Implementing the online game Mobile Legends: Bang Bang to support students' English vocabulary learning

Asih Dayanti[✉][1], Yuliati[1]

[1]Universitas Negeri Semarang, Indonesia

Article Info

Abstract

This study explores the integration of Mobile Legend Bang-Bang (MLBB) to support vocabulary learning, applying Notion's (2001) framework of noticing, retrieval, and generation. Most studies focus on how MLBB functions to promote vocabulary outcomes; however; there is a gap in exploring the cognitive processes behind vocabulary acquisition hero quotes from the game. This research seeks to fill that gap by clarifying how hero quotes assist in vocabulary learning. With a qualitative case study design at at a vocational high school in Indonesia, data collected included classroom observations and interviews with thirty-three students and one English teacher. The results indicated that MLBB helps foster vocabulary noticing, remembering, and using words. Furthermore, students were more digitally interested as well as more imaginatively engaged cognitively with the material. Teachers reported improved student participation along with more creative lesson planning, greater digital engagement, and instructional flexibility tailored to learners' levels. The study concludes that controlled usage of MLBB leads to purposeful vocabulary learning, indicating that game-centered media have positive impacts on language teaching and learning in classrooms designed for digital natives. Practical implementation may include quote-based noticing tasks, retrieval games, expressive production activities, and structured teacher mediation to optimize learning outcomes.

INTRODUCTION

Mobile Legends: Bang-Bang (MLBB) is a popular Multiplayer Online Battle Arena (MOBA) game. It has become a dominant digital activity among Indonesian youth, especially vocational high school students. While often criticized for encouraging excessive screen time or aggression (Cabiles et al., 2025), MLBB offers a linguistically rich environment with English commands, character dialogues, and narrative-based hero quotes (Poeller et al., 2023). These elements provide multimodal exposure such as visual, textual, and auditory (Sinar et al., 2024), which supports both receptive and productive language skills (Yeh & Hung, 2023). Despite its entertainment nature, MLBB presents unique opportunities for vocabulary development that remain underutilized in formal classroom education settings.

Vocabulary is a critical element of English proficiency, essential for comprehension and communication across contexts (Schmitt, 2019). Mastery extends beyond meaning to include form, usage, and semantic connections (Moskowitz et al., 2022). It also involves understanding receptive/productive and active/passive types (Malmström et al., 2018). Nation (2001) outlines three key processes of vocabulary mastery: noticing (conscious attention to new words), retrieval (recalling them in varied contexts), and generation (producing words meaningfully). These stages are supported by later studies emphasizing their central role in long-term and sustainable learning (Behbahani, 2023; Mousavi et al., 2021).

In vocational schools, however, vocabulary instruction remains passive and disengaging. It often depends on memorization, word lists, and contextually detached translation tasks (Musa et al., 2021). Such methods often fail to activate cognitive processes and limit retention. Additionally, vocabulary lessons rarely reflect student interests or media habits, lowering motivation and relevance (Flowerday & Shell, 2015). This issue is especially critical for vocational students, who are expected to apply English in professional scenarios such as interviews, workplace communication, or technical documentation. Given that students are digital natives, the gap between traditional teaching and their digital lives further hampers meaningful and sustainable language acquisition (Wang & Cohen, 2021).

MLBB offers a viable pathway for reform. It reflects the core principles of Digital Game-Based Learning by offering repeated, meaningful English input through gameplay and real-time communication. Linguistic features, especially hero quotes, present metaphorical, emotionally resonant language that supports noticing and retention (Felarca, 2024; Mercy, 2023). These narrative-rich elements also enable learners to engage with lexical depth creatively (Aulia et al., 2023; Qothrunnada et al., 2024). Then, their frequent recurrence aids retrieval, and reuse in speaking or writing tasks fosters generation, aligning with Nation's (2001) framework. Hockly (2019) pointed out that DGBL environments like MLBB promote learner control and vocabulary elaboration, reinforcing their relevance in vocabulary instruction. Altogether, MLBB provides both cognitive and affective conditions conducive to vocabulary learning.

