



Kahoot: Its Effect on Students' Vocabulary Mastery (*Kahoot: Pengaruhnya Terhadap Penguasaan Kosakata Siswa*)

Safina Nur Khalisah Hiola¹, Rasuna Talib², Yunita Hatibie³, Moon Hidayati Otoluwa⁴, Sri Rumiyaningsih Luwiti⁵

^{1,2,3,4,5}English Language Education Department, Faculty of Letters and Culture, Universitas Negeri Gorontalo
safinahiola10@gmail.com¹, rasunatalib@ung.ac.id², yunita.hatibie@ung.ac.id³, moonhidayati@ung.ac.id⁴,
sriluwiti@ung.ac.id⁵

Article Info	Abstract
Article history: Received: 27 Juli 2026 Revised: 27 Agustus 2026 Accepted: 28 Agustus 2026 Keywords: Kahoot Vocabulary Mastery Audio-visual Learning Media Game-based Learning Quantitative Research Kata Kunci: Kahoot Penguasaan Kosakata Pembelajaran Audio-visual Pembelajaran Berbasis Permainan Penelitian Kuantitatif	Vocabulary mastery is an essential component of English language learning, yet seventh-grade students may experience difficulties in understanding and using vocabulary due to limited learning engagement and less interactive learning approaches. This study aimed to investigate the effect of using Kahoot as an audio-visual learning medium on seventh-grade students' vocabulary mastery, with a specific focus on nouns, verbs, and adjectives at SMP Negeri 1 Botupingge. This research employed a quantitative method with a pre-experimental one-group pretest-posttest design involving 26 seventh-grade students selected through purposive sampling. Data were collected using a 25-item multiple-choice vocabulary test administered as a pre-test and post-test and analyzed using a paired sample t-test after the data were confirmed to be normally distributed. The findings showed that students' mean score increased from 50.29 in the pre-test to 75.14 in the post-test, representing an increase of 24.85 points, with a significance value of 0.000 ($p < 0.05$) and a t-value of -8.291. Improvements were also observed across the three targeted word classes, with noun mastery increasing from 56% to 90.63%, adjective mastery from 48% to 87.50%, and verb mastery from 55% to 82.31%. These findings indicate that the implementation of Kahoot was associated with a significant improvement in students' vocabulary mastery and demonstrate its potential as an interactive audio-visual learning medium for vocabulary instruction. Abstrak Penguasaan kosakata merupakan salah satu komponen penting dalam pembelajaran bahasa Inggris, tetapi siswa kelas VII masih dapat mengalami kesulitan dalam memahami dan menggunakan kosakata karena keterbatasan keterlibatan belajar dan penggunaan pendekatan pembelajaran yang kurang interaktif. Penelitian ini bertujuan untuk mengetahui pengaruh penggunaan Kahoot sebagai media pembelajaran audio-visual terhadap penguasaan kosakata siswa kelas VII, dengan fokus khusus pada kata benda (noun), kata kerja (verb), dan kata sifat (adjective) di SMP Negeri 1 Botupingge. Penelitian ini menggunakan metode kuantitatif dengan desain pra-eksperimental one-group pretest-posttest yang melibatkan 26 siswa kelas VII yang dipilih melalui teknik purposive sampling. Data dikumpulkan menggunakan tes kosakata pilihan ganda sebanyak 25 soal yang diberikan sebagai pre-test dan post-test, kemudian dianalisis menggunakan paired sample t-test setelah data dinyatakan berdistribusi normal. Hasil penelitian menunjukkan bahwa nilai rata-rata siswa meningkat dari 50,29 pada pre-test menjadi 75,14 pada post-test, dengan peningkatan sebesar 24,85 poin, nilai signifikansi 0,000 ($p < 0,05$), dan nilai t sebesar -8,291. Peningkatan juga terlihat pada ketiga kelas kata yang ditargetkan, dengan penguasaan noun meningkat dari 56% menjadi 90,63%, adjective dari 48% menjadi 87,50%,

dan verb dari 55% menjadi 82,31%. Temuan ini menunjukkan bahwa penggunaan Kahoot berkaitan dengan peningkatan yang signifikan dalam penguasaan kosakata siswa serta menunjukkan potensinya sebagai media pembelajaran audio-visual yang interaktif dalam pengajaran kosakata.

