

## **The Use of Kahoot Application as a Learning Media to Improve Students' Vocabulary Mastery in Seventh Grade SMP Negeri 1 Ciomas**

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### **Abstrak**

Pemanfaatan teknologi dalam pendidikan telah menjadi komponen yang integral. Penelitian ini bertujuan untuk menyelidiki efektivitas aplikasi Kahoot sebagai media pembelajaran bagi siswa kelas tujuh di SMPN 1 Ciomas pada tahun ajaran 2023/2024. Penelitian ini menggunakan pendekatan kualitatif-kuantitatif melalui Penelitian Tindakan Kelas Kolaboratif yang dilakukan dalam dua siklus. Sampel penelitian terdiri dari 27 siswa kelas VII E. Data dikumpulkan melalui observasi partisipatif, tes awal, tes akhir, dan kuesioner tertutup. Hasil analisis data menunjukkan nilai tes awal dan tes akhir pada tingkat signifikansi 5% dengan derajat kebebasan 26 dan nilai t-tabel sebesar 2,056, dimana nilai t pada siklus I lebih tinggi dari t-tabel ( $6,421 > 2,056$ ) dan pada siklus II juga lebih tinggi dari t-tabel ( $9,593 > 2,056$ ). Observasi menunjukkan peningkatan yang signifikan dalam tingkat partisipasi siswa, dari kategori "Cukup" pada siklus I ke kategori "Sangat Baik" pada siklus II. Tanggapan kuesioner sangat positif, dengan rata-rata skor sebesar 82,24%, yang menunjukkan kepuasan dan keterlibatan siswa dengan aplikasi Kahoot. Secara keseluruhan, penelitian ini menyimpulkan bahwa aplikasi Kahoot dapat digunakan sebagai media atau alat pembelajaran alternatif untuk meningkatkan kosakata siswa di SMPN 1 Ciomas.

**Kata Kunci:** Penelitian Tindakan Kelas, Aplikasi Kahoot, Penguasaan Kosakata

### **Abstract**

The use of technology in education has become an integral component. This study aimed to investigate the effectiveness of the Kahoot application as a learning medium for seventh-grade students at SMPN 1 Ciomas in the academic year 2023/2024. The study employed a qualitative-quantitative approach through Collaborative-Classroom Action Research conducted in two cycles. The research sample consisted of 27 students from class VII E. Data were collected through participatory observation, pre-tests, post-tests, and closed questionnaires. Data analysis results indicated pre-test and post-test values at a significance level of 5% with degrees of freedom of 26 and a t-table value of 2.056, where the t-value for cycle I was higher than the t-table ( $6.421 > 2.056$ ) and for cycle II was also higher than the t-table ( $9.593 > 2.056$ ). Observations showed a significant increase in student participation levels, shifting from "Fair" in cycle I to "Very Good" in cycle II. Questionnaire responses were highly positive, with an average score of 82.24%, indicating student satisfaction and engagement with the Kahoot application. Overall, this study concludes that the Kahoot application could be used as an alternative learning medium to enhance students' vocabulary at SMPN 1 Ciomas.

**Keywords:** Action Research, Kahoot Application, Vocabulary Mastery

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## INTRODUCTION

Vocabulary is a fundamental aspect of learning English as a foreign language. Decarrico (2001) emphasizes that vocabulary acquisition is very important in language development, whether it is a first language, second language, or foreign language. In addition, in line with (Rohmawati & Juniardi, 2015), proficiency in vocabulary is essential for using a second language effectively and plays an important role in shaping written and spoken texts. In addition, vocabulary is one of the components or sub-skills in all languages, so vocabulary can make it easier to master proficiency in language. In short, vocabulary acquisition can help and encourage proficiency in a particular language, making it easier to use a particular language and communicate well.

