

The Influence of Gamification on English Vocabulary Retention in Online Learning Platforms

Umami Qalsum Arif

Institut Keguruan dan Teknologi Larantuka, Larantuka, Indonesia

*Corresponding Author: ummiarif29@gmail.com

Dikirim: 18-03-2025; Direvisi: 10-04-2025; Diterima: 12-04-2025

Abstract: The rapid advancement of digital learning technologies has transformed language acquisition, with gamification emerging as an innovative strategy to enhance vocabulary retention. This study aims to examine the impact of gamification on English vocabulary acquisition in online learning platforms by analyzing its effects on vocabulary retention, learner engagement, motivation, and cognitive load. Drawing on theoretical frameworks such as Self-Determination Theory, Cognitive Load Theory, and Engagement Theory, the study also discusses the challenges and limitations of applying gamified methods in vocabulary learning. Gamification elements, including points, rewards, leaderboards, and interactive challenges, have been shown to improve learner motivation, engagement, and retention by creating an immersive and stimulating learning environment. Empirical studies indicate that gamified learning enhances cognitive processing, reduces cognitive overload, and promotes sustained participation. However, challenges such as cognitive distractions, reliance on extrinsic motivation, and variations in learner preferences must be addressed to optimize the effectiveness of gamification. This study highlights the potential of gamified approaches in modern language education while emphasizing the need for well-designed instructional strategies to maximize learning outcomes. Future research should further examine the long-term effects of gamification on vocabulary retention and explore inclusive approaches that cater to diverse learner needs.

Keywords: Gamification; Vocabulary Retention; Online Learning

Abstrak: Kemajuan teknologi pembelajaran digital telah merevolusi proses perolehan bahasa, di mana gamifikasi muncul sebagai strategi inovatif untuk meningkatkan retensi kosakata. Penelitian ini bertujuan untuk mengkaji dampak gamifikasi terhadap perolehan kosakata bahasa Inggris pada platform pembelajaran daring, dengan menyoroti pengaruhnya terhadap retensi kosakata, keterlibatan, motivasi, dan beban kognitif peserta didik. Dengan mengacu pada teori Self-Determination, Cognitive Load, dan Engagement, studi ini juga membahas tantangan serta keterbatasan dalam penerapan gamifikasi. Elemen-elemen seperti poin, hadiah, papan peringkat, dan tantangan interaktif terbukti mampu menciptakan lingkungan belajar yang imersif dan mendorong partisipasi aktif. Temuan empiris menunjukkan bahwa gamifikasi dapat meningkatkan pemrosesan kognitif dan mengurangi beban belajar, meskipun tantangan seperti gangguan perhatian, ketergantungan pada motivasi eksternal, dan preferensi belajar yang beragam masih perlu diperhatikan. Studi ini menegaskan potensi pendekatan gamifikasi dalam pendidikan bahasa modern dan mendorong pengembangan strategi pembelajaran yang terstruktur untuk memaksimalkan hasil belajar serta penelitian lanjutan mengenai dampak jangka panjangnya.

Kata Kunci: Gamifikasi; Retensi Kosakata; Pembelajaran Daring

INTRODUCTION

The evolution of digital learning technologies has significantly reshaped how students acquire and retain knowledge. With the increasing reliance on online education, educators and researchers continue to explore innovative strategies to enhance learning experiences. One such approach that has gained widespread attention is gamification, which integrates game-like elements into educational settings to boost engagement and improve learning outcomes.

Gamification involves incorporating features such as points, badges, leaderboards, and challenges into non-game environments (Ananda, 2024). These elements are designed to create a more interactive and enjoyable learning process, motivating learners to stay committed to their educational goals. By transforming traditional learning activities into engaging experiences, gamification encourages active participation and reduces the monotony often associated with conventional teaching methods.