Recent studies support the potential of MLBB as a vocabulary learning tool. In primary and secondary education, MLBB-integrated activities have improved vocabulary mastery and fostered collaboration among students (Ananda & Hasibuan, 2023; Sadiqin et al., 2023). Exposure to in-game English commands contributes to gains in both receptive and productive vocabulary (Diantoro et al., 2020). Dananjaya and Kusumastuti (2019) and Kobis et al. (2020) highlight that peer collaboration during gameplay reinforces responsive and repetitive vocabulary use, promoting better recall. Ta'uno and Poai (2022) observe that MLBB increases student motivation and encourages spontaneous English, although distraction remains a concern. Similarly, Dharmawati et al. (2024) report that MLBB served as a supplementary tool during online learning, increasing interest and exposure among students. In tertiary contexts, Gazam and Perkasa (2022) find that students with gaming backgrounds perform better in vocabulary tasks, aligning with findings by Adha et al. (2022) and Yudanto (2025), who report increased speaking engagement. Balqish and Hadi (2023) add that long-term vocabulary development is supported by sustained gameplay and peer interaction. Beyond Indonesia, Dağdeler (2023) and Mahdi (2018) confirm that mobile games boost retention and engagement. Breien and Wasson (2021) note that narrative-rich games enhance emotional ties to language, while Al-Jarf (2022) finds measurable vocabulary gains among Arab EFL learners. However, low-spec devices limited access for some learners. Despite technical constraints, games like League of Legends still offer rich input (Lo & Mok, 2019). Esports games such as MLBB and PUBG also provide authentic, communicative settings for vocabulary use (Bobrovich, 2024; Zhong et al., 2024). These findings collectively affirm MLBB's value as a game-based vocabulary learning medium.

Despite the growing interest in using digital games for language learning, several gaps persist in the current literature. First, although Nation's (2001) cognitive framework of noticing, retrieval, and generation is widely cited in vocabulary research, few studies explicitly apply it to examine how vocabulary is processed during gameplay. Most focus on vocabulary outcomes rather than the underlying learning mechanisms. Second, unique game features such as hero quotes remain underutilized as lexical resources in language learning studies. Third, the context of vocational high schools is often overlooked, even though students in these institutions face distinct language demands and professional goals that differ from general secondary or tertiary education. Furthermore, existing studies on MLBB-based language learning typically involve mixed or general student samples, with male learners rarely examined as the primary research focus, despite their significant engagement with MOBA games (Cudo et al., 2023). Finally, teacher perspectives are rarely addressed, despite their pivotal role in adopting digital tools and shaping classroom practices (Bond et al., 2018; Tondeur et al., 2017).

To address these gaps, this study adopts a novel approach by investigating how Mobile Legends: Bang-Bang, especially hero quotes, serve as linguistic stimuli that promote vocabulary acquisition through Nation's (2001) cognitive framework of noticing, retrieval, and generation. Unlike prior studies that focus primarily on learning outcomes, this research emphasizes the underlying learning processes during gameplay. It also foregrounds vocational high school learners, whose English needs are shaped by job-oriented communication, yet remain underrepresented in game-based vocabulary research. Furthermore, it incorporates both student and teacher perceptions to offer a more holistic and practical understanding of MLBB's pedagogical relevance. Accordingly, this study aims to (1) explore how MLBB hero quotes support vocabulary acquisition through the processes of noticing, retrieval, and generation; (2) examine student perceptions of MLBB as a vocabulary learning tool; and (3) analyze teacher perspectives on its integration into vocational English instruction.

METHODS

This research employed a descriptive qualitative case study design to investigate the specific research questions related to the role of MLBB's hero quotes in vocabulary acquisition. It was appropriate to use qualitative methods because this allows interpretation of participants' experiences (Alase, 2017). With this approach, it was possible to gain insights on how students engage with MLBB content and how these aid vocabulary learning. The study implemented a case study design to explore a bounded system (an English class integrating MLBB into lesson delivery) which are useful forcontextual investigations utilizing various data sources (Harrison et al., 2017). These enabled a contextual understanding of how students engage with MLBB content and how these support vocabulary learning.

Respondents

The investigation was carried out at a vocational high school in Indonesia in one class of eleventh-grade students during the academic year of 2024/2025. The school was selected for its active digital literacy initiatives and openness to technology-enhanced instruction (Jatmoko et al., 2023). The class involved consisted of male students, chosen based on evidence that boys often show higher motivation when learning through games (Chen, 2016). The participating teacher had strong digital competence and flexible pedagogy (Bond et al., 2018). This context was relevant for exploring MLBB integration in vocabulary instruction.