Vocabulary mastery also plays crucial for understanding language and effective communication. According to Hiebert & Michael (2005), Neuman & Dwyer (2009), Rozakis (2003), Richards & Renandya (2002), and Thornbury (2002), vocabulary consists of words or terms with specific meanings that are essential for language comprehension and communication. A broad vocabulary allows students to articulate ideas more effectively and enhances overall language proficiency. Thus, mastering vocabulary is vital for achieving language learning objectives related to communication skills. Developing effective learning strategies focused on expanding and understanding vocabulary is key to improving language abilities.

Many approaches can be used to teach vocabulary in English, with technology being a notable medium. Apps like Hello English, Quizizz, Cake, EWA, Duolingo, and Kahoot and others. Technology has become part of their lives (Ling & Horst, 2011). In other words, students today are very familiar with technology, especially in the form of gadgets or smartphones. Technology is increasingly being integrated as part of teaching to increase student engagement and motivation (Chen et al., 2017). Kahoot, a web-based educational tool featuring quizzes and games, stands out as an effective medium. Kahoot can also be interpreted as a smart learning media as it tends to be used in teaching and learning exercises such as conducting pre-test and post-test, handling exercises, material reinforcement, therapy, remediation, and others (Lime, 2018). Kahoot! can be used by teachers in real or virtual classrooms to help teachers teach students through quiz-based learning. In classroom learning, teachers can also organize games or quizzes to be played solo or in teams. The teacher organizes the game to be played, creates the game pin code and distributes it to the students so that they can join the room to get ready for the quiz. In other words, Kahoot! is a game-based learning platform with a student response method, providing an engaging way for students to practice their newly learned vocabulary. The system allows teachers to create interactive quizzes. Students can also assess their success in learning vocabulary. At the same time, teachers can also evaluate students' vocabulary ability and performance.

Several studies have explored the impact of technology on English vocabulary acquisition. Prasetyo (2022) and Rizky (2022) used a quasi-experimental design to assess the effectiveness of Kahoot in vocabulary learning. In this study, the researchers found that there was a statistically significant difference in the post-test results between the experimental group and the control group, in other words, the Kahoot application had a significant effect. Putri (2020) identified vocabulary deficiency as a

major challenge for students, using a quantitative-experimental approach. The study revealed that data analysis showed a significant difference between the two groups with the average pre-test and post-test scores of the experimental group higher than the control class. Syamsurah (2021) and Zikri (2022) explored the impact of Kahoot on vocabulary acquisition through a pre-experiment design. The results showed a significant effect of using Kahoot application on students' vocabulary acquisition.

A preliminary study conducted in June 2023 at SMP Negeri 1 revealed that seventh-grade students struggled with English vocabulary due to various factors. The current teaching methods, involving blackboards and worksheets, were found to be ineffective. Consequently, an action research project is planned to collaborate with an English teacher to improve vocabulary learning through interactive methods using Kahoot. This study aims to fill the research gap on using Classroom Action Research (CAR) to enhance students' vocabulary. The proposed research is titled "The Use of the Kahoot Application as a Learning Medium to Improve Students' Vocabulary Mastery in Seventh Grade of Public Junior High School (SMP NEGERI) 1 CIOMAS."

## **THEORETICAL FRAMEWORK**

### **Vocabulary**

Vocabulary is crucial for expressing thoughts both orally and in writing, forms the foundation of language learning and acquisition (Alqahtani, 2015). Mastery of vocabulary is essential for proficiency in English, as it involves understanding the definitions and contexts of words to comprehend complex texts and facilitate effective communication, both in speech and reading (Bauer, 1998, cited in (Rizky, 2022); (Lehr et al., 2003); (Neuman & Dwyer, 2009). According to (Richards & Renandya, 2002), vocabulary is essential for language proficiency and acts as a foundational element that significantly impacts learners' abilities in speaking, listening, reading, and writing. Ultimately, mastering vocabulary is key to mastering all English skills, enabling clear conveyance of ideas and meanings.

