
**ENHANCING EFL LEARNERS' VOCABULARY MASTERY
THROUGH FLASH CARDS: A CLASSROOM-BASED STUDY
AT SMPN 2 KISARAN**

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ABSTRACT

This study investigated the effectiveness of using flashcards to improve vocabulary mastery among seventh-grade students at SMP Negeri 2 Kisaran, who have demonstrated limited vocabulary knowledge due to difficulties in memorizing new words. The objective was to enhance students' vocabulary through the implementation of flashcards as a learning tool. The study employed classroom action research based on the Kemmis and McTaggart model, conducted in two cycles comprising the stages of planning, action, observation, and reflection. A total of 30 students from class VII-7 participated in the study. Data were collected through observations and vocabulary tests. The results revealed a significant improvement in students' vocabulary mastery, with the average test score increasing from 67.8 (33.3%) in Cycle 1 (categorized as low) to 82.8 (73.3%) in Cycle 2 (categorized as high). These findings indicate that the use of flashcards is an effective strategy for enhancing vocabulary acquisition among junior high school students.

Keyword : *English vocabulary acquisition, flashcards media,*

INTRODUCTION

Vocabulary acquisition is a foundational component of second language (L2) learning and plays a vital role in developing learners' communicative competence. In English as a Foreign Language (EFL) contexts, such as Indonesia, vocabulary knowledge significantly affects learners' performance across all four language skills—reading, writing, listening, and speaking (Nation, 2001; Schmitt, 2008). Learners with limited vocabulary often struggle to understand written texts, express ideas effectively, and participate in oral communication, which can ultimately hinder their academic progress in English.

This issue is particularly evident among seventh-grade students at SMPN 2 Kisaran. Preliminary classroom observations and interviews with English teachers revealed that most students enter junior high school with minimal or no prior exposure to English vocabulary. This is primarily due to the absence of English in the elementary school curriculum, as English is not a compulsory subject at that level in Indonesia. Consequently, students face a significant vocabulary gap at the start of secondary education, making it difficult for them to follow classroom instruction, engage with English texts, or perform communicative tasks.

Numerous studies have emphasized the importance of direct and intentional vocabulary instruction in overcoming such gaps. Nation (2001) asserts that systematic vocabulary teaching is necessary for learners with limited exposure to the target language. Krashen's Input Hypothesis (1985) also highlights that learners require comprehensible input that is slightly beyond their current proficiency level—a goal that cannot be achieved without adequate lexical knowledge. Paivio's Dual Coding Theory (1990) supports the idea that combining visual and verbal information can enhance memory and recall, a principle that underlies the use of flashcards. Additionally, the Cognitive Theory of Multimedia Learning (Mayer, 2005) underscores the effectiveness of using multimedia elements in language instruction, including visual aids such as flashcards, to promote deeper learning and retention.

Flashcards, both digital and traditional, have emerged as an effective vocabulary learning tool in EFL contexts due to their capacity to support active recall, spaced repetition, and learner engagement. Schmitt and Schmitt (2020) note that flashcards help learners focus on discrete lexical items in a manageable format, enabling them to retain vocabulary more efficiently. A meta-analysis by Özdemir and Seçkin (2024) confirmed that flashcard-based learning significantly improves vocabulary acquisition and long-term retention across various L2 learner populations.

Several empirical studies have also highlighted the effectiveness of flashcards in classroom settings. For instance, Khezrlou (2018) found that the use of visual flashcards significantly improved vocabulary retention among Iranian EFL learners at the secondary level. Similarly, Mahmoud (2021) demonstrated that incorporating flashcards into vocabulary instruction increased students' motivation and performance in Sudanese EFL classrooms. In the Indonesian context, research by Utami and Nurkamto (2020) showed that digital flashcards improved vocabulary mastery and learner autonomy among senior high school students. However, these studies predominantly focus on learners who have had prior exposure to English or who are already in higher education levels.

