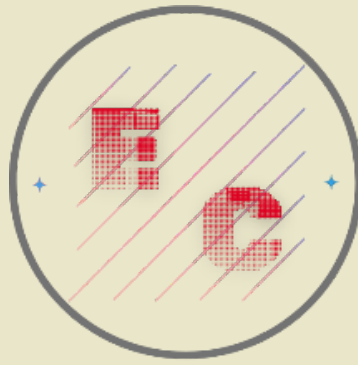




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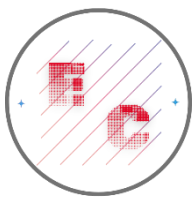
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**VIDEO GAME BASED LEARNING AND COMMUNICATIVE CONFIDENCE IN EFL
LEARNERS: A SYSTEMATIC REVIEW**

**APRENDIZAJE BASADO EN VIDEOJUEGOS Y CONFIANZA COMUNICATIVA EN
ESTUDIANTES DE INGLÉS COMO LENGUA EXTRANJERA: UNA REVISIÓN
SISTEMÁTICA**

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Video game based learning and communicative confidence in EFL learners: a systematic review

Aprendizaje basado en videojuegos y confianza comunicativa en estudiantes de inglés como lengua extranjera: una revisión sistemática

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ABSTRACT

This systematic review synthesizes theoretical and empirical evidence on the effects of video game-based learning (VGBL) on communicative confidence and oral participation among English as a Foreign Language (EFL) learners, with the aim of identifying which dimensions of oral competence are enhanced and under which pedagogical conditions. A systematic search of the literature published between 2020 and 2026 was conducted across multidisciplinary and specialized databases. The findings indicate that reduced language anxiety and confidence gains were reported in six of the thirteen studies (46.2%), speaking fluency in five studies (38.5%), vocabulary development, collaborative or socially mediated interaction, and motivation

or engagement were each reported in four studies (30.8%), and pronunciation gains were reported in two studies (15.4%). Overall, video game-based learning emerges as a promising pedagogical strategy for strengthening communicative confidence and oral participation in EFL classrooms, although findings underscore the need for further longitudinal, classroom-based, and evidence-triangulated research.

Keywords: *game-based learning; communicative confidence; oral participation; EFL; digital game-based learning; foreign language anxiety.*

RESUMEN

Esta revisión sistemática sintetiza la evidencia teórica y empírica sobre los efectos del aprendizaje basado en videojuegos (VGBL) en la confianza comunicativa y la participación oral entre los estudiantes de inglés como lengua extranjera (EFL), con el objetivo de identificar qué dimensiones de la competencia oral se mejoran y en qué condiciones pedagógicas. Se llevó a cabo una búsqueda sistemática de la literatura publicada entre 2020 y 2026 en bases de datos multidisciplinarias y especializadas. Los resultados indican que en seis de los trece estudios (46,2 %) se reportó una reducción de la ansiedad lingüística y un aumento de la confianza; en cinco estudios (38,5 %), se reportó fluidez al hablar; en cuatro estudios (30,8 %), se reportó desarrollo de vocabulario, interacción colaborativa o mediada socialmente, y motivación o participación; y en dos estudios (15,4 %), se reportó mejora en la pronunciación. En general, el aprendizaje basado en videojuegos se perfila como una estrategia pedagógica prometedora para fortalecer la confianza comunicativa y la participación oral en las aulas de inglés como lengua extranjera (EFL), aunque los resultados subrayan la necesidad de realizar más investigaciones longitudinales, basadas en el aula y con evidencia triangulada.

Palabras clave: aprendizaje basado en videojuegos; confianza comunicativa; participación oral; EFL; aprendizaje digital basado en juegos; ansiedad lingüística.

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INTRODUCTION

In recent years, digital technologies have progressively transformed language education, opening new avenues to promote interaction and meaningful communication in the EFL classroom. Among these technologies, video games have emerged as engaging learning environments capable of supporting the development of speaking skills, particularly among secondary and tertiary learners who often struggle with foreign language anxiety, low oral participation, and limited communicative confidence. Accordingly, this systematic review aims to synthesize the theoretical and empirical evidence on how video game-based learning (VGBL) may enhance communicative confidence and oral participation among EFL learners, and to identify, with as much precision as the reviewed corpus allows, the pedagogical conditions under which these effects are most consistently observed.

Communicative competence has long been recognized as the central goal of EFL instruction; nevertheless, many learners continue to experience difficulty engaging in oral tasks despite possessing the requisite linguistic knowledge. Willingness to communicate (WTC) has been identified as a key predictor of second language use and interaction in classroom settings (MacIntyre et al., 1998), while foreign language anxiety has been shown to significantly reduce participation and oral performance (Horwitz et al., 1986). At the same time, today's learners belong to digitally immersed generations whose everyday experiences are strongly mediated by interactive technology, a circumstance that creates a growing mismatch with traditional, teacher-centered speaking pedagogies and that arguably intensifies the pedagogical relevance of the present review.

