

IMPROVING STUDENT'S VOCABULARY MASTERY THROUGH GAME-BASED LEARNING USING KAHOOT! IN ENGLISH CLASS FOR EIGHTH-GRADE STUDENTS' AT UPTD SMPN SATU ATAP 3 PESAWARAN IN THE ACADEMIC YEAR 2025/2026

Oleh :

Nenti Yulianti¹⁾, Suhono²⁾, Rizky Hidayatullah³⁾
^{1,2,3} Fakultas Tarbiyah, Universitas Ma'arif Lampung
¹email: nentiyulia2003@gmail.com
²email: suhono120708@gmail.com
³email: rizky.hidayatullah17@gmail.com

Informasi Artikel

Riwayat Artikel :

Submit, 11 Juli 2026
Revisi, 4 September 2026
Diterima, 9 September 2026
Publish, 15 September 2026

Keyword :

Game Based Learning,
Kahoot,
Vocabulary Mastery,
Classroom Action Research.

ABSTRACT

Vocabulary mastery is a crucial aspect of English language learning as it forms the foundation for understanding and using the language effectively. However, based on initial observations in the 8th-grade class at UPTD SMPN Satu Atap 3 Pesawaran, students' vocabulary skills remain relatively low. Students often encounter difficulties in understanding vocabulary meanings, recognizing word forms, and incorporating new words into simple sentences, which may negatively affect their participation and motivation during classroom activities. This research aims to improve students' vocabulary proficiency by implementing Kahoot as a game-based learning tool. This study employed the Classroom Action Research (CAR) method, which was conducted over two cycles. Each cycle consisted of several stages: planning, implementation, observation, and reflection. Data were collected using vocabulary tests, observation sheets, and documentation throughout the learning process. The results demonstrated a positive improvement in students' vocabulary achievement following the use of Kahoot. The average score increased from 63.2 in the preliminary phase to 68.7 in Cycle I and reached 76.2 in Cycle II. Furthermore, the number of students who achieved the established mastery criteria also increased. Moreover, Kahoot contributes to increased student participation, motivation, and enthusiasm throughout the learning activities. Consequently, the use of Kahoot as a game-based learning medium can be an effective approach to improving students' vocabulary mastery in English learning.

This is an open access article under the [CC BY-SA](#) license



Corresponding Author:

Nama: Nenti Yulianti
Afiliasi: Universitas Ma'arif Lampung
Email: nentiyulia2003@gmail.com

1. INTRODUCTION

Vocabulary is an important foundation for literacy and communication, and is the main foundation for understanding language.(Rashid, Lan, & Hui, 2022). Vocabulary plays a crucial role in language proficiency because words are essential for communicating ideas, emotions, and thoughts. (Aksak & Çubukçu, 2026).Vocabulary serves not

only as a collection of words to be memorized, but also as the primary means for students to convey ideas, understand information, and communicate both orally and in writing. Vocabulary is the most important component in language learning (Listyani & Pradina, 2021) In the language learning process, the ability to understand vocabulary significantly influences students' success in developing other

language skills such as reading, writing, speaking, and listening. According to Nation, the ability to understand vocabulary consists of the following aspects: word form, ambiguity of meaning, recognition without review, and understanding its use in various contexts. Therefore, someone who understands vocabulary is defined as being able to recognize the word, understand its meaning, and easily use it again in the future (Sujadi & Wulandari, 2021).

Therefore, adequate vocabulary mastery is a crucial indicator of successful English learning in schools. However, in classroom learning, many students still struggle to master English vocabulary. Students' difficulties in acquiring vocabulary may arise from various internal and external factors. Internal factors are related to low motivation and interest in learning, whereas external factors include the limited application of diverse teaching strategies and the inadequate utilization of learning media. (Panjaitan et al., 2025) This difficulty often arises because students experience difficulties in vocabulary learning, such as incorrect pronunciation, ineffective learning methods, and a lack of confidence in using vocabulary (H. Li, 2016). Students are unable to accurately understand word meanings, have difficulty remembering new vocabulary, and struggle to use it appropriately in sentence contexts. This condition can ultimately impact students' overall ability to understand English learning materials.

Limited vocabulary is the main obstacle in learning English because students cannot understand the meaning of words and the context in which they are used (Valencia & Junaidi, 2021). Lack of vocabulary occurs because students only have basic vocabulary knowledge, without understanding their use in broader contexts (Rosyada-AS & Apoko, 2023). This condition makes it difficult for students to grasp information contained in texts and conversations. Furthermore, a lack of vocabulary mastery also hinders students' ability to construct sentences and express ideas clearly and accurately. Consequently, the learning process becomes less effective because students cannot optimally participate in learning activities, whether in reading, writing, speaking, or listening.

