e-Journal of ELTS (English Language Teaching Society)
p-ISSN 2338-1841, e-ISSN 2721-2157
DOI: https://doi.org/10.22487/elts.v14i02.6286

Vol. 14 No. 02, August 2026
pp. 171-179

ENHANCING GRADE VIII STUDENTS' VOCABULARY MASTERY THROUGH PICTURES: A QUASI-EXPERIMENTAL STUDY

***Mimiyanti Mimiyanti[1], Mawardin M. Said[2], Desrin Lebagi[3], Nur Sehang Thamrin[4]**
English Education Study Program, Tadulako University, Indonesia
*meyynti22@gmail.com

ABSTRACT

This study aimed to investigate the effectiveness of using pictures in developing the vocabulary mastery of Grade VIII students at SMP Negeri 1 Taopa Parigi Moutong. A quasi-experimental design was employed, involving two classes: an experimental group taught using pictures as instructional media and a control group taught through conventional methods without pictures. The population consisted of 113 Grade VIII students across four classes, and two classes were selected as the sample through cluster random sampling. Data were collected through pre-tests and post-tests consisting of multiple-choice, picture-matching, and fill-in-the-blank items. The vocabulary items tested were limited to nouns, verbs, and adjectives based on the Grade VIII Kurikulum Merdeka syllabus. Data were analyzed using descriptive statistics, normality tests (Shapiro-Wilk), homogeneity tests (Levene's Test), and an Independent Sample T-Test using SPSS version 25. The results showed that the experimental group's mean score increased significantly from 54.71 in the pre-test to 78.17 in the post-test, while the control group showed only a slight increase from 53.29 to 55.69. The Independent Sample T-Test yielded a significance value of 0.014 ($p < 0.05$), indicating a statistically significant difference between the two groups. These findings confirm that the use of pictures effectively enhances students' vocabulary mastery by providing visual associations that support comprehension and retention. Teachers are therefore encouraged to integrate picture-based media into vocabulary instruction as a practical and engaging alternative to conventional teaching methods. The findings also suggest that picture-based instruction can serve as a low-cost and easily implemented strategy for improving vocabulary learning in junior high school classrooms.

Keywords: Vocabulary development; pictures; teaching media

Article History

Received:04-06-2026

Revision:07-06-2026

Accepted: 13-06-2026

Published: 01-08-2026

How to cite: Mimiyanti, Said, M. M., Lebagi, D., & Thamrin, N. S. (2026). Enhancing Grade VIII students' vocabulary mastery through pictures: A quasi-experimental study. *e-Journal of ELTS (English Language Teaching Society)*, *14*(2), 171–179. https://doi.org/10.22487/elts.v14i02.6370

Copyright

INTRODUCTION

Vocabulary is a fundamental component of language learning because it supports learners in developing listening, speaking, reading, and writing skills. Without sufficient vocabulary mastery, students experience difficulties in understanding messages and expressing ideas effectively. Alqahtani (2015) states that vocabulary plays a central role in achieving communicative competence. Similarly, Hartini and Ardini (2024) argue that vocabulary knowledge strongly influences overall English proficiency, as it enables learners to comprehend texts and communicate meaningfully. Students who have sufficient vocabulary knowledge can express ideas more confidently and participate actively in communication activities both orally and in written form. Therefore, developing vocabulary is essential for students' academic achievement and daily communication because vocabulary becomes the foundation for improving other language skills such as speaking, reading, writing, and listening.

Vocabulary refers to the collection of words and phrases in a language and the ability to use them appropriately in context. It is a fundamental element for learners to function effectively in both their first language and a foreign language (Bavi, 2018). Vocabulary forms the foundation

for mastering English because all language skills depend on word knowledge. Without sufficient vocabulary, learners may struggle to understand or use English accurately. Therefore, vocabulary learning is a crucial step toward achieving overall language proficiency.

As