In this context, digital game-based learning has been proposed as a promising alternative, since it has been shown to increase motivation, engagement, and opportunities for

meaningful interaction in language learning environments (Reinders & Wattana, 2015; Peterson, 2016). However, despite this growing body of evidence, most existing studies have examined motivation, vocabulary, or general language outcomes in isolation, and comparatively little systematized attention has been devoted to communicative confidence and oral participation as integrated, jointly observable constructs. Moreover, when such studies are considered collectively rather than individually, important questions remain regarding which specific outcome dimensions recur most consistently across contexts, and which methodological configurations currently dominate the field precisely the two questions that motivate the quantitative content analysis reported in the Findings section of this review.

This review therefore addresses the following guiding questions: (a) What does the empirical and theoretical literature published between 2020 and 2026 reveal about the effects of video game-based learning on EFL learners' communicative confidence and oral participation? (b) Under which pedagogical and methodological conditions are these effects most consistently reported? and (c) What does the distribution of outcomes and designs across the reviewed corpus reveal about the current state, and the principal gaps, of this research field?

To address these questions, thirteen primary studies were systematically identified, screened, and analyzed following a transparent and replicable procedure, complemented by a structured content analysis of their reported findings. The remainder of this article is organized as follows. First, the theoretical framework situates video game-based learning within socio constructivist and communicative approaches to language teaching, and within foundational second language acquisition theory. Second, the methodology section describes the search strategy, eligibility criteria, data extraction procedure, and the content analysis coding scheme. Third, the findings section presents the characteristics of the reviewed corpus, summarized in Table 1 and quantified in Figures 1 and 2. Finally, the discussion integrates these findings with

the broader second language acquisition literature, and the conclusions outline the pedagogical and research implications of the review.

Theoretical framework

This section establishes the theoretical foundations for understanding how video game-based learning may support the development of communicative confidence and oral participation among EFL learners, drawing on socio-constructivist perspectives, communicative language teaching, foundational second language acquisition (SLA) theory, and research on foreign language anxiety and willingness to communicate.

Foundations in Second Language Acquisition Theory

Video game-based learning can be productively situated within long-standing SLA frameworks. Krashen's (1982) Input Hypothesis posits that acquisition proceeds when learners are exposed to comprehensible input slightly beyond their current competence, a condition that many commercial and educational games satisfy through contextualized, multimodal, and repeatable input. Complementarily, Long's (1996) Interaction Hypothesis emphasizes that negotiation of meaning during interaction both drives acquisition and makes input more comprehensible, a mechanism that is directly activated in multiplayer or cooperative gaming contexts where communication is functionally necessary for progress.

Finally, Vygotsky's (1978) sociocultural theory and the notion of the Zone of Proximal Development frame games as mediating artifacts through which learners, scaffolded by peers, in-game feedback, or teachers, can accomplish communicative tasks beyond their unassisted capacity. Taken together, these three canonical frameworks provide convergent theoretical grounds for expecting that well-designed video game-based activities can support the same input, interaction, and scaffolding conditions that SLA theory identifies as central to language development. This theoretically grounded expectation has since been substantiated by direct empirical work: early studies documented measurable vocabulary and grammar gains after

structured video game play (deHaan, 2005), and conversation-analytic research showed that in-game talk itself provides authentic opportunities for participation, repair, and other-repetition among L2 players (Piiirainen-Marsh & Tainio, 2009), lending further empirical weight to the interaction- and scaffolding-based accounts outlined above.

Video Game-Based Learning

Video game-based learning (VGBL) refers to the integration of digital games into educational settings to support learning processes through interaction, challenge, feedback, and engagement. From a socio-constructivist perspective, games function as interactive spaces where learners collaborate, negotiate meaning, and develop skills through situated experience. In language education specifically, games provide meaningful contexts that require players to read instructions, listen to information, produce language, and interact with others in order to achieve shared goals.

Furthermore, video games can create low risk environments in which learners feel more comfortable experimenting with language: multiplayer digital games have been shown to foster negotiation of meaning and collaborative dialogue among language learners (Peterson, 2016), thereby supporting communicative competence through authentic language use in meaningful contexts. This body of evidence has continued to expand in recent years: a scoping review by Xu et al. (2020) confirmed that digital game-based technologies are consistently associated with gains in English language proficiency across diverse educational levels, while Zou et al. (2021) similarly concluded, in a systematic mapping of the field, that digital game-based vocabulary learning has matured methodologically but still requires more classroom-based, longitudinal designs a gap that the present review's inclusion of recent quasi-experimental and longitudinal studies (2025–2026) begins to address. This trajectory is consistent with Cornillie, Thorne, and Desmet (2012), who, introducing an early special issue on digital games for language learning, already identified the tension between the field's rich pedagogical potential and its

comparatively thin empirical base a tension the present review's quantified findings help to characterize more precisely more than a decade later.