Corresponding Author:

Safina Nur Khalisah Hiola
Faculty of Letters and Culture
Universitas Negeri Gorontalo
safinahiola10@gmail.com

1. INTRODUCTION

English language teaching at the junior high school level is currently oriented toward a more holistic and contextual approach, in which students develop the four main language skills through meaningful tasks and learn to use language in real-life contexts (Nation, 2022). In the Merdeka Curriculum, genre-based texts, such as narrative, descriptive, and procedural texts, support students in developing their language skills while acquiring vocabulary and grammatical structures in natural contexts (Ashuralievna & Amonova, 2023). This approach is aligned with the Graduate Learning Outcomes (CPL) and the Learning Objective Sequence (ATP), which emphasize vocabulary mastery, the understanding of various word classes, and the use of interactive digital media such as Kahoot. Vocabulary mastery is a fundamental component in achieving these learning objectives, as explicit vocabulary learning involves understanding word forms, meanings, and uses through structured and systematic instruction (Nation & Meara, 2013).

However, despite these curriculum demands, seventh-grade students' vocabulary mastery still faces several obstacles caused by both internal and external factors, as students' motivation, learning habits, and interest in learning can influence their achievement. Sucandra et al. (2022) mention that external factors, including less engaging teaching methods and limited use of learning media, can also affect students' learning outcomes, while Aulya and Farida (2023) found that students who consider English vocabulary and pronunciation difficult tend to show lower learning interest and motivation. This issue was also reflected in the researcher's teaching assistance experience at SMP Negeri 1 Botupingge, where many seventh-grade students experienced difficulties in understanding instructions and learning materials due to limited vocabulary mastery, tended to depend on their friends' answers, or did not complete tasks independently, indicating that insufficient vocabulary mastery may hinder students' participation and understanding during the learning process.

Traditional teaching methods, such as memorization, direct translation, and teacher-centered instruction, are still commonly used in English classrooms to introduce and practice vocabulary. However, as learning environments and students' needs continue to develop, these methods may provide limited opportunities for students to engage actively and may make vocabulary learning less appealing and meaningful. Zhu et al. (2024) found that digital learning environments significantly enhance vocabulary acquisition compared to traditional learning methods, showing a large overall effect size across multiple studies, suggesting that the integration of interactive digital media can provide more engaging learning experiences and better support students' vocabulary development.

Digital learning offers greater flexibility and interaction by allowing students to engage with learning materials through multimedia, interactive activities, and immediate responses. Compared with conventional approaches, digital learning can provide learning experiences that are more engaging and adaptable to students' developing needs, particularly in vocabulary instruction that requires repeated exposure and active practice. Zhu et al. (2024) found that digital learning environments significantly enhance vocabulary acquisition compared to traditional learning methods, showing a large overall effect size across multiple studies, supporting the use of interactive digital media as an alternative approach to vocabulary learning.

One potential medium is Kahoot, a game-based learning platform that provides interactive activities through formative assessment, immediate feedback, and flexible question formats. Kahoot is effective in supporting vocabulary learning through game-based activities, while its interactive design can accommodate different learning styles and enhance memory retention, making it suitable for vocabulary instruction at the junior high school level. The integration of Kahoot with vocabulary instruction requires careful alignment between quiz content and learning objectives, and Novitasari and Novalita (2025) found that Kahoot-based

vocabulary learning through descriptive texts produces higher achievement compared to conventional methods, supporting the use of theme-based quizzes such as colors, objects, or food to facilitate both vocabulary understanding and practical use.

Despite these advantages, the use of digital media in learning may also present challenges, particularly when students' attention is divided by non-academic digital activities. According to Liu (2022), digital distraction may occur when students feel compelled to respond to messages, answer phone calls, or access social media due to continuous notifications from digital devices, which can reduce concentration and learning engagement. However, such distractions can be managed through structured classroom implementation, clear learning instructions, teacher monitoring, and the purposeful use of digital media so that technology remains focused on supporting students' learning activities.