There remains a lack of empirical research focusing specifically on junior high school students in Indonesia who begin their English learning with little to no vocabulary foundation. Particularly absent are studies addressing the instructional challenges faced by students who did not receive formal English instruction during elementary school, a widespread condition in many regions. This gap is critical, as early secondary students with low vocabulary proficiency require targeted and developmentally appropriate strategies to catch up and progress in English language learning.

Therefore, this study aims to address this gap by investigating the effectiveness of flashcard-based instruction in improving vocabulary mastery among seventh-grade students at SMPN 2 Kisaran. By focusing on learners with limited prior exposure to English, the study contributes to the growing body of research on vocabulary acquisition strategies in under-resourced EFL contexts and offers practical pedagogical insights for language educators working in similar environments.

METHOD

This research employed a Classroom Action Research (CAR) design following the model proposed by Kemmis and McTaggart (1988). The CAR model consists of a cyclical process that includes four stages: planning, acting, observing, and reflecting. The study was conducted in two cycles, each designed to improve students' vocabulary mastery through the use of flashcards. Each cycle was implemented over two weeks and involved three classroom sessions lasting approximately 40 minutes each. The research was carried out at SMP Negeri 2 Kisaran, involving 30 seventh-grade students from class VII-7, comprising 12 female and 18 male students.

A preliminary study was first conducted by interviewing the English teacher to identify the existing issues in the classroom. The results of this initial phase showed that students had low vocabulary mastery and lacked motivation in English language learning. Based on these findings, an intervention using flashcards was developed and implemented in two cycles. In each cycle, the researcher conducted planning by designing lesson plans and preparing observation checklists and vocabulary tests. The action phase involved the actual teaching using flashcards, followed by observation and reflection for further improvement.

The flashcard intervention protocol consisted of four key stages in each session: presentation of 10–15 illustrated flashcards, pronunciation drills, pair or group activities to match words and meanings, and a short quiz to reinforce learning. The flashcards displayed

pictures on one side and English words with their Indonesian translations on the other. This method aimed to make vocabulary learning more interactive and visually engaging.

To collect data, the researcher used two primary instruments: vocabulary tests and classroom observations. The vocabulary test was administered as a pre-test and post-test to measure students' vocabulary mastery before and after the intervention. Each test consisted of 20 questions: 10 multiple-choice items and 10 matching items. Every question was worth 5 points, making the total possible score 100. The scoring rubric classified performance as follows: scores of 80–100% were considered *very high*, 61–79% as *high*, 41–60% as *sufficient*, 21–40% as *low*, and 0–20% as *very low*.

In addition to testing, the researcher used a structured observation checklist to monitor both teacher and student behaviors during the learning process. The checklist focused on students' engagement, participation, and vocabulary usage, as well as the effectiveness of the flashcard-based instruction. Observations were conducted collaboratively with the English teacher, who also provided feedback and engaged in reflection meetings at the end of each cycle.

To ensure validity and reliability, the test instruments were reviewed and validated by two experts in English education. The internal consistency of the test was measured using Cronbach's Alpha, yielding a coefficient of 0.82, which indicates high reliability. Inter-rater reliability was also ensured for observational data by having a second observer independently rate student behaviors, with results compared and discussed to reach consensus.

The quantitative data from the vocabulary tests were analyzed using descriptive statistics (mean score) and inferential statistics. A paired samples t-test was conducted to determine the significance of score improvements between the pre-test and post-tests in each cycle. In addition, Cohen's *d* was calculated to determine the effect size of the intervention. Meanwhile, qualitative data from observation notes were analyzed thematically to identify patterns in student engagement and instructional practices. Data triangulation was performed by comparing test results, observation data, and teacher reflections. Member checking was applied by discussing preliminary interpretations with the English teacher to ensure accuracy and trustworthiness.

All ethical procedures were followed throughout the research. Informed consent was obtained from both the students and their parents, and approval was granted by the school principal. The researcher ensured that participation was voluntary, and all data collected were

treated with confidentiality and used solely for academic purposes. No students were harmed or disadvantaged by the study.

