

## THE EFFECT OF FLASHCARDS IN IMPROVING VOCABULARY AT THE EIGHTH GRADE STUDENTS OF SMP NEGERI 6 PALU

Yudit Ba'dung<sup>1</sup>, Aminah Suriaman<sup>2</sup>, Ferry Rita<sup>3</sup>

Universitas Tadulako  
badungyudith@yahoo.com

### Abstract

*Students face challenges in English communication primarily due to insufficient vocabulary. Consequently, teachers should actively implement strategic measures to enhance students' mastery of vocabulary, such as incorporating activities like the use of flashcard. The objective of this study is to investigate whether the utilization of flashcard media has a positive impact on enhancing vocabulary. This research is an experimental study with a pre post test design using 2 sample groups, namely the intervention group and the control group consisting of 32 people per group. In choosing the participants, the researcher used purposive sampling. This study was conducted in SMPN 6 Palu since the participants are the students of the eighth grade. The results were analyzed using t table and t calculations to determine the effect. The result showed that the mean score of pre-test of control group is 45.13 and that the mean score post test of control group was 53, whereas the mean score of pre-test of experimental group is 45.38, and the mean score of experimental group was 81.38. t-counted (14.57) is higher than t-table (1.9988). This implies that the research hypothesis has been validated. In summary, the utilization of flashcards proves to be effective in enhancing vocabulary among eighth-grade students at SMP Negeri 6 Palu. flashcard media could be used as one of media in the classroom, because it easy and interesting in applying for the students.*

**Keywords:** Flashcard Media; Vocabulary Mastery

## INTRODUCTION

The Indonesian curriculum clearly states that learning vocabulary requires special attention from Indonesian students, as the goal of teaching English vocabulary in Indonesia is to develop the skill of using 2,000 English words for Junior High School (Departemen Pendidikan Nasional & Kurikulum Pusat, 2006). Nevertheless, the main obstacles encountered by students to communicate in English is generally the lack of their vocabulary (Fachrunnisa & Nuraeni, 2022). Mastering vocabulary is a intricate endeavor involving the comprehension of word meanings and various elements of language. The process extends beyond merely acquiring new words, encompassing a deeper understanding of how to use these words appropriately (Akramy, Noori, Orfan, & Hashemi, 2022).

Based on researcher's observation, EFL learners are still lack of vocabulary . The students had limited vocabulary, so they had problem in communicating. It happened because the students memorize all the English words even uncommon ones. learning vocabulary is an essential part of language teaching. It means that vocabulary helps students comprehending a basic to learn more the others aspect (Harmon & Wood, 2018). Learning vocabulary should be prioritized also of learning language acquisition (Bahanshal, 2015). Teachers should not focus only on grammar translation method and reading approaches for example. This may be the reason that vocabulary of Indonesian students is unsatisfactory. Based on researcher's pre observation showed the score of the eighth grade of SMP Negeri 6 Palu under KKM.

As educators, teachers need to think about interesting and effective strategies and innovations in order to improve vocabulary mastery skills, one of which is by using flashcard media.

Flashcards are as media for learning English not only enjoyable but also effective (Chotimah, 2021). English flashcards are utilized with great success due to their simplicity and enjoyable nature, providing an effective and accessible method for memorizing vocabulary and basic grammar. This approach is equally beneficial for both children and adults (Haqiqiyah, 2022).

In a study conducted by Ying, Marchelline, and Wijaya in 2020, the findings indicated that using flashcards for learning positively impacted the Mandarin scores of 5th-grade students at Pelita Kasih SDS. Moreover, there was an observed improvement in the students' overall

vocabulary mastery. (Ying, Marchelline, & Wijaya, 2021). Aslan (2011) conducted a study suggesting that the use of flashcards can be highly beneficial for students, especially beginners. This approach facilitates the activation of their brains as they associate words with corresponding images (Aslan, 2011). In addition, the students can learn new words easily in a short time when compared to other ways of learning vocabulary. In this instance, the researcher is keen on investigating the efficacy of using flashcards to enhance the vocabulary of eighth-grade students at SMP Negeri 6 Palu.

