

The Influence of Online Games on English Language Development Among High School Students: A Qualitative Study

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Abstract

This qualitative study examines the influence of online games on English language development among high school students in Pekanbaru, Riau Province, Indonesia. Despite growing scholarly interest in digital game-based language learning (DGBLL), empirical qualitative evidence from Indonesian secondary school contexts remains scarce. Employing a qualitative research design, data were collected from $n = 20$ students (Grades 10–12, aged 15–18) through in-depth interviews, participant observation, and open-ended questionnaires over an eight-week period. Data were analysed using thematic analysis following Braun and Clarke's (2006) six-phase framework. Findings reveal four overarching themes: (1) vocabulary acquisition through contextualised in-game exposure; (2) enhancement of listening and speaking skills via real-time multiplayer communication; (3) reduction of foreign language anxiety (FLA) in informal gaming environments; and (4) challenges pertaining to inappropriate linguistic register and the absence of pedagogical scaffolding. The study concludes that online games function as effective supplementary tools for English language development when purposefully integrated into a structured pedagogical framework. Implications for EFL curriculum design and teacher professional development in Indonesian secondary schools are discussed.

Keywords: digital game-based language learning; EFL; qualitative research; vocabulary acquisition; foreign language anxiety; Indonesian secondary school;

INTRODUCTION

The rapid proliferation of digital technology has fundamentally transformed the landscape of informal language learning, particularly among adolescent learners. Online

games defined here as networked digital games requiring real-time interaction with other players have emerged as one of the most pervasive leisure activities among high school students globally (Statista, 2024). In Indonesia specifically, the online gaming industry has experienced exponential growth, with an estimated 52.5 million active gamers recorded in 2023, the majority of whom are aged 13–24 (Newzoo, 2023). Given that English serves as the dominant language of instruction, communication, and interface design in the majority of globally distributed online games, Indonesian adolescent gamers are exposed to substantial volumes of authentic English input in their everyday recreational activities.

From a second language acquisition (SLA) theoretical perspective, this phenomenon is of considerable pedagogical significance. Krashen's (1982) Input Hypothesis posits that language acquisition is facilitated by comprehensible input slightly beyond the learner's current proficiency level ($i+1$). Online games, by embedding English within motivating, goal-directed, and contextually rich environments, may naturally approximate this condition. Furthermore, Vygotsky's (1978) sociocultural theory of learning, particularly the concept of the Zone of Proximal Development (ZPD), finds resonance in the collaborative, peer-mediated communication that characterises multiplayer online gaming. In these environments, learners frequently negotiate meaning, co-construct linguistic knowledge, and receive implicit corrective feedback from more proficient interlocutors.

Empirical research on digital game-based language learning (DGBLL) has expanded considerably over the past decade. Sundqvist and Sylvén (2016) demonstrated that extramural English activities including gaming constitute a significant predictor of English proficiency gains among Swedish adolescents. Rajendran et al. (2024) conducted a systematic review of 34 studies and concluded that commercial video games positively influence vocabulary acquisition, listening comprehension, and communicative competence in EFL learners. In the Indonesian context, Mursidin et al. (2022) found measurable vocabulary gains among students who engaged regularly with English-language online games, while Alamsyah and Wahyuni (2023) similarly reported significant improvements in vocabulary mastery among high school gamers.

Despite this growing evidence base, several critical gaps persist in the literature. First, the majority of existing studies rely on quantitative or experimental designs, affording limited insight into the experiential and motivational dimensions of game-based language learning as perceived by learners themselves. Second, qualitative research examining the specific linguistic processes and social interactions that unfold within online gaming environments in

the Indonesian secondary school context remains conspicuously sparse. Third, the conditions under which gaming experiences translate into transferable EFL competencies and the role of teacher mediation in this process have not been adequately theorised from an Indonesian pedagogical standpoint.

This study therefore addresses the following research questions:

RQ1: How do Indonesian high school students perceive the influence of online games on their English language development across the four macro-skills (listening, speaking, reading, and writing)?

