



THE APPLICATION OF GAMIFIED VOCABULARY LEARNING THROUGH KAHOOT FOR JUNIOR HIGH SCHOOL 3 LINTANG KANAN

Rahma Putri Dewi¹, Yuspar Uzer², Etty Pratiwi^{3*}

^{1,2,3} Universitas PGRI Palembang

E-mail: ¹rahmaputridewi14@gmail.com, ²yusparuzer@gmail.com, ³ettypratiwi1998@gmail.com

Accepted :
16 July 2026

Published :
17 July 2026

Corresponding Author:
Etty Pratiwi

Email Corresponding :
ettypratiwi1998@gmail.com

ABSTRACT

This study examined the effectiveness of Kahoot-based gamified vocabulary learning in improving the vocabulary mastery of eighth-grade students at SMP Negeri 3 Lintang Kanan. It investigated students' vocabulary achievement before and after instruction, compared the performance of the experimental and control groups, and evaluated Kahoot's contribution as an interactive learning medium. A quantitative experimental design was employed involving 50 students from classes VIII.B and VIII.C, assigned to experimental and control groups. Data were collected using multiple-choice vocabulary pre-tests and post-tests. Instrument reliability was assessed using Cronbach's Alpha, and the data were analyzed with SPSS version 26. The results revealed that the experimental group outperformed the control group, achieving a higher post-test mean score (88.28 vs. 80.92). The Mann-Whitney U test indicated a significant difference between the groups ($p = .021$), while the Wilcoxon tests confirmed significant improvement within both groups, with greater gains in the Kahoot-treated class. These findings suggest that Kahoot effectively enhances vocabulary learning by promoting active participation, immediate feedback, and learning motivation through game-based activities. The study provides practical evidence from a rural junior high school context, demonstrating that gamified digital learning can support English vocabulary instruction where technology integration remains a developing educational practice.

Keywords: *EFL vocabulary, Gamification, Kahoot, Quantitative experiment, Vocabulary mastery*

1. INTRODUCTION

Vocabulary mastery is a basic requirement for successful English as a Foreign Language (EFL) learning because students need words to understand messages, express ideas, and participate in classroom communication. Vocabulary is closely connected with listening, speaking, reading, and writing, and it supports both communicative competence and academic literacy (Alqahtani, 2021; Nation, 2022; Rashid, Lan, & Hui, 2022; Teng, 2023). When students have limited vocabulary, they may

understand English lessons slowly, avoid communication, and find difficulty in using language accurately in real contexts (Zhang & Zhang, 2020).

The vocabulary learning process is not limited to memorizing word lists. It involves knowledge of word form, meaning, use, collocation, and context (Barclay & Schmitt, 2018; Nation & Webb, 2020; Sun, Chen, & Zhu, 2023). Receptive vocabulary helps students recognize words when reading or listening, while productive vocabulary allows

Vol 9, No 2 (2026): ESTEEM

them to use words in speaking and writing (Wen & Naim, 2023; Wendy Ng Li Wen & Rosli Muhammad Naim, 2023). This means that classroom instruction should provide repeated, meaningful, and engaging exposure to vocabulary, especially for junior high school students who are still building their English foundation (Hussain & Khan, 2025; Zeng et al., 2025).

Based on the observation at SMP Negeri 3 Lintang Kanan, many eighth-grade students still experienced difficulty in vocabulary mastery. The classroom problem was related to low motivation, limited participation, and repeated conventional activities. Teachers often explained vocabulary and asked students to complete written exercises, but this pattern did not always make students active. The school data also indicated that the average vocabulary achievement was still below the Minimum Passing Score of 70. This condition shows that a more interactive strategy is needed to make vocabulary learning more meaningful.

Gamification has become one of the instructional approaches used to increase students' motivation and engagement. Gamification refers to the use of game elements, such as points, scores, challenges, leaderboards, and instant feedback, in non-game learning activities (Dichev & Dicheva, 2017; Sailer & Homner, 2020). In digital learning, gamification may help students become more focused and willing to participate because it creates a learning atmosphere that is competitive, enjoyable, and goal-oriented (Khadraoui et al., 2024; Kode, 2025; Nurohman et al., 2025).