Previous studies have demonstrated the potential of Kahoot and gamified learning in supporting vocabulary development through interactive learning activities. Novitasari and Novalita (2025) found that Kahoot-based vocabulary learning through descriptive texts produces higher achievement compared to conventional methods, while Zuleha et al. (2025) indicate that gamified learning increases motivation, participation, and vocabulary retention. These findings suggest that interactive and game-based digital learning can contribute to vocabulary development, although previous studies have addressed vocabulary learning through different materials, learning outcomes, and instructional focuses.

In contrast to these studies, the present study focuses specifically on students' mastery of three fundamental word classes, namely nouns, verbs, and adjectives, through the use of Kahoot as an audio-visual learning medium. This specific focus is important because vocabulary mastery involves not only the ability to recognize or retain words but also the understanding of different word classes and their functions in language use. Therefore, examining these three vocabulary categories provides a more specific perspective on how Kahoot can be used to support vocabulary mastery among seventh-grade students.

Based on this research gap, the present study aims to investigate the effect of using Kahoot as an audio-visual learning medium on seventh-grade students' vocabulary mastery, with a specific focus on nouns, verbs, and adjectives. The study was conducted at SMP Negeri 1 Botupingge to examine the application of Kahoot within the actual context of junior high school English learning. The findings are expected to provide empirical evidence regarding the use of interactive digital media for supporting students' mastery of specific vocabulary categories.

2. METHODS

This research employed a quantitative method using a pre-experimental design with a one-group pretest-posttest approach. Arikunto (2014) states that quantitative research typically involves the use of numbers, proportions, and statistical analysis to evaluate attitudes, behaviors, and cognitive processes. This method was considered appropriate because the research aimed to determine whether there was a significant effect of using Kahoot as an audio-visual learning medium on students' vocabulary mastery.

The population of this research consisted of all seventh-grade students at SMP Negeri 1 Botupingge, totaling 93 students from classes VII A, VII B, and VII C. This research used purposive sampling to select the research sample, in which the sample was determined based on characteristics considered relevant to the research objectives. Yulius (2023) explains that purposive sampling is used when the selected sample possesses specific characteristics relevant to the research objectives.

During the researcher's teaching assistance at SMP Negeri 1 Botupingge, observations were conducted across the three seventh-grade classes to identify their learning conditions and characteristics. All three classes were taught by the same English teacher using the same learning materials and teaching methods, providing relatively similar instructional conditions for comparison. The observations indicated that class VII B demonstrated the lowest level of understanding of English instructions and learning materials as well as lower learning interest and participation compared with classes VII A and VII C.

The research design applied in this study was a one-group pretest-posttest design. In this design, students were given a pre-test before the treatment and a post-test after the treatment without involving a control group. Sugiyono (2012) explains that this design allows researchers to compare students' achievement before and after the implementation of the treatment. Therefore, the design was considered suitable to identify the effect of Kahoot on students' vocabulary mastery through direct comparison of pre-test and post-test results.

The instrument used in this research was a vocabulary test consisting of multiple-choice questions related to nouns, verbs, and adjectives. The test measured students' ability to recognize word meaning, understand vocabulary in context, and apply vocabulary appropriately in simple English expressions. Before being used in the actual research, the instrument was tested through a try-out process to determine its validity and reliability. According to Arikunto (2014), validity refers to the ability of an instrument to measure what should be measured.

The reliability analysis was conducted using Cronbach's Alpha. Arikunto (2014) states that reliability demonstrates the consistency of an instrument in measuring a construct. The reliability table showed that the Cronbach's Alpha value was 0.727 for 51 items. This value indicated that the instrument had an acceptable level of reliability and could be used consistently for data collection.

The treatment was conducted over four meetings using Kahoot as an interactive game-based learning medium. The learning materials focused on school activities, daily routines, learning habits, and adverbs of frequency. During the implementation, students participated in contextual vocabulary activities, pronunciation practice, sentence construction, group discussion, and Kahoot-based quizzes designed to reinforce vocabulary learning through interactive learning experiences.

