



Improving Students' Vocabulary by Using Educaplay

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ABSTRACT

This study aimed to enhance students' vocabulary mastery through the use of Educaplay as an interactive learning medium. The research was conducted as Classroom Action Research (CAR) using the Kemmis and McTaggart model in two cycles during the 2024/2025 academic year, involving 32 students of class VIII Gajah Mada at SMPN Model Terpadu Madani Palu. Data were collected through observation sheets, tests, and documentation. Observation and documentation data were analyzed descriptively to evaluate student engagement, while test scores were analyzed quantitatively using mean scores to measure progress. The findings revealed a significant improvement in students' vocabulary achievement. In the first cycle, 53% of students met the Minimum Mastery Criteria (KKM), which increased to 83% in the second cycle. These results indicate that Educaplay effectively supports vocabulary learning by enhancing both the quantity and quality of students' word usage. The study concludes that integrating digital media such as Educaplay can foster greater participation and improve learning outcomes in vocabulary acquisition.

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ABSTRACT

Penelitian ini bertujuan untuk meningkatkan penguasaan kosakata siswa melalui penggunaan Educaplay sebagai media pembelajaran interaktif. Penelitian ini dilakukan sebagai Penelitian Tindakan Kelas (PTK) menggunakan model Kemmis dan McTaggart dalam dua siklus selama tahun ajaran 2024/2025, melibatkan 32 siswa kelas VIII Gajah Mada di SMPN Model Terpadu Madani Palu. Data dikumpulkan melalui lembar observasi, tes, dan dokumentasi. Data observasi dan dokumentasi dianalisis secara deskriptif untuk mengevaluasi tingkat keterlibatan siswa, sementara skor ujian dianalisis secara kuantitatif menggunakan rata-rata skor untuk mengukur kemajuan. Hasil penelitian menunjukkan peningkatan signifikan dalam pencapaian kosakata siswa. Pada siklus pertama, 53% siswa memenuhi Kriteria Kemahiran Minimum (KKM), yang meningkat menjadi 83% pada siklus kedua. Hasil ini menunjukkan bahwa Educaplay secara efektif mendukung pembelajaran kosakata dengan meningkatkan baik kuantitas maupun kualitas penggunaan kata oleh siswa. Studi ini menyimpulkan bahwa integrasi media digital seperti Educaplay dapat meningkatkan partisipasi dan memperbaiki hasil belajar dalam penguasaan kosakata.

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INTRODUCTION

Vocabulary instruction is a fundamental aspect of language learning, serving as the foundation for both receptive skills (reading and listening) and productive skills (speaking and writing) (Hidayati, 2020). Adequate vocabulary mastery enables learners to express ideas, comprehend information, and communicate effectively in academic and everyday contexts (Azizah, 2020). According to Aisyah & Hidayatullah (2023) vocabulary plays a crucial role in language learning. One's language proficiency greatly depends on the extent of their vocabulary. The richer a person's vocabulary, the more skilled they are in using the language. However, numerous English Education students still face difficulties in mastering vocabulary. They often find it hard to remember words learned in isolation because they rarely get chances to practice them in meaningful contexts. Major challenges include limited interaction with new vocabulary in daily situations, lack of consistent reinforcement, and monotonous learning approaches (Laoli et al., 2025).

Preliminary assessments and diagnostic tests conducted in class VIII Gajah Mada at SMPN Model Terpadu Madani Palu revealed that only around 40% of students were able to correctly use basic vocabulary such as *went*, *visited*, *bought*, and *saw* in sentences.

Classroom observations further showed that most students struggled to construct sentences due to limited word choices, while interviews with the English teacher indicated that the majority of students scored below the Minimum Mastery Criteria (KKM) of 75. Consequently, students' writing tended to be less informative, unsystematic, and filled with inappropriate word use, which in turn affected meaning. This lack of vocabulary knowledge also reduced students' confidence in both writing and speaking (Firna et al., 2024).

In the context of 21st-century learning, the integration of interactive digital media offers promising strategies to address these challenges. Interactive platforms can foster engagement, motivation, and active participation by combining visual, auditory, and kinesthetic approaches to learning. Research has consistently shown that interactive digital tools enhance vocabulary retention because they allow learners to acquire language through direct experience and enjoyable activities tailored to diverse learning styles. With the rapid advancement of technology, it is essential to make optimal use of it in the school learning process. One possible approach is the integration of interactive multimedia as a supportive learning tool (Rara Khaida Maryam, Umi Fathonah, 2024).