Vocabulary consists of words used for communication in language. Words are categorized based on their function in communication. According to (Hatch & Brown, 1995), words are classified into different functional categories known as parts of speech, which encompass nouns, verbs, adjectives, adverbs, pronouns, prepositions, conjunctions, and interjections. Each word class plays a distinct role in text composition.

### **Teaching Vocabulary**

Teaching English vocabulary requires a distinctive approach compared to students' usual learning experiences. According to (Brown, 2003), teaching involves guiding, facilitating learning, empowering learners, and creating conducive learning environments. This includes directing students towards goals, helping them solve problems, and using tools or media, such as games, to facilitate vocabulary learning. Teachers must assess classroom conditions and plan accordingly.

Nagy & Scott, 2008 emphasize that teaching vocabulary involves more than teaching words; it includes understanding word formation, usage, and contextual meanings. Teaching in vocabulary involves more than just looking at words in a dictionary and using words in sentences (Soliha & Rohim, 2021). (Rachmawati, 2018) and (Thornbury, 2002) highlight that individual differences in learning styles and the complexities of pronunciation, spelling, and grammar present challenges in vocabulary instruction.

Effective vocabulary teaching requires interactive methods that engage students while meeting educational objectives (Noval et al., 2022). Mobile technology, with its portability and accessibility, enhances English language teaching and learning (Nabila et al., 2023). The integration of game technology, like Kahoot, offers a valuable strategy for engaging students. The Kahoot is a digital gaming platform that provides quizzes, discussions, and surveys, fostering an interactive learning environment (Dellos et al., 2015). It allows teachers to create or use pre-made quizzes, and students can also create their quizzes, promoting classroom empowerment (Lisnani & Emmanuel, 2020). The Kahoot uses visual multimedia elements to enhance engagement, awarding points based on response accuracy and speed (Kyoko, 2015).

Implementing the Kahoot involves logging into the application, creating content, and sharing it with students using a unique code (Bicen & Kocakoyun, 2018). This approach to teaching vocabulary integrates technology and interactive methods to make learning enjoyable and effective. In this study, the researcher applied materials on Greeting, Leave Taking, Thanking, and Apologizing with the researcher focusing more on verb, adjective, and noun vocabulary.

### **Learning Media**

In education, the term "media" derives from the Latin word "medium," meaning an intermediary or messenger between the sender and receiver of a message (Masykur, 2016). Learning media, which encompass various formats from audio to audio-visual, evolve with technology and are instrumental in teaching, particularly in language learning (Zaitun et al., 2021). These resources enable students to develop critical thinking skills by analyzing and reflecting on their experiences using diverse media tools (Latif & Afzal, 2016).

Educational media serves multiple functions to enhance learning effectiveness and efficiency. The functions include stimulating interest, delivering information, and providing instruction, integrating drama and entertainment techniques to engage and motivate students (Kemp & Dayton, cited in (Nurdyansyah, 2019, p.60).

Media in education aims to increase learning efficacy, ignite enthusiasm, and cater to diverse learning styles, as highlighted by (Nurdyansyah, 2019). Moreover, (Ismail et al., 2017) emphasize that educational media supports learning steps, enhances productivity, maintains relevance to learning objectives, and aids in maintaining learners' focus. Evaluation reveals that media serves as an educational tool to improve students' learning and motivation in English language education, enhancing both teaching and learning practices by providing information, skills, reading materials, and conducive learning environments.

### **The Kahoot Application**

The Kahoot application is a digital educational media platform for game-based learning that enhances visual learning experiences. It is used in educational settings to bring excitement and enjoyment to learning processes by combining inquiry-based learning with games. Kahoot functions as a student response system with four main features: games, quizzes, conversations, and personalized assessments. It allows teachers to create engaging quizzes, discussions, and polls, including multiple-choice questions formatted in a debate style, with students responding via smartphones, tablets, or computers (Bicen & Kocakoyun, 2018).

Kahoot is a real-time, game-based classroom response system that engages the entire class. According to (Chen et al., 2017), Kahoot increases student participation

and engagement through its appealing participation options. It offers an alternative approach to creating enjoyable classroom interactions during English vocabulary learning sessions and facilitates the assessment of learning outcomes.