## **METHODS**

This study employed a quantitative research design, specifically adopting an experimental approach with two sample groups: the control class and the experimental class. The purpose of organizing these classes was to assess the effectiveness of flashcards in enhancing students' vocabulary. The experimental group received the intervention involving the use of flashcards, whereas the control group did not receive this treatment. The research focused on the eighth-grade students of SMPN 6 Palu, and participant selection was accomplished through purposive sampling. The study was conducted at SMPN 6 Palu, given that the participants were eighth-grade students from this school. The researcher took all students from each class as sample, so the total of students as sample is 64. The researcher used writing test as an instrument of this research. The writing test consists of multiple choices and matching test. The researcher administered multiple-choice and matching tests to students during both the pre-test and post-test phases. Following the data collection, individual scores were compiled and analyzed. The researcher computed the mean scores for both the pre-test and post-test, and subsequently calculated the mean score and squared deviation. The objective was to determine the significant difference between the experimental and control groups. The data were further analyzed using the t-count formula to test the hypothesis and identify any significant differences. This research starts from October to November 2023.

## RESULTS

The researcher presented and analyzed the data that obtained of the students through pretest and posttest in both experimental group and control group. The researcher also gave questionnaire in experimental group. The pretest was administered prior to implementing the treatment to assess the students' vocabulary. Subsequently, the posttest was conducted after the treatment to gauge the impact of the intervention. Additionally, a questionnaire was distributed after the treatment to further understand the effectiveness of flashcards. The result of each test was to know effectiveness flashcard in improving students' vocabulary.

### 1. Control Group

**Table 1** Score of pre and posttest of Control Group

No	Initial	Pre-Test	Post-Test	Deviation	Square Deviation
		(X1)	(X2)	X2 - X1	(X2)
1	AS	36	36	0	0
2	KL	44	48	4	16
3	CN	48	52	4	16
4	BF	48	52	4	16
5	AF	52	56	4	16
6	G	60	64	4	16
7	CF	52	52	0	0
8	KA	44	48	4	16
9	GFN	36	52	16	256
10	AM	40	44	4	16
11	JN	44	56	12	144
12	KA	48	52	4	16
13	ATB	56	68	12	144
14	DN	44	48	4	16
15	KE	52	52	0	0
16	MY	36	40	4	16
17	MAH	48	52	4	16
18	MK	40	44	4	16
19	SR	80	84	4	16
20	AJ	40	48	8	64
21	ZAR	48	60	12	144

22	QA	32	52	20	400
23	MSM	44	48	4	16
24	MA	36	80	44	1936
25	ZA	40	44	4	16
26	MN	48	52	4	16
27	MIF	48	52	4	16
28	ZW	48	52	4	16
29	RV	36	72	36	1296
30	MD	44	48	4	16
31	A	40	44	4	16
32	FM	32	44	12	144
<b>Total score</b>		<b>1444</b>	<b>1696</b>		
<b>Mean score</b>		<b>45.125</b>	<b>53</b>		
<b>Total</b>			<b><math>\Sigma y = 252</math></b>		<b><math>\Sigma y^2 = 4848</math></b>

Source: Primary Data, 2023

According to Table 1, the pretest scores ranged from a minimum of 32 to a maximum of 80, with a total standard score of 1444. The mean score for the pretest in the control group was calculated to be 45.13. As indicated in Table 4.4, the posttest scores ranged from 36 to 84, with a total score that led to a mean posttest score of 53 for the control group. The obtained data revealed an improvement in the students' scores in the control group. The mean deviation for the control group was determined to be 7.875..

## 2. Eksperimental Group

**Table 2** Score of pre and posttest of Control Group

No	Initial	Pre-Test	Post-Test	Deviation	Square Deviation
		(X1)	(X2)	X2 - X1	(X2)
1	AK	40	84	44	1936
2	AR	44	72	28	784
3	AAP	52	100	48	2304
4	AN	52	92	40	1600
5	AY	52	68	16	256
6	ASH	56	88	32	1024