To maintain methodological rigor, control measures were applied to ensure consistent implementation of the intervention across both cycles. The same materials, instructional strategies, and classroom settings were used. Acknowledging potential limitations, this study was confined to a single classroom with a relatively small sample, which may affect generalizability. The researcher's positionality as a student-teacher was also considered, and reflective practices were used to minimize bias and improve instructional effectiveness.

The timeline of this research spanned seven weeks, with one week for the preliminary study, two weeks for each action cycle, one week for reflection and modification, and the final week for data analysis and reporting. Through this structured and reflective CAR framework, the study aimed to provide a practical solution to the problem of low vocabulary mastery among students.

FINDINGS AND DISCUSSION

Findings

This study involved 30 seventh-grade students at SMP Negeri 2 Kisaran and aimed to improve their English vocabulary mastery through the use of flashcards as a visual learning tool. The intervention was carried out over two cycles within a Classroom Action Research (CAR) framework. A pre-test was administered prior to the first cycle to establish students' baseline vocabulary proficiency.

Table 1. Descriptive Statistics of Students' Vocabulary Test Scores

Test Stage	Mean Score	Standard Deviation	Min	Max	% Scoring \geq 75
Pre-test	59.0	13.2	35	85	20.0%
Cycle 1	67.8	13.4	45	95	33.3%
Cycle 2	82.8	10.5	65	100	73.3%

The data revealed progressive improvement across the stages. In the pre-test, only 20% of students achieved scores at or above the mastery threshold (≥ 75), with a mean score of 59.0. Following the first cycle, the mean increased to 67.8, and 33.3% of students met the threshold. Notably, after the second cycle, the mean rose to 82.8, with 73.3% of students scoring ≥ 75 , indicating substantial gains in vocabulary mastery.

To assess statistical significance, a paired-samples t-test was conducted comparing Cycle 1 and Cycle 2 scores. The result was statistically significant: $t(29) = 5.84, p < 0.001$,

with a large effect size (Cohen's $d = 1.15$), suggesting that the observed improvements were not due to chance. The 95% confidence interval for the mean difference ($M = 15.0$) ranged from 9.5 to 20.5, reinforcing the reliability of the results.

In addition to quantitative measures, qualitative data from classroom observations supported these findings. Students demonstrated greater enthusiasm, increased engagement, and more accurate recall during flashcard-based tasks. Teachers reported that students became more confident and responsive during vocabulary matching, pronunciation drills, and review games involving the flashcards.

Discussion

This study examined the effectiveness of flashcards in enhancing vocabulary mastery among seventh-grade students in an Indonesian EFL context. Implemented through a Classroom Action Research (CAR) design, the intervention was conducted over two cycles and demonstrated a substantial improvement in students' vocabulary achievement. The findings confirm that flashcards are not only a practical and accessible teaching aid but also an empirically supported instructional strategy, especially for learners with limited prior exposure to English.

The steady progression in students' mean scores—from 59.0 in the pre-test to 82.8 in Cycle 2—provides quantitative evidence of the intervention's effectiveness. The significant result of the paired-samples t-test ($p < 0.001$, $d = 1.15$) further reinforces this improvement as statistically meaningful. These gains suggest that flashcards effectively support both the recognition and recall of vocabulary items, which are critical components of early-stage second language development.

The positive outcomes of this study can be interpreted through Paivio's (1990) Dual Coding Theory, which posits that information is better retained when processed through both verbal and visual channels. Flashcards naturally embody this dual processing mechanism by combining text and imagery, thereby promoting deeper cognitive encoding and retrieval. This theoretical framework aligns with the observed classroom behaviors, where students displayed increased engagement, faster word recognition, and more accurate recall when interacting with visual aids.