Kahoot was implemented through several game modes such as Robot Chase and Submarine Mode to increase students' participation and motivation during classroom activities. Immediate feedback provided by Kahoot allowed students to recognize correct and incorrect answers directly after completing the quizzes.

Almanar (2019) observes that Kahoot reinforces previously learned material while helping teachers provide immediate feedback based on students' responses. Before conducting hypothesis testing, a normality test was performed using the Kolmogorov-Smirnov and Shapiro-Wilk tests through SPSS version 25. According to Ghasemi and Zahediasl (2012), data are considered normally distributed if the significance value is higher than 0.05. The results showed that both pre-test and post-test data were normally distributed. Therefore, the data fulfilled the assumptions required for parametric statistical analysis.

The data obtained from the pre-test and post-test were analyzed using a paired sample t-test to determine whether there was a significant difference in students' vocabulary mastery before and after the implementation of Kahoot. Arikunto (2014) explains that a paired sample t-test is appropriate for comparing two mean scores from the same group measured at different times.

3. RESULTS AND DISCUSSION

3.1 Students' Pre-Test Scores

The pre-test was administered before the implementation of Kahoot as an interactive game-based audio-visual learning medium. The purpose of the pre-test was to identify students' initial vocabulary mastery before receiving the treatment. The findings showed that the total pre-test score obtained by the students was 1408 with a mean score of 50.29. This result indicates that students' vocabulary mastery before the treatment was still relatively low.

Table 1. Students' Category Score of Pre-Test

Score Category	Frequency	Percentage
Very Low	7	26.92%
Low	6	23.08%
Medium	4	15.38%
High	5	19.23%
Very High	4	15.38%
Total	26	100%

The distribution of students' pre-test scores shows that most students were still concentrated in the lower achievement categories before the implementation of Kahoot. A total of 26.92% of students were categorized as "Very Low," while 23.08% were categorized as "Low." These findings indicate that students still experienced difficulties in understanding and applying English vocabulary during classroom activities.

The analysis of students' achievement in each vocabulary category also showed varying levels of mastery. Nouns obtained the highest percentage with 55.53%, followed by verbs with 54.62%, while adjectives showed the lowest percentage with 48.08%. These findings indicate that students were more familiar with basic vocabulary categories such as nouns and verbs, while descriptive vocabulary categories such as adjectives remained more difficult for them to understand.

Table 2. Students' Achievement in Each Indicator Pre-Test

Word Class	Total Point	Maximum Score	Percentage
Noun	231	416	55.53%
Verb	71	130	54.62%
Adjective	50	104	48.08%

Overall, the pre-test findings demonstrate that students still had limited vocabulary mastery before the implementation of Kahoot. Therefore, an interactive and engaging learning medium was

needed to support students' participation, motivation, and vocabulary acquisition during the learning process.

3.2 Treatment Implementation

The treatment in this research was conducted over four meetings using Kahoot as an interactive game-based learning medium. The learning activities focused on vocabulary development related to school activities, daily routines, learning habits, and adverbs of frequency. During the treatment sessions, students participated in contextual vocabulary activities, pronunciation practice, group discussions, sentence construction, and Kahoot-based quizzes designed to reinforce vocabulary learning through interactive learning experiences.

The implementation of Kahoot encouraged students to participate more actively during vocabulary learning activities. Students demonstrated higher enthusiasm, confidence, and classroom participation during quizzes and collaborative learning activities. The immediate feedback provided by Kahoot also helped students identify vocabulary errors directly and improve their understanding during the learning process.

3.3 Students' Post-Test Scores

After the implementation of the treatment sessions using Kahoot, a post-test was administered to evaluate students' vocabulary mastery. The findings showed that the total post-test score obtained by the students was 2104 with a mean score of 75.14. Compared to the pre-test mean score of 50.29, the results indicate a substantial improvement in students' vocabulary mastery after the implementation of Kahoot as an audio-visual learning medium.