One such platform is *Educaplay*, a

digital learning tool that provides various activities such as quizzes, crossword puzzles, matching games, word searches, and audio-based tasks. Its interactive and user-friendly design allows teachers to customize content to student needs, provide immediate feedback, and encourage independent as well as collaborative learning. Moreover, *Educaplay*'s accessibility across laptops, tablets, and smartphones aligns well with the digital habits of today's learners, 2022) (Nurita et al., 2024).

Previous studies have highlighted the effectiveness of *Educaplay* in enhancing vocabulary mastery and creating enjoyable learning experiences. However, research on its implementation in Indonesian junior high school contexts, particularly in addressing low vocabulary proficiency, remains limited. This study therefore focuses on investigating the condition of vocabulary mastery among eighth-grade students before the use of *Educaplay*, describing the process of implementing this digital medium in vocabulary learning, and analyzing the extent of improvement after its application. Accordingly, this research is conducted under the title: "Improving Students' Vocabulary by Using *Educaplay*."

RESEARCH METHOD

This study employed Classroom Action Research (CAR) using the spiral model of Kemmis and McTaggart in Purohman (2011), which consists of four main stages: planning, acting, observing, and reflecting. CAR was chosen as the research method because it is designed to address practical problems within the

classroom and to implement real-time improvements in instructional practice. By applying CAR, this study sought to overcome students' difficulties in vocabulary mastery and to enhance the effectiveness of vocabulary instruction through the use of the interactive digital platform *Educaplay*. The study was conducted in class VIII Gajah Mada of SMPN Model Terpadu Madani Palu, Central Sulawesi, during the even semester of the 2024/2025 academic year. The participants were 32 students with heterogeneous backgrounds and varying levels of vocabulary proficiency. The research lasted for two months and was carried out collaboratively with the English teacher. The CAR design in this study was implemented over two cycles, with each cycle consisting of the four stages of planning, action, observation, and reflection. Adjustments and improvements were made continuously based on the findings of each stage to ensure that the intervention effectively addressed the identified problems. Thus, CAR provided a practical framework for improving vocabulary mastery through the systematic and iterative use of *Educaplay* in the classroom. The following is an illustration of classroom action research according to Kemmis and McTaggart.

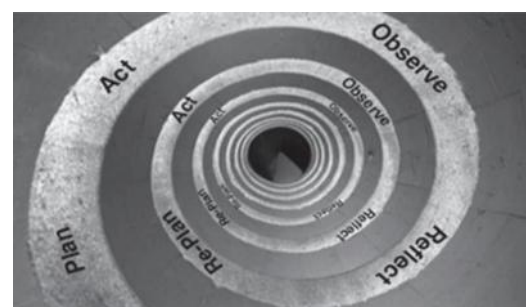


Figure 1. The Stages in Classroom Action Research



Research Partisipant

This study was conducted at SMPN Model Terpadu Madani Palu, located in Central Sulawesi, Indonesia. The school was chosen because many students still demonstrated limited mastery of English vocabulary, which often hindered their ability to construct sentences and communicate effectively. The participants of this research were eighth-grade students from class VIII Gajah Mada, consisting of 32 students with heterogeneous proficiency levels in English vocabulary. This class was selected as the research subject because diagnostic assessments revealed that a majority of the students experienced difficulties in vocabulary usage, making it a representative group for the study.

Technique of Data Collection

To collect the required data, the researchers employed observation, testing, and documentation techniques. An observation sheet was used to systematically record student engagement, participation, and classroom behaviors that might influence the learning process. A vocabulary test was administered at the end of each cycle to quantitatively measure students' vocabulary mastery. In addition, documentation in the form of photos, lesson plans, and students' works was used to support the findings and provide further evidence of classroom dynamics. These combined techniques allowed the researchers to capture both qualitative and quantitative aspects of student progress.

Intruments of Data Collection

The instruments of data collection

included observation checklists, field notes, and vocabulary tests. The observation checklist was designed to monitor students' level of engagement, enthusiasm, and participation during the learning activities using *Educaplay*. Field notes were written throughout the teaching process to document contextual details and insights that might not be reflected in the observation checklist. The vocabulary tests, consisting of multiple-choice and short-answer items, were administered at the end of each cycle to measure students' vocabulary mastery before and after the intervention. Following Carter et.al (2024), the use of varied instruments in Classroom Action Research is crucial, as it provides a balanced view by combining descriptive classroom evidence with measurable student outcomes.

Data Analysis

The data analysis employed a comprehensive mixed-method approach that integrated both quantitative and qualitative procedures to provide a holistic understanding of the intervention's effectiveness. Quantitative data derived from vocabulary test scores were analyzed using descriptive statistical methods to evaluate progress across the pre-cycle, Cycle I, and Cycle II. The analysis focused on calculating the class mean scores, determining the percentage of students achieving the Minimum Mastery Criterion (KKM = 75), and tracking the overall improvement trends throughout the research.