In addition, the findings support Nation's (2001) framework for vocabulary acquisition, which emphasizes the importance of focused, repeated exposure and the role of deliberate learning strategies. Flashcards enable such conditions by facilitating spaced repetition and

active recall—two well-established principles in cognitive psychology that aid long-term retention. From a pedagogical standpoint, the flashcard method proved to be low-cost, flexible, and easy to implement, making it particularly suitable for under-resourced EFL classrooms.

These findings resonate with earlier studies. Pramadanti (2021) found that flashcard-based learning improved vocabulary among elementary learners in Indonesia, though her study focused primarily on oral vocabulary development. The present study builds upon this by integrating quantitative statistical analysis and expanding the assessment to include written vocabulary tests. Additionally, the sample in this study was larger, and progress was tracked systematically through pre-test, Cycle 1, and Cycle 2 evaluations—an approach rarely adopted in similar local research.

The results also align with the meta-analysis by Özdemir and Seçkin (2024), which confirmed the efficacy of flashcards across a range of L2 contexts. Similarly, Khezrlou (2018) demonstrated that visual flashcards improved vocabulary retention in Iranian secondary learners. However, most prior studies lacked a focus on learners with no foundational exposure to English—a critical distinction addressed in this research. The context of Indonesian junior high schools, where English is not taught at the elementary level, presents unique challenges that make vocabulary instruction particularly crucial. This study, therefore, contributes to an underexplored area by providing empirical data on how visual strategies can bridge initial lexical gaps in such settings.

Despite the encouraging findings, several limitations should be acknowledged. First, the absence of a control group limits the internal validity of the study. The improvements observed cannot be definitively attributed solely to the flashcard intervention, as other variables—such as student motivation, teacher enthusiasm, or classroom dynamics—may have played a role. Second, while qualitative observation data indicated increased engagement, these insights were not analyzed using formal coding techniques, reducing the depth and generalizability of the qualitative dimension. Third, the study did not include a delayed post-test, which means that long-term retention of the learned vocabulary remains unexamined.

To address these limitations, future studies should adopt a mixed-methods approach, incorporating structured interviews, student self-assessment, and follow-up testing to gain deeper insights into learner progress and sustainability of outcomes. Additionally, comparative studies that evaluate flashcards alongside other vocabulary learning tools—such

as semantic mapping, digital flashcard applications, or storytelling-based vocabulary teaching—would provide valuable knowledge on relative instructional effectiveness. Incorporating a control group would further strengthen the internal validity of future research.

In conclusion, the findings suggest that flashcards are a highly effective and contextually appropriate tool for vocabulary instruction in early secondary EFL classrooms, particularly where learners start with minimal English background. The integration of visual and verbal input not only supports memory but also fosters engagement and confidence among students. Given their low cost, simplicity, and adaptability, flashcards should be considered for wider adoption in vocabulary pedagogy across diverse EFL learning environments.

CONCLUSION AND SUGGESTION

Based on the results of this classroom action research, it can be concluded that the use of flashcards as a visual and interactive learning tool significantly improved vocabulary mastery among Grade VII-7 students at SMP Negeri 2 Kisaran. The average vocabulary test scores increased from 67.8 in Cycle I to 82.8 in Cycle II, and the percentage of students achieving the minimum mastery criterion rose from 33.3% to 73.3%. In addition to academic improvement, students also demonstrated greater engagement and enthusiasm during class activities. These findings highlight the pedagogical potential of flashcards in supporting vocabulary acquisition through dual verbal-visual input and repeated practice. However, the study was limited by its small sample size, single-class setting, absence of a control group, and lack of in-depth qualitative data, which restrict the generalizability and depth of the conclusions. Therefore, future studies are encouraged to involve larger samples across multiple contexts, utilize comparative designs with other vocabulary strategies (e.g., digital tools or semantic mapping), and incorporate qualitative methods to better understand learners' cognitive and affective responses. Teachers are also recommended to integrate flashcards in structured, repetitive activities, while schools and policymakers should support their use by providing resources and training in visual learning strategies.

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