RQ2: What affective and motivational mechanisms mediate the relationship between online gaming and English language learning among Indonesian secondary school students?

RQ3: What challenges do students and teachers identify in leveraging online games for EFL development?

By centring students' lived experiences and perspectives, this study aims to generate contextually grounded insights that can inform the purposeful integration of digital gaming into Indonesian EFL classrooms.

METHODS

Research Design

This study employed a qualitative research design, specifically an interpretive phenomenological approach, to explore the lived experiences of high school students with online games as informal English learning environments. A qualitative design was selected in preference to quantitative approaches because the primary aim was to understand the depth, complexity, and contextual specificity of participants' perceptions and experiences, rather than to establish statistical generalisability (Creswell, 2014; Denzin & Lincoln, 2018). This approach is consistent with recent calls in DGBLL research for richer, experience-centred methodologies that can illuminate the processes not merely the outcomes of game-mediated language learning (Reinhardt, 2019).

Research Setting and Participants

Participants comprised $n = 20$ high school students enrolled at a state secondary school (Sekolah Menengah Atas Negeri) in Pekanbaru, Riau Province, Indonesia. Purposive sampling was employed to select participants who: (a) played English-language online games at least three times per week; (b) had been doing so for a minimum of one year; and (c) were

enrolled in Grades 10–12. The sample comprised 12 male and 8 female students aged 15–18 years ($M = 16.6$). The most frequently played games reported by participants included Mobile Legends: Bang Bang, Genshin Impact, Valorant, and Among Us all of which feature substantial English-language interaction. Informed consent was obtained from all participants, and parental consent was secured for students under 18 years of age. All participants are identified by pseudonyms in this report.

Data Collection Instruments

Three complementary data collection methods were employed to ensure triangulation of findings:

(a) In-Depth Interviews: Individual semi-structured interviews (30–45 minutes each) were conducted with all 20 participants to explore their gaming practices, self-perceived language gains, and attitudes toward English learning through games. An interview protocol was developed based on the research questions and piloted with two participants not included in the final sample. Interviews were conducted in Bahasa Indonesia to ensure participants could express themselves fully, and were subsequently transcribed and translated into English by the researcher.

(b) Participant Observation: Eight observation sessions (60 minutes each) were conducted over the eight-week data collection period. With participants' consent, the researcher observed online gaming sessions, attending specifically to instances of English language use, peer communication, and meaning negotiation. Detailed field notes were recorded using a structured observation protocol adapted from Sundqvist and Sylvén (2016).

(c) Open-Ended Questionnaire: A 15-item open-ended questionnaire was administered to all 20 participants at the end of the data collection period. Items probed specific aspects of participants' gaming habits, perceived linguistic benefits across the four macro-skills, and challenges encountered. Open-ended formats were selected to elicit rich, descriptive responses unconstrained by predetermined categories.

Data Analysis

All qualitative data (interview transcripts, field notes, and questionnaire responses) were subjected to thematic analysis following the six-phase framework of Braun and Clarke (2006): (1) familiarisation with data; (2) generation of initial codes; (3) searching for themes; (4) reviewing themes; (5) defining and naming themes; and (6) producing the report. Coding was conducted in two rounds using NVivo 12 software. To establish credibility, member checking

was performed by returning summarised findings to six participants for verification. Transferability was enhanced through thick description of the research context. Dependability was ensured through an audit trail documenting all analytical decisions. Ethical approval was obtained from the Faculty Research Ethics Board, Universitas Islam Riau.

RESULTS AND DISCUSSION

Results

Thematic analysis yielded four overarching themes, presented below in alignment with the study's research questions. Participant quotations are presented verbatim (translated from Bahasa Indonesia where applicable) and identified by pseudonym and grade level.

Theme 1: Vocabulary Acquisition Through Contextualised In-Game Exposure (RQ1)

The most frequently reported linguistic benefit across all data sources was vocabulary acquisition. Seventeen of twenty participants (85%) described the online gaming environment as a primary site of incidental vocabulary learning, characterised by repeated, contextualised encounters with new lexical items embedded within meaningful, goal-directed activity.