Based on initial observations conducted in the eighth grade of SMP UPTD Satu Atap 3 Pesawaran, it was found that most students still experience difficulties understanding and using English vocabulary. Many students are unable to remember new vocabulary well and struggle to use these words in simple sentences. Thornbury stated that the main difficulties in vocabulary learning are students' low ability to remember words long-term and a lack of practice, which leads to vocabulary being easily forgotten (Baharudin, Saifullah, & Hasan, 2024). Difficulty remembering vocabulary is also a significant factor. Vocabulary that is not frequently

used or practiced tends to be easily forgotten, making it difficult for students to recall it when needed (Arochman, Madani, Welasiyah, & Setiandari, 2023)

Furthermore, classroom learning still tends to use traditional models, dominated by the lecture method. In practice, teachers often deliver material in a one-way fashion, while students act as passive recipients of information. This situation results in low student engagement in learning activities. This situation makes the learning process less engaging and impacts student motivation. Therefore, the implementation of more innovative and interactive learning strategies is needed to increase student participation and engagement in the learning process. Game-Based Learning (GBL) is one approach that can be applied to support the learning process. It integrates game-based activities into instruction to foster student engagement and motivation and to improve learning outcomes by creating an interactive and enjoyable learning environment. The implementation of this approach has demonstrated its ability to increase students' active involvement in learning and strengthen their comprehension of the subject matter. (Zhang, 2024). This approach integrates game-based elements into the learning process to foster a more engaging, enjoyable, and interactive educational environment. By participating in game-based activities, students are encouraged to move beyond being passive recipients of information and take an active role in constructing their learning experiences. However, the rapid development of internet technology and smart learning tools has highlighted several limitations of traditional teaching methods. (M. Li, 2025) The advancement of educational technology has led to the growing adoption of digital learning media to facilitate more innovative, engaging, and interactive learning experiences. Incorporating technology into English language instruction can assist teachers in providing more engaging learning experiences for students. Within the educational context, technology functions as a valuable instructional tool for fostering a more interactive and innovative learning environment (Zhang, 2024).

Technology not only functions as a learning aid but can also be a medium that can increase student participation in learning activities. One of the digital learning media that is widely used in game-based learning is Kahoot. Kahoot is a gamification-based digital learning tool that is effective in increasing student interaction and involvement, because it combines game elements with the learning process so that students become more active in participating in learning activities. (Özdemir, 2025). In addition, using Kahoot can create a learning atmosphere that is more fun and less monotonous, thereby increasing student motivation to learn. Through interactive quiz features and direct feedback, students can find out their learning results instantly, which in turn can help improve

understanding and overall student learning outcomes. Kahoot features such as timers, songs, and a visually engaging interface can strengthen students' focus and attention throughout the learning session (Moradi, Liu, Luchies, Patterson, & Darban, 2018)

Motivation is a fundamental factor that affects learners' involvement, perseverance, and success in the process of language learning (Taye & Lodebo, 2026). Besides enhancing students' learning motivation, the use of Kahoot can also foster a more active and collaborative learning environment. In game-based learning, students not only learn individually but also interact with classmates through discussions and competitions. This can help students develop social skills and increase their confidence in the learning process. Consequently, the incorporation of game-based learning media, such as Kahoot, can serve as a promising approach to improving the quality and effectiveness of English language instruction in the classroom.

However, most previous research has focused on the use of Kahoot to increase learning motivation or student engagement in general. Research specifically examining the use of Kahoot to improve vocabulary mastery in junior high school students is still relatively limited. Furthermore, research examining the use of Kahoot through a Classroom Action Research (CAR) approach, which focuses on gradual learning improvement efforts, is also rare. However, the Classroom Action Research (CAR) approach is crucial for helping teachers systematically improve the learning process through several cycles of action. (Siregar, 2025).

Classroom Action Research (CAR) is a systematic and reflective research approach conducted through repeated cycles consisting of planning, action, observation, and reflection. This approach enables teachers to identify classroom problems, implement appropriate actions, evaluate their effectiveness, and make necessary improvements to enhance the quality of teaching and learning based on students' needs and difficulties (Sever et al., 2017). Through this approach, teachers can directly identify problems that occur in the learning process, then design and implement appropriate actions as solutions to these problems. Furthermore, the results of the actions taken will be evaluated and reflected on to determine the level of success and determine improvements in the next cycle. Thus, CAR allows for continuous and systematic improvement in the quality of learning, so that it can have a positive impact on student learning outcomes.

The novelty of this study lies in the integration of Game-Based Learning using Kahoot to enhance students' vocabulary mastery through a Classroom Action Research approach in a junior high school setting with limited educational resources. One effective method for inspiring students and fostering deeper understanding is gamification, which is the

deliberate integration of game features into non-game environments (Safitri, Zuniati, & Hidayatullah, 2025). Unlike previous research that generally focuses on student motivation and engagement, this study emphasizes the gradual improvement of students' vocabulary skills through the implementation of the CAR cycle. Furthermore, this study demonstrates the application of Kahoot in a real classroom setting with limited technological support, providing a practical overview of the effective use of digital game-based learning media in vocabulary learning. Mastery of English vocabulary is a fundamental component of students' language proficiency and their ability to communicate effectively (Pauliana, Suhono, Pratiwi, & Sari, 2023). Thus, this research aims to address the gap in the use of gamification to enhance vocabulary mastery while also providing insights into the implementation of technology-based learning in resource-constrained educational settings.