Gamification fosters a sense of achievement and competition, driving learners to improve their performance. Features like rewards and instant feedback help maintain learners' interest, reinforcing their progress and encouraging continuous engagement. As a result, students are more likely to develop a positive attitude toward learning, leading to better knowledge retention and application (Wibowo, 2023).

According to Akbar (2025) Vocabulary mastery is a fundamental aspect of English language acquisition, yet it remains a challenge for many learners. Mastering a language requires a strong vocabulary foundation, as words serve as the building blocks of communication. However, traditional vocabulary learning methods often rely on rote memorization, which can be tedious and uninspiring. While repetition is essential for retention, mechanical memorization without context or engagement leads to quick forgetting (Rachmawati, 2024). This inefficiency calls for a more dynamic and effective approach to vocabulary learning.

One promising solution to this issue is the integration of gamification into online learning platforms. Unlike traditional methods, gamified learning incorporates interactive elements such as rewards, competition, and instant feedback to sustain learners' interest (Saleem, 2022). These elements make vocabulary learning more engaging by transforming the process into a stimulating experience rather than a passive activity. When learners receive rewards for their progress, such as points or badges, they are more likely to stay motivated and committed to improving their vocabulary skills. This motivation fosters consistent learning habits, which are essential for long-term retention (Alsawaier, 2018).

Competition in gamified learning environments encourages learners to challenge themselves and strive for better performance (Hellín, 2023). Leaderboards and multiplayer challenges create a sense of achievement and urgency, pushing learners to actively participate and apply their knowledge in meaningful ways. Additionally, instant feedback helps learners identify mistakes immediately, allowing them to correct and reinforce their understanding. This immediate reinforcement is crucial in vocabulary retention, as it prevents misconceptions from becoming ingrained (Alrashedi, 2024).

Gamification has been widely studied in the field of language learning, with research highlighting its positive impact on learner motivation, engagement, and overall learning outcomes. Various studies have demonstrated that incorporating game elements such as points, rewards, and challenges can enhance student participation and create a more immersive learning experience (Purba, 2024) However, despite these



findings, there remains a gap in research concerning the direct impact of gamification on vocabulary retention, which is a crucial component of language acquisition.

Existing literature suggests that gamification can improve vocabulary learning by making the process more interactive and enjoyable (Wedayanthi, 2024). Studies have found that learners who engage with gamified vocabulary exercises tend to demonstrate higher retention rates compared to those using traditional memorization techniques (Patra, 2022). However, while these studies indicate a positive correlation, further investigation is needed to determine the extent to which gamification influences long-term vocabulary retention and learner engagement over time.

This study aims to bridge this research gap by analyzing how gamification affects learners' ability to retain English vocabulary in online learning platforms. By evaluating factors such as learner motivation, engagement, and performance, this research seeks to provide empirical evidence on the effectiveness of gamification in modern language education. The findings will contribute to the growing body of literature on digital learning strategies and offer practical insights for educators and developers of online learning platforms.

THEORETICAL REVIEW

Gamification in education has gained increasing attention as a strategy to enhance learning experiences by incorporating game-like elements into non-game contexts. The theoretical foundation of gamification is rooted in several learning and motivational theories that explain its impact on student engagement, motivation, and retention. This section explores key theories relevant to the influence of gamification on English vocabulary retention in online learning platforms.

Self-Determination Theory (SDT)

Self-Determination Theory (SDT), developed by Deci (2012), offers a psychological perspective on motivation in learning environments. This theory emphasizes that individuals are driven by three fundamental psychological needs: autonomy, competence, and relatedness. When these needs are fulfilled, learners tend to be more motivated, engaged, and committed to their learning process.

In the context of gamified learning, autonomy is supported by allowing learners to control their learning pace and make choices about their progress. This sense of independence fosters intrinsic motivation, as students feel more responsible for their own learning outcomes. Unlike traditional learning methods, gamified platforms offer personalized learning paths that cater to individual preferences and abilities.