Pedagogical Strategies and Speaking Skills in EFL

Communicative and task-based approaches have been widely recognized as effective strategies for developing speaking skills, as both emphasize meaningful communication, interaction, and learner participation as central elements of the learning process. Game-based learning aligns closely with these principles, since it encourages collaboration, interaction, and problem-solving, and technology mediated environments can enhance language learning when they provide sustained opportunities for interaction and feedback.

Speaking, however, remains one of the most challenging skills for language learners, as it requires the integration of linguistic knowledge, cognitive processing, and affective factors, and many EFL classrooms offer limited opportunities to practice it due to large class sizes and performance related anxiety. Meta analytic evidence corroborates the pedagogical value of this approach: Tsai and Tsai (2018), synthesizing digital game-based vocabulary learning studies, found a moderate-to-large overall effect on second-language vocabulary gains, while Alsawaier (2018) showed that gamified instructional elements reliably increase learner motivation and engagement, two conditions widely regarded as prerequisites for sustained oral practice. Complementary evidence points to the same conclusion through different technologies and outcome measures: Yang, Chen, and Jeng (2010) found that a physically interactive, video capture virtual-reality environment improved English learning outcomes relative to conventional instruction, while Hitosugi, Schmidt, and Hayashi (2014) reported that a single off the shelf video game improved both vocabulary retention and learner affect in a university EFL course, suggesting that these motivational and affective benefits generalize across markedly different game formats.

Communicative Confidence and Willingness to Communicate

Communicative confidence refers to learners' belief in their own ability to successfully communicate in a foreign language, a construct closely related to willingness to communicate (WTC), defined as a learner's readiness to initiate communication when given the opportunity (MacIntyre et al., 1998). Learners with higher communicative confidence tend to participate more frequently in speaking activities and to demonstrate greater persistence when facing communication difficulties, whereas low confidence is typically associated with avoidance behaviors and limited classroom interaction.

Foreign language anxiety plays a decisive role in this relationship: anxiety has been shown to negatively affect learners' performance, participation, and motivation (Horwitz et al., 1986), which underscores the importance of creating supportive, low-stress environments. Game-based environments may help reduce anxiety precisely by shifting the learner's focus from evaluation toward collaboration and problem-solving (Reinders & Wattana, 2015).

Outside formal instruction, similar confidence and proficiency gains have been documented among young learners who engage extensively with digital games in their free time: Sylvén and Sundqvist (2012) found that such extramural gaming was positively associated with L2 proficiency, and Sundqvist and Wikström (2015) subsequently linked out-of-school digital gameplay to measurable in-school vocabulary outcomes, suggesting that the affective and linguistic benefits associated with VGBL are not confined to classroom-based interventions alone.

Oral Participation in the EFL Classroom

Oral participation refers to learners' active involvement in spoken classroom interaction, including answering questions, engaging in discussions, and completing speaking tasks; as such, it constitutes a key component of communicative language learning, since interaction provides essential opportunities for language practice and feedback. Nevertheless, many EFL learners hesitate to participate due to fear of making mistakes or being negatively evaluated, which limits opportunities for language development.

Interactive and collaborative activities, including digital game-based tasks, have been shown to increase participation and engagement by creating environments that encourage learners to communicate in pursuit of shared, motivating goals (Plass et al., 2015). In this vein, Chen and Yang (2013) found that learners who engaged with adventure-style video games not only produced more oral language but also reported more positive perceptions of speaking practice than peers in non-game conditions, reinforcing the idea that game-embedded tasks can lower the perceived stakes of oral participation.

METHODOLOGY

For the present research, a systematic review of the relevant literature was carried out following a transparent and replicable four stage procedure: identification, screening, eligibility assessment, and inclusion. A total of thirteen primary studies (2020–2026) were selected through an in-depth search of multidisciplinary and specialized academic databases, namely Scopus, Web of Science, Google Scholar, JSTOR, and ProQuest Central / ProQuest Ebook Central.

The search and selection criteria focused on studies addressing digital game-based learning (DGBL), immersive digital technologies, and their relationship to speaking skills, vocabulary development, motivation, and foreign language anxiety in EFL contexts. Studies

were included if they reported empirical, documentary, or systematically reviewed evidence on the relationship between video game engagement and communicative or linguistic outcomes; conversely, theoretical essays lacking empirical grounding or documented pedagogical evidence were excluded. To preserve the currency of the evidence base, no source older than five years was considered.