The discussion above indicates that limited research has examined the effectiveness of Kahoot in enhancing junior high school students' vocabulary mastery, especially within English language learning settings characterized by limited access to learning facilities. Therefore, this study makes an important contribution in examining how Game-Based Learning using Kahoot can be used as a learning strategy to improve students' vocabulary mastery. The novelty of this study lies in the application of Game-Based Learning using Kahoot to improve students' vocabulary mastery through a Classroom Action Research approach. This research not only focuses on improving student learning outcomes but also examines how the use of game-based learning media can increase student participation, engagement, and motivation in the English learning process.

Based on this background, this study seeks to investigate whether the implementation of Game-Based Learning through Kahoot can enhance the vocabulary mastery of eighth-grade students at the UPTD SMPN Satu Atap 3 Pesawaran in the 2025/2026 academic year. Furthermore, this study aims to foster greater student participation and engagement in the English learning process by providing more interactive and enjoyable learning activities.

2. RESEARCH METHODS

The present study utilized Classroom Action Research (CAR) to investigate the improvement of students' vocabulary mastery through the integration of Kahoot-based Game-Based Learning into English language instruction. The research was conducted based on the cyclical framework of Kemmis and McTaggart, involving four sequential stages: planning, implementing the action, observing the process, and reflecting on the results (Siregar, 2025). This research was conducted at the UPTD SMPN Satu Atap 3 Pesawaran during the 2025/2026

academic year. The subjects were 21 students of grade VIII A, selected because they still experienced difficulties in understanding and remembering English vocabulary. The study was implemented over two cycles, each consisting of two 80-minute sessions. At the planning stage, the researcher prepared the instructional plans, vocabulary learning materials, and an interactive Kahoot-based quiz to support the learning activities. In the implementation phase, the researcher implemented the learning process by integrating Kahoot as an interactive quiz to help students understand word meanings, recognize correct spelling, and increase student engagement in the learning process.

Data collection involved the administration of pre- and post-vocabulary tests, classroom observation sheets, student response questionnaires, and supporting documentation. The English teacher acted as a collaborator, assisting with observations during the learning process. The data obtained were analyzed using quantitative and qualitative analysis. Quantitative analysis was used to determine improvements in students' vocabulary scores based on test results, while qualitative analysis was used to describe student participation and responses to the use of Kahoot in learning.

3. RESULT AND DISCUSSION

Research Result

1. Pre-Test Result

At the beginning of the study, a pre-test was administered to assess students' vocabulary mastery before the Game-Based Learning strategy through Kahoot was implemented. This activity aimed to identify the students' initial vocabulary mastery and to observe their basic ability in understanding English vocabulary. During the pre-test, the researcher administered a vocabulary test to the students. The test consisted of several tasks that required students to identify word meanings, recognize correct spelling, determine synonyms and antonyms, and use vocabulary in simple sentences. The students worked individually to complete the test within the allocated time.

In addition to administering the test, the researcher also observed the students' behavior during the activity. The observation focused on students' participation, confidence, and their ability to complete the tasks independently. It was found that some students were less confident, tended to hesitate in answering questions, and still depended on their peers. Through this activity, the researcher obtained an initial overview of students' vocabulary mastery as well as the problems faced by students in learning vocabulary. These findings became the basis for designing appropriate learning strategies in the next stage. The activity of students completing the post-test can be seen in Figure 1.



Figure 1 students working on the pre-test individually

2. Cycle 1 Result

a. Cycle I Implementation

The first cycle marked the initial implementation of the Game-Based Learning approach using Kahoot, which was designed to enhance students' vocabulary mastery. The learning process consisted of several stages: presentation of comprehension, comprehension of meaning, pronunciation, and use of words in simple sentences, followed by an interactive sentence quiz using Kahoot. In Cycle I, the researcher implemented a series of structured actions aimed at improving students' vocabulary mastery through a Game-Based Learning approach using Kahoot. In the planning stage, the researcher prepared learning materials in the form of a lesson plan, determined appropriate comprehension materials, developed a Kahoot-based quiz, and prepared observation instruments. The implementation of the learning activity in Cycle I can be seen in Figure 2:



Figure 2 The Researcher explains the features of kahoot!

In the implementation stage, the learning activity began with the presentation of vocabulary material, covering word meanings, pronunciation, and usage in simple sentences. Next, the researcher provided guidance to students on how to use the Kahoot application by explaining the steps and demonstrating how to access and answer the quiz. Afterward, students participated in the Kahoot quiz, either individually or in small groups due to limited resources.

