

Exploring Mobile Legends Bang Bang (MLBB) as a Tool for Enhancing English Vocabulary Among High School Learners

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Introduction

The integration of gaming elements into educational contexts has gained significant traction, particularly in language learning. A prominent instance is the utilisation of digital games to augment English vocabulary among secondary school students. The advent of digital gaming has revolutionized traditional educational approaches, leading to the emergence of gamification as a prevalent pedagogical strategy. This model encourages engagement and offers meaningful learning experiences, a phenomenon supported by empirical studies emphasizing its positive effects on language acquisition (Cruz et al., 2023; Bai, 2024; Rahmani, 2020).

The role of gaming in vocabulary enhancement can be traced through its interactive gameplay and social dynamics. Players are required to communicate effectively, giving rise to contextual language usage. This is essential in fostering a practical understanding of vocabulary, as players navigate in-game scenarios requiring strategic communication and collaboration (Pinto et al., 2021; Wang, 2023). Engaging in real-time interactions with peers allows learners to practice relevant vocabulary and contextualize its usage, thereby reinforcing their learning (Utami et al., 2024; Li & Liu, 2022). The integration of these gaming experiences promotes an immersive environment where learners can associate vocabulary with practical situations, which is critical for language acquisition (Ningsih, 2023; Seventilofa, 2024).

Moreover, studies show that learning through gamified approaches can enhance motivation and retention of vocabulary (Contento & Ludeña, 2023; Bai, 2024; Redjeki &

Muhajir, 2021). For high school learners, who may find traditional language learning methods unengaging, the stimulating environment created by games can serve as a motivating factor. Studies demonstrate that gamification techniques markedly enhance student engagement and motivation in language learning tasks (Lim & Yunus, 2021; Inayati & Waloyo, 2022). The positive reinforcement mechanics often found in games can lead to heightened engagement and a desire to explore language further, including vocabulary acquisition (Bai, 2024; Kusumayanthi & Rusmiyati, 2021).

Furthermore, gaming creates opportunities for learner collaboration through team-based gameplay. This cooperative aspect requires players to communicate effectively, enhancing their vocabulary through real-time dialogue and teamwork (Du et al., 2021; Dehghanzadeh et al., 2019). Studies support the notion that cooperative gaming aids language acquisition and helps develop essential interpersonal skills vital for effective communication (Utami et al., 2024; Phuong, 2020). The impacts of gaming extend beyond vocabulary; they foster a holistic learning experience that develops both language capabilities and social skills among high school learners.

The implications of utilizing games in educational settings align with contemporary educational paradigms that prioritize active and participatory learning (Rahmani, 2020; Contento & Ludeña, 2023). Innovative pedagogical methods that integrate technology into language education cater to the learning styles of digital-native students. The gaming environment adapts well to modern educational needs, presenting opportunities for vocabulary enrichment in an engaging context (Oktavia & Lestari, 2022; Redjeki & Muhajir, 2021). This form of learning is appealing as it integrates vocabulary acquisition with elements of fun and competition, making language study less daunting.

Despite the potential benefits, it is imperative to consider the challenges that may accompany the deployment of gaming platforms in educational frameworks. Issues such as internet connectivity, the digital gap and the risk of distraction must be handled to optimise the advantages of game-based learning (Suryani & Syahbani, 2023; Li & Liu, 2022). Ensuring that these challenges are mitigated will significantly enhance the effectiveness of gaming as a tool for English vocabulary enrichment, thus enabling a more inclusive and comprehensive language learning experience.

Digital gaming has increasingly been recognized as a potential medium for enhancing English vocabulary learning among high school learners. However, despite the growing body of research on game-based learning using popular digital games such as *Minecraft*, *PUBG*, and *Free Fire*, there remains a limited number of qualitative studies that explore learners' firsthand experiences of English vocabulary acquisition through mobile multiplayer games, particularly in Indonesian vocational high school contexts (Hadi & Wijaya, 2025; Yudanto, 2025; Jelimum et al., 2024; Fuad et al., 2023; Ningrum & Pusparini, 2020). Addressing this gap, the present study explores *Mobile Legends: Bang Bang* (MLBB) as a tool for enhancing English vocabulary among high school learners by examining students' perceptions of vocabulary learning through gameplay and social interaction.

Research Method

This qualitative study investigated the impact of *Mobile Legends Bang Bang* (MLBB) in enhancing English vocabulary among high school learners at SMK Darussalam Samarinda. Using a descriptive qualitative approach, the research explored students' experiences through semi-structured interviews with 15 third-year vocational students. The selection criteria included: (1) students who actively played MLBB for at least six months, (2) students who used the English version of the game interface, and (3)

students who were willing to participate voluntarily in the study. The interview questions were adapted from Alyana et al. (2024) and focused on how MLBB influenced their vocabulary acquisition, both in gameplay and daily communication.