## RESEARCH METHOD

The researcher employed a collaboration-classroom action research design with two cycle. The purpose of this study is to assist teachers in improving learning processes and practices in increasing students' English vocabulary. In this study, the researcher employed the classroom action research procedure, which follows the research implementation process proposed by (Kemmis et al., 2014), this approach is designed to enhance instructional performance by developing innovative teaching strategies to address classroom issue. Classroom action research involves several procedures, including planning, taking action, observing, and reflecting.

The research was conducted at seventh grade students' of SMP N 1 Ciomas, located at the village of Sukarela, Ciomas, Serang-Banten, 42164. The sample of this research was taken from class VII E consist of 27 students. There were 12 male students and 15 female students. The implementation of the research carries out from 4<sup>th</sup> January 2024 until 23<sup>th</sup> January 2024.

The data collecting instruments in this research was taken from observation sheet, test, and questionnaire. In collecting the data, the researcher observed and gave the students' pre-test and post-test and questionnaire sheet. The types of test are multiple choices consist of 15 items and 5 essay.

After collecting the data, the researcher classified the data into two groups: Qualitative and quantitative. The qualitative data were obtained through observation and questionnaires, focusing on students' responses to using the Kahoot application for vocabulary improvement, particularly during the classroom action research's action stage. The quantitative data were collected through tests, specifically the pre-test and post-test scores from two cycles of vocabulary assessments conducted via the Kahoot application with used some formulas: Calculation of the mean, Calculation of the percentage of students' scores from pre-test and post-test, Calculation of the mean difference, Calculation of the standard deviation, Conducting a T-test. This quantitative data was analyzed statistically to measure learning outcomes.

## RESULTS AND DISCUSSION

Research findings reveal that the vocabulary level among students varies. Additionally, various influencing factors are identified, such as issues intrinsic to the students themselves and external factors like the strategies and media used by teachers.

The Kahoot application has been implemented at SMP Negeri 1 Ciomas as an innovative educational tool for teaching vocabulary. This implementation leverages Kahoot's game-based features to create interactive and engaging learning experiences tailored to vocabulary topics. According to theoretical insights, Kahoot functions as a game-based classroom response system designed to enhance student participation and motivation (Chen et al., 2017). It aligns with educational media functions outlined by Kemp & Dayton (1985), particularly in motivating interest and providing instructional support.

Previous studies, including those by (Prasetyo, 2022) and (Rizky, 2022), have highlighted Kahoot's effectiveness in assessing and improving students' vocabulary skills. Additionally, research by (Bicen & Kocakoyun, 2018) has demonstrated that gamification approaches using Kahoot can significantly enhance student motivation and engagement, reinforcing its role as a valuable tool for vocabulary instruction.

The implementation process at SMP Negeri 1 Ciomas follows a structured approach akin to classroom action research (Kemmis et al., 2014). This involves a systematic cycle of planning, action, observation, and reflection. Researchers collaborated closely with English teachers to design and execute this participatory action research cycle, utilizing observation sheets to monitor student activities such as questioning, responding, and attentiveness during the learning sessions.

The implementation of the Kahoot application as a learning medium effectively engages students and encourages active participation. Through careful planning, action, observation, and reflection, significant improvements were observed in students' behavior and enthusiasm during the learning process. Cycle I showed initial progress, with students demonstrating increased participation and understanding. Cycle II exhibited even more substantial improvements, with students showing higher levels of interest, interaction, and performance. This was evidenced by the observation index results, which showed an improvement from the "Fair" criteria in Cycle I to the "Very Good" criteria in Cycle II. Additionally, questionnaire findings reinforced the positive impact of the Kahoot application on students' learning experiences, with the majority of students expressing increased interest, motivation, and performance in vocabulary learning through the application.