Qualitative data obtained from observation sheets, field notes, and student responses underwent thematic



analysis to capture patterns of engagement, motivation, collaboration, and classroom dynamics during the learning process with Educaplay. This qualitative analysis included systematic coding of observational data, identification of recurring themes, and triangulation across multiple sources to ensure the credibility and trustworthiness of findings. The integration of quantitative and qualitative findings offered not only numerical evidence of learning improvement but also deeper insights into how and why such changes occurred during the intervention (Sajja et al., 2023)

Research Procedures

The research was conducted through a systematic four-stage cyclical process adapted from the Kemmis & McTaggart model, implemented over two cycles to ensure continuous refinement of strategies. In the planning stage, the researcher designed lesson plans integrating Discovery Learning and digital media-based learning principles, prepared Educaplay activities tailored to the students' vocabulary needs, and developed assessment instruments such as vocabulary tests, observation sheets, and field notes. The next stage, action, involved the classroom implementation of these planned activities, where students actively engaged in interactive learning through Educaplay games and quizzes designed to foster participation, collaboration, and independent learning in acquiring new vocabulary. Following this, the observation stage was carried out to systematically monitor student engagement, participation, and vocabulary mastery, with data collected

using observation sheets, field notes, and the results of vocabulary tests. Finally, the reflection stage entailed analyzing both quantitative and qualitative findings to evaluate the effectiveness of the intervention, identify challenges, and revise strategies for subsequent cycles. The intervention was considered successful when at least 75% of students achieved scores ≥ 75 and the class mean demonstrated continuous improvement across cycles. This cyclical process enabled ongoing refinement of the teaching approach, ensuring progressive improvement in students' vocabulary mastery and engagement throughout the research period.

RESULT AND DISCUSSION

Pre-Cycle

The pre-cycle vocabulary test revealed that most students experienced serious difficulties in mastering English vocabulary. Many students struggled to recall simple words, frequently misspelled them, and were unable to use them in meaningful sentences. Out of 32 students, only 5 students (15.6%) reached the Minimum Mastery Criterion (KKM = 75). The class mean score was 63.4, which indicated that the majority of students had not yet achieved the expected level of competence.

Qualitative observation showed that students tended to be passive and unmotivated during learning. Several students hesitated to answer when called upon, while others relied heavily on their peers. Some appeared disengaged, showing signs of boredom and limited interest in vocabulary learning. This suggested that conventional methods



were not effective in stimulating their active participation.

Cycle I

During the first cycle, Educaplay interactive games and quizzes were introduced to make vocabulary learning more engaging. Students worked in small groups and practiced vocabulary through matching games, crossword puzzles, and interactive quizzes designed in Educaplay.

The results showed improvement compared to the pre-cycle. The class mean score increased to 71.2, and 17 students (53.1%) achieved the KKM. Students demonstrated progress in recalling and applying new words, although some still struggled with spelling and contextual usage. The number of students achieving the KKM was still below the success criterion ($\geq 75\%$).

Observation notes indicated that students were more engaged during the digital activities. Many became enthusiastic when competing in the quizzes and were more confident in answering vocabulary-related questions. However, participation was still uneven, with some students remaining passive and letting their group members dominate the activities.

Cycle II

In the second cycle, revisions were made by providing more individualized feedback, increasing practice sessions, and incorporating peer support during Educaplay activities. Students were encouraged to not only play vocabulary games but also create simple sentences using the newly learned words.

The results showed significant improvement. The class mean score rose to 80.1, and 26 students (81.25%) successfully achieved the KKM. Most students showed mastery of a wider range of vocabulary, improved spelling accuracy, and better ability to use words in context. Their vocabulary test results were more consistent, and the overall quality of their performance improved compared to Cycle I.

Qualitative data revealed that students actively participated in group activities, showed greater confidence when using new words, and expressed enjoyment in learning with Educaplay. They demonstrated collaborative learning behaviors, such as helping peers find answers, and showed higher motivation to engage with vocabulary practice. The classroom atmosphere became more dynamic, with noticeable growth in enthusiasm and learner autonomy.

Summary of Results

The progression of students' vocabulary achievement can be summarized as follows:

Table 1. Summary of Result

Cycle	Mean Score	Students Achieving ≥ 75	Percentage
Pre-Cycle	63.4	5	15.6%
Cycle I	71.2	17	53.1%
Cycle II	80.1	26	81.25%

The findings clearly demonstrate that the use of Educaplay was effective in improving students' vocabulary mastery. Quantitatively, the mean score showed steady improvement across cycles, and the success criteria were achieved in Cycle II, with more than 75% of students reaching the KKM. Qualitatively,



students shifted from being passive and disengaged in the pre-cycle to becoming more motivated, collaborative, and confident learners by the end of Cycle II.