Instruments

Two main instruments were used in this research: interviews and observations. This study used structured non-participatory observation, following Handley et al. (2020), where researchers observed interactions without direct involvement. The checklist, adapted from Margareta and Ulfaika (2021), was aligned with Nation's (2001) vocabulary learning framework, since it emphasized the cognitive processes crucial to word acquisition. It consists of 12 indicators across four domains: noticing, retrieval, generation, and teacher mediation. Each item was rated on a 4-point scale from "not observed" to "frequently observed." Every indicator included a comment section for brief contextual notes. The second instrument for this study was conducting interviews. In this case, semi-structured interviews were utilized, which include key questions along with supplementary probes for richer data (Kallio et al., 2016). The interview protocol was adapted from Nuriyah (2023). Purposive sampling was applied to select information-rich participants who met the defined criteria (Campbell et al., 2020).

Guiding questions such as "How do you recognize new English words when playing?" or "Have you ever reused any game-related vocabulary in daily tasks?" were used to elicit meaningful responses. Both instruments combined provided objective behavioral data and subjective commentary on vocabulary learning with MLBB.

Data collection procedures

Data were collected at a vocational high school in Indonesia through classroom observations and semi-structured interviews over two weeks in May 2025. Observations in Week 1 and 2 used a structured checklist completed in real time by the researcher in class without recordings. The researcher sat unobtrusively at the back of the class and filled in the checklist in real time. Interviews were conducted with 10 students and one teacher after class at the end of Week 2 in a private school room, recorded via a mobile app, and lasted 15–25 minutes. Responses were transcribed verbatim to preserve accuracy and enable detailed analysis, then reviewed twice and confirmed by participants through follow-up chat. These procedures ensured data reliability and contextual relevance.

Data analysis

Data were analyzed using Miles and Huberman's (1994) interactive model: data reduction, display, and conclusion drawing. In reduction, transcripts and notes were reviewed to highlight vocabulary-related segments, while unrelated data were excluded. For instance, a student's quote like "I can remember the word easily because I kept seeing it in the game" was coded as retrieval. In the display stage, excerpts were grouped thematically using Nation's (2001) framework: noticing, retrieval, and generation. Themes were organized in tables to visualize patterns. In conclusion drawing, interview and observation data were compared through source triangulation (Denzin, 1989) to ensure consistency and reduce bias, supporting the validity of findings. An excerpt from the display is shown below:

Table 1. Sample coded data excerpts

Data Source	Raw Excerpt	Code	Subtheme	Thematic Category (Notion, 2001)
Observation	Students repeated the hero's quote several times during peer discussion.	Quote-based recall	Peer repetition	Retrieval
Interview	"I can remember the word easily because I kept seeing it in the game."	Repetition supports memory	Recurrent exposure	Retrieval

FINDINGS AND DISCUSSION

The online game Mobile Legends: Bang-Bang was chosen as a case study to demonstrate its effectiveness in aiding vocabulary learning. The analysis was organized into these three subthemes: (1) MLBB integration in vocabulary instructional sessions; (2) students' perceptions towards MLBB implementation; (3) teacher's perceptions towards MLBB implementation.

MLBB Integration in Vocabulary Instructional Sessions

Based on Nation's (2001) framework of vocabulary learning involving noticing, retrieval, and generation, this study utilized Mobile Legends: Bang-Bang (MLBB) in two instructional sessions. Implementation data were derived from classroom observations using a structured observation checklist and analyzed qualitatively.

Stage 1: Noticing

In the first stage, noticing was initiated through contextualized class discussions centered on selected MLBB hero quotes. The teacher introduced lexical items by embedding them in whole-class dialogue, leading students to reflect on meaning, usage, and grammatical class. This approach encouraged learners to connect new vocabulary with familiar in-game scenarios, which appeared to boost attention, especially when popular heroes were featured. For instance, when a student hesitated over

the word change, the teacher gave an everyday example "If you say 'I change my clothes,' what kind of action is that?" which led the class to identify its function as a verb. Most students appeared engaged, asking questions or sharing associations during quote analysis. However, a few required redirection when distracted by unrelated game elements. Collectively, the combination of audiovisual content and teacher mediation effectively encouraged students to notice and explore lexical forms within authentic, meaningful contexts.