Table 3. Students' Category Score of Post-Test

Score Category	Frequency	Percentage
Very Low	0	0.00%
Low	1	3.85%
Medium	1	3.85%
High	15	57.69%
Very High	9	34.62%
Total	26	100%

The distribution of students' post-test scores shows considerable improvement compared to the pre-test results. No students were categorized as "Very Low," while most students were categorized as "High" and "Very High." These findings indicate that students achieved higher vocabulary mastery after participating in the Kahoot-based learning activities.

The improvement in students' scores demonstrates that Kahoot helped students understand vocabulary more effectively through interactive and engaging learning activities. Students became more motivated during classroom participation because the learning environment was more enjoyable and less monotonous compared to conventional vocabulary instruction.

3.4 Normality Test

The normality test was conducted using the Kolmogorov-Smirnov and Shapiro-Wilk tests through SPSS version 25 to determine whether the data were normally distributed before conducting hypothesis testing.

According to Ghasemi and Zahediasl (2012), data are considered normally distributed when the significance value is higher than 0.05.

Table 4. Normality Test

Tests of Normality						
Kolmogorov-Smirnova				Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
V1	0.149	26	0.140	0.937	26	0.114
V2	0.121	26	.200*	0.951	26	0.250
* This is a lower bound of the true significance.						
a Lilliefors Significance Correction						

The results of the normality test showed that both the pre-test and post-test data were normally distributed. Therefore, the paired sample t-test was considered appropriate for analyzing the effect of Kahoot on students' vocabulary mastery.

3.5 Hypothesis Testing

The hypothesis testing in this research was conducted using a paired sample t-test to determine

whether there was a significant difference between students' pre-test and post-test scores after the implementation of Kahoot. Arikunto (2014) explains that a paired sample t-test is appropriate for comparing two mean scores obtained from the same group at different times, which allows the researcher to measure learning progress effectively. This statistical analysis helps ensure that any observed differences are not due to chance but reflect real changes in students' performance.

Table 5. Paired T-test

Paired Samples Test									
Paired Differences							t	df	Sig . (2-tailed)
Pair 1	V1 - V2	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
		-26.769	16.464	3.229	-33.419	-20.119	-8.291	25	0.000

The findings showed that the post-test mean score was significantly higher than the pre-test mean score, increasing from 50.29 to 75.14 after the treatment. The significance value of 0.000 ($p < 0.05$) indicates that the improvement was statistically significant, leading to the acceptance of the alternative hypothesis (H_1) and rejection of the null hypothesis (H_0). This result confirms that the difference between the two scores is not random but reflects the effect of the treatment.

The post-test results showed an increase in students' vocabulary mastery following the implementation of the treatment. The immediate feedback feature also helps students identify mistakes quickly and improve their understanding of vocabulary in context. Therefore Kahoot can be considered an effective instructional medium for enhancing students' vocabulary mastery in EFL classrooms.

3.6 Discussion

The findings of this research demonstrate that students' vocabulary mastery improved following the implementation of Kahoot as an audio-visual learning medium. The mean score increased from 50.29 in the pre-test to 75.14 in the post-test, representing an increase of 24.85 points, while the paired sample t-test showed a statistically significant difference with a significance value of 0.000 and a t-value of -8.291. This improvement indicates that the learning activities implemented through Kahoot were associated with better vocabulary achievement among the seventh-grade students at SMP Negeri 1 Botupingge.

The improvement in students' vocabulary mastery can be related to the interactive and game-based learning environment provided during the treatment. Prensky (2003) states that game-based media can enhance students' engagement and motivation, which may contribute to improved learning outcomes, while Deterding et al. (2011) explain that gamification can support engagement through the integration of game elements into learning activities. In this research, scoring, competition, interactive quizzes, and immediate feedback encouraged students to participate more actively and maintain their attention during vocabulary learning activities.

The role of immediate feedback also contributed to the learning process by allowing students to recognize their errors and receive information about their answers directly. Almanar (2019) observes that Kahoot reinforces previously learned material while providing immediate feedback based on students' responses. The opportunity to identify and correct vocabulary errors during the quizzes may have helped students strengthen their understanding through repeated practice and reinforcement.