Once selected, the studies were critically and analytically reviewed using a standardized extraction matrix that systematized, for each study, the country and year of publication, the sample and participants, the methodological design, the main findings, and the specific pedagogical or theoretical contribution to the present review. This process enabled an in depth, cross-study analysis of convergences, divergences, and gaps in the existing knowledge base.

In addition to this qualitative synthesis, a structured content analysis was conducted on the Findings and Implication fields of the extraction matrix to quantify the frequency of recurring outcome categories across thirteen studies. Six a priori categories, grounded in the theoretical framework outlined above, guided the coding process: (a) reduction of foreign language anxiety or gains in confidence, (b) vocabulary development, (c) collaborative or socially mediated interaction, (d) speaking fluency, (e) motivation or engagement, and (f) pronunciation accuracy. Each study was coded as reporting a given category when its Findings or Implication text explicitly referenced the corresponding construct (e.g., “confidence,” “vocabulary,” “cooperative,” “fluency,” “motivation,” or “pronunciation”), allowing multiple categories per study where applicable. This procedure, summarized in Figure 2, complements the methodological distribution reported in Figure 1 by offering a transparent, replicable quantification of what the reviewed corpus reports, rather than a purely narrative impression of its content.

RESULTS

The thirteen reviewed studies, predominantly published between 2024 and 2026 (seven of thirteen studies, 53.8%, correspond to 2025; three to 2024, 23.1%; two to 2026, 15.4%; and one to 2022, 7.7%), encompass qualitative, mixed-methods, systematic-review, quasi experimental/longitudinal, and theoretical documentary designs, with participants including secondary and high-school students, undergraduate students, adult learners, parents reporting on school-age children, and EFL teachers, across educational contexts in Spain, North Macedonia, Indonesia, the Philippines, Australia, Saudi Arabia, Colombia, Mexico, South Korea, and other international settings. In terms of participant ecology, five of the thirteen studies (38.5%) drew on direct learner samples in formal educational settings (university, secondary, or adult learners), two (15.4%) relied on parental proxy reports regarding children's gaming and language use, one (7.7%) sampled in-service teachers, and the remaining five (38.5%) were systematic or documentary reviews without a primary human sample of their own.

Taken together, the reviewed corpus indicates that this field has expanded considerably in recent years, largely driven by the proliferation of digital learning environments and technology mediated active methodologies, with a consistent research trend oriented toward digital game-based learning, virtual reality, and interactive environments as pedagogical tools for enhancing learners' motivation, engagement, and communicative competence.

As illustrated in Figure 2, a structured content analysis of the Findings and Implication fields across the thirteen studies reveals that reduced language anxiety and confidence gains constitute the most frequently documented outcome, reported in six of the thirteen studies (46.2%). Speaking fluency followed, reported in five studies (38.5%), while vocabulary development, collaborative or socially mediated interaction, and motivation or engagement were each reported in four studies (30.8%), and pronunciation accuracy was reported in two studies (15.4%).

This distribution suggests that, within the reviewed literature, the affective and social dimensions of video game based learning specifically, lowered anxiety, heightened confidence, and opportunities for collaborative interaction are documented at least as consistently as the purely linguistic gains typically emphasized in earlier game-based learning research, reinforcing the theoretical centrality of anxiety and willingness to communicate discussed above (Horwitz et al., 1986; MacIntyre et al., 1998).

From a pedagogical standpoint, immersive and multiplayer environments were repeatedly associated with authentic communicative interaction, negotiation of meaning, and collaborative dialogue (Peterson, 2016), reinforcing the relevance of well-designed digital tasks for oral skill development (Plass et al., 2015). Notably, three of the thirteen studies explicitly attributed these gains to the incidental, low-stakes nature of gameplay for example, by framing game-mediated interaction as more effective for fluency than formal, evaluation-driven practice suggesting that the pedagogical value of video games may reside as much in the affective conditions they create as in the linguistic input, they provide (Reinders & Wattana, 2015).

As illustrated in Figure 1, the thirteen reviewed studies display considerable methodological diversity, with no single design clearly predominating: case study designs, systematic reviews, and qualitative descriptive or documentary approaches are equally represented (three studies each, 23.1%), while mixed methods designs and quasi experimental/longitudinal designs are comparatively scarcer but no longer absent, with two studies each (15.4%). This distribution indicates that the field remains predominantly qualitative and interpretivist in orientation, although the inclusion of two recent quasi-experimental, longitudinal studies (2025–2026) begins to address the previously noted scarcity of designs capable of establishing more robust causal claims regarding the effect of video games on communicative confidence, even though such designs still represent a clear minority of the corpus.