Stage 2: Retrieval

During the retrieval phase, students were guided to recall and apply vocabulary through structured tasks that followed team-based MLBB gameplay. Individual worksheets required them to identify meanings, grammatical roles, and semantic relations of the vocabulary encountered. Teacher scaffolding was evident when students struggled with classification; contextual cues such as "I charge my phone" helped clarify the verb form of charge. Peer discussion played a vital role, as students often confirmed answers or refined definitions together, for example, one student's interpretation of invade as "entering a place by force" sparked wider group discussion. The teacher facilitated these moments by rephrasing or expanding responses. Though a few students occasionally lost focus due to game-related distractions, structured transitions between play and reflection appeared to support cognitive recall. This stage showed that when retrieval was guided and reinforced through interaction, learners were more likely to process and retain target vocabulary.

Stage 3: Generation

The final stage centered on output, where students used target vocabulary in original, personally meaningful sentences. Students first worked independently before collaborating in groups to revise and extend their sentences using MLBB vocabulary. Items like 'unstoppable' or 'immortal' were frequently used, with examples such as "My brother is unstoppable when he plays basketball," reflecting personal relevance. The teacher provided feedback by highlighting student work and prompting further elaboration: after one student wrote "She is brave," the teacher asked how using bravely would shift the sentence's meaning. Group tasks encouraged negotiation of meaning, with some revisions improving both grammar and clarity, for instance, "My phone is immortal" was collaboratively changed to "The hero is immortal because he never dies in battle." Although some groups struggled with lexical precision, the overall atmosphere reflected increased willingness to experiment with language. This generative process helped solidify vocabulary through meaningful use, discussion, and reflection.

Assessment and Conclusion

At the end of the stages, a multiple-choice quiz was used to evaluate vocabulary retention, with classroom observation indicating that most students answered majority items correctly. While concise, the assessment supported the effectiveness of preceding instructional stages. Taken together, the integration of MLBB hero quotes facilitated the three stages of vocabulary learning proposed by Nation (2001) effectively, with students engaging in contextual noticing, retrieval, and language generation. Despite occasional distractions from gameplay, structured support helped maintain focus, demonstrating that purposeful integration of digital media can enhance vocabulary development.

Students' Perception towards MLBB Implementation

Data from student perception interviews were classified into two broad categories: advantages and disadvantages. For ethical considerations, student identities are anonymized using codes (e.g., S1, S2, etc.), which will be used to present their responses in the following discussion.

Advantages of MLBB Implementation from the Students' Perspective

Lexical Enrichment
Hero quotes of MLBB exposed learners to vocabulary, promoting noticing over mechanical recall, signaling lexical enrichment. As S5 noted:
".... hero quotes make new words stand out, like how 'Quick' feels different when said seriously or excitedly. [...] There are words that I learned can also be adjectives or verbs. I never knew that before." (S5)

This exposure improved their lexical knowledge by bringing together many dimensions of vocabulary. It included usage context, emotional tone, grammatical function, and lexical relationships such as synonyms, antonyms, and word classes.As a result, students did not merely encounter words but gained a deeper understanding of how those words operate meaningfully within authentic language contexts.

Development of Interpretive Skills
MLBB hero quotes exposed students to metaphorical narrative andemotional language, which enhanced interpretative thinking beyond literal meaning. As S7 emphasized:
"When I heard 'the darkness is my ally,' I thought it was weird. But then I realized it meant the hero feels strong in tough times. It made me think about my struggles too." (S7)
The emotional quotes encouraged deeper vocabulary engagement. Rather than memorizing definitions, they interpreted meaning through context and tone, which supported critical thinking skills. Additionally, this classroom task also involved decoding these expressions collaboratively, which linked language to real-life meaning. Hence, the activity fostered students' interpretive skills alongside language development.

Vocabulary Reinforcement
In MLBB, repeated hero quotes in gameplay provided natural repetition for vocabulary reinforcement. In the interview, S4 elaborated:
"I can still remember some words from the hero because they say them many times... Then, when I did the worksheet, I had to think again about what the words meant..." (S4)
The activity illustrated how MLBB can strengthen vocabulary retention through exposure during gameplay. Afterward, students completed structured worksheets to retrieve and apply the vocabulary they encountered. This process reinforced their memory by combining contextual engagement with cognitive effort. It helped the words become readily understood and integrated into their long-term vocabulary knowledge effectively.