Participants consistently distinguished in-game vocabulary acquisition from classroom-based vocabulary study, emphasising the contextual salience and emotional memorability of game-embedded lexis:

"In school, I memorise words from a list and forget them the next day. But in Genshin Impact, I learned words like 'descend', 'elemental', 'resistance'—I remember them because I needed them to play well. The game gave the words a meaning." (Arif, Grade 11)

This observation is theoretically consonant with Schmidt's (1990) Noticing Hypothesis, which holds that conscious attention to form within meaningful communicative input is a necessary condition for acquisition. The motivational structure of games wherein lexical comprehension directly enables task success appears to reliably trigger this noticing process. These findings are consistent with Dewi et al. (2023), who similarly reported that students' active engagement with in-game vocabulary in Mobile Legends produced significantly higher retention rates than decontextualised word-list study.

Observation data further revealed that participants spontaneously employed metalinguistic strategies during gaming sessions pausing to look up unfamiliar terms, asking peers for translations, and hypothesising meaning from context behaviours consistent with self-regulated language learning (Zimmerman, 2000).

Theme 2: Enhancement of Listening and Speaking Skills via Multiplayer Communication (RQ1)

Participants reported substantive improvements in listening comprehension and oral fluency as a direct consequence of real-time, English-mediated communication in multiplayer gaming environments. Sixteen participants (80%) indicated that listening to in-game English audio including character dialogues, game narrations, and peer voice communication had perceptibly improved their ability to process rapid, authentic spoken English.

"My teacher speaks slowly and clearly. But in Valorant, my teammates from other countries speak fast, with slang. At first I couldn't understand anything. But after months, my ears adjusted. Now I can follow English YouTube videos without subtitles." (Bima, Grade 12)

This finding aligns with Chobert and Besson's (2013) neurocognitive model demonstrating that repeated exposure to varied prosodic patterns sharpens auditory temporal processing, which in turn facilitates second language listening comprehension. The authentic, unpredictable nature of gaming discourse as opposed to the scripted, slowed input of pedagogical listening materials appears to accelerate this process.

Regarding speaking skills, 14 participants (70%) reported increased confidence and fluency in English oral communication as a result of gaming. Critically, participants attributed this improvement not merely to increased practice volume but to the affective safety of the gaming context:

"In class, if I make a mistake, everyone looks at me and I feel embarrassed. In the game, nobody cares if my grammar is wrong they only care if my strategy is good. So I speak without fear." (Citra, Grade 10)

This observation resonates directly with MacIntyre et al.'s (1998) construct of Willingness to Communicate (WTC), which identifies perceived communicative competence and low anxiety as key proximal determinants of authentic language use. The informal, peer-focused gaming environment appears to reduce the evaluative threat that characterises formal classroom communication, thereby increasing WTC.

Theme 3: Reduction of Foreign Language Anxiety in Gaming Environments (RQ2)

A particularly salient finding pertained to the affective dimension of game-mediated language learning. Eighteen participants (90%) reported that the online gaming environment substantially reduced their foreign language anxiety (FLA) compared to formal classroom settings. This finding is of considerable theoretical significance given the well-documented

relationship between FLA and impaired language acquisition (Horwitz et al., 1986; MacIntyre & Gardner, 1994).

Participants identified three specific mechanisms through which gaming reduced FLA: (a) the absence of evaluative judgement from authority figures; (b) the subordination of linguistic accuracy to communicative effectiveness within the game's goal structure; and (c) the intrinsically motivating nature of the activity itself:

"Games make me forget that I am 'learning' English. I am just playing. But then I realise I have been speaking English for two hours and I was not afraid at all. That never happens in school." (Dini, Grade 11)

This observation is theoretically grounded in Krashen's (1982) Affective Filter Hypothesis, which posits that reduced anxiety lowers the cognitive barrier to language input and facilitates acquisition. The gaming context, by rendering anxiety cognitively invisible through immersive engagement, appears to systematically lower the affective filter. These findings extend those of Pinter et al. (2024), who similarly reported that children playing online games in English exhibited markedly lower performance anxiety than in classroom-based English tasks.