Semi-structured interviews were chosen to allow participants to express detailed thoughts about how MLBB may support their learning. Each interview lasted 20-30 minutes, recorded, and transcribed for thematic analysis. Themes were generated from questions such as the frequency of encountering new words, use of game context for understanding meanings, vocabulary usage in academics, and the role of communication features like chat and voice.

The data analysis adhered to the Miles and Huberman framework, encompassing data reduction, data display, and conclusion formulation. Responses were grouped into key themes (e.g., “frequent exposure to new words,” “helpful context,” “academic use,” “peer communication” etc.) and categorized to visualize patterns. This process revealed varied experiences: some participants reported significant vocabulary improvement, while others noted limited impact.

The findings indicate that MLBB has the potential to be an engaging instrument for language learning and can help enhance vocabulary increase, particularly in terms that are related to games or informal language. This study makes a contribution to the ongoing investigation of the use of digital games in educational settings and the significance of these games in the process of enhancing students’ linguistic competency.

Result and Discussion

The study results are presented in graphs, tables, or descriptive. Analysis and interpretation of these results are needed before being discussed.

The table is written in the middle or at the end of each study description text. If the table’s width is not enough to write in half a page, it can be written one full page. The table’s title is written from the center-left; all words start with capital letters, except conjunctions. For example, you can see Table 1 below.

The results presented below are derived from semi-structured interviews conducted to explore the impact of playing Mobile Legends on vocabulary development. The interviews focused on various dimensions of vocabulary learning, including learners’ perceptions, encounter with new words, contextual understanding, social interaction, self-assessment of progress, academic relevance, and practical application. Responses were systematically categorized using a thematic coding framework to capture different levels of experience and attitudes among participants. The table below outlines the interview questions, associated themes, coding labels, and descriptions of each response category, providing a clear structure for analyzing the qualitative data collected.

Table 1. Interview Questions, Themes, Codes, and Category Descriptions on Vocabulary Development through Mobile Legends

No	Interview Question	Theme	Code	Category Description
1	Has Mobile Legends improved your vocabulary?	Perception of Vocabulary Improvement	A	Strongly improves vocabulary
			B	Moderately improves vocabulary
			C	Slightly improves vocabulary
			D	No influence at all
2	How frequently do you encounter unfamiliar words or terms in Mobile Legends?	Vocabulary Encounter & Strategy	A	Frequently find and search new words
			B	Sometimes encounter new words
			C	Rarely find new words

How do you normally comprehend?			D	Never notice any new words
3	Would you say Mobile Legends helps you grasp new terms better by providing context?	Contextual Vocabulary Learning	A	Strong contextual support
			B	Some contextual support
			C	Limited contextual support
			D	No contextual help
4	Does Mobile Legends' chat and mic features benefit vocabulary growth? Is there an example?	Social Interaction & Vocabulary Growth	A	Actively supports vocabulary growth
			B	Sometimes helpful
			C	Rarely helps
			D	Not helpful at all
5	Has Mobile Legends increased your vocabulary after playing online?	Self-assessed Vocabulary Progress	A	Great improvement
			B	Moderate improvement
			C	Minor improvement
			D	No improvement
6	Does Mobile Legends vocabulary relate to your academic activities?	Academic Relevance	A	Highly useful
			B	Occasionally useful
			C	Rarely useful
			D	Not useful
7	How do you use Online Game Mobile Legends words in daily conversation or writing?	Everyday Vocabulary Application	A	Frequently applied
			B	Sometimes applied
			C	Rarely applied
			D	Never applied

Table 1 above presents the categorization of interview responses based on seven emerging themes from the experiences of high school students playing Mobile Legends: Bang Bang. Each theme reflects a specific dimension of vocabulary learning as influenced by the game.

Perception of Vocabulary Improvement

The results from a recent study investigating the role of Mobile Legends Bang Bang (MLBB) in improving English vocabulary among high school learners reveal important insights into how mobile gaming can impact language acquisition. Among the fifteen respondents surveyed, a notable majority (73%) agreed that their vocabulary improved due to playing MLBB. Based on this, it appears that the game has the potential to be an efficient instrument for improving vocabulary skills in a manner that is both entertaining and participatory.

This distribution is illustrated in Figure 1, which presents participants' self-reported perception of vocabulary improvement resulting from their gameplay experience.