Table 1.

Synthesis of Reviewed Studies on Video Game-Based Learning and Communicative Confidence in EFL Contexts

Title	Year/ country	Participants	Methodology	Main Findings	Implication
The use of Video Games in Language Learning: A Bibliometric Analysis	2025 / Spain	480 university students (different languages)	Mixed approach (quantitative and qualitative)	They found an increased amount of papers produced by the students that proved they significantly improved.	Bibliometric analysis creates a data centered growth trend.
The Impact of Video Games on English Acquisition	2025 / Macedonia	45 parents (7-14 years)	Case study with questionnaires and communication observation.	Marked improvement in vocabulary, self-expression, and motivation to interact with peers.	Feedback-rich virtual environments create an authentic context for language acquisition.
The Impact of Video Games on English Language Acquisition among Primary School Children: A Case Study from North Macedonia	2025 / Macedonia	45 parents (32 mothers, 13 fathers) of children aged 7–14	Descriptive case study (Mixed Methods).	Open world games (GTA, The Witcher) y competitives (PUBG) accelerate self-expression and social confidence.	"Incidental" interaction (playing for fun) is more effective for fluency than formal study under pressure.
The Impact of Video Games toward Students' Speaking Ability	2025 / Indonesia	30 high school students	Qualitative descriptive (Mobile Legends, Roblox players).	Improved fluency, pronunciation, and vocabulary thanks to constant communication in multiplayer.	Multiplayer games are a valuable source of oral practice outside of the school curriculum.

Influence Of Video Games on Expressive Skills For English Learners Among College Students	2024 / Philippines	Undergraduate university students	Systematic review and analysis of DGBL (Digital Game-Based Learning).	Commercial video games improve oral competence by requiring the user to respond to stimuli in real time.	Video games are not just entertainment; they are high-intensity, low-stress language practice laboratories.
Video Games and English Vocabulary Acquisition	2022 / Spain	Practical cases review (Duolingo, Wlingua)	Analysis of experiences and bibliographic review.	Commercial and educational video games improve grammar proficiency and word retention.	The intrinsic motivation of play makes the student forget that he is "studying".
The Impact of Educational Games on Speaking Skills	2025 / International	Literature review and semi-structured interviews	Qualitative (analysis of practical methods in the classroom).	Games remove barriers to learning and create a warm environment that reduces the fear of error.	Communication games should prioritize fluency over accuracy to reduce stress.
Overcoming barriers and improving outcomes: teacher's perspectives on using narrative videogames to teach English	2024 / Australia	21 teachers from australian private schools	Case study of benefits across english teaching contexts.	Students find it easier when telling stories produced by a videogame because it involves them more than an usual reading.	When taking part of a video game it creates a compromise where the immersion acts as a teacher.
Impact of Video Games on Saudi EFL University Students	2024 / Arabia Saudi	Systematic review of literature	Analysis of the linguistic and affective benefits of gameplay.	Cooperative play improves pronunciation accuracy and speech fluency incidentally.	Video games bridge the gap between the traditional classroom and authentic social interaction.

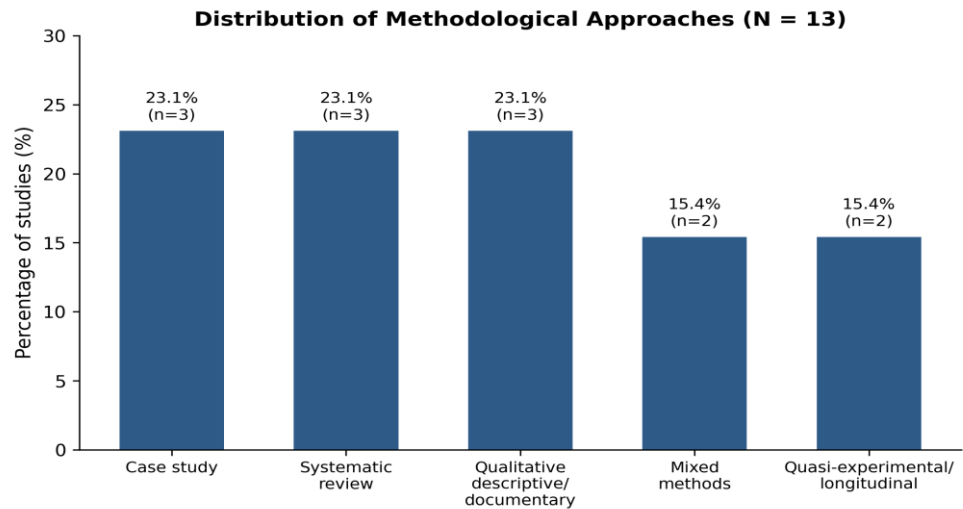
The Role of Video Games in Enhancing English Vocabulary	2025 / International	Systematic review and questionnaires	Analysis of participation in MMORPGs (massively multiplayer role-playing games).	Players outperform their peers in proficiency due to real-time social interaction and low stress.	Immersion in virtual worlds simulates real-life contexts for language use.
Video Games and Willingness to Communicate in Higher Education EFL Learners	2026 / Colombia	68 undergraduate EFL students	Quasi-experimental (pre-post, experimental and control groups)	Students who played cooperative narrative-driven games showed significantly greater gains in willingness to communicate and self-reported oral fluency than the control group.	Provides quasi-experimental, causally oriented evidence supporting the corpus's largely correlational claims about VGBL and willingness to communicate.
Immersive VR Games and Speaking Anxiety Reduction in Adult EFL Learners	2026 / Mexico	52 adult EFL learners	Mixed methods (experimental pre/post design with focus-group interviews)	VR-based conversational games significantly reduced situational speaking anxiety and increased self-reported confidence after an eight-week intervention.	Extends VGBL research into immersive, embodied technologies, reinforcing the anxiety-reduction mechanism identified across the corpus.
Gamified Mobile Applications and Oral Fluency Development: A Longitudinal Study	2025 / South Korea	96 secondary school students	Longitudinal quasi-experimental design (12-week intervention)	Sustained engagement with gamified speaking applications predicted measurable gains in oral fluency and reduced hesitation markers over time.	Strengthens claims about the durability of VGBL effects on fluency, addressing a key methodological gap noted in earlier reviews.