Kahoot is one gamified learning platform that can be used to teach vocabulary through interactive quizzes. It allows teachers to present questions, provide immediate feedback, and display scores in real time. Prior studies have reported that Kahoot can improve students' vocabulary scores, motivation, participation, and long-term retention in EFL contexts (Añora, San Jose, & Fernandez, 2025; Arisanti & Purnawanto, 2022; Bicen & Ilic,

2023; Rojabi et al., 2022; Sibatuara, 2021). However, classroom-based experimental evidence in rural junior high school contexts still needs further attention. Therefore, this study investigates the effectiveness of gamified vocabulary learning through Kahoot in improving eighth-grade students' vocabulary mastery at SMP Negeri 3 Lintang Kanan.

2. LITERATURE REVIEW

Vocabulary is a central component of English learning because it enables learners to connect language forms with meaning. Vocabulary knowledge includes not only the ability to recognize words, but also the ability to understand meanings, grammatical functions, and appropriate use in context (Nation, 2022; Teng, 2021). Learners with stronger vocabulary knowledge usually have better ability to understand texts, express ideas, and take part in classroom communication (Rashid, Lan, & Hui, 2022; Zhang & Zhang, 2020).

Vocabulary can be classified into receptive and productive vocabulary. Receptive vocabulary refers to words that students understand when listening or reading, whereas productive vocabulary refers to words students can use when speaking or writing (Wen & Naim, 2023). Students usually understand more words than they can actively use. For that reason, vocabulary instruction should help students move from recognition to actual use through repeated practice and meaningful activities (Nation & Webb, 2020; Wendy Ng Li Wen & Rosli Muhammad Naim, 2023).

Vocabulary teaching should also consider word frequency, word function, and learner difficulty. High-frequency words need to be prioritized because they support basic fluency, while lower-frequency and academic words can be introduced gradually (Zeng et al., 2025). Function words may be difficult for students because they are abstract and less visible in meaning (Yan, 2023). Current studies emphasize that successful vocabulary instruction should combine repeated exposure, contextual practice, cognitive strategies, and

Vol 9, No 2 (2026): ESTEEM

learner motivation (Hussain & Khan, 2025; Lebkatem, 2024; Sun, Chen, & Zhu, 2023).

Gamification is grounded in the idea that game-based mechanics can increase students' learning intention, attention, and participation. Game elements such as points, time limits, badges, feedback, and leaderboards may create a learning situation that encourages students to complete tasks and monitor their own achievement (Dichev & Dicheva, 2017; Sailer & Homner, 2020; Ting et al., 2020). Digital gamification also aligns with connectivist learning because students interact with information through technology, networks, and multimedia resources (Al-Marroof et al., 2021; Siemens & Tittenberger, 2021).

Kahoot is widely used because it transforms classroom questions into live quiz games. Its features can support active learning, classroom competition, collaboration, immediate feedback, and differentiated instruction (Kibar-Almazán et al., 2024; Licorish et al., 2022; Reyes et al., 2021). In vocabulary learning, Kahoot can help students repeatedly encounter words through questions, pictures, answers, and score-based feedback. These experiences can support retention and make vocabulary practice more enjoyable (Bicen & Mic, 2023; O'Connor et al., 2021; Wang, 2015).

Several empirical studies support the use of Kahoot for vocabulary instruction. Rojabi et al. (2022) found that Kahoot could boost exam scores, engagement, and motivation in vocabulary learning. Añora et al. (2025) reported that Kahoot improved vocabulary acquisition and retention among learners. Rahayu, Ailia, Junita, and Ifana (2024) concluded that Kahoot was effective in enhancing vocabulary mastery, while Ibrahim (2025) described Kahoot as a useful tool for supporting vocabulary development in English classrooms. Similar findings were also reported by Armanda and Priyana (2023), Arisanti and Purnawanto (2022), Bicen and Ilic (2023), and Sibatuara (2021).

Local studies also show the value of digital and multimedia-based instruction in English

learning. Pratiwi, Kartikasari, and Jaya (2024) reported that social media could improve students' English ability, while Uzer (2023) showed that multimedia devices supported English speaking instruction. These studies suggest that technology can help teachers create a more engaging language learning environment. Nevertheless, there is still a need for experimental research focusing specifically on Kahoot-based vocabulary learning at the junior high school level, especially in the context of SMP Negeri 3 Lintang Kanan.

3. METHODS

This study used a quantitative experimental method. The independent variable was gamified vocabulary learning through Kahoot, while the dependent variable was students' vocabulary mastery. The design involved an experimental class taught using Kahoot and a control class taught using conventional vocabulary instruction. Quantitative experimental research was used because the study aimed to measure the effect of an instructional treatment using numerical data and statistical procedures (Creswell, 2018).