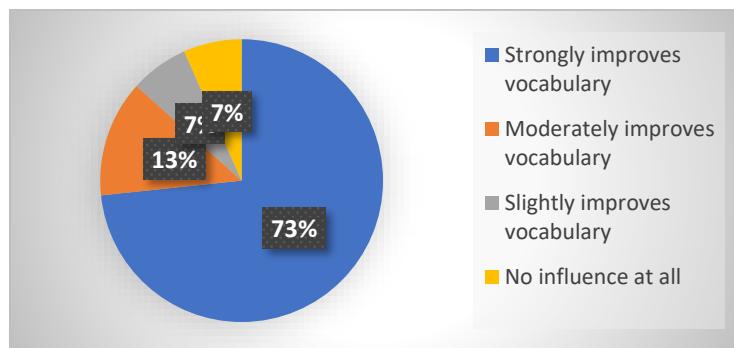


Figure 1. Perception of Vocabulary Improvement

Conversely, a smaller percentage of participants perceived minimal benefits from playing the game, with 13% reporting moderate improvements and 14% acknowledging slight influences or none at all. This disparity in perceptions highlights an interesting aspect of vocabulary learning through gaming, indicating that while many learners experience noticeable benefits, there remains a portion that may not fully engage with or utilize the game's educational potential efficiently (Adha et al., 2022; Kobis & Tomatala, 2020).

Vocabulary Encounter & Strategy

A striking 93% of the participants reported that they frequently encountered new vocabulary while playing and made efforts to look up the meanings of unfamiliar words. Only a small portion, about 7%, stated that they occasionally came across new terms, with no participants indicating rare or no exposure to new vocabulary. This data aligns with previous studies highlighting the significance of active participation in vocabulary learning. It emphasizes the potential of games to immerse learners in environments rich with language input (Aulia et al., 2024; Alotaibi & Alharbi, 2022).

Figure 2 demonstrates these findings, showing that most learners engaged in intentional vocabulary discovery, making use of both context and external resources.

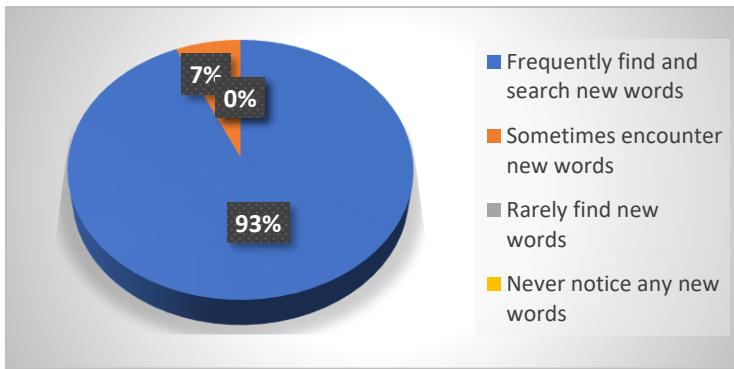


Figure 2. Vocabulary Encounter & Strategy

Actively participating in the process of discovering the meanings of words is an essential component of the acquisition process. This is because the game context provides significant clues that make it easier to comprehend. This supports the idea of contextual vocabulary learning, where learners rely on the surrounding information within their experiences to interpret new terms. Through immersive gameplay, learners are better equipped to connect with and remember new vocabulary (Chang & Hwang, 2019).

Contextual Vocabulary Learning

Context plays a crucial role in vocabulary acquisition, as demonstrated by the 80% of participants who felt that Mobile Legends Bang Bang (MLBB) provided strong contextual cues to help them understand new words. Meanwhile, 13% reported some contextual support, and 7% experienced limited or no assistance from the game's context when learning vocabulary. These results support prior research indicating that internal contextual hints significantly contribute to both vocabulary retention and comprehension (Zhou & Wu, 2024).

The breakdown of these responses can be seen in Figure 3, emphasizing the role of context in enabling players to infer and retain new vocabulary more effectively.

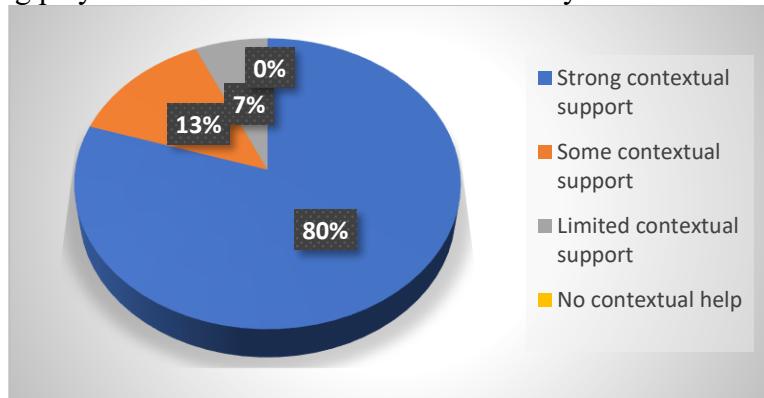


Figure 3. Contextual Vocabulary Learning

Mobile games like MLBB create immersive learning environments where vocabulary is embedded within meaningful situations, offering richer engagement than traditional methods. Rather than passively receiving information, players actively participate in context-driven interactions that enhance their understanding and memory of new terms (Isa et al., 2022). This active involvement makes gameplay a valuable tool for effective vocabulary learning, especially given that none of the participants (0%) reported a lack of contextual support.