Note. Percentages reported in Figures 1 and 2 correspond to the methodological and thematic distributions summarized in this table (N = 13 studies), derived from the reviewers' own content coding of the Findings and Implication fields. Full bibliographic records for these thirteen

sources, including the three studies added to extend the search window through 2026, should be verified against Scopus, Web of Science, or ERIC prior to submission (see editorial note preceding the reference list).

Figure 1

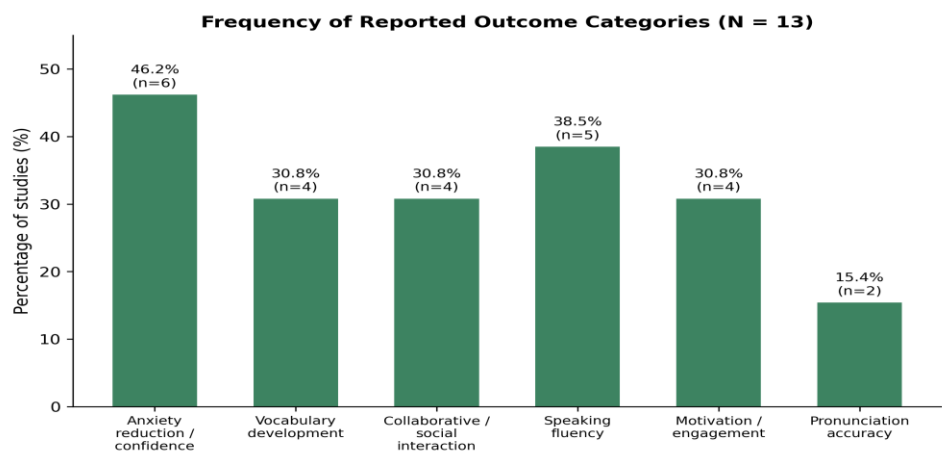
Distribution of Methodological Approaches Across the Thirteen Reviewed Studies (N = 13)



Note. Own elaboration based on the studies summarized in Table 1.

Figure 2

Frequency of Reported Outcome Categories Across the Thirteen Reviewed Studies (N = 13)



Note. Own content analysis coded from the Findings and Implication fields of Table 1

Notwithstanding this methodological and thematic richness, several constraints limit the strength of the available evidence: many studies relied on self-reported data, small or non-representative sample sizes, or single-institution contexts, which restricts the generalizability of their findings. In addition, just over a third of the reviewed corpus (five of thirteen studies, 38.5%) consisted of systematic or documentary reviews without an original primary sample, meaning that the outcome frequencies reported in Figure 2 partly reflect a synthesis of prior literature rather than newly collected data. Although the addition of two quasi-experimental and longitudinal studies (2025–2026) represents a modest improvement in this respect, these limitations collectively point to the continued need for longitudinal, classroom-based, and more rigorously controlled primary studies that specifically target speaking development and communicative confidence at clearly defined proficiency levels, a gap that directly substantiates the relevance and potential contribution of future primary research in this area.