The analysis of the three targeted word classes further shows that students' mastery improved across nouns, adjectives, and verbs after the treatment. Noun mastery increased from 56% to 90.63%, adjective mastery increased from 48% to 87.50%, and verb mastery increased from 55% to 82.31%. These results indicate that the improvement was not limited to overall vocabulary achievement but was also reflected across the specific vocabulary categories targeted in this research.

The different levels of improvement across the three word classes may be related to the characteristics of the vocabulary items and the ways in which students encountered them during learning activities. Thornbury (2002) explains that concrete vocabulary is generally easier to acquire because learners can associate words directly with visible objects or familiar experiences, which may help explain the relatively high improvement in noun mastery. Meanwhile, the lower improvement observed in verbs may be related to the need to understand their meanings in relation to contextual and grammatical use, as Schmitt (2010) states that verbs can be more difficult to master because learners need to understand both their meaning and contextual usage.

The improvement in vocabulary mastery was also accompanied by increased student engagement during the learning activities. Fredricks et al. (2004) explain that engagement consists of behavioral, emotional, and cognitive dimensions that influence students' involvement in learning, while the present findings showed greater participation and attention during interactive vocabulary activities. The use of

Kahoot therefore provided a learning environment in which students could participate actively while practicing vocabulary through repeated and contextualized activities.

Overall, the findings support the research objective of investigating the effect of Kahoot as an audio-visual learning medium on seventh-grade students' vocabulary mastery, particularly in nouns, verbs, and adjectives. The significant increase in the overall mean score, the improvement across the three targeted word classes, and the statistically significant paired sample t-test collectively indicate that students demonstrated better vocabulary achievement following the treatment. These findings strengthen the view that interactive digital media such as Kahoot can serve as a relevant learning medium for vocabulary instruction when its activities are aligned with learning objectives and students' learning needs.

4 CONCLUSION AND SUGGESTIONS/RECOMMENDATIONS

4.1 Conclusion

The findings of this research indicate that the use of Kahoot as an audio-visual learning medium was associated with a significant improvement in students' vocabulary mastery at SMP Negeri 1 Botupingge. The students' mean score increased from 50.29 in the pre-test to 75.14 in the post-test after the implementation of the treatment. This improvement demonstrates measurable progress in students' vocabulary achievement following the use of interactive learning activities through Kahoot.

The improvement was also reflected in the distribution of students' achievement levels after the treatment. Most students were categorized as High (57.69%) and Very High (34.62%) in the post-test, while no students remained in the Very Low category. This shift indicates that students demonstrated higher and more consistent vocabulary achievement after participating in the Kahoot-based learning activities.

The findings further demonstrate improvement across the three vocabulary categories targeted in this research, namely nouns, adjectives, and verbs. Noun mastery increased from 56% to 90.63%, adjective mastery increased from 48% to 87.50%, and verb mastery increased from 55% to 82.31% following the treatment. These results indicate that the improvement in vocabulary mastery was evident not only in students' overall achievement but also across the specific word classes addressed during the learning process.

The statistical analysis further supports the improvement observed in students' vocabulary mastery. The paired sample t-test produced a significance value of 0.000 ($p < 0.05$) with a t-value of -8.291, indicating a statistically significant difference between students' pre-test and post-test scores. Therefore, the findings provide empirical evidence that the implementation of Kahoot was associated with significant improvement in students' vocabulary mastery within the context of this study.

The contribution of this research lies in providing empirical evidence on the use of Kahoot as an audio-visual learning medium for vocabulary instruction with a specific focus on nouns, adjectives, and verbs among seventh-grade students. The findings suggest that Kahoot can serve as a relevant digital learning medium to support vocabulary development when interactive activities, quiz content, and learning objectives are appropriately aligned. Nevertheless, because this research involved only one class and did not include a control group, the findings should be interpreted within the specific context of the study and further research with broader samples and comparative designs is recommended.