Social Interaction & Vocabulary Growth

In terms of social interaction, Mobile Legends Bang Bang (MLBB) appears the ability to play a substantial influence in the development of vocabulary, with 67% of respondents affirming that the game's communication features greatly supported their vocabulary growth. Additionally, 20% of participants found these features somewhat helpful, while 13% experienced only rare benefits. Importantly, no respondents considered the communication tools to be unhelpful. This underscores the crucial role of social engagement in language learning, as it promotes active use of vocabulary through real-time interaction with peers (Braga & Racilan, 2020; Al-Ahdal & Alharbi, 2021).

These patterns are reflected in Figure 4, which highlights how social elements of gaming environments contribute to incidental vocabulary learning.

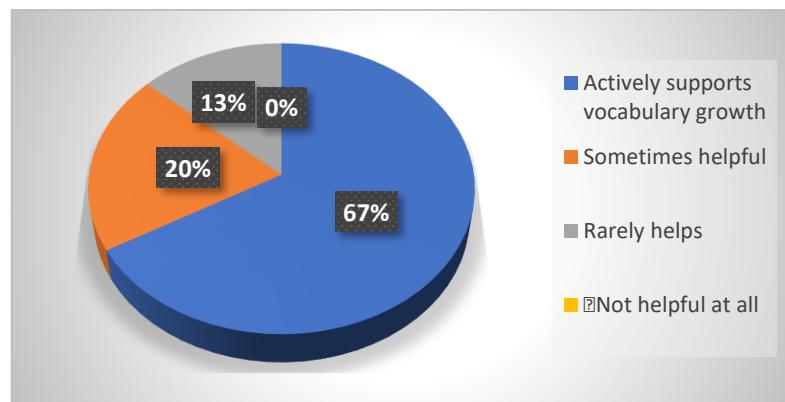


Figure 4. Social Interaction & Vocabulary Growth

These findings align with studies that highlight collaboration and social interaction as key factors in improving language skills. Interactive environments like MLBB not only facilitate language practice but also enhance learners' confidence and motivation to use new vocabulary actively (Arifin et al., 2024; Al-Ahdal & Alharbi, 2021). The high percentage of positive responses suggests that integrating social features in educational tools can be an effective strategy to boost language acquisition.

Self-Assessed Vocabulary Progress

Self-assessment results revealed that a large majority of respondents, 87%, perceived a significant improvement in their vocabulary mastery after playing Mobile Legends Bang Bang (MLBB). The remaining 13% felt only moderate progress, while no participants reported minimal or no improvement. This positive self-perception aligns with previous research highlighting the beneficial link between gaming and enhanced language proficiency (Alotaibi & Alharbi, 2022; Arifin et al., 2023). Such findings emphasize the importance of learner motivation in language acquisition, as recognizing personal progress can increase engagement and encourage continued learning (Choi et al., 2020).

Figure 5 provides a visual representation of this self-assessed vocabulary growth, suggesting that consistent engagement with the game may enhance learners' lexical confidence and competence.

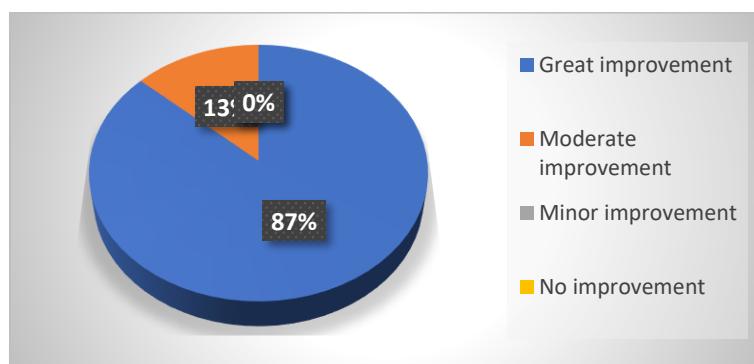


Figure 5. Self-Assessed Vocabulary Progress

The widespread recognition of vocabulary improvement among learners indicates that games like MLBB have strong potential as platforms for autonomous language learning. This sense of achievement fosters intrinsic motivation, which is essential for maintaining consistent and sustained effort in language study over time. Moreover, the

engaging and interactive nature of such games creates a learning environment where players feel encouraged to take ownership of their progress. This not only facilitates the acquisition of new words but also enhances learners' self-confidence and to be willing to communicate in the language that is being targeted. Ultimately, gamified learning experiences are able to play a significant part in facilitating the continual evolution of language by making the process enjoyable and personally rewarding.

Academic Relevance

The transferability of vocabulary learned through Mobile Legends to academic settings showed varied opinions among participants. Less than half of the respondents (47%) strongly believed that the vocabulary gained from the game was useful in their academic activities. About one-third (33%) found the vocabulary occasionally helpful, indicating some awareness of its relevance. This variation points to differing levels of perceived academic value in gaming-acquired vocabulary.