Throughout the learning process, the researcher observed student engagement, provided assistance to students experiencing difficulties, and encouraged active participation in answering questions. Researchers also provided direct feedback and explanations for incorrect answers to aid student

understanding. During the observation phase, researchers and collaborators recorded the level of student participation, engagement, and obstacles encountered during learning activities using observation sheets. Given limited facilities, students participated in these activities both individually and in small groups. The use of Kahoot contributed to a more engaging and interactive classroom environment, motivating students to take a more active role in answering the questions presented during the learning activities. Furthermore, the direct feedback feature helped students identify errors and improve their understanding of the material. During the reflection phase, researchers evaluated the results of Cycle I, identified various obstacles such as difficulty using Kahoot, limited internet access, and student dependence on peers, and then designed improvements to be implemented in the next cycle.

b. Student Scores in Cycle I

The findings indicated an improvement in students' vocabulary mastery following the implementation of the intervention in Cycle I. The students' mean score increased from 63.24 in the pre-test to 68.70 in Cycle I. In addition, the number of students who achieved the Minimum Completion Criteria (KKM) of 72 increased from 5 students (23.8%) in the pre-test to 11 students (53.4%) in Cycle I, out of 21 students in total. Although the results demonstrated a substantial improvement, they had not yet reached the predetermined indicator of research success, which required at least 75% of students to meet the KKM. This indicates that the improvement in Cycle I was not optimal, necessitating further action in the next cycle. To clarify these results, the data is presented in the following table:

Table 1. Comparison of Pre-Test and Cycle I Results

Stage	Mean Score	Number of Students Passing	Percentage
Pre-Test	63,24	5 Students	23,8 %
Cycle I	68,70	11 Students	53,4 %

c. Observation and Reflection of Cycle I

The findings from classroom observation during Cycle I revealed a positive shift in students' participation and engagement compared to the initial condition. Students appeared more enthusiastic and actively involved in the learning process, particularly during the Kahoot-based activities. The implementation of a game-based approach contributed to a more interactive and stimulating classroom environment, which encouraged students to participate more actively in responding to questions and engaging in learning tasks. Nevertheless, several challenges were still identified during the implementation. Some students encountered difficulties in operating the Kahoot application, especially at the early stage of its use. In addition, limitations in internet access and the availability of devices affected the overall effectiveness of the learning process. A number of students also tended to depend on their peers when

answering questions, indicating that their confidence and independent learning abilities had not yet been fully developed.

The findings suggest that the implementation of Kahoot contributed positively to students' engagement and learning achievement. Nevertheless, additional improvements were needed to attain the established indicators of research success. Therefore, several refinements were planned for the subsequent cycle, including providing clearer instructions on the use of Kahoot, improving classroom management, optimizing group work, and offering additional support in vocabulary learning. These improvements were expected to enhance students' participation, independence, and overall learning achievement in the next cycle.

3. Cycle II Result

a. Cycle II Implementation

In Cycle II, the researcher made various improvements based on the reflections from Cycle I, aiming to maximize student vocabulary mastery and increase participation and independence in learning. At the planning stage, several improvements were made to the lesson plan, including more detailed guidance on Kahoot implementation, enhanced classroom management strategies, and the preparation of learning materials that were more closely adapted to students' needs. Furthermore, the researcher refined the Kahoot quizzes to make them more varied and easier to understand. In the implementation stage, the lesson began with a review of previously learned vocabulary, followed by the presentation of new material covering word meanings, pronunciation, and their application in sentences. The researcher provided clearer and more systematic directions regarding the use of Kahoot and ensured that all students understood how to use it before the activity began.

Students then took the Kahoot quizzes with more structured management. The researcher organized study groups more effectively and encouraged each student to participate actively without relying on peers. Throughout the process, the researcher actively provided guidance and motivation, ensuring all students were engaged in the learning activities. The researcher also provided direct feedback and in-depth explanations of students' answers to strengthen understanding. During the observation phase, the researcher and collaborators observed notable improvements in students' participation, engagement, and independence during the learning activities. The observation also revealed positive changes in students' attitudes, including greater self-confidence and enthusiasm in taking part in classroom activities.

During the reflection phase, the researcher evaluated the implementation of Cycle II and found that most of the challenges encountered in Cycle I had been overcome. Students demonstrated improved vocabulary mastery, increased active participation,

and increased independence in learning. Therefore, the implementation of Cycle II was deemed successful as it met the established success indicators.

b. Students' Score in Cycle II

The results obtained in Cycle II indicated a marked improvement in students' vocabulary achievement. The mean score rose from 68.70 in Cycle I to 76.24 in Cycle II. Moreover, there was an increase in the number of students who successfully attained the Minimum Mastery Criterion (KKM = 72) rose from 11 students (53.4%) in Cycle I to 18 students (85.7%) in Cycle II, out of a total of 21 students. These findings indicate that the success criterion of the study, which required at least 75% of students to achieve the KKM, was successfully attained in Cycle II. Based on these findings, Game-Based Learning integrated with Kahoot can be considered an effective instructional approach for improving students' vocabulary mastery. To present the data more clearly, the results are shown in the following table:

Table 2. Comparison of Pre-Test, Cycle I and Cycle II Results

Stage	Mean Score	Number of Students Passing	Percentage
Pre-Test	63,24	5 Students	23,8 %
Cycle 1	68,70	11 Students	53,4 %
Cycle 2	76,24	18 Students	85,7%

c. Observation and Reflection of Cycle II

The findings from classroom observation in Cycle II revealed a considerable improvement in students' participation, confidence, and independent learning. Students were more actively engaged in the learning process and demonstrated greater enthusiasm, particularly during Kahoot-based activities. They were also more capable of operating the application independently and showed less reliance on their peers when answering questions. The revisions made in Cycle II successfully resolved the difficulties encountered during the implementation of Cycle I. Clearer instructions, better classroom management, and more structured learning activities contributed to a more effective learning environment. Furthermore, students' familiarity with Kahoot enhanced their motivation and engagement throughout the lesson.