Competence, another core component of SDT, is enhanced through challenges and rewards in gamified learning environments. When learners encounter tasks that are neither too easy nor too difficult, they are more likely to stay engaged and develop a sense of achievement. Features such as points, badges, and level progression reinforce their efforts, motivating them to continue learning and improving.

Relatedness is addressed through social interactions within gamified platforms. Elements like leaderboards, multiplayer activities, and collaborative challenges create a sense of community and shared purpose. When learners feel connected to their peers, they experience greater motivation and engagement. Research by Deci (2012) suggests that meeting these psychological needs leads to enhanced learning outcomes, including better vocabulary retention and long-term engagement in online learning environments.



Cognitive Load Theory (CLT)

Cognitive Load Theory (CLT), explains that learners have a limited cognitive capacity for processing new information. When the cognitive demand exceeds this capacity, learning becomes less effective, leading to difficulties in retaining information (Kirschner, 2002). This theory is particularly relevant in vocabulary acquisition, where traditional learning methods, such as rote memorization, often impose a heavy cognitive load on learners. Traditional vocabulary learning requires students to memorize words without meaningful context or engagement, which can overwhelm their cognitive resources. As a result, learners may struggle to retain and recall vocabulary efficiently. The high cognitive burden associated with these methods can lead to frustration and decreased motivation, ultimately hindering the learning process.

Gamification offers a solution by managing cognitive load through interactive and structured learning experiences. By breaking down vocabulary learning into smaller, manageable tasks, gamified platforms help learners process information more effectively. Visual and auditory stimuli, such as images, animations, and sound effects, aid in reinforcing word meanings, making the learning process more intuitive and engaging.

Gamification provides immediate feedback, allowing learners to correct mistakes in real time and reinforce their understanding. Studies by Srimulyani (2023) indicate that reducing cognitive overload through gamified activities enhances learning efficiency and retention. By leveraging gamification principles, educators can create more effective vocabulary learning environments that align with cognitive load theory, leading to improved retention and overall language acquisition.

The Engagement Theory

The Engagement Theory, highlights the significance of active participation in digital learning. According to this theory, students learn more effectively when they engage with meaningful and interactive experiences rather than passively receiving information. Engagement is crucial for sustaining attention and motivation, both of which are essential for successful learning outcomes (Ferrer *et al.*, 2022)

Gamification aligns closely with the principles of the Engagement Theory by incorporating interactive elements that make learning more dynamic. Features such as challenges, rewards, and progress tracking encourage learners to remain actively involved in the learning process. These game-like elements create a sense of achievement and motivation, which helps sustain learners' interest over time.

Empirical studies support the idea that gamified learning environments lead to higher levels of engagement compared to traditional teaching methods. Research by Korkealahto (2018) suggests that students who participate in gamified activities demonstrate increased motivation and focus. By fostering sustained engagement, gamification enhances learning effectiveness, making it a valuable tool for digital education.

The Dual Coding Theory

The Dual Coding Theory, proposes that information is more effectively retained when it is presented in both verbal and visual formats (Sadoski, 2013). This theory suggests that the human brain processes and stores information through two distinct channels: one for verbal input and another for visual input. When these channels work together, learning becomes more efficient, leading to better retention and recall.



In the context of gamified vocabulary learning, Dual Coding Theory plays a crucial role in enhancing memory retention (Bancha and Tongtep, 2021). Gamification often integrates multimedia elements such as images, animations, and interactive quizzes, which help reinforce word associations. By engaging both verbal and visual processing, learners are more likely to develop stronger connections between words and their meanings, making vocabulary recall easier and more effective.

Empirical research supports the benefits of multimodal instructional approaches in vocabulary learning. Studies by Seriana (2023) indicate that learners who engage with both text-based and visual content demonstrate improved vocabulary recall and comprehension. By leveraging the principles of Dual Coding Theory, gamified learning environments can create more engaging and effective educational experiences, ultimately improving language acquisition and long-term retention.