Figure 6 illustrates the perceived academic relevance of MLBB-acquired vocabulary, highlighting the gap between informal and formal vocabulary domains.

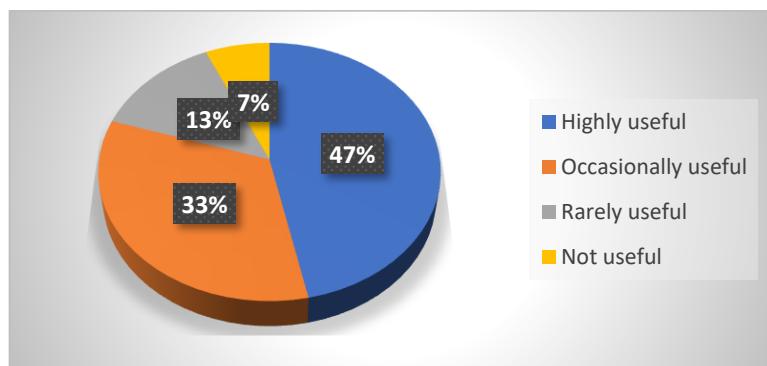


Figure 6. Academic Relevance

Meanwhile, a smaller portion of learners felt the vocabulary had limited academic use, with 13% stating it was rarely useful and 7% finding it not helpful at all. This highlights a gap between vocabulary learned informally through gaming and its application in formal education. Additional support may be needed to help learners connect gaming vocabulary to academic contexts effectively. Addressing this issue could improve the practical benefits of game-based language learning (Ndayisaba et al., 2024).

Everyday Vocabulary Application

The real-life application of vocabulary acquired through gameplay demonstrated promising outcomes, with 73% of participants reporting frequent use of new words in their daily conversations or writing. This finding highlights how mobile games like Mobile Legends can serve as effective platforms for authentic language use beyond the gaming context. It suggests that players are able to transfer vocabulary learned during gameplay into their everyday communication, thus bridging the gap between informal learning and real-world application (Lee & Mayer, 2018). Meanwhile, a smaller portion of respondents, 13%, indicated occasional use of gaming vocabulary outside the game. This shows that while many players actively incorporate new words, some may not use them as regularly in daily life.

On the other hand, 7% of participants reported rare use of vocabulary learned through gameplay, and another 7% stated that they never applied these words in their daily conversations or writing. These lower percentages point to the challenge of

consistent vocabulary retention and use for all learners. It raises important questions about the factors that influence whether gaming-acquired vocabulary is maintained and integrated over time. Moreover, while informal vocabulary use is evident, applying these words in academic or formal contexts remains less certain, suggesting that additional support or teaching strategies might be needed. This area warrants further investigation to enhance the transfer of vocabulary from gaming environments to broader educational settings.

As shown in Figure 7, these responses indicate that vocabulary gained from gaming is not confined to virtual environments but can be transferred to everyday communication contexts, albeit more informally than academically.

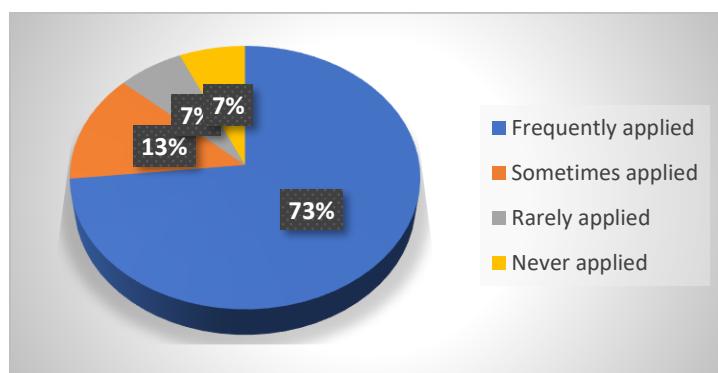


Figure 7. Everyday Vocabulary Application

Based on the analysis of data collected through semi-structured interviews with 15 respondents, several key themes emerged reflecting various aspects of vocabulary development influenced by playing Mobile Legends. Each theme was identified based on the participants' responses and categorized according to how frequently it appeared across the interviews. The frequency count below represents how many respondents provided responses that aligned with each specific theme. These findings highlight not only the most commonly experienced aspects of vocabulary learning but also the areas where impact was perceived to be less significant. The details are presented as follows:

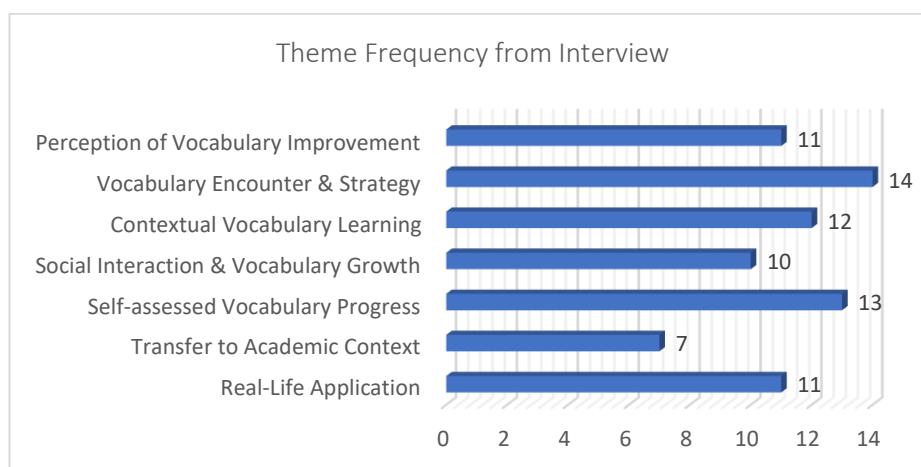


Figure 8. Theme Frequency from Interview

The findings from this study resonate with recent literature on mobile-assisted language learning (MALL), illustrating both the opportunities and limitations inherent in utilizing mobile games like Mobile Legends Bang Bang (MLBB) for vocabulary

enhancement. Learning vocabulary through the use of mobile apps has become increasingly popular as a strategy for engaging students in the process of vocabulary acquisition, capitalizing on interactive elements that can motivate students who often struggle with traditional language-learning methods (Aulia et al., 2024). This research reveals that while mobile games provide a context-rich environment for encountering new vocabulary, the transfer of this vocabulary into more formal educational settings remains inconsistent. Therein lies the necessity to investigate further how these gaming experiences can be effectively integrated into curricular frameworks, ensuring that the enthusiasm and engagement generated through gameplay translate into tangible educational outcomes.

The disconnect observed in vocabulary transfer from mobile gaming contexts to academic applications suggests a need for comprehensive educational strategies that can better accommodate these learning styles. Recent studies emphasize the importance of structured scaffolding that bridges informal learning environments with formal instruction (Alotaibi & Alharbi, 2022; Chang & Hwang, 2019). By recognizing the unique attributes of gaming, educators can develop tailored approaches that leverage these tools to reinforce academic vocabulary in more traditional contexts. Such adjustments may not only enhance vocabulary retention and application but also foster a more seamless integration of technology into language education.

Furthermore, existing research highlights the importance of designing assessments that tap into the skills acquired through mobile gaming (Kobis & Tomatala, 2020). Game-based learning frequently fosters the development of skills such as thinking critically, solving problems, and collaborative work, all of which are essential to academic achievement but may not be fully reflected by traditional examinations. By reconsidering how learners are evaluated, educators can create an ecosystem where game-derived vocabulary and communicative skills are recognized and valued, thus encouraging students to draw parallels between their gaming experiences and academic expectations.

Moreover, it is crucial to consider the diverse learner profiles present in any educational setting. While many students may thrive in interactive gaming environments, others may require additional support or alternative methods to benefit from these technologies (Ndayisaba et al., 2024). Engaging with a broader spectrum of educational theories—such as differentiated instruction and Universal Design for Learning—could further enhance the inclusivity and effectiveness of mobile-assisted language learning (Fisher et al., 2023). Such an approach may also highlight tailored strategies for diverse learning preferences, enhancing overall vocabulary acquisition and retention among high school learners.

Taking everything into consideration, the findings of this research indicate that there is a substantial potential for the incorporation of mobile games into educational frameworks, especially when acknowledging the necessary adjustments to maximize their educational efficacy. By understanding the intricacies of how mobile games can support vocabulary learning; while addressing existing gaps in academic transferability, educators can better prepare learners for language success. Emphasizing a need for targeted research and curriculum development, the insights gained from this work underscore the continuing evolution of language education in today's digital age.

Conclusion

It has been determined through the findings of this research that Mobile Legends Bang Bang (MLBB) has the potential to significantly contribute to the improvement of English vocabulary among students in high school. A majority of participants reported

noticeable improvements in their vocabulary, supported by active engagement with new words during gameplay and strong contextual clues provided by the game. Social interactions within the game further contribute to vocabulary growth by encouraging real-time communication and collaborative language use. These factors combine to create an immersive and motivating learning environment that supports vocabulary acquisition outside traditional classroom settings.

However, despite these positive outcomes, challenges remain in transferring vocabulary learned through gaming into academic and formal contexts. Less than half of the respondents viewed the game-based vocabulary as highly useful for academic purposes, and a notable portion rarely or never applied the new words outside informal settings. This suggests a need for additional scaffolding or instructional strategies to help learners bridge the gap between informal gaming experiences and formal language use. Overall, integrating mobile games like MLBB into language learning frameworks holds promising potential but requires thoughtful approaches to maximize educational benefits across different contexts.