The findings indicate that the implementation of Kahoot had a positive impact on students' vocabulary achievement, while also fostering greater participation and motivation throughout the learning process. Since the predetermined success criteria had been achieved, no further cycle was required, and the classroom action research was concluded in Cycle II.

Discussion

The findings reveal that integrating Kahoot into Game-Based Learning contributes to improvements in students' vocabulary mastery, motivation to learn, and active participation in classroom activities. Learning outcomes refer to the skills students acquire after undergoing a learning

experience, as demonstrated by scores or grades (Lubis, 2025). Students' average scores increased from the pre-test to Cycle I and rose again in Cycle II, indicating progress in vocabulary mastery. Additionally, students became more active and motivated during the learning process. Student engagement refers to students' effort, participation, and connection to learning tasks, as well as the amount of energy they invest in the learning process (Wang, 2024). This is evident from the increased student engagement in learning activities. The findings demonstrate that Kahoot contributes not only to students' vocabulary development but also to the creation of a more engaging, interactive, and enjoyable learning environment. Therefore, Kahoot can serve as an effective learning strategy to enhance student learning outcomes and classroom engagement.

The results of this study offer valuable implications for English language instruction, especially in enhancing students' vocabulary mastery. The implementation of Kahoot-based Game-Based Learning can serve as a promising instructional strategy for increasing students' active engagement and motivation throughout the learning process. The interactive and competitive features offered by Kahoot contribute to creating a more enjoyable and meaningful learning environment. The integration of digital tools in classroom instruction is also highlighted as a practical approach for teachers. Kahoot can be utilized as a medium to design vocabulary learning activities that support students' understanding and retention of new words. In addition, the platform enables teachers to monitor students' performance and provide immediate feedback during the learning process.

The results further emphasize the importance of applying innovative and student-centered learning approaches. The use of game-based learning allows teachers to address students' difficulties in vocabulary mastery more effectively while fostering active participation in the classroom. This study also offers a contribution for future research by providing empirical evidence on the effectiveness of Kahoot in vocabulary learning. It opens opportunities for further investigation in different educational contexts, subjects, or levels to enrich the development of digital game-based learning in education.

Improving Student Vocabulary Mastery

The findings demonstrated a continuous improvement in students' vocabulary mastery across the research cycles. The mean score increased from 63.24 in the pre-test to 68.70 in Cycle I and subsequently reached 76.24 in Cycle II. This consistent improvement suggests that the learning strategies implemented in the study were effective in facilitating students' vocabulary development (Bond & Bergdahl, 2023). This improvement was influenced by repeated vocabulary exposure and practice through interactive activities. In this case, the use of

Kahoot provided students with opportunities for active practice and immediate feedback. This aligns with Paul Nation's opinion that vocabulary mastery involves aspects of form, meaning, and usage, which are reinforced through repetition. Thus, the use of Kahoot in learning has been proven to help improve student vocabulary mastery more effectively (Nation, 2024).

The Effect of Kahoot on Students' Learning Motivation

The Effect of Kahoot on Student Learning Motivation. The use of Kahoot has a positive impact on student learning motivation. Motivation is crucial to students' learning success. Low motivation leads to students being less active in their learning (Rangkuti & Putra, 2026). Integrating game elements into learning can enhance student motivation and engagement because learning becomes more enjoyable and interactive (Nadeem, Oroszlanyova, & Farag, 2023). Additionally, competitive features such as scores and rankings also contribute to increasing students' willingness to participate and achieve better results. The process of students completing the questionnaire using Kahoot can be seen in Figure 3.



Figure 3 Students completing the questionnaire using Kahoot

Students' Participation and Engagement

Student participation is a multidimensional construct that encompasses various forms of engagement in achieving learning outcomes (Chin, Ahmad, Ismail, & Alias, 2024). Student participation levels showed significant improvement over the course of the study. This increase in student participation during instruction indicates that the strategies employed successfully created a more engaging learning environment and encouraged student activity (Mulyadi & Omika, 2023). This progress is evident from the observational data, which indicates a growth in students' active engagement in each phase. In the Pre-Test phase, the average student participation score was 2.74, or 54.8%, which falls into the neutral category. Subsequently, in Cycle 1, student engagement increased to 3.80 or 76.0%, which falls into the positive category. A more substantial increase occurred in Cycle 2, where the participation score

reached 4.59 or 91.8%, classified as very positive. These results indicate that the use of Kahoot contributes to increasing student participation during the learning process. The interactive and engaging nature of this game-based learning activity encourages students to be more active and responsive throughout the lesson (Wulandari et al., 2024). A learning environment that facilitates good interaction between teachers and students can boost motivation and lead to optimal learning outcomes.