7	CMB	52	92	40	1600
8	FS	48	88	40	1600
9	FRA	28	72	44	1936
10	LN	44	84	40	1600
11	MR	56	92	36	1296
12	MZI	52	88	36	1296
13	MRA	64	80	16	256
14	MAR	40	80	40	1600
15	N	56	68	12	144
16	NS	36	84	48	2304
17	PDP	40	68	28	784
18	PDU	44	84	40	1600
19	RK	52	88	36	1296
20	R	36	52	16	256
21	SFD	32	80	48	2304
22	SS	36	72	36	1296
23	SLH	40	84	44	1936
24	T	36	80	44	1936
25	VA	36	80	44	1936
26	WAZ	88	88	0	0
27	Y	44	68	24	576
28	ZAS	40	84	44	1936
29	AH	40	96	56	3136
30	AWF	44	84	40	1600
31	DF	32	76	44	1936
32	AA	40	88	48	2304
<b>Total score</b>		<b>1452</b>	<b>2604</b>		
<b>Mean score</b>		<b>45.375</b>	<b>81.375</b>		
<b>Total</b>			<b><math>\Sigma x = 1152</math></b>	<b><math>\Sigma x^2 = 46368</math></b>	

**Source:** Primary Data, 2023

Table 2 presents the pretest results for the experimental group, with the highest score being 88 and the lowest score at 28. The mean pretest score for the experimental group was 45.38. In the posttest, the scores ranged from 52 to 100. Notably, five students did not meet the passing criteria or the standard score of 70, indicating that 27 out of 32 students demonstrated an improvement in their scores. While not all students experienced enhancement, the majority were successful in passing the test. The mean

posttest score for the experimental group was 81.38, suggesting that the use of flashcard media contributed to vocabulary improvement. The mean deviation for the experimental group was 36.

### 3. Hypothesis analysis

Upon computing the mean score deviation for both the pre-test and post-test in the experimental and control groups, it becomes evident that the experimental group exhibited a higher mean score deviation compared to the control group. Specifically, the mean deviation for the experimental group was 36, whereas the mean deviation for the control group was 7.875.

Before proceeding with the analysis using the t-test formula, the researcher calculated the sum-squared deviation of the mean score for both the experimental and control groups, as outlined below:

$$\begin{aligned}\Sigma_x^2 &= \Sigma_x^2 - \frac{(\Sigma x)^2}{N} \\ &= 46368 - \frac{(1152)^2}{32} \\ &= 46368 - \frac{1327104}{32} \\ &= 46368 - 41472 \\ &= 4896\end{aligned}$$

$$\begin{aligned}\Sigma_y^2 &= \Sigma_y^2 - \frac{(\Sigma y)^2}{N} \\ &= 4848 - \frac{(252)^2}{32} \\ &= 4848 - \frac{63504}{32} \\ &= 4848 - 1984.5 \\ &= 2863.5\end{aligned}$$

Using the provided data, the sum-squared deviation result for the experimental group was 4896, while for the control group, it was 2863.5. Subsequently, the researcher calculated the t-count to determine the significant difference between the experimental group and the control group, as illustrated below:

$$t = \frac{Mx - My}{\sqrt{\left(\frac{\sum x^2 + \sum y^2}{N_x + N_y - 2}\right)\left(\frac{1}{N_x} + \frac{1}{N_y}\right)}}$$

$$t = \frac{36 - 7.875}{\sqrt{\left(\frac{4896 + 2863.5}{32 + 32 - 2}\right)\left(\frac{1}{32} + \frac{1}{32}\right)}}$$

$$t = \frac{28.13}{\sqrt{\left(\frac{7759.5}{62}\right)\left(\frac{2}{64}\right)}}$$

$$t = \frac{28.13}{\sqrt{(125.15)(0.03)}}$$

$$t = \frac{28.13}{\sqrt{3.75}}$$

$$t = \frac{28.13}{1.93}$$

$$t = 14.57$$

So, the t-counted of this research is **14.57**.

Degree of freedom =  $N_x + N_y - 2$

$$= 32 + 32 - 2$$

$$= 62$$

Level of significant = 0.05

$$60 = 2.000$$

$$70 = 1.994$$

$$T_{table} = t = \frac{a}{b} \times c$$

Where :

$$a = df - 60 = 62 - 60 = 2$$

$$b = 70 - 60 = 10$$

$$c = 2.000 - 1.994 = 0.006$$

$$T_{table} = t = \frac{a}{b} \times c$$

$$= \frac{2}{10} \times 0.006$$

$$= 0.0012$$

$$Df(62) = 2.000 - 0.0012$$

$$= 1.9988$$

The presented data indicated that the t-table value was 1.9988. Employing a significance level of 0.05, the researcher then compared the calculated t-count (14.57) with the t-table value. The finding revealed that the t-count was higher than the t-table, leading to the acceptance of the hypothesis. Consequently, it can be concluded that the use of flashcards is effective in enhancing vocabulary among eighth-grade students at SMPN 6 Palu.