Discussion

This study demonstrates that integrating Educaplay as an interactive digital medium significantly improved students' vocabulary mastery, both quantitatively and qualitatively. At the pre-cycle stage, students encountered considerable difficulties, as indicated by the low mean score of 63.4, with only 21.87% of them achieving the Minimum Mastery Criterion (KKM). Students often relied on limited vocabulary, repeated basic words, and showed hesitation in using English confidently. Qualitative observations further revealed that learners were less motivated, passive, and tended to wait for teacher guidance rather than attempting independent exploration. This initial condition reflects challenges commonly reported in EFL contexts where conventional teacher-centered instruction provides few opportunities for interactive and engaging vocabulary practice (Rohach, 2024).

The implementation of Educaplay in Cycle I brought about notable changes. Through game-based activities such as matching, word puzzles, and interactive quizzes, students were encouraged to practice vocabulary in meaningful and enjoyable ways (Ramadan, 2025). Quantitative results showed improvement, with the mean score rising to 71.8 and 53.12% of students achieving the KKM. Qualitative findings supported this, as students became more active, competitive, and collaborative during classroom activities, although some still

relied on peers to complete tasks. These results are in line with Arif & Umami Calsum (2025), who emphasize that gamified digital learning fosters engagement and enhances language retention. However, weaknesses in vocabulary depth and independent usage persisted, suggesting the need for more focused practice and feedback.

In Cycle II, more targeted strategies were applied, including explicit feedback on word usage, opportunities for repeated practice, and peer collaboration in solving vocabulary tasks within Educaplay. This approach enabled students to expand their vocabulary repertoire and apply new words more accurately. Quantitatively, the class mean score rose significantly to 79.6, with 81.25% of students surpassing the KKM. Qualitatively, classroom observations highlighted that students became more confident, motivated, and autonomous in applying vocabulary during discussions and written tasks. These findings support Thomas (2021), who argue that digital platforms enhance learner motivation and autonomy, particularly when combined with peer interaction and feedback. The peer-assisted use of Educaplay also resonates with Vygotsky's sociocultural theory in Bidita & Latifa (2024), as it allowed students to learn collaboratively within their zone of proximal development.

The steady progression across cycles underscores the effectiveness of integrating digital interactive media in vocabulary instruction. While Educaplay fosters active participation, enjoyment, and collaboration, it also ensures that students receive repeated exposure and meaningful practice, which are essential



for vocabulary retention and use. This combination not only improved students' quantitative achievement but also positively influenced their learning behavior and classroom dynamics, echoing findings by Numonova (2024) that vocabulary learning is most effective when supported by interactive and contextualized activities. Overall, the results of this study confirm that digital game-based media such as Educaplay provide a more effective and motivating pedagogical approach compared to traditional methods, supporting EFL learners in becoming more competent and confident language users.

CONCLUSION

Based on the analysis of the findings, it is evident that using Educaplay as an interactive digital medium significantly enhances students' vocabulary mastery. This conclusion is supported by both quantitative improvements in test scores and qualitative changes in student behavior. Students who were previously passive and less motivated became more active, engaged, and enthusiastic in participating in classroom activities. This positive shift in attitude was reflected in improved scores, where students who initially scored below the Minimum Mastery Criterion (KKM = 75) in the pre-cycle were able to achieve scores ranging from 75 to above 80 by Cycle II. These findings demonstrate that Educaplay, by integrating gamified elements into learning, creates a fun, competitive, and interactive environment that not only improves vocabulary retention but also stimulates students' motivation and

curiosity to learn English. Furthermore, observations indicated that students developed greater independence, collaboration, and confidence throughout the cycles. This clearly indicates that Educaplay is an effective strategy for vocabulary instruction and can be adapted to similar EFL contexts.

In light of these conclusions, the researcher proposes several recommendations for teachers, students, and future researchers. For teachers, especially those working with EFL learners, it is essential to adopt interactive strategies that make vocabulary learning both engaging and enjoyable. The use of Educaplay is highly recommended due to its ability to combine practice, repetition, and motivation in a digital learning environment. For students, it is important to remain active and collaborative in using such tools, as consistent participation maximizes learning benefits. Finally, for future researchers, this study can serve as a reference for exploring the potential of digital game-based learning in other areas of language instruction. Future studies are encouraged to examine the long-term effects of Educaplay on vocabulary retention and to compare its effectiveness with other interactive media.

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