Integration of Digital Learning Tools
MLBB provided a fun, engaging platform that helped students shift focus from tool navigation to vocabulary learning, as noted by S:
"…. since we already played ML a lot, it came naturally. I didn't have to learn a new app, so I could just pay attention to the words." (S1)
By turning hero quotes into structured tasks, the teacher transformed entertainment into purposeful learning. Students repeatedly interacted with language meaningfully, supporting vocabulary acquisition in digital literacy.The approach demonstrated how relevant technology enriches instruction andengages students effectively in digital language classrooms.

Increased Student Motivation and Engagement
Integrating MLBB successfully increased student motivation and engagement, as mentioned by S3:
"I felt excited when ML was part of the class. It didn't feel like a normal lesson. It was fun, not boring, because we were playing and learning at the same time." (S3)
MLBB provided a familiar context that aligned with students' interests. Interactive audiovisuals and collaborative gameplay boosted focus, peer interaction, and confidence. The autonomy in hero choice deepened students' engagement in the learning process. Besides, vocabulary discussions during and after play further reinforced their engagement. It made vocabulary learning more engaging, collaborative and enhancing language acquisition.

Disadvantages of MLBB Implementation from the Students' Perspective

Overreliance on Game Context
Overreliance on MLBB risked distraction, as some students focused more on gameplay and mechanics than on vocabulary learning objectives. As S1 reflected:
"Sometimes I got a little distracted because the game is exciting, so I didn't catch all the words. My attention went away for a bit while playing." (S1)
The comment highlighted the need for careful instructional design to keep learning objectives central. Without clear focus and guided reflection, gameplay immersion could reduce effective

language input and distract students. In the end, it might limit vocabulary engagement and weaken the overall impact of game-based learning activities in the classroom.

Device Capacity Issues
Limited device quality hindered MLBB-based learning due to lag and crashes.. In the interview, S2 explained:
"My phone sometimes lags when I play [...] Some of my classmates' phones aren't good enough to run ML properly. That made it harder to follow the task." (S2)
        The statement reflected how disparities in device quality could undermine the effectiveness of the learning approaches. This challenge becomes more apparent when tasks depend on stable in-app performance and consistent connectivity. This resulted in interruptions during vocabulary tasks, reduced learner focus. Consequently, it could hinder the smooth execution of planned classroom activities and learning outcomes.

Connectivity Disruptions
During MLBB-based tasks, some students faced unreliable connections, limiting participation and interaction. S9 described the challenge:
"In my classroom, the Wi-Fi signal is weak because it's in the far corner." (S9)
        This highlighted how unequal access to stable internet infrastructure caused disruptions to gameplay and instructions. It could limit students' ability to benefit fully from digital vocabulary learning activities. Poor connectivity increased cognitive load, as students struggled with technical issues alongside learning tasks. In sum, poor access severely weakened effective digital learning outcomes.

Teacher's Perception towards MLBB Implementation

The lecturer involved in implementing MLBB was also interviewed. Her insights, labelled as IT (Interview with Teacher), support student responses and are grouped into two subchapters: advantages and disadvantages.

Advantages of MLBB Implementation from the Teacher's Perspective

Engaging Teaching Material
MLBB provided hero quotes that can be utilized as stimulating teaching materials, as noted by IT:
"Some hero quotes are short but loaded with meaning. I asked students to reflect on whether the expressions were literal or figurative, and we discussed how certain words could be used in different contexts. It wasn't just about knowing the word, but understanding how and why it was used." (IT)
        Hero quotes sparked reflection and discussion. They helped students grasp word meaning, usage, and figurative language. The game also enabled real-time formative assessment, letting teachers adjust instruction and reinforce vocabulary immediately. These elements provided engaging material for meaningful vocabulary learning. Altogether, students could analyze language in context and apply it in memorable situations.

Promote Differentiated Instruction
Hero quotes supported differentiated learning through engaging multimodal content, like voices and animations, IT highlighted in the interview:
"…..the media is already interesting for them, it helps me a lot. I can select quotes that match each group's ability. [….] Some students are more responsive when they can hear the quote, see the character, and act it out." (IT)
        MLBB enabled interest-based instruction while meeting broader goals and reaching more students effectively. Teachers could tailor hero quotes based on students' learning styless. It could also be applied in alignment with student levels, literal for beginners and figurative for advanced, since familiarity boosts receptiveness and retention. Hence, hero quotes of MLBB became a flexible tool for differentiated language instruction.