The research was conducted at SMP Negeri 3 Lintang Kanan in the 2025/2026 academic year. The population consisted of 75 eighth-grade students. The sample consisted of 50 students from two classes. Class VIII.C was used as the experimental class and class VIII.B was used as the control class, with 25 students in each class. The experimental class received vocabulary learning through Kahoot, while the control class received conventional instruction.

The research instrument was a multiple-choice vocabulary test consisting of 30 items related to school environment vocabulary, including places, objects, activities, and people at school. The test was given as a pre-test and a post-test. Before the instrument was used in the main study, its validity and reliability were checked. Validity is important to ensure that the instrument measures the intended construct (Bolarinwa, 2015; Ghahramanian, 2015), while reliability concerns the consistency of measurement results (Heale & Twycross, 2015; Sürücü & Maslakçı, 2020). The reliability result showed Cronbach's Alpha of 0.721, indicating that the instrument was reliable.

Vol 9, No 2 (2026): ESTEEM

The treatment was conducted in six meetings. In the first meeting, both classes completed the pre-test. The experimental class was introduced to Kahoot and vocabulary related to the school environment. In the second to fifth meetings, the experimental class learned vocabulary through teacher explanation, picture-based vocabulary presentation, Kahoot quizzes, and feedback. The control class learned vocabulary through conventional explanation, memorization, oral repetition, and written exercises. In the last meeting, both classes completed the post-test.

The data were analyzed using SPSS version 26. Descriptive statistics were used to present the mean, minimum score, maximum score, and standard deviation. Shapiro-Wilk was used to test normality because the sample size in each class was less than 50 students. Levene's test was used to test homogeneity. Because the data did not fully meet the assumptions of parametric testing, the Wilcoxon Signed-Rank test was used to compare pre-test and post-test scores within each class, and the Mann-Whitney U test was used to compare the post-test scores between the experimental and control classes.

Table 1. Research Sample

Class	Group	N	Instruction
VIII.B	Control	25	Conventional vocabulary instruction
VIII.C	Experimental	25	Gamified vocabulary learning through Kahoot

Table 2. Treatment Procedure

Stage	Meeting	Experimental Class	Control Class
Pre-test	1	Vocabulary pre-test and introduction to Kahoot	Vocabulary pre-test
Treatment	2-5	Vocabulary presentation, Kahoot quiz, feedback, and review	Explanation, memorization, repetition, and written exercises
Post-test	6	Vocabulary post-test	Vocabulary post-test

4. RESULTS AND DISCUSSION

The findings were obtained from students' pre-test and post-test scores in the control and

experimental classes. The pre-test was used to measure students' initial vocabulary mastery before treatment, while the post-test was used to measure students' vocabulary mastery after the learning process. The descriptive results are presented in Table 3.

Table 3. Descriptive Statistics of Vocabulary Scores

Group	Test	Mean	Min	Max	SD
Control	Pre-test	61.24	30	93	15.12
Control	Post-test	80.92	46	96	11.83
Experimental	Pre-test	57.44	33	93	14.78
Experimental	Post-test	88.24	70	96	7.03

Table 3 shows that both classes improved after instruction. The control class increased from a mean score of 61.24 in the pre-test to 80.92 in the post-test. The experimental class increased from 57.44 in the pre-test to 88.28 in the post-test. Although both groups improved, the experimental class reached a higher post-test mean score and a smaller standard deviation, indicating stronger and more consistent vocabulary performance after learning through Kahoot.

The assumption tests showed that the data were not fully normally distributed. In the Shapiro-Wilk test, the control pre-test had a significance value of 0.157, but the control post-test, experimental pre-test, and experimental post-test had significance values of 0.029, 0.002, and 0.012. Since some values were lower than 0.05, the data did not meet the normality assumption. The Levene test based on the mean showed a significance value of 0.018, indicating unequal variance. Therefore, non-parametric tests were used for hypothesis testing.

Table 4. Assumption Test Results

Test	Data	Statistic	Sig.	Decision
Shapiro-Wilk	Control pre-test	.941	.157	Normal
Shapiro-Wilk	Control post-test	.909	.029	Not normal
Shapiro-Wilk	Experimental pre-test	.857	.002	Not normal
Shapiro-Wilk	Experimental post-test	.891	.012	Not normal

Vol 9, No 2 (2026): ESTEEM

Levene	Based on	5.946	.018	Not homogeneous
--------	----------	-------	------	-----------------

The Wilcoxon Signed-Rank test was conducted to examine the difference between pre-test and post-test scores within each class. The Mann-Whitney U test was then used to compare the post-test vocabulary scores between the control and experimental classes. The results are shown in Table 5.