RESEARCH METHOD

This study employs a qualitative research approach using a literature review method to analyze the influence of gamification on English vocabulary retention in online learning platforms. A literature review is an essential qualitative research technique that synthesizes existing studies to identify patterns, theories, and gaps in the research field (Abdussamad, 2021). This method is suitable for gaining an in-depth understanding of how gamification strategies impact learners' motivation, engagement, and vocabulary retention.

The data for this study were collected by conducting a systematic literature search through several academic databases, including Google Scholar, Scopus, and ScienceDirect. The search process involved entering specific keywords such as “gamification in language learning,” “vocabulary retention,” “online learning,” “game-based learning,” and “digital education.” Filters were applied to limit the results to peer-reviewed journal articles, books, and conference proceedings published within the last twenty years. The inclusion criteria focused on studies discussing the application of gamification in English vocabulary acquisition, while exclusion criteria eliminated articles not written in English and those unrelated to language learning. (Dehghanzadeh, 2020).

To analyze the collected literature, this study adopts a thematic analysis approach, identifying recurring themes, trends, and theoretical perspectives related to gamification in vocabulary learning (Ayaz *et al.*, 2023). Key themes such as motivation, engagement, cognitive load, and retention strategies are explored to determine how gamification enhances vocabulary learning. Additionally, theories such as Self-Determination Theory, Cognitive Load Theory, Engagement Theory, and Dual Coding Theory provide the conceptual framework for understanding the role of gamification in online learning environments.

To ensure the validity and reliability of the literature review, only peer-reviewed sources and academically recognized studies are included (Kelly *et al.*, 2014). Findings are cross-referenced with multiple sources to validate their credibility, and a systematic approach to data collection and analysis enhances the reliability of the study. A critical evaluation of each study's methodology and results is also conducted to assess the strength of the evidence supporting gamification's impact on vocabulary retention.

By utilizing a qualitative literature review approach, this study provides a comprehensive analysis of the existing research on gamification and vocabulary



retention. The findings contribute to a deeper understanding of how gamification influences language learning and highlight potential areas for future research in digital education.

RESULTS AND DISCUSSION

Effects of Gamification on Vocabulary Retention

Gamification has been shown to significantly enhance vocabulary retention in online learning platforms by incorporating interactive and engaging elements. Traditional vocabulary learning methods often rely on rote memorization, which can be monotonous and ineffective in long-term retention. Research by Ananda (2024) suggests that integrating game-based elements such as points, rewards, and interactive challenges provides a more stimulating learning environment, leading to improved vocabulary recall. By transforming the learning process into an enjoyable and interactive experience, gamification helps sustain learners' interest and motivation, which are crucial for effective vocabulary acquisition.

A key advantage of gamified learning environments is their ability to offer repeated exposure to vocabulary in meaningful contexts. Unlike conventional learning approaches, which often require learners to memorize isolated words, gamification presents vocabulary within interactive scenarios, quizzes, and challenges. According to Seriana (2023), this contextualized learning approach strengthens word associations and enhances long-term recall. The combination of immediate feedback, rewards, and interactive tasks reinforces learning, making it easier for students to retain and retrieve vocabulary when needed.

Gamification aligns with cognitive learning principles that support effective knowledge retention. The active participation required in gamified activities promotes deeper cognitive processing, which is essential for consolidating new vocabulary. By engaging multiple cognitive pathways, including visual, auditory, and kinesthetic learning modes, gamified platforms cater to diverse learning preferences, making vocabulary acquisition more efficient and enjoyable. As a result, gamification not only enhances engagement but also provides a more structured and effective way for learners to develop and retain vocabulary in online learning environments.

Gamification and Learner Engagement

Gamification plays a crucial role in enhancing learner engagement by transforming traditional learning into an interactive and stimulating experience. According to the Engagement Theory (Korkealehto, 2018), students learn more effectively when they actively participate in meaningful and engaging activities. Unlike conventional instructional methods that often rely on passive learning, gamified platforms incorporate interactive elements that capture learners' attention and sustain their interest. By integrating game mechanics such as challenges, rewards, and real-time feedback, these platforms create an immersive learning environment that fosters continuous engagement.