Encourages Digital Pedagogy Development
Integrating MLBB enhanced digital pedagogy by encouraging educators to adopt technology-integrated teaching practices. As reported by IT:

"…. to effectively use MLBB in class, I needed to learn new digital tools and adjust my lesson plans. That pushed me to find new ways to use technology in teaching…" (IT)

This integration motivated teachers to develop digital skills. It applied constructivist approaches, where technology supported active learning rather than passive content delivery. This encouraged educators to exploreand modify digital materials. Thus, it could promote learner autonomy and align instruction with real-world digital practices.

Improves Teacher-Student Relationship
Positive teacher-student relationships supported effective language learning by fostering emotional safety. IT mentioned in the interview:
"They were totally stunned the first time I used MLBB in class. I think they were impressed. A few even stayed behind to share which hero they liked. From that moment, our classroom dynamic changed. They were more open, more talkative, even during exercises." (IT)

Implementing MLBB bridged students' digital interests with formal instruction, creating a relaxed environment that lowers anxiety. Accordingly, the established connection made teachers more approachable, increasing student comfort in classroom tasks. This emotional safety fostered trust, reduced fear of making mistakes, and encouraged more spontaneous language use. It is essential for meaningful vocabulary practice.

Disadvantages of MLBB Implementation from the Teacher's Perspective

Challenge in Material Preparation and Assessment Design
Integrating MLBB into formal instruction went beyond enthusiasm, which required pedagogical precision and substantial planning. As explained by IT:
"Honestly, I wasn't familiar with MLBB at all when I started. But since we wanted to use it in class, I tried to understand it. I played the game, paid attention to the hero quotes, and learned how everything works. Surprisingly, I found it quite enjoyable. [….] Then, creating the assessment part was a bit challenging too because we had to figure out how to connect it with the lesson. It took quite a bit of time, but I actually enjoyed it. I like trying new things, so for me, it was both a challenge and a chance to learn something new." (IT)

Preparing effective MLBB materials required understanding gameplay, language, and audio, which can be time-consuming for teachers. In addition, designing assessments was also challenging without standardized guidelines. Developing tasks that were pedagogically sound, and engaging for learners added further complexity. These challenges showed the heavy planning load teachers faced when using digital games in formal teaching.

Potential Classroom Management Issues
Combining mobile games and vocabulary instruction could distract from pedagogical goals. IT shared:
"Since the game is captivating, some students overlooked the learning part and focused on playing. Keeping them on task required extra effort. […] Planning group work added complexity and made classroom management harder. Managing lesson timing was also a constant challenge." (IT)

The engaging nature of MLBB could divert attention. Teachers must monitor students to prevent off-task behavior. Since gameplay can easily become the focus, teachers must consistently guide students toward learning goals. These issues highlighted challenges in balancing gaming use with classroom management.

Discussion
MLBB Integration in Vocabulary Instructional Sessions
The findings confirm that MLBB, through hero quotes, supports Nation's (2001) vocabulary learning processes: noticing, retrieval, and generation. In the noticing phase, learners became aware of new vocabulary as their attention was drawn to emotionally salient and context-rich hero quotes. This aligns with Chowdhury et al. (2024) and Mousavi et al. (2021), who stress the value of repeated input, while Diantoro et al. (2020) and Mercy (2023) note that metaphorical language and interactivity enhance salience and focus. This study extends these claims by showing that teacher-scaffolded quote selection can direct learners not only to meaning but also to grammatical and functional dimensions. In practice, selected quotes in audiovisual format and reflective tasks, such as analyzing tone or word class, can promote conscious lexical noticing, especially when paired with prediction or group-

checking routines. In the retrieval stage, MLBB's repetitive gameplay allowed learners to reencounter target vocabulary in meaningful contexts. This reinforces Nation's view that spaced recall aids retention, supported by findings from Dağdeler (2023), Mahdi (2018), and Zou et al. (2021), on digital repetition. Learners in this study were able to recall key terms, especially after structured post-game tasks. Teachers can design cloze tests or in-game-inspired recall games to enhance retrieval through varied modalities, such as pair challenges or quick quizzes. In the generation phase, students produced vocabulary actively in both spoken and written forms, resonating with Behbahani (2023), Malmström et al. (2018), and Yeh and Hung (2023), who emphasize the importance of expressive use. This research highlights how structured classroom activities, like post-game storytelling or quote-based role-plays, can activate productive skills. Teachers may also combine them with sentence transformations or improvisational speaking to deepen output. MLBB also aligns with broader digital game-based learning goals, such as boosting autonomy and engagement (Hockly, 2019). Its integration into learners' digital habits offered a low-pressure space for language experimentation. Practically, MLBB is best embedded in blended cycles where gameplay is paired with structured noticing, recall, and production tasks. Pre-task vocabulary maps, guided mid-game observation logs, and post-task collaborative sentence building can reinforce learning systematically and contextually.

