Bzuneck, J. A., & Rufini, S. È. (2013). Adolescents' motivation and their perceptions of learning contexts of foreign language. Estudios de psicologia (Campinas), 30(3), 345-354. https://doi.org/10.1590/S0103-166X2013000300004

Creswell, J. W. (2014). Research design: Qualitative, quantitative and mixed methods approaches (4th ed). SAGE Publications.

Cuong, P. H. (2021). English Language Education in Rural Areas: Current Issues, Complexities and Ways Forward. *VNU Journal of Science: Education Research*, *37*(4). https://doi.org/10.25073/2588-1159/vnuer.4538

Deci, E. L., & Ryan, R. M. (2000). The "What" and "Why" of Goal Pursuits: Human Needs and the Self-Determination of Behavior. *Psychological Inquiry*, *11*(4), 227–268. https://doi.org/10.1207/S15327965PLI1104_01

Deterding, S., Dixon, D., Khaled, R., Nacke, L. (2011). From game design elements to gamefulness: Defining "gamification". Proceedings of the 15th International Academic MindTrek Conference, 9-15. https://doi.org/10.1145/2181037.2181040

Dörnyei, Z. (2009). The L2 Motivational Self System. In Z. Dörnyei & E. Ushioda (Eds.), Motivation, language and the L2 Self (pp. 9-42). Multilingual Matters. https://doi.org/10.21832/9781847691293-003

Dörnyei, Z. (2020). Innovations and challenges in language learning motivation. Routledge. https://doi.org/10.4324/9780429485893

Echzarra, A., & Radinger, T. (2019). Learning in rural schools: Insights from PISA, TALIS and the literature. OECD Education Working Papers, No. 196, OECD Publishing. https://dx.doi.org/10.1787/8b1a5cb9-en

Field, A. (2018). Discovering statistics using IBM SPSS statistics (5th ed). SAGE Publications.

Frymier, A. B., & Shulman, G. M. (1995). "What's in it for me?": Increasing content relevance to enhance students' motivation. *Communication Education*, *44*(1), 40–50. https://doi.org/10.1080/03634529509378996

Hammed, S. O., Adepoju, D. A., Atoyebi, T. O., Adepoju, A. G., Ogunnika, A. O., & Ayegbo, M. O. (2025). Culturally responsive gamification in differentiated learning: A review of psychological engagement and health equity outcomes. *World Journal of Advanced Research and Reviews*, *27*(3), 1889–1898. https://doi.org/10.30574/wjarr.2025.27.3.3348

Hippler, F., & Suntrayuth, S. (2015). An Investigation into the Development of Intercultural Corporate Culture. *1*, *2*, ASEAN Journal of Management & Innovation. https://doi.org/10.14456/AJMI.2015.1

Intriago-Cobeña, M. C., Reyes-Ávila, R. M., Kaicer-Pinargote, A. M., Bazurto-Alcívar, S. N., & Chavarría-Mendoza, L. A. (2024). Gamification in the acquisition of vocabulary in the English Language in upper

secondary education students of a rural school. *International Journal of Linguistics, Literature and Culture*, *10*(5), 89–99. https://doi.org/10.21744/ijllc.v10n5.2459

Krashen, S. (1989) We acquire vocabulary and spelling by reading: Additional evidence for the input hypothesis. Modern Language Journal 73, 440-464. https://doi.org/10.1111/j.1540-4781.1989.tb05325.x

Lave, J., & Wenger, E. (1991). *Situated Learning: Legitimate Peripheral Participation*. Cambridge: Cambridge University Press. https://doi.org/10.1017/CBO9780511815355

Liu, P.-L., Chen, C.-J., & Huang, C.-Y. (2025). Evaluating the Effectiveness of Quizzes for Enhancing English Vocabulary Acquisition and Engagement Among Rural Elementary Students. *Sage Open*, *15*(4), 21582440251379697. https://doi.org/10.1177/21582440251379697

Lopèz-Obregòn, J. C., Rodas-Auquilla, T. A. (2022). Teaching English as a foreign language to rural education students. *Iustitia socialis,* 7(1), 25-50. https://doi.org/10.35381/racji.v7i1.1700

Mbukanma, I., Manganyi, M., Vellem, B., & Gqoli, N. (2024). Unlocking Potential: The Transformative Role of Gaming in Rural Higher Learning Institutions of South Africa - A Systematic Exploration. *Research in Social Sciences and Technology*, *9*(3), 140–159. https://doi.org/10.46303/ressat.2024.52

Ministerio de Educación del Ecuador. (2021). *Programa de fortalecimiento del Idioma Ingles.* Quito, Ecuador: Ministerio de Educación.

Patras, Y. E., Hidayat, R., & Mulyawati, Y. (2023). A Need Analysis for The Development of Multicultural Learning Model Based on Local Wisdom Integrated Gamification: Public Schools and Female Teachers Need More. *Jurnal Kependidikan: Jurnal Hasil Penelitian Dan Kajian Kepustakaan Di Bidang Pendidikan, Pengajaran Dan Pembelajaran*, *9*(4), 1071. https://doi.org/10.33394/jk.v9i4.8974

Rahmat, A., & Akbar, M. (2019). A Comparative Analysis of English Learning Motivation between the Rural and Urban Students. *Metathesis: Journal of English Language, Literature and Teaching, 3(2), 158.* https://doi.org/10.31002/metathesis.v3i2.1740

Šafranj, J., Gojkov Rajìc, A., & Bogdanović, V. (2021). The ideal L2 Self as a Factor of Self-Motivation in Willingness to Communicate*. International Journal of Cognitive Research in Science, Engineering and Education (ILCRSEE), 9(2), 189-202.* https://doi.org/10.23947/2334-8496-2021-9-2-189-202

Sanmugam, M., Mohd Zaid, N., Mohamed, H., Abdullah, Z., & Aris, B. (2016). *The existence and influence of player motivation in learning using gamification among rural students in sabah, malaysia*. 7514–7520. https://doi.org/10.21125/inted.2016.0772

Schoenherr, J. (2024). Personalizing real-world problems: Posing own problems increases self-efficacy expectations, intrinsic value, attainment value, and utility value. *British Journal of Educational Psychology*, *94*(2), 407–424. https://doi.org/10.1111/bjep.12653

Uchima-Marin, C., Ospina, J., Ospina, V., Salvador-Acosta, L., & Acosta-Vargas, P. (2025). Design and Implementation of a Gamified Math Game for learning Whole Numbers in Secondary Education Using Genially. *Sustainability*, 17(21), 9759. https://doi.org/10.3390/su17219795

Yücedağ, Z (2019). High school language division students` perception of English as a Lingua Franca. *Focus on ELT journal*. https://doi.org/10.14744/felt.2019.00003