Table 3 Students' Participation Indicators

No	Meeting	Percentage	Category
1	Pre -Test	2.74 (54.8%)	Neutral
2	Cycle 1	3.80 (76.0 %)	Positive
3	Cycle 2	4.59 (91.8%)	Very Positive

Overall, the results suggest that Kahoot not only improved students' learning outcomes but also fostered more active participation and engagement in the classroom.

The Classroom Action Research Process (Cycle Analysis)

Improvements in student learning outcomes do not occur immediately but develop gradually through each cycle of Classroom Action Research. In Cycle I, although there was some improvement, the results were not yet optimal. Several challenges remained, such as students not yet being accustomed to using Kahoot, limited internet access, and students' reliance on peers when answering questions (Pauliana et al., 2023).

In Cycle II, several improvements were implemented, such as providing clearer instructions, enhancing classroom management, and offering more structured guidance to students. As a result, students became more confident and independent in using Kahoot. This led to improved learning outcomes and student participation. This is because students who actively participate tend to better understand the material and achieve better results (Iwata, Pitkänen, Laru, & Mäkitalo, 2020). These findings indicate that the process of reflection and improvement in each cycle is crucial in Classroom Action Research, as each cycle provides an opportunity to refine teaching strategies, thereby achieving more optimal outcomes.

Comparison with previous studies

The findings of the present study are in line with previous research that has highlighted the effectiveness of Game-Based Learning in enhancing students' vocabulary mastery. Previous studies have also indicated that the integration of digital technology into language learning can contribute significantly to students' vocabulary comprehension and retention. The effectiveness of Game-Based Learning in developing vocabulary knowledge can be attributed to its ability to foster students' motivation and strengthen vocabulary retention through engaging, interactive, and enjoyable learning activities (Zhong, 2024). The results obtained in this study reinforce the findings of previous research, demonstrated by the steady improvement in students'

scores from the initial pre-test to the completion of Cycle II following the implementation of Kahoot.

Moreover, the improvement in students' motivation and classroom participation identified in this study aligns with previous studies highlighting the positive effects of gamification on student engagement. Research by Anna Bergdahl found that increased student engagement through interactive learning environments is closely linked to improved learning outcomes (Bergdahl, Bond, Sjöberg, Dougherty, & Oxley, 2024). However, this study also makes a unique contribution by focusing on vocabulary acquisition within the context of Classroom Action Research. Unlike previous studies that have largely highlighted the effects of gamification on student motivation and engagement, this study provides evidence that Kahoot can support both affective and cognitive learning outcomes. In particular, its implementation through a cyclical learning process contributed to the improvement of students' vocabulary acquisition.

Implementation

The implementation of game-based learning using Kahoot in this study demonstrates that interactive digital media can be effectively integrated into English language instruction to improve students' vocabulary mastery (Muhtarom, Suhono, Abidin, & Kahfi, 2025). Kahoot was used as a reinforcement tool following the presentation of vocabulary material, allowing students to practice through interactive quizzes. The use of Kahoot created a more engaging and interactive learning environment, which led to increased student motivation and participation (Lipnevich & Panadero, 2021).

Students became more active in answering questions, supported by immediate feedback that helped them identify and correct mistakes. However, several challenges were identified in Cycle I, such as limited technical skills, internet access, and students' reliance on peers. These challenges were addressed in Cycle II through clearer instructions and better classroom management, thereby improving student performance and participation. Overall, the implementation of Kahoot, supported by the Classroom Action Research process, contributes to creating a more effective and student-centered learning environment.

Limitations of the Study

Despite the limitations identified in this study, several important contributions can be highlighted. For teachers, this study provides practical insights into the implementation of game-based learning using Kahoot as an interactive strategy to improve students' vocabulary mastery and classroom engagement, even in settings with limited technological resources. For students, the use of Kahoot offers a more enjoyable and motivating learning experience, which can enhance their participation, confidence, and vocabulary

development. For schools, this study demonstrates the potential of integrating digital learning tools into classroom instruction to support more innovative and student-centered learning environments. Therefore, although this study has certain limitations, it still offers valuable pedagogical and practical contributions for improving the quality of English language learning.

4. CONCLUSION

The findings of this study demonstrate that integrating Kahoot into Game-Based Learning can effectively enhance students' vocabulary mastery in the context of English language learning. This conclusion is supported by the substantial increase in students' mean scores, which rose from 63.24 in the pre-test to 68.70 in Cycle I and reached 76.24 in Cycle II. Furthermore, the proportion of students who attained the Minimum Mastery Criterion (KKM) increased from 23.8% in the pre-test to 85.7% in Cycle II. These results demonstrate that the predetermined success criteria of the study were successfully achieved. Furthermore, the use of Kahoot not only enhances students' vocabulary achievement but also positively influences their motivation, participation, and engagement in the learning process. Students became more active, enthusiastic, and confident in participating in classroom activities, particularly during interactive quiz sessions. The immediate feedback and competitive elements provided by Kahoot contributed to creating a more engaging and student-centered learning environment.