References

- Adha, M. R., Suyadi, S., & Aisyah, S. (2022). The influence of online game *Mobile Legends* on students' vocabulary mastery at the eleventh grade of vocational high school number 1 Jambi City. *JELT: Journal of English Language Teaching*, 6(2), 116. <https://doi.org/10.33087/jelt.v6i2.112>
- Al-Ahdal, A. A. M. H., & Alharbi, M. A. (2021). MLBB in collaborative learning as a vocabulary-enhancing tool for EFL learners: A study across two universities in Saudi Arabia. *SAGE Open*, 11(1). <https://doi.org/10.1177/2158244021999062>
- Alotaibi, K. A., & Alharbi, M. G. S. (2022). Assessing the learning outcomes of using mobile game integration in teaching English vocabulary. *International Journal of Sociotechnology and Knowledge Development*, 14(1), 1–16. <https://doi.org/10.4018/IJSKD.299051>
- Alyana, A., Sabrina, S., Citra, A., Berutu, N., & Nahria, S. M. (2024). The influence of *Mobile Legends* game on the vocabulary acquisition of Serambi Mekkah University's students. In *Proceedings of the 7th International Conference on Multidisciplinary Research (ICMR 2024)*, 7(2), 268–274. <https://doi.org/10.32672/picmr.v7i2.3062>
- Arifin, I., Darmayanti, D. P., & Manda, D. (2024). *Mobile Legends* sebagai katalisator komunitas dan solidaritas: Studi kasus pada pemuda di Desa Bonde Kecamatan Campalagian. *Phinisi Integration Review*, 7(2), 192. <https://doi.org/10.26858/pir.v7i2.62214>
- Aulia, R. P., Laksono, K. N., Maulida, S., Rahman, F. A., & Apoko, T. W. (2024). The utilization of online games to enhance students' vocabulary mastery in senior high school. *Journal of Languages and Language Teaching*, 12(1), 427. <https://doi.org/10.33394/jollt.v12i1.9617>
- Bai, J. (2024). A review of research on the influence of game-based learning on second language learners' learning motivation. *Lecture Notes in Education Psychology and Public Media*, 33(1), 46–50. <https://doi.org/10.54254/2753-7048/33/20231399>
- Braga, J. C. F., & Racilan, M. (2020). Games and gamification. *Revista Brasileira de Linguística Aplicada*, 20(4), 693–702. <https://doi.org/10.1590/1984-6398202017555>
- Chang, C., & Hwang, G. J. (2019). Trends in digital game-based learning in the mobile era: A systematic review of journal publications from 2007 to 2016. *International*

- Journal of Mobile Learning and Organisation*, 13(1), 68.
<https://doi.org/10.1504/IJMLO.2019.096468>
- Choi, J., Kang, D., Choi, H., & Yim, D. (2020). How do affective variables predict language-based problem-solving skills in second language learners? *Clinical Archives of Communication Disorders*, 5(2), 66–76.
<https://doi.org/10.21849/cacd.2020.00213>
- Contento, D. J. J., & Ludeña, M. P. R. (2023). Gamification and English vocabulary learning. In *Investigación contemporánea desde una visión multidisciplinar* (Libro 2: Ciencias Sociales). <https://doi.org/10.58995/lb.redlic.9.108>
- Cruz, K. M. L. L., Noa, S., Turpo-Gebera, O., Montesinos-Valencia, C. C., Bazán-Velásquez, S. M., & Postigo, G. S. P. (2023). Use of gamification in English learning in higher education: A systematic review. *Journal of Technology and Science Education*, 13(2), 480. <https://doi.org/10.3926/jotse.1740>
- Dehghanzadeh, H., Fardanesh, H., Hatami, J., Talaei, E., & Noroozi, O. (2019). Using gamification to support learning English as a second language: A systematic review. *Computer Assisted Language Learning*, 34(7), 934–957.
<https://doi.org/10.1080/09588221.2019.1648298>
- Du, Y., Grace, T., Jagannath, K., & Salen, K. (2021). Connected play in virtual worlds: Communication and control mechanisms for children and adolescents. *Multimodal Technologies and Interaction*, 5(5), 27. <https://doi.org/10.3390/mti5050027>
- Fuad, I., Rofi'ah, S., & Widiarini, W. (2023). Developing scrabble game to teach English vocabulary for elementary school students. *Journey: Journal of English Language and Pedagogy*, 6(2), 478–486.
<https://doi.org/10.33503/journey.v6i2.694>
- Hadi, J. N. S., & Wijaya, A. R. T. (2025). Exploring the contribution of video games to English vocabulary acquisition and retention across various game genres. *Magister Scientiae*, 53(1), 70–81. <https://doi.org/10.33508/mgs.v53i1.7291>
- Inayati, N., & Waloyo, A. A. (2022). The influence of Quizizz online gamification on learning engagement and outcomes in online English language teaching. *Journal on English as a Foreign Language*, 12(2), 249–271.
<https://doi.org/10.23971/jefl.v12i2.3546>
- Isa, W. A. R. W. M., Suhaimi, A. I. H., Noordin, N., & Hassan, S. S. (2022). Mobile game-based learning application about Semai people. *International Journal of Academic Research in Progressive Education and Development*, 11(3).
<https://doi.org/10.6007/IJARPED/v11-i3/14759>
- Jelimun, V. N., Mukarom, M., & Pusparini, I. (2024). Improving students' vocabulary mastery through snake and ladder game at seventh-grade students. *Journey: Journal of English Language and Pedagogy*, 7(3), 401–406.
- Kobis, D. C., & Tomatala, M. F. (2020). Students' perceptions on *Mobile Legends: Bang Bang* as a medium to learn English. *Lingua: Jurnal Ilmiah*, 16(2), 22–38.
<https://doi.org/10.35962/lingua.v16i2.52>
- Kusumayanthi, S., & Rusmiyati, M. (2021). Students' engagement in learning English vocabulary via Kahoot!. *English Journal Literacy Utama*, 6(1), 444–452.
<https://doi.org/10.33197/ejlutama.v6i1.153>
- Lee, H., & Mayer, R. E. (2018). Fostering learning from instructional video in a second language. *Applied Cognitive Psychology*, 32(5), 648–654.
<https://doi.org/10.1002/acp.3436>