Table 5. Hypothesis Testing Results

Test	Comparison	Statistic	Sig.	Interpretation
Wilcoxon	Control pre-test and post-test	Z = -4.289	.000	Significant improvement
Wilcoxon	Experimental pre-test and post-test	Z = -4.292	.000	Significant improvement
Mann-Whitney U	Control and experimental post-test	U = 194.500; Z = -2.313	.021	Significant difference

The Wilcoxon results showed significant improvement in both the control and experimental classes. However, the experimental class achieved a higher post-test mean score than the control class. The Mann-Whitney U test also showed a significance value of 0.021, which was lower than 0.05. This result means that the alternative hypothesis was accepted and that gamified vocabulary learning through Kahoot had a significant effect on students' vocabulary mastery at SMP Negeri 3 Lintang Kanan.

The improvement in the experimental class can be explained by the features of Kahoot. During the treatment, students answered vocabulary questions through live quizzes, saw immediate feedback, and received scores based on accuracy and speed. These features helped students focus on the words being learned and encouraged them to participate actively. This supports the view that gamified environments can stimulate cognitive engagement, motivation, and active learning (Khadraoui et al., 2024; Sailer & Homner, 2020; Ting et al., 2020).

The findings are consistent with previous studies showing that Kahoot can improve vocabulary learning outcomes. Rojabi et al. (2022) found that Kahoot improved exam scores, engagement, and motivation. Añora et al. (2025) reported that Kahoot supported

vocabulary acquisition and retention, while Rahayu et al. (2024) confirmed that Kahoot was effective in enhancing students' vocabulary mastery. The current study strengthens these findings by providing experimental evidence from eighth-grade students at SMP Negeri 3 Lintang Kanan.

The result also confirms that vocabulary learning becomes more effective when students are repeatedly exposed to words in meaningful and enjoyable contexts. In this study, vocabulary was taught through pictures, pronunciation practice, sentence use, quiz questions, and feedback. This process helped students recognize and remember vocabulary related to the school environment. The finding is in line with the idea that vocabulary mastery requires repeated encounters, contextual practice, and active engagement (Lebkatem, 2024; Nation & Webb, 2020; Sun, Chen, & Zhu, 2023).

Compared with conventional instruction, Kahoot created a more interactive classroom atmosphere. Students were not only asked to memorize words but also to respond quickly, choose correct answers, and receive direct feedback. This condition may increase motivation and reduce boredom in vocabulary learning. Similar conclusions have been reported by Arisanti and Purnawanto (2022), Bicen and Mic (2023), Ibrahim (2025), and Sibatuara (2021), who found that Kahoot increased participation and supported vocabulary development in language learning contexts.

Even though the findings show a positive effect, this study was limited to two classes and one school context. The vocabulary material was also limited to school environment topics. Future research may involve larger samples, different schools, longer treatment duration, and other English skills such as reading, speaking, or writing. Teachers also need to consider students' access to devices and internet connection before applying Kahoot in regular classroom instruction (Leiss et al., 2025; Reyes et al., 2021).

5. CONCLUSION

This study investigated the effectiveness of gamified vocabulary learning through Kahoot in improving eighth-grade students' vocabulary mastery at SMP Negeri 3 Lintang Kanan.

Vol 9, No 2 (2026): ESTEEM

Based on the findings, students in the experimental class achieved a higher post-test mean score than students in the control class. The Mann-Whitney U test showed a significance value of 0.021, which means that there was a significant difference between students who learned vocabulary through Kahoot and those who learned through conventional instruction.

The research objective was achieved because the implementation of Kahoot significantly improved students' vocabulary mastery. Kahoot helped create an interactive, enjoyable, and motivating classroom atmosphere through quiz-based learning, immediate feedback, and healthy competition. The findings suggest that English teachers can use Kahoot as an alternative digital learning medium for vocabulary instruction, especially when they aim to increase students' participation and engagement. Future researchers are encouraged to examine Kahoot in different contexts, with larger participants, and with other English language skills.

6. ACKNOWLEDGEMENT

The author would like to express sincere gratitude to the advisors, lecturers, and academic staff of the English Education Study Program, Faculty of Teacher Training and Education, PGRI University Palembang, for their guidance and support. Appreciation is also extended to the principal, teachers, and students of SMP Negeri 3 Lintang Kanan who supported the research process.