4.2 Suggestions/Recommendations

Teachers are recommended to integrate interactive digital learning media such as Kahoot into vocabulary instruction to create more engaging and meaningful classroom activities. The use of game-based learning can help students maintain focus, increase participation, and improve vocabulary retention during the learning process.

Future researchers are also encouraged to conduct further studies involving larger samples, different educational levels, or experimental designs involving control groups to obtain broader findings regarding the effectiveness of Kahoot in English language learning. In addition, future studies may explore the effect of Kahoot on other language skills such as speaking, listening, reading, or writing.

REFERENCES

- Almanar, M. A. (2019). Reviewing students' vocabulary mastery by using Kahoot at Holmesglen partnering with University of Muhammadiyah Tangerang. *ACITYA Journal of Teaching & Education*, 1(2), 78–87. *An International Multidisciplinary Online Journal*, 1(1), 1–6. <https://doi.org/10.30650/ajte.v1i2.212>
- Arikunto, S. (2014). *Prosedur Penelitian: Suatu Pendekatan Praktik* (Revised Edition).
- Aulya, A. F., & Farida, N. (2023). Analisis faktor rendahnya minat belajar bahasa inggris siswa smp negeri 18 raja ampat. *Al-khidmah: Jurnal Pengabdian Dan Pendampingan Masyarakat*, 3(1), 38–44.
- Ashuralievna, M. M., & Amonova, M. M. (2023). An Integrated Approaches in Teaching Foreign Language: *Eurasian Journal of Humanities and Social Sciences*, 20, 43–45.

- Deterding, S., Dixon, D., Khaled, R., & Nacke, L. (2011, September). From game design elements to gamefulness: defining "gamification". In *Proceedings of the 15th international academic MindTrek conference: Envisioning future media environments* (pp. 9-15).
- Ghasemi, A., & Zahediasl, S. (2012). Normality tests for statistical analysis: A guide for non-statisticians. *International Journal of Endocrinology and Metabolism*, 10(2), 486–489. <https://doi.org/10.5812/ijem.3505>
- Liu, Z. (2022). Reading in the age of digital distraction. *Journal of Documentation*, 78(6), 1201–1212. <https://doi.org/10.1108/JD-07-2021-0130>
- Nation, I. S. (2022). *Learning vocabulary in another language*. Cambridge university press.
- Nation, P., & Meara, P. (2013). 3 Vocabulary. In *An introduction to applied linguistics* (pp. 44-62). Routledge.
- Novitasari, D., & Yappi, S. N. (2025). The Effect of Kahoot in Enhancing Vocabulary Achievement at Cambridge Based Curriculum. Edutech: *Jurnal Inovasi Pendidikan Berbantuan Teknologi*, 5(2), 26-31.
- Prensky, M. (2003). Digital game-based learning. *Computers in entertainment (CIE)*, 1(1), 21-21.
- Schmitt, N. (2010). *Researching vocabulary: A vocabulary research manual*. Springer.
- Sucandra, S., Budiman, M. A., & Fajriyah, K. (2022). Analisis kesulitan penguasaan kosakata pembelajaran muatan lokal bahasa inggris pada siswa kelas iv di sd plus latansa kabupaten demak. *Jurnal Wawasan Pendidikan*, 2(1), 71-80.
- Sugiyono. (2012). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Bandung: Alfabeta.
- Thornbury, S. (2002). *How To Teach Vocabulary*. Essex, UK: Pearson Education Limited.
- Yulius, T. (2023). Metodologi Penelitian: Langkah Praktis (Pemula) Merancang Penelitian Kuantitatif. *Trans Info Media*.
- Zhu, T., Zhang, Y., & Irwin, D. (2024). Second and foreign language vocabulary learning through digital reading: A meta-analysis. *Education and Information Technologies*, 29(4), 4531-4563.
- Zuleha, R. N., Hartono, R., & Rozi, F. (2025). The Effectiveness of Kahoot! in Enhancing Vocabulary Skills Among Sixth-Grade Students. *Acuity: Journal of English Language Pedagogy, Literature and Culture*, 10(3), 184-195.