## DISCUSSION

The purpose of this study was to assess the efficacy of flashcards in enhancing the vocabulary of eighth-grade students at SMPN 6 Palu. To substantiate these findings, the researcher employed tests as the primary research instrument. Additionally, a questionnaire served as a supplementary tool to gauge the effectiveness of flashcards in improving the students' vocabulary. The assessments were administered as pre-test and post-test measures for both the experimental and control groups. The pre-test took place on Tuesday, 17th October 2023, for the control group and on Wednesday, 18th October 2023, for the experimental group. The school's standard passing score (KKM) was set at 70. Based on the pre-test outcomes, one student in the experimental group and one student in the control group achieved scores surpassing the standard. The overall pre-test results indicated that a majority of students in both the experimental and control groups scored below the KKM, suggesting difficulties or a lack of proficiency in vocabulary.

Following the completion of the pre-test, the researcher implemented the treatment exclusively for the experimental group. The treatment involved the use of flashcards as instructional aids. The researcher covered topics related to describing people, animals, and objects in the classroom, as well as lessons on the comparison degree and superlatives. During the teaching process, the researcher presented flashcards to the students, introducing words and simple sentences using the visual aids to enhance understanding. In each session, students were encouraged to repeat the sounds associated with the flashcards, and subsequently, they were asked to write down their understanding of the presented material. This media is interesting for students. It can be seen from the questionnaire result. It can be seen that most of students agreed that flashcards are interesting in motivating them learning. This is in line with previous research which also emphasized that learning using flashcards makes lessons more interesting (Lisa, 2019).

The data showed 68.75% agreed while 12.5% strongly agreed. It is proved by Richard and Schmidt (2010) that flashcards can capture students' attention and turn teaching and learning into entertainment (Schmitt, 2007). Teachers really need to get students' attention to make them easy in comprehending the topic. The flashcards are interesting for the students because they are very clear and colorful. It was proved by the students' statement said that there were 59.37% agreed that flashcards are clear and colorful, while 10% strongly agreed with the statement. The flashcard also is easy using in the classroom, it is supported by Richard and Schmidt (2010) that flashcards are simple learning media because they can be carried everywhere. The result of questionnaire also showed that most of the students agreed that the flashcards are helping them in memorizing new vocabulary. Same as the previous study that also found that flashcard help in memorize the vocabulary (Farida, Isrina, & Apsari, 2019).

Following the implementation of the treatment, the researcher administered a post-test to both the experimental and control groups. The post-test took place on Wednesday, 16 November 2023, for both groups. The post-test results revealed that the scores in the experimental group were higher than the pre-test scores in the control group. Within the experimental group, five students obtained scores below the KKM, while the majority achieved scores surpassing the KKM. In the control group, only two students attained high scores indicating a successful outcome surpassing the KKM. The other students still got low score under the KKM. Based on the post-test result, it can be seen that using flashcards are effective in improving students' vocabulary. The student got improvement in noun and adjective. It can be compared with previous researcher Aslan (2011) Discovered that the utilization of flashcards proves highly beneficial for students, especially beginners, as it stimulates their cognitive processes by linking words with corresponding images (Aslan, 2011). It can be seen from the students' answer of questionnaire also. It is said that the flashcards are clear and colorful. Like the previous study said that flashcard need to be printed clear and colorful (Sartika, 2020)

The hypothesis of this research is the effectiveness flashcard in improving vocabulary at the eighth grade students of SMPN 6 Palu. Based on the data before, t-counted result showed that the result of it was higher than t-table which means the flashcard had affect students' vocabulary to class VIII SMP Negeri 6 Palu, especially in class VIII G. The result is supported by Haycraft in Rismanti (2017) with the statement flashcard is a combination of word and images in a single card that help improve students' vocabulary.

Another study also found that flashcard can improve vocabulary mastery (Sesmilea & Hidayat, 2020). The improvement is seen by the score of pre-test to post-test. The score improved after applying the flashcards in treatment.