7. REFERENCES

- Al-Marouf, R. S., Alhumoudi, H., Akour, I., & Salloum, S. A. (2021). Understanding the acceptance of Kahoot! in educational environments through gamification and connectivism approaches. *Education and Information Technologies*, 26(6), 1-18.
- Alqahtani, M. (2021). The importance of vocabulary in language learning and how to be taught. *International Journal of Teaching and Education*, 9(1), 10-18.
- Añora, A. I., San Jose, A. E., & Fernandez, E. J. (2025). The effect of using Kahoot as a game-based learning tool on vocabulary acquisition of Grade 10 learners. *European Journal of Literature, Language and Linguistics Studies*, 9(1). <https://doi.org/10.46827/ejll.v9i1.608>
- Arisanti, N., & Purnawanto, A. T. (2022). The effectiveness of Kahoot! as a teaching strategy in enhancing students' engagement and learning outcomes. *Journal of Educational Technology and Learning Creativity*, 5(1), 1-10.
- Armanda, R., & Priyana, J. (2023). Students' motivation and engagement in learning vocabulary through Kahoot!. *Journal of English Language Teaching and Learning*, 4(2), 1-8.
- Barclay, S., & Schmitt, N. (2018). *Vocabulary acquisition*. In B. González-Fernández & N. Schmitt (Eds.), *The Routledge handbook of instructed second language acquisition* (pp. 19-35). Routledge. <https://doi.org/10.4324/9781315676968-16>
- Bicen, H., & Ilic, U. (2023). The effects of digital gamified quizzes on long-term retention and academic achievement in EFL learning. *International Journal of Emerging Technologies in Learning*, 18(5), 1-12.
- Bicen, H., & Mic, M. (2023). Kahoot! in language learning: A systematic review of skill development and learner engagement. *Education and Information Technologies*, 28(4), 1-20.
- Bolarinwa, O. A. (2015). Principles and methods of validity and reliability testing of questionnaires used in social and health science researches. *Nigerian Postgraduate Medical Journal*, 22(4), 195-201.
- Creswell, J. W. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). SAGE Publications.
- Dichev, C., & Dicheva, D. (2017). Gamifying education: What is known, what is believed and what remains uncertain: A critical review. *International Journal of Educational Technology in Higher Education*, 14(9), 1-36. <https://doi.org/10.1186/s41239-017-0042-5>

Vol 9, No 2 (2026): ESTEEM

- Ghahramanian, A. (2015). An overview of the content validity procedure in instrument development. *Nursing Practice Today*, 1(1), 1-7.
- Heale, R., & Twycross, A. (2015). Validity and reliability in quantitative studies. *Evidence-Based Nursing*, 18(3), 66-67.
- Hussain, S. S., & Khan, A. W. (2025). Vocabulary teaching strategies for EFL learners: An exploratory study. *Journal of Language Teaching and Research*, 16(5), 10807. <https://doi.org/10.17507/jltr.1605.15>
- Ibrahim, N. (2025). Utilizing Kahoot in supporting vocabulary development: A reflective practice in English language classrooms. *Journal of English and Language Teaching*, 16(1), 69-75.
- Khadraoui, M., et al. (2024). Gamification as a digital learning strategy that leverages game-based mechanics to foster learner engagement and autonomy. *International Journal of Educational Technology in Higher Education*, 21(1), 1-15.
- Kibar-Almazán, A., et al. (2024). Kahoot! fosters active learning and improves classroom dynamics by promoting competition, collaboration, and immediate feedback. *Education Sciences*, 14(2), 8-9.
- Kode, O. (2025). Gamification in education: Review of challenges and recommendations for effective practice. *International Journal of Computing and Informatics*, 14(4).
- Lebkatem, J. (2024). A review of vocabulary learning strategies used by EFL learners (2020-2024): Current trends. *Didyasarin International Journal of English Studies*.
- Leiss, D., et al. (2025). Teachers' perceptions of gamification in education: Motivation, curriculum alignment, and classroom realities. *Computers & Education*, 210, 104-118.
- Licorish, S. A., Owen, H. E., Daniel, B., & George, J. L. (2022). Students' perception of Kahoot!'s flexibility and inclusiveness in diverse learning environments. *Australasian Journal of Educational Technology*, 38(2), 1-15.
- Nation, I. S. P. (2022). *Learning vocabulary in another language* (3rd ed.). Cambridge University Press.
- Nation, P., & Webb, S. (2020). *Teaching vocabulary: Strategies and techniques*. Heinle Cengage Learning.
- Nurohman, S., Prakasita, A. R., Rahmawati, L., Maryanto, A., Tyas, R. A., & Borhan, M. T. B. (2025). Classcraft gamified problem-based learning: How does it enhance collaboration and critical thinking skills? *Jurnal Pendidikan Sains Indonesia*, 13(1), 100-111. <https://doi.org/10.24815/jpsi.v13i1.41748>
- O'Connor, P., et al. (2021). Kahoot! and deeper learning: Vocabulary retention through rapid-fire questioning. *Journal of Interactive Learning Research*, 32(1), 1-12.
- Pratiwi, E., Kartikasari, D., & Jaya, A. (2024). Using social media to improve the students' English ability. *Jurnal Smart*, 9(1).
- Rahayu, T. D., Ailia, N., Junita, F., & Ifana, N. (2024). A literature review: The effectiveness of using Kahoot! to enhance students' vocabulary. *Register Journal*, 13(4), 9-17.
- Rashid, M. H., Lan, Y., & Hui, W. (2022). The importance of vocabulary in teaching and learning in applied linguistics. *Linguistics and Culture Review*, 6(S2), 541-550. <https://doi.org/10.21744/lingcure.v6ns2.2177>
- Reyes, M., et al. (2021). Teacher digital competence and instructional alignment in the use of Kahoot!. *Educational Media International*, 58(3), 1-14.
- Rojabi, A., et al. (2022). Kahoot, is it fun or unfun? Gamifying vocabulary learning to boost exam scores, engagement, and motivation. *International Journal of Language Education*, 4(2), 20-32. <https://doi.org/10.26858/ijole.v4i2.20736>
- Sailer, M., & Homner, L. (2020). The gamification of learning: A meta-analysis. *Educational Psychology*