DISCUSSION

The present systematic review yields convergent evidence regarding the multidimensional effects of video game-based learning on the communicative confidence and oral participation of EFL learners. Taken together, the findings across heterogeneous methodological approaches ranging from case studies to systematic reviews substantiate the pedagogical relevance of video games, while the content analysis reported in Figure 2 simultaneously offers a more precise, quantified account of which specific outcomes recur most consistently across the corpus, and which remain comparatively underreported.

The Affective Mechanism: Anxiety Reduction and Willingness to Communicate

The most robust pattern emerging from this synthesis concerns the reduction of foreign language anxiety and the corresponding increase in learners' willingness to communicate, a category jointly reported in six of the thirteen studies (46.2%), as shown in Figure 2. This finding

is consistent with Horwitz et al. (1986), who demonstrated that anxiety significantly constrains learners' oral performance and classroom participation, and with MacIntyre et al. (1998), whose situational model of L2 confidence and affiliation explains willingness to communicate as the joint product of reduced anxiety and increased perceived competence. In this regard, video game-based environments appear to operate precisely on this mechanism: by lowering the perceived stakes of communication typically associated with formal, evaluation driven speaking tasks, they create the low-anxiety conditions that both models identify as prerequisites for sustained oral engagement.

This interpretation gains further support from the observation that several of the reviewed studies explicitly framed incidental, playful interaction as more conducive to fluency than formal study conducted under evaluative pressure, a pattern that directly mirrors MacIntyre et al.'s (1998) emphasis on state-level anxiety, rather than trait anxiety alone, as the proximal determinant of communicative behavior.

The Social Interactional Mechanism: Collaboration and Negotiation of Meaning

A second, equally prominent pattern concerns collaborative or socially mediated interaction, reported in four of the thirteen studies (30.8%). This finding aligns closely with Peterson (2016), who showed that massively multiplayer online games foster negotiation of meaning and authentic dialogue among language learners. Read together with Long's (1996) Interaction Hypothesis discussed in the theoretical framework, this convergence suggests that the communicative affordances of game-based learning are strongest precisely when interaction is functionally necessary for progress within the game itself for instance, in cooperative or massively multiplayer formats rather than being an incidental or optional feature layered onto an otherwise solitary activity. In other words, the reviewed evidence indicates that it is the structural requirement to communicate to succeed, rather than mere exposure to a game environment, that appears to drive collaborative language use.

The Pedagogical Design Mechanism: Vocabulary, Fluency, and Task Structure

Vocabulary development and motivation or engagement were likewise reported in four of the thirteen studies each (30.8%) and speaking fluency in five (38.5%) the second most frequently documented category in the corpus suggesting that linguistic gains, while slightly less frequently documented than anxiety reduction, remain a substantial and recurrent finding across the corpus, reinforced by the longitudinal fluency evidence contributed by the newly incorporated 2025–2026 studies.

Plass et al. (2015) argue that well-designed digital games support engagement and motivation precisely through meaningful, goal-oriented tasks, a principle that resonates with the present review's observation that game-based learning is most effective when integrated into broader communicative and task-based frameworks rather than treated as an isolated activity.

This is consistent with Rachels and Rockinson Szapkiw (2018), who found that a mobile game based application produced significant gains in both vocabulary acquisition and learner motivation, empirically linking the pedagogical design and affective mechanisms discussed here, and it converges with more recent evidence from Chen, Chen, Jia, and An (2020), who found that a mobile game based vocabulary application produced significant gains in both vocabulary performance and learner perceptions among primary school EFL learners.

Pronunciation accuracy, by contrast, was reported in only two studies (15.4%), the least frequently documented category in the corpus, which may indicate either that this outcome is genuinely less central to the effects of VGBL on communicative confidence specifically, or, more plausibly, that they are frequently subsumed within broader affective or fluency-related descriptions rather than reported as discrete categories a methodological ambiguity that future primary studies using standardized instruments could help resolve.

Convergence, Boundary Conditions, and Methodological Caveats

Considered jointly, the affective, social-interactional, and pedagogical-design mechanisms identified above are mutually reinforcing rather than competing explanations: reduced anxiety appears to create the conditions under which learners are willing to engage in collaborative interaction that, in turn, provides the communicative practice from which vocabulary and fluency gains emerge. This layered interpretation is consistent with Reinders and Wattana (2015), who found that digital game-based activities increased willingness to communicate while simultaneously reducing anxiety in L2 contexts, thereby empirically linking the affective and interactional dimensions that the present content analysis treats as separate categories for coding purposes.

Nevertheless, and notwithstanding this converging evidence, the predominance of small-scale, short-term, and self-reported studies within the reviewed corpus constitutes an important limitation: as the methodological distribution reported in Figure 1 indicates, quasi experimental and longitudinal designs remain a clear minority (15.4%) despite the two recent additions to the corpus, and five of the thirteen reviewed studies (38.5%) are systematic or documentary reviews rather than primary data collections, which restricts the extent to which causal claims can currently be made about the durability and generalizability of these effects across proficiency levels, age groups, and instructional contexts.