The findings also highlight the importance of the Classroom Action Research (CAR) process, where continuous reflection and improvement in each cycle led to more optimal learning outcomes. Improvements made in Cycle II successfully addressed the limitations found in Cycle I, resulting in better student performance and participation. In conclusion, Game-Based Learning using Kahoot can be considered an effective and innovative teaching strategy to improve students' vocabulary mastery as well as their engagement in English learning. Therefore, it is recommended that teachers integrate interactive digital media such as Kahoot into their instructional practices to create a more meaningful and enjoyable learning experience.

5. REFERENCES

- Aksak, K., & Çubukçu, F. (2026). Exploring the interplay between aptitude, vocabulary learning strategies, and achievement in pre-service language teachers. <https://doi.org/10.1016/j.ssaho.2026.102634>
- Arochman, T., Madani, S. A., Welasiyah, S., & Setiandari, R. K. (2023). Exploring Students' Difficulties in Memorizing English Vocabularies in A Higher Education. *Journal of English Language and Education*, 8(2),

- 175–183.
<https://doi.org/10.31004/jele.v8i2.430>
- Baharudin, Saifullah, & Hasan, A. A. Z. (2024). SECONDARY ENGLISH LANGUAGE TEACHER ' S PERCEPTIONS OF STUDENTS DIFFICULTIES IN LEARNING VOCABULARY FACED BY INDONESIAN EFL STUDENTS Publisher : Universitas Dayanu Ikhsanuddin Address : *English Education Journal (E2J)*, (124), 103–110.
- Bergdahl, N., Bond, M., Sjöberg, J., Dougherty, M., & Oxley, E. (2024). Unpacking student engagement in higher education learning analytics: a systematic review. *International Journal of Educational Technology in Higher Education*, 21(1).
<https://doi.org/10.1186/s41239-024-00493-y>
- Bond, M., & Bergdahl, N. (2023). Student Engagement in Open, Distance, and Digital Education. *Handbook of Open, Distance and Digital Education*, 1309–1324.
https://doi.org/10.1007/978-981-19-2080-6_79
- Chin, W. M., Ahmad, N. A., Ismail, I. A., & Alias, S. N. (2024). The Dynamics of Student Engagement through the Lens of Involvement and Self-Determination Theories. *International Journal of Academic Research in Business and Social Sciences*, 14(11), 2210–2226.
<https://doi.org/10.6007/ijarbss/v14-i11/23730>
- Iwata, M., Pitkänen, K., Laru, J., & Mäkitalo, K. (2020). Exploring Potentials and Challenges to Develop Twenty-First Century Skills and Computational Thinking in K-12 Maker Education. *Frontiers in Education*, 5(June), 1–16. <https://doi.org/10.3389/educ.2020.00087>
- Li, H. (2016). On English Vocabulary Learning of Students with Learning Difficulties, (Iccessh), 230–234. <https://doi.org/10.2991/iccassh-16.2016.57>
- Li, M. (2025). Research on the construction of English vocabulary learning recommendation system based on multi-objective crow search algorithm.
<https://doi.org/10.1016/j.sasc.2025.200304>
- Lipnevich, A. A., & Panadero, E. (2021). A Review of Feedback Models and Theories: Descriptions, Definitions, and Conclusions. *Frontiers in Education*, 6(December).
<https://doi.org/10.3389/educ.2021.720195>
- Listyani, L., & Pradina, O. (2021). Vocabulary Mastery Strategies Used By Indonesian Extensive Reading Learners. *Prominent*, 4(1), 1–18. <https://doi.org/10.24176/pro.v4i1.5731>
- Lubis, S. (2025). Peningkatan Hasil Belajar Bahasa Indonesia Melalui Metode Discovery Learning Pada Siswa Kelas VII MTs Al-Jumhuriyah, 9, 7378–7386.
- Moradi, M., Liu, L., Luchies, C., Patterson, M. M., & Darban, B. (2018). Enhancing teaching-learning effectiveness by creating online interactive instructional modules for fundamental concepts of physics and mathematics. *Education Sciences*, 8(3).
<https://doi.org/10.3390/educsci8030109>
- Muhtarom, A., Suhono, S., Abidin, Z., & Kahfi, N. S. (2025). Implementasi Teknologi Digital dalam Pembelajaran Multikultural Berbasis Nilai-nilai Islam: Studi Kasus di SMK Annuroniyah Sulang. *Ulumuddin: Jurnal Ilmu-Ilmu Keislaman*, 15(1), 253–268.
<https://doi.org/10.47200/ulumuddin.v15i1.2835>
- Mulyadi, & Omika, H. A. (2023). The Effect of Student Engagement on Boarding School Students' Online Learning Achievement. *JTP - Jurnal Teknologi Pendidikan*, 25(2), 160–174. <https://doi.org/10.21009/jtp.v25i2.28316>
- Nadeem, M., Oroszlanyova, M., & Farag, W. (2023). Effect of Digital Game-Based Learning on Student Engagement and Motivation. *Computers*, 12(9).
<https://doi.org/10.3390/computers12090177>
- Nation, P. (2024). Re-Thinking the Principles of (Vocabulary) Learning and Their Applications. *Languages*, 9(5).
<https://doi.org/10.3390/languages9050160>
- Özdemir, O. (2025). Kahoot! Game-based digital learning platform: A comprehensive meta-analysis. *Journal of Computer Assisted Learning*, 41(1), 1–24.
<https://doi.org/10.1111/jcal.13084>
- Panjaitan, R. Z. P., Sinaga, N. V., Ningsih, F. A., Afsarini, A., Ritonga, S., Hutaeruk, G., & Medan, U. N. (2025). Analisis Kesulitan Belajar Siswa dalam Memahami Kosa Kata Pada Pembelajaran Bahasa Inggris di Sekolah Dasar. *Jurnal Pendidikan Tambusai*, 9, 9829–9834.
- Pauliana, R., Suhono, S., Pratiwi, W., & Sari, Y. A. (2023). Improving English Vocabulary Mastery by Using the Alphabet Game for Class VIII at Junior High School Metro TMI RQ Metro. *Tapis : Jurnal Penelitian Ilmiah*, 7(1), 19.
<https://doi.org/10.32332/tapis.v7i1.6777>
- Rangkuti, M., & Putra, D. P. (2026). Motivasi Belajar Siswa MTsN 2 Mandailing Natal, 10, 4396–4399.
- Rashid, M. H., Lan, Y., & Hui, W. (2022). The importance of vocabulary in teaching and learning in applied linguistics. *Linguistics and Culture Review*, 6(March), 1548–1557.
<https://doi.org/10.21744/lingcure.v6ns2.2177>
- Rosyada-AS, A., & Apoko, T. W. (2023). Investigating English Vocabulary Difficulties and Its Learning Strategies of Lower Secondary School Students. *Journal of*