The effectiveness of the Kahoot application in improving students' English vocabulary skills is evidenced by the significant increase observed in pre-test and post-test scores across both cycles. Test result analysis revealed significant improvements in students' vocabulary retention and academic performance.

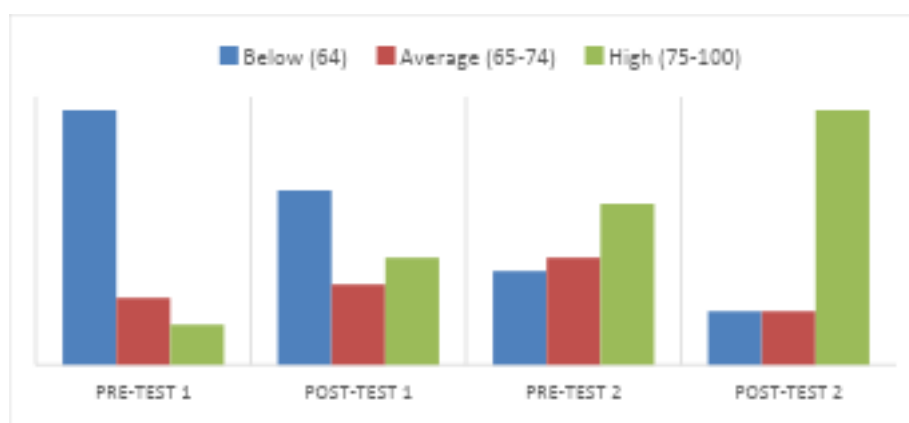


Figure 1. Students profile based on passed minimum mastery criterion score (KKM)

Based on the test analysis results from Cycle I and Cycle II, significant improvements were evident. The mean scores between the pre-test and post-test increased in both cycles, with the post-test mean surpassing the pre-test mean. For instance, in Cycle I, the pre-test mean was 50.18 and the post-test mean was 59.25,

indicating a notable score increase. Specifically, 8 students (30%) achieved the KKM score in the pre-test, while 14 students (52%) attained it in the post-test during Cycle I. The standard deviation was calculated to be 7.205, and the T-test value was 6.421, which exceeded the critical T-value from the T-table. This signifies a statistically significant improvement in the number of students reaching the KKM score from the pre-test to the post-test in Cycle I.

Similarly, in Cycle II, the average post-test score was higher than the pre-test (pre-test 70, post-test 77, 40). Initially, 20 students (74, 07%) passed the KKM in the pre-test, whereas 23 students (85.18%) passed it in the post-test with the calculated-T is 9. 593. The calculated-T higher than the T-table value, indicating a significant increase in students reaching the KKM from the pre-test to the post-test in Cycle II. The test scores in Cycle II showed a significant increase compared to Cycle I. In Cycle I, the average pre-test score was 50.18, and the post-test score was 59.25. In Cycle II, the pre-test score increased to 70, and the post-test score reached 77.40. Additionally, the percentage of students meeting the KKM increased from 52% in Cycle I to 85.18% in Cycle II, reflecting a marked improvement.

The improvement occurred because, in Cycle II, the researcher addressed the shortcomings found in Cycle I, such as students struggling with vocabulary and pronunciation, lack of focus, and limited time during the test. Adjustments were made in Cycle II, including the introduction of icebreaking activities to motivate students, group discussions to enhance understanding, and extended time for answering questions. These changes helped students concentrate better and resulted in increased engagement during the learning process.

In summary, it can be concluded that students' vocabulary significantly improved from Cycle I to Cycle II, as evidenced by the average score, the percentage of students passing the KKM score, the difference in means between the cycles, and supported by the higher T-test values compared to the T-table values for each cycle.

## CONCLUSION

After the researcher did the action research by using the Kahoot application, it can be drawn the conclusion, that the Kahoot application serves as an effective and engaging learning tool for teaching English vocabulary to seventh-grade students. By incorporating interactive quizzes and games tailored to vocabulary topics, educators can effectively enhance student engagement, understanding, and motivation in the classroom.

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