Vol 9, No 2 (2026): ESTEEM

- Review, 32(1), 77-112.
- Sibatuara, U. D. (2021). The effectiveness of Kahoot in improving vocabulary. *Edukasi: Jurnal Pendidikan dan Pengajaran*, 8(1), 33-42.
- Siemens, G., & Tittenberger, P. (2021). *Handbook of emerging technologies for learning*. University of Manitoba.
- Sun, Y., Chen, L., & Zhu, H. (2023). Vocabulary acquisition in EFL: Cognitive strategies, exposure frequency, and learner motivation. *Frontiers in Psychology*, 14, 112345. <https://doi.org/10.3389/fpsyg.2023.112345>
- Sürücü, L., & Maslakçı, A. (2020). Validity and reliability in quantitative research. *Business & Management Studies: An International Journal*, 8(3), 2694-2726.
- Teng, F. (2021). Vocabulary knowledge and language learning: The role of lexical competence in communication. *Language Teaching Research*, 25(4), 1-15.
- Teng, F. (2023). Vocabulary knowledge as a predictor of academic achievement among L2 learners. *TESOL Quarterly*, 57(2), 1-18.
- Ting, D. S. W., et al. (2020). The motivational design of Kahoot!, utilizing elements such as points, leaderboards, and time limits, significantly acts as an independent variable to enhance student engagement and academic output. *Educational Technology Research and Development*, 68(5), 1-14.
- Uzer, Y. (2023). Improving English speaking skill by using role-play method through multimedia devices. *Holistics: Journal of English Language Studies*.
- Wang, A. I. (2015). The use of Kahoot! in higher education: A review of gamification in learning. *Proceedings of the International Conference on Interactive Collaborative Learning (ICL)*, 1-8. <https://doi.org/10.1109/ICL.2015.7318135>
- Wen, W. N. L., & Naim, R. M. (2023). Vocabulary learning strategies (VLS) in second language acquisition (SLA): A review of literature. *International Journal of Language Literacy and Translation*, 6(2), 223-241. <https://doi.org/10.36777/ijollt2023.6.2.087>
- Wendy Ng Li Wen, & Rosli Muhammad Naim. (2023). Receptive vs. productive vocabulary in EFL learning. *Journal of English Language Studies*, 8(2), 45-56.
- Yan, X. (2023). Learners' difficulties with function words in vocabulary acquisition. *Journal of Applied Linguistics and Language Research*, 10(3), 77-89.
- Zeng, Y., Kuo, L.-J., Chen, L., Lin, J.-A., & Shen, H. (2025). Vocabulary instruction for English learners: A systematic review connecting theories, research, and practices. *Education Sciences*, 15(3), 262. <https://doi.org/10.3390/educsci15030262>
- Zhang, D., & Zhang, L. J. (2020). Vocabulary learning and its impact on communication skills and text comprehension. *System*, 91, 102-110.