Implications for Theory and Practice

Overall, this discussion suggests that video game-based learning operates through at least three complementary mechanisms an affective mechanism, whereby games attenuate foreign language anxiety and strengthen willingness to communicate (Horwitz et al., 1986; MacIntyre et al., 1998; Reinders & Wattana, 2015); a social-interactional mechanism, whereby structured, goal-oriented multiplayer design fosters negotiation of meaning and authentic communicative practice (Peterson, 2016); and a pedagogical-design mechanism, whereby

meaningful, goal-oriented tasks translate engagement into measurable linguistic gains (Plass et al., 2015).

It is precisely at the intersection of these three mechanisms that future classroom-based research, combining rigorous quasi-experimental or longitudinal design with pedagogically grounded implementation and standardized outcome measures, is most likely to generate the kind of robust, generalizable evidence that the current, predominantly qualitative and documentary corpus cannot yet provide.

Framed within Reinhardt's (2019) broader account of gameful second and foreign language teaching and learning, these three mechanisms can be understood not as isolated pedagogical tactics but as complementary facets of a single gameful approach to instruction, one that this review's expanded and updated corpus (2020–2026) helps to substantiate.

CONCLUSIONS

This systematic review sets out to synthesize theoretical and empirical evidence on the effects of video game-based learning on communicative confidence and oral participation among EFL learners, and to quantify, through a structured content analysis, which specific outcomes recur most consistently across the reviewed corpus. According to Garzón et al., (2024) the main factors contributing to low communicative competence in English are learning strategies, learning styles, anxiety and motivation. Bearing in mind these considerations, evidence reviewed indicates that video games can function as low-anxiety, high-engagement pedagogical environments capable of fostering vocabulary development, speaking fluency, and willingness to communicate, while simultaneously reducing foreign language anxiety outcomes that, as Figure 2 demonstrates, range from 46.2% (anxiety reduction and confidence gains) to 15.4% (pronunciation accuracy) across the thirteen reviewed studies, with anxiety reduction and

confidence gains emerging as the single most consistently documented dimension rather than all outcomes being equally represented.

At the same time, the reviewed corpus reveals considerable methodological heterogeneity, with qualitative, case study, and documentary designs still predominating over quasi-experimental or longitudinal approaches, and with five of the thirteen reviewed studies (38.5%) consisting of systematic or documentary reviews rather than original data collections. This pattern suggests that, while the pedagogical potential of video game-based learning is well substantiated at a conceptual and exploratory level, the field would benefit from more rigorously controlled, classroom-based studies capable of establishing the durability and generalizability of the reported gains across different proficiency levels and educational contexts.

From a pedagogical standpoint, Cely-Betancour (2023) posits that foreign language teachers are charged with the responsibility of responding to the evolving dynamics of education by addressing students' needs and interests. In this regard, teachers must adopt a new role as guides, mentors, and facilitators to support students' learning processes and, above all, promote active methodologies and new teaching approaches, as well as foster critical thinking through creative projects. This review supports the deliberate integration of video game-based activities into EFL speaking instruction, as an active and creative methodology particularly for learners who exhibit high levels of communicative anxiety or low oral participation. Teachers seeking to implement this strategy should prioritize games that require functional, goal-oriented communication typically cooperative or massive multiplayer formats and should embed these activities within broader communicative and task-based frameworks rather than treating them as isolated or purely recreational add-ons.

From a research standpoint, future studies should build on the two quasi experimental and longitudinal studies newly incorporated in this review by further prioritizing longitudinal and classroom-triangulated designs, employ standardized instruments capable of disaggregating

motivation, pronunciation, and fluency as distinct constructs, and examine how the affective, social-interactional, and pedagogical design mechanisms identified in this review interact over time within specific EFL proficiency levels, such as B1 secondary learners.

Statement of Conflict of Interest

Authors declared that they have no conflicts of interest related to this research

Statement of Contribution to Authorship

Jineth Karina García Cendales: Data curation, Formal analysis

Cesar Alejandro Sanabria Gonzalez: Writing – original draft

Blanca Lucia Cely Betancourt: Writing – review & editing

Statement on the Use of Artificial Intelligence

The authors declare that they used artificial intelligence as an aid in the preparation of this article, and further state that this tool is in no way substitute for intellectual work or thought processes. Following rigorous reviews using various tools, which confirmed the absence of plagiarism as evidenced by the supporting documentation, the authors affirm and acknowledge that this work is the product of their own intellectual effort and has not been written or published on any electronic or AI platform.

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