- Languages and Language Teaching*, 11(3), 489. <https://doi.org/10.33394/joltt.v11i3.8404>
- Safitri, S., Zuniati, M., & Hidayatullah, R. (2025). The Effectiveness of Gamification in English Subject on Communicative Competence. *Edutechnium Journal of Educational Technology*, 3(2), 78–86. <https://doi.org/10.71365/edujet.v3i2.97>
- Sever, O., Gönülateş, S., Bayrakdar, A., Demirhan, B., Geri, S., & Zorba, E. (2017). Anaerobic Capacity Changes of the National Freestyle Wrestlers during the Olympic Qualification Competition Period. *Journal of Education and Training Studies*, 5(8), 26. <https://doi.org/10.11114/jets.v5i8.2423>
- Siregar, T. (2025). Classroom Action Research-Based Learning Innovations: Kemmis and McTaggart Models. *Preprints.Org*, 1(3), 1–60. Retrieved from <https://www.preprints.org/manuscript/202510.1440/v1>
- Sujadi, J., & Wulandari, F. (2021). Study of Students' Vocabulary Difficulties in Third-Semester Students of Food Technology Major. *Edukasi: Jurnal Pendidikan*, 19(1), 90. <https://doi.org/10.31571/edukasi.v19i1.2347>
- Taye, T., & Lodebo, T. (2026). The relationship between vocabulary learning strategies, reading comprehension, and motivation among secondary school EFL learners. *Social Sciences and Humanities Open*, 13. <https://doi.org/10.1016/j.ssaho.2026.102516>
- Valencia, M., & Junaidi, A. (2021). Representation of Beauty Standards in Films Imperfect: Career, Love & Scales. *Proceedings of the International Conference on Economics, Business, Social, and Humanities (ICEBSH 2021)*, 570(Icebsh), 775–781. <https://doi.org/10.2991/assehr.k.210805.122>
- Wang, Q. (2024). Re-discover student engagement from the perspective of definition and influencing factors. *Frontiers in Psychology*, 15(January), 1–11. <https://doi.org/10.3389/fpsyg.2024.1428668>
- Wulandari, R. I., Maulana, R. F., Imtiyaz, A. R., Felisa, A. S., Ramadhani, A. D., & Wulandari, A. (2024). Pengaruh Lingkungan Belajar Terhadap Hasil Belajar Peserta Didik di SMP Negeri 8 Gresik. *Jurnal Inovasi Penelitian Ilmu Pendidikan Indonesia*, 1(3), 123–132. <https://doi.org/10.31004/b4tdaf34>
- Zhang, F. (2024). Effects of game-based learning on academic outcomes: A study of technology acceptance and self-regulation in college students. *Heliyon*, 10(16), e36249. <https://doi.org/10.1016/j.heliyon.2024.e36249>
- Zhong, K. (2024). The Effect of Game-Based Vocabulary Learning on Middle School Students' Motivation and Vocabulary Retention. *Lecture Notes in Education Psychology and Public Media*, 74(1), 166–172. <https://doi.org/10.54254/2753-7048/2024.bo17947>