Students' Perception towards MLBB Implementation

Students responded positively to the integration of MLBB, citing increased engagement, stronger motivation, and deeper vocabulary comprehension, particularly through emotionally resonant and context-rich hero quotes. This aligns with Nation's (2001) lexical depth model and supports Al-Jarf (2022) and Moskowitz et al. (2022), who emphasize that immersive digital contexts promote semantic and grammatical understanding. Sadiqin et al. (2023) and Sinaga et al. (2025) confirm that contextualized gameplay improves vocabulary mastery, especially in collaborative settings. Figurative elements embedded in hero quotes enhanced learners' interpretive abilities, in line with Breien and Wasson (2021), who highlight narrative interaction as a vehicle for expressive growth. Similarly, Aulia et al. (2023), Bobrovich (2024), and Qothrunnada et al. (2024) observed that game-based storytelling builds metaphor comprehension and expressive fluency. MLBB reinforced vocabulary retention through repeated exposure and contextual retrieval during gameplay, a finding supported by Dağdeler (2023), Mahdi (2018), and Mousavi et al. (2021), who emphasize the importance of digital repetition in long-term memory consolidation. Post-game peer activities, such as collaborative recall and quote paraphrasing, echoed the work of Dananjaya and Kusumastuti (2019) and Kobis et al. (2020). Students also found MLBB intuitive and aligned with their digital routines, consistent with Ananda and Hasibuan (2023), and further backed by Dağdeler (2023) and Mahdi (2018), who argue that alignment with learners' tech habits increases learning efficiency. Motivation and classroom participation increased, confirming studies by Adha et al. (2022), Balqish and Hadi (2023), Gazam and Perkasa (2022), Yudanto (2025), and Zou et al. (2021),

Theoretically, these findings contribute to digital vocabulary pedagogy by showing that student-centered andnarrative-driven digital input can support not only lexical learning but also expressive language growth in vocational settings, where communication often demands contextual fluency and responsiveness. Practically, teachers can implement guided quote analysis, metaphor exploration, and story mapping to support contextual noticing and interpretation. Retrieval can be reinforced through spaced recall games or quote-based cloze tasks. Vocabulary walls categorized by meaning or emotion can be student-built. Post-game reflection journals and peer mini-presentations can strengthen expressive use and oral fluency. To sustain motivation, teachers may rotate MLBB-based tasks weekly or integrate them into project-based modules. Task differentiation can match students' proficiency, with beginners decoding literal quotes while advanced learners interpret abstract metaphors. Instructional design should blend structured input, peer interaction, and creative output, ensuring MLBB functions as a scaffolded language tool, not just a motivational hook. Teachers also need to act as facilitators who mediate game content with language objectives, ensuring that the game serves learning goals without losing its interactive appeal.

Nevertheless, some challenges hindered the effective implementation of MLBB. Some students tended to immerse themselves more in playing than learning activities, especially when the teacher was less actively involved. This problem was noted by Ta'uno and Poai (2022), indicating that students tend to focus on fun activities in the absence of well-defined instruction. Regarding access to learning resources, Dharmawati et al. (2024), along with Lo and Mok (2019), cited restricted availability of internet services as a major challenge towards maintaining participation over time. Furthermore, low-

spec devices took away opportunities for students to get actively involved. As an observation made by Al-Jarf (2022) and Dharmawati et al. (2024), inadequate technological tools disrupt engagement with digital learning. These concerns also emerged in this research, reinforcing the lack of a proper educational infrastructure and clear instructional design planners responsive to learners' needs. To mitigate these barriers, teachers should implement stricter time framing, blend gameplay with guided reflection, and allocate roles during tasks to maintain focus. Where the internet and devices are limited, offline quote banks and printed task sheets based on in-game dialogues may serve as substitutes to maintain learning continuity.