Theme 4: Challenges and Pedagogical Considerations (RQ3)

Notwithstanding the predominantly positive findings, four significant challenges were identified through thematic analysis.

First, linguistic register mismatch emerged as a prominent concern. Fifteen participants (75%) acknowledged that the English used in online games characterised by slang, abbreviations, and culturally specific idioms was frequently inappropriate for academic or formal contexts. Teachers interviewed as part of the study corroborated this observation, noting that students sometimes transferred informal gaming register to written assignments.

Second, the absence of pedagogical scaffolding was identified as a barrier to maximising linguistic gains. While participants reported incidental vocabulary acquisition and informal communicative practice, none described receiving explicit teacher guidance on how to leverage their gaming experiences for formal English development. This gap represents a significant missed opportunity, given that research consistently demonstrates that explicit form-focused instruction enhances the linguistic yield of meaning-focused input (Spada, 2011).

Third, attention fragmentation was reported by 12 participants (60%), who acknowledged that the goal-directed intensity of competitive gaming sometimes overrode conscious attention to language form, limiting the depth of linguistic processing.

Fourth, equity of access remained a structural concern: three participants reported limited access to stable internet connections or gaming-capable devices at home, constraining their extramural gaming exposure relative to peers from higher socioeconomic backgrounds.

Towards a Scaffolded Blended Learning Framework

Synthesising the four themes, this study proposes a scaffolded blended learning framework for the purposeful integration of online gaming into Indonesian EFL instruction. The framework comprises three sequential phases: (1) a Pre-Gaming Phase, in which teachers provide explicit vocabulary and cultural pre-teaching related to games students are already playing; (2) a During-Gaming Phase, in which students maintain reflective gaming journals documenting new vocabulary, communicative strategies, and linguistic challenges encountered; and (3) a Post-Gaming Phase, in which in-class debriefing activities bridge informal gaming language to formal academic register, and explicit grammar instruction draws on game-sourced examples. This framework directly addresses the challenge of register mismatch and the absence of pedagogical scaffolding identified in Theme 4, while preserving the motivational and affective benefits documented in Themes 1–3.

CONCLUSIONS

This qualitative study provides substantive empirical evidence that online games constitute meaningful informal English language learning environments for Indonesian high school students. Through thematic analysis of interview, observation, and questionnaire data from 20 participants, four overarching themes were identified: contextualised vocabulary acquisition, enhancement of listening and speaking skills through multiplayer communication, reduction of foreign language anxiety, and pedagogical challenges related to register, scaffolding, access, and attention. These findings advance understanding of digital game-based language learning in the Indonesian secondary EFL context and offer a theoretically grounded basis for the purposeful pedagogical integration of online gaming.

The study's proposed scaffolded blended learning framework comprising pre-gaming preparation, reflective during-gaming journaling, and post-gaming debriefing provides a replicable model for EFL practitioners seeking to bridge students' extramural gaming

experiences with formal curricular objectives. It is emphasised, however, that online games function most effectively as supplementary tools within a comprehensive EFL curriculum: they enrich motivation, contextual exposure, and communicative confidence, but do not supplant the need for explicit grammar instruction, academic writing development, and formal language assessment.

Several limitations of this study should be acknowledged. The relatively small sample size ($n = 20$) and single-site design limit the transferability of findings to other Indonesian secondary school contexts. The reliance on self-reported data introduces social desirability bias. Future research should employ larger, multi-site qualitative designs, incorporate longitudinal observation over extended periods, and explore the differential effects of specific game genres on distinct EFL competencies. The development of validated instruments for assessing game-mediated language gains in Indonesian EFL contexts represents a further research priority.

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