The first researcher previously found that the students of Pelita Kasih SDS like learning Mandarin through technology flashcard (Rahmawati, 2020). By using technology flashcard, their vocabulary increased. Then, it is compared to this research. In this research, the media is just manual flashcard used by the researcher, but the result can improve English students' vocabulary. The preceding researcher concentrated on assessing students' enthusiasm for Mandarin learning, evaluating their proficiency in mastering Mandarin vocabulary, and identifying advancements in writing Mandarin characters facilitated by technology flashcards. Mandarin and English are two different languages, but the goal of the study is same namely one of the media which is flashcard can improve the vocabulary of the target language. At the end, flashcard is proved in improving vocabulary.

## CONCLUSION

Upon analyzing the data, can be concluded that flashcards are indeed effective in enhancing vocabulary among eighth-grade students at SMP Negeri 6 Palu. A substantial improvement in students' performance in vocabulary was observed following the treatment. The calculated t-count (14.57) surpasses the t-table value (1.9988), leading to the acceptance of the research hypothesis. In summary, the use of flashcards proves effective in advancing vocabulary skills among eighth-grade students at SMP Negeri 6 Palu. the students should learn more words started from the things around them and then they can explore further field. They should memorize and practice a lot and how to use the word in a sentence. the teacher, flashcard media could be used as one of media in the classroom, because it easy and interesting in applying for the students. for other researchers in conducting, he similar research, they can use this study as a reference for their researches.

## REFERENCES

- Akramy, S. A., Noori, A. Q., Orfan, S. N., & Hashemi, A. (2022). Effective techniques of teaching vocabulary in Afghan EFL classrooms. *Asian-Pacific Journal of Second and Foreign Language Education*, 7(1), 1–14.
- Aslan, Y. (2011). Teaching vocabulary effectively through flashcards. *International Journal of Arts & Sciences*, 4(11), 347.
- Bahanshal, D. (2015). The effectiveness of vocabulary learning strategies on English language acquisition of the Saudi learners. *International Journal of Humanities and Social Sciences*, 1(1), 47–56.
- Chotimah, C. (2021). Flashcard as A Learning Media to Motivate Students in Learning Vocabulary. *Lingua*, 17(1), 67–75.
- Departemen Pendidikan Nasional, & Kurikulum Pusat. (2006). Model Pembelajaran Terpadu IPS. *Jakarta: Depdiknas*.
- Fachrunnisa, N., & Nuraeni, N. (2022). Speaking interaction problems among Indonesian EFL students. *ETERNAL (English, Teaching, Learning, and Research Journal)*, 8(1), 108–120.
- Farida, D., Isrina, H. D., & Apsari, Y. (2019). The implementation of flash cards to improve Students' vocabulary mastery. *Project (Professional Journal of English Education)*, 2(3), 352–357.
- Haqiqiyah, M. (2022). A Study on Teaching Vocabulary by Using Flashcards at The Fourth Grade of SDN Panglegur II Pamekasan. *Kabillab (Journal of Social Community)*, 7(1), 143–156.
- Harmon, J., & Wood, K. (2018). The vocabulary-comprehension relationship across the disciplines: Implications for instruction. *Education Sciences*, 8(3), 101.
- Lisa, H. (2019). The effectiveness of flashcards on the motivation to increase English vocabulary among the fourth elementary school. *JOALL (Journal of Applied Linguistics and Literature)*, 4(1), 43–53.
- Rahmawati, E. (2020). *The implementation of fun english teaching-learning On SDIT Alam IKM Al Muhajirin Palangka Raya*. IAIN Palangka Raya.
- Sartika, M. (2020). Increasing Third Grade's Mastery of Simple Present Tense Using Flashcards. *Journal of English Teaching*, 6(1), 40–49.
- Schmitt, N. (2007). Current perspectives on vocabulary teaching and learning. *International Handbook of English Language Teaching*, 827–841.
- Sesmilea, L., & Hidayat, N. (2020). *The Use Of Flashcard In Teaching Vocabulary To The First Grade Students Of SD Muhammadiyah 16 Surakarta*. Universitas Muhammadiyah Surakarta.
- Ying, Y., Marchelline, D., & Wijaya, G. (2021). Using technology-flashcard to encourage students learning mandarin. *Journal of Physics: Conference Series*, 1764(1), 12138. IOP Publishing.