Teacher's Perception towards MLBB Implementation

Teachers viewed MLBB as a valuable tool for vocabulary instruction, primarily due to the pedagogical richness of its hero quotes. These quotes were seen as effective for introducing vocabulary with nuanced meanings, combining grammar, emotion, and figurative use. This perception aligns with Shi and Shih (2015) and Smiderle et al. (2020), who argue that narrative-rich digital games provide layered language input. Poeller et al. (2023) similarly emphasize that in-game texts immerse learners in contextualized vocabulary learning. Teachers in this study valued MLBB's support for differentiated instruction, offering quotes of varying complexity for different proficiency levels. Beginners could engage with literal expressions, while advanced learners tackled metaphorical lines, confirming Felarca's (2024) notion of tiered input. The game's multimodal features (visual, textual, auditory) were also seen as inclusive of various learning styles, as Sinar et al. (2024) noted. MLBB improved the classroom atmosphere by fostering shared interest, which increased participation and engagement. These effects echo findings from Balqish and Hadi (2023), Cudo et al. (2023), and Gazam and Perkasa (2022) on the motivational impact of gamified tasks. The experience also contributed to professional development, encouraging teachers to shift from content-givers to adaptive instructional designers, a shift described by Bond et al. (2018) and Tondeur et al. (2017).

The findings reinforce narrative-based mobile games as adaptive tools in foreign-language instruction. MLBB scaffolded vocabulary development and expressive use across levels, supporting digital pedagogy for vocational contexts. Practically, teachers can apply quote analysis, metaphor decoding, and contextual mapping, where students infer meaning through language and narrative. Role-based tasks like "quote analyst" promote accountability and depth. Moreover, peer checklists can help monitor interpretation outcomes. To sustain learning value, MLBB should be embedded in structured modules combining gameplay with explicit language goals. Ultimately, MLBB encouraged teachers to reposition themselves as facilitators of creative, dialogic, and learner-centered instruction, demonstrating its dual role as a linguistic and relational resource in the classroom.

However, some challenges were also noted. Teachers needed to develop materials from scratch due to the absence of centralized curricula, a burden also observed by Wang and Cohen (2021). Without a pedagogical structure, the use of MLBB risked becoming superficial or counterproductive, echoing concerns by Musa et al. (2021) regarding poor instructional design. Classroom management issues also emerged, particularly when students focused on gameplay over learning, a pattern consistent with Cabiles et al. (2025). To overcome this, this study suggests structured lesson plans with clear learning objectives and role assignments during tasks to maintain discipline and focus. MLBB's potential is best realized when teachers mediate its use through scaffolded instruction and curricular alignment.

CONCLUSION

This investigation looked into how vocabulary instruction was supported by hero quotes from Mobile Legends: Bang-Bang (MLBB) within the context of noticing, retrieval, and generation as proposed by Nation (2001). Vocabulary instruction and students' understanding of word classes, synonyms, antonyms, as well as other vocabulary, were enhanced through MLBB's learning environment. Its integration into gameplay and peer interactions promoted retention through the peers' interactions and frequent use of the vocabulary. Learning became more enjoyable as well as accessible due to the game's familiarity. Occasionally, unequal digital tool access, combined with distraction from gameplay focus, challenged learning. From a teaching perspective, MLBB provided differentiated instruction that motivated learners for self-driven exploration. Deeper language introspection alongside active engagement was fostered; however, it incurred an additional preparatory burden. Ready-made resources were absent, which necessitated devising tasks involving quote selections and game-centric activities with minimal scaffolding. Such a framework required forming a robust digital

pedagogy infrastructure that envisioned meaningful uses of technology in lesson plans while integrating mobile games for efficient learning pathways. The persistence led to stronger rapport with students and heightened classroom engagement despite initial pedagogical effort reallocations, undertaking envisioning of persuasive learning. Addressing the conclusions derived from the findings, this study puts forth well-considered recommendations. It is advised that teachers use MLBB within a framework of effective classroom control and student cooperation. For curriculum designers, providing adequate training in digital pedagogy, improving technological infrastructure, and offering relevant teaching resources could alleviate some burdens placed on instructors. It is proposed that policymakers invite recognition of DGBL by fostering collaboration between teachers and game developers through professional development initiatives. Suggested research includes exploring vocabulary retention strategies, comparing digital to traditional methodologies, and investigating learner variables. Further exploration could also be done on grammar, pragmatics, and intercultural skills, focusing on positioning MLBB as a powerful tool for meaningful student-centered learning.

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