Empirical studies support the idea that gamification leads to higher motivation and sustained attention among learners. Research by (Alrashedi, 2024) found that students using gamified platforms demonstrate increased enthusiasm and commitment compared to those following traditional learning methods. This increase in motivation can be attributed to the sense of progress and achievement provided by gamification features



such as leaderboards, badges, and progress tracking. When learners see their advancements reflected through these features, they are more likely to stay engaged and put in greater effort to improve their performance.

Gamification introduces an element of competition and social interaction that further strengthens engagement levels. Leaderboards and multiplayer challenges encourage students to actively participate, either by competing against peers or collaborating to achieve shared goals. This competitive and cooperative dynamic enhances the overall learning experience, making vocabulary acquisition more enjoyable and effective. By promoting active involvement and sustained motivation, gamification proves to be a powerful tool in fostering learner engagement in online education.

Motivational Aspects of Gamification

Gamification enhances motivation in language learning by aligning with Self-Determination Theory (SDT), which highlights the significance of autonomy, competence, and relatedness in sustaining intrinsic motivation (Deci, 2012). Traditional vocabulary learning methods often lack flexibility, making learners feel constrained and disengaged. In contrast, gamified platforms empower learners by allowing them to progress at their own pace, granting them a sense of control over their learning process. This autonomy fosters a deeper commitment to vocabulary acquisition, as students are more likely to remain motivated when they have the freedom to set their own learning goals and strategies.

Another key motivational factor in gamification is the element of competence, which encourages learners to take on challenges that match their skill levels. Online vocabulary learning platforms often use adaptive learning techniques, providing tasks that are neither too easy nor too difficult. By offering incremental challenges and rewarding progress through points, badges, and achievements, gamification reinforces a sense of accomplishment. According to (Darmayanti, 2024), when learners perceive themselves as competent, their intrinsic motivation increases, leading to better engagement and improved vocabulary retention.

Gamification fosters relatedness by promoting social interaction through competitive and collaborative features. Leaderboards, team-based challenges, and multiplayer quizzes create a sense of community among learners, making the learning process more dynamic and enjoyable. This social connection plays a crucial role in motivation, as learners are encouraged by peer interactions and feel a sense of belonging in the learning environment. As a result, gamification not only enhances motivation but also sustains long-term interest in vocabulary acquisition, ultimately improving retention and language proficiency.

Cognitive Load Reduction Through Gamification

Traditional vocabulary learning methods, such as rote memorization, often impose a high cognitive load on learners, making it difficult to retain new words effectively. According to Cognitive Load Theory (Kirschner, 2002), when the cognitive demands of a learning task exceed a learner's working memory capacity, learning becomes less efficient. In conventional approaches, students may struggle to process and recall large amounts of information, leading to frustration and disengagement. This suggests that reducing cognitive overload is essential for improving vocabulary retention and learning outcomes.



Gamification addresses this issue by structuring learning in a way that minimizes cognitive load. By breaking down vocabulary acquisition into smaller, manageable segments, gamified platforms prevent learners from becoming overwhelmed. Instead of memorizing long lists of words, students engage with interactive tasks that gradually introduce new vocabulary through games, quizzes, and challenges. Research by (Patra, 2022) supports the idea that presenting information in incremental steps allows for deeper cognitive processing, leading to better retention and recall.

Gamification enhances learning efficiency by incorporating visual and auditory cues that reinforce word associations. Multimedia elements such as images, animations, and sound effects engage multiple cognitive channels, reducing the strain on working memory and making vocabulary more memorable. Immediate feedback, another key component of gamification, further supports learning by allowing students to correct mistakes in real time and reinforce their understanding. By integrating these cognitive-friendly strategies, gamification creates an optimized learning experience that enhances vocabulary retention while reducing mental fatigue.

Challenges and Limitations of Gamification in Vocabulary Learning

While gamification offers numerous benefits in vocabulary learning, it also presents certain challenges that must be carefully considered. One significant issue is the potential for cognitive distraction caused by overly complex game mechanics. According to (Rachmawati, 2024), when game elements are not well integrated into the learning objectives, they can divert learners' attention away from the actual educational content. Instead of focusing on vocabulary acquisition, students may become more engaged with the game itself, reducing the effectiveness of gamified learning. Therefore, it is crucial to design gamified experiences that balance entertainment with educational value to ensure that learning remains the primary focus.

Another challenge is the uncertainty surrounding the long-term effects of gamification on vocabulary retention. While studies have shown that gamification can enhance short-term engagement and motivation, its ability to sustain learning outcomes over extended periods requires further investigation. Some researchers argue that the novelty of gamification may wear off over time, leading to decreased interest and participation. If learners become dependent on external rewards, such as points and badges, their intrinsic motivation to learn vocabulary may diminish once these incentives are removed. Future research should explore strategies to maintain engagement beyond the initial excitement of gamification.

The effectiveness of gamified learning varies based on learner preferences, technological accessibility, and the quality of instructional design. Not all students respond positively to gamified elements, as some may prefer traditional learning methods that provide a more structured approach. Moreover, access to digital resources and reliable internet connectivity can be a barrier, particularly for learners in underprivileged areas. Poorly designed gamification strategies may also fail to align with pedagogical principles, resulting in ineffective learning experiences. To maximize the benefits of gamification, educators must consider these factors and adopt inclusive, well-structured game-based learning approaches that cater to diverse learner needs.

CONCLUSION



Gamification has emerged as a powerful tool in enhancing vocabulary retention in online learning platforms. By integrating game-like elements such as points, rewards, and interactive challenges, gamification fosters engagement, motivation, and cognitive efficiency in language learning. Theoretical frameworks such as Self-Determination Theory, Cognitive Load Theory, and Engagement Theory support the notion that gamified learning environments create an interactive and immersive experience that improves vocabulary acquisition and recall. Empirical research further highlights that students who engage with gamified platforms demonstrate higher levels of motivation, sustained attention, and better retention compared to those using traditional rote memorization techniques.

Despite its advantages, gamification also presents certain challenges, including the risk of cognitive distraction, dependence on extrinsic motivation, and variations in learner preferences and technological accessibility. While gamification effectively boosts short-term engagement, further research is needed to assess its long-term impact on vocabulary retention. Additionally, the success of gamified learning depends on thoughtful instructional design that aligns game mechanics with educational objectives.

Gamification holds significant potential in modern language education, particularly for improving vocabulary learning in digital environments. However, to maximize its effectiveness, educators and developers must design gamified experiences that balance entertainment with pedagogy, ensuring that learning remains the central focus. Future research should explore sustainable gamification strategies that maintain long-term engagement and cater to diverse learner needs, ultimately enhancing vocabulary retention and overall language proficiency.

REFERENCES

- Abdussamad, H. Z. (2021). *Metode penelitian kualitatif*. CV. Syakir Media Press.
- Akbar, F. F. (2025). Meningkatkan Kemampuan Vocabulary Siswa Melalui Flashcard Key Holder Di Smp Tunas Baru Jin Seung Batam. *Jurnal Pengabdian Ibnu Sina*, 4(1), 36-43.
- Alrashedi, N. T. (2024). The Effects of Gamified Platforms on Enhancing Learners' Ambition. *Journal of Ecohumanism*, 3(8), 3393-3403.
- Alsawaier, R. S. (2018). The effect of gamification on motivation and engagement. *The International Journal of Information and Learning Technology*, 35(1), 56-79.
- Ananda, N. P. (2024). Using gamification in education: Strategies and impact. *Hipkin Journal of Educational Research*, 1(1), 1-12.
- Ayaz, A., Ozyurt, O., Al-Rahmi, W.M., Salloum, S.A., Shutaleva, A., Alblehai, F., Habes, M., 2023. Exploring Gamification Research Trends Using Topic Modeling. *IEEE Access* 11, 119676–119692. <https://doi.org/10.1109/ACCESS.2023.3326444>
- Darmayanti, e. a. (2024). *Behaviorisme dalam Pendidikan: Pembelajaran Berbasis Stimulus-Respon*. Penerbit Adab.
- Deci, E. L. (2012). Self-determination theory. *Handbook of theories of social psychology*, 1(20), 416-436.



- Dehghanzadeh, H., 2020. Investigating effects of digital gamification-based language learning: a systematic review* Hossein Dehghanzadeh*.
- Ferrer, J., Ringer, A., Saville, K. P., Parris, M.A., Kashin, K. (2022). Students' motivation and engagement in higher education: the importance of attitude to online learning. *High Educ* 83, 317–338. <https://doi.org/10.1007/s10734-020-00657-5>.
- Hellín, C. J.-E.-T. (2023). Enhancing student motivation and engagement through a gamified learning environment. *Sustainability*, 15(19), 14119.
- Kelly, J., Sadeghieh, T., Adeli, K., 2014. Peer review in scientific publications: benefits, critiques, & a survival guide.
- Kirschner, P. A. (2002). Cognitive load theory: Implications of cognitive load theory on the design of learning. *Learning and instruction*, 12(1), 1-10.
- Korkealehto, K. &. (2018). Enhancing engagement, enjoyment and learning experiences by gamification on an English course for health care students. In *Seminar. net: International Journal on Media, Technology and Lifelong Learning (Vol. 14, No. 1)*. Lillehammer University College., 13-30.
- Patra, I. S. (2022). An Investigation of EFL Learners' Vocabulary Retention and Recall in a Technology-Based Instructional Environment: Focusing on Digital Games. *Education Research International*, 2022(1), 7435477.
- Purba, A. Z. (2024). Gamifikasi Dalam Pendidikan: Meningkatkan Motivasi dan Keterlibatan Siswa. *Maximal Journal: Jurnal Ilmiah Bidang Sosial, Ekonomi, Budaya dan Pendidikan*, 1(5), 299-305.
- Rachmawati, D. L. (2024). Meningkatkan Penguasaan Kosakata Bahasa Inggris Menggunakan Kartu Flashcard Digital dan Aplikasi Quizlet. *Innovative Journal of Community Engagement*, 1(1), 22-28.
- Sadoski, M. &. (2013). *Imagery and text: A dual coding theory of reading and writing*. Routledge.
- Saleem, A. N. (2022). Gamification applications in E-learning: A literature review. *Technology, Knowledge and Learning*, 27(1), 139-159.
- Seriana, S. &. (2023). Penggunaan Model Experiential Learning dan Media Berbasis Teks serta Visual terhadap Siswa yang Berbahasa Daerah. *Literasi: Jurnal Bahasa dan Sastra Indonesia serta Pembelajarannya*, 7(1), 55-65.
- Srimuliyani, S. (2023). Menggunakan teknik gamifikasi untuk meningkatkan pembelajaran dan keterlibatan siswa di kelas. *EDUCARE: Jurnal Pendidikan Dan Kesehatan*, 1(1), 29-35.
- Wedayanthi, L. M. (2024). Optimalisasi pembelajaran bahasa inggris berbasis gamifikasi dalam implementasi kurikulum merdeka. *SELAPARANG: Jurnal Pengabdian Masyarakat Berkemajuan*, 8(4), 3959-3965.
- Wibowo, H. S. (2023). *Pengembangan Teknologi Media Pembelajaran: Merancang Pengalaman Pembelajaran yang Inovatif dan Efektif*. Jakarta: Tiram Media.