- Li, R., & Liu, J. (2022). Applying gamification in English learning. *Advances in Social Science, Education and Humanities Research*. <https://doi.org/10.2991/assehr.k.220504.490>
- Ndayisaba, J., Anguru, P. U., & Ngoboka, J. P. (2024). Evaluating the impact of senior five learners' English vocabulary knowledge on their English-speaking skills. *African Journal of Empirical Research*, 5(4), 890–903. <https://doi.org/10.51867/ajernet.5.4.73>
- Ningrum, M. P., & Pusparini, I. (2020). Improving students' vocabulary mastery using spelling bee game at fifth grade in SDIT Ya Bunayya Pujon. *Journey: Journal of English Language and Pedagogy*, 3(2), 66–73. <https://doi.org/10.33503/journey.v3i2.604>
- Ningsih, N. L. A. B. H. (2023). The importance of game-based learning in English learning for young learners in the 21st century. *The Art of Teaching English as a Foreign Language*, 4(1), 25–30. <https://doi.org/10.36663/tatefl.v4i1.492>
- Oktavia, D., & Lestari, R. (2022). Students' perceptions on learning speaking English using English domino games. *Indonesian Research Journal in Education*, 6(1), 28–42. <https://doi.org/10.22437/irje.v6i1.15327>
- Phuong, T. T. H. (2020). Gamified learning: Are Vietnamese EFL learners ready yet? *International Journal of Emerging Technologies in Learning*, 15(24), 242. <https://doi.org/10.3991/ijet.v15i24.16667>
- Pinto, D., Peixoto, B., Melo, M., Cabral, L., & Bessa, M. (2021). Foreign language learning gamification using virtual reality: A systematic review. *Education Sciences*, 11(5), 222. <https://doi.org/10.3390/educesci11050222>
- Rahmani, E. F. (2020). The benefits of gamification in the English learning context. *Indonesian Journal of English Education*, 7(1), 32–47. <https://doi.org/10.15408/ijee.v7i1.17054>
- Redjeki, I. S., & Muhajir, R. (2021). Gamification in EFL classrooms to support teaching and learning in the 21st century. *Journal of English Educators Society*, 6(1), 68–78. <https://doi.org/10.21070/jees.v6i1.882>
- Suryani, N. Y., & Syahbani, M. H. (2023). Gamification and SOLO taxonomy: A strategy to promote active engagement in English learning. *English Review: Journal of English Education*, 11(3), 777–786. <https://doi.org/10.25134/erjee.v11i3.8544>
- Utami, I. A., Sunardi, S., & Drajati, N. A. (2024). English reading e-module based on gamification and contextual teaching. *Journal of Education Technology*, 8(1), 63–76. <https://doi.org/10.23887/jet.v8i1.74569>
- Wang, Y. (2023). Gamification in a news English course. *Education Sciences*, 13(1), 90. <https://doi.org/10.3390/educesci13010090>
- Yudanto, F. J. (2025). Effect of playing *Mobile Legends: Bang Bang* on English education students' vocabulary knowledge. *UNNES Journal of English Language Teaching*, 1(1), 56–64.
- Zhou, W., & Wu, X. (2024). The impact of internally generated contextual clues on EFL vocabulary learning: Insights from EEG. *Frontiers in Psychology*, 15. <https://doi.org/10.3389/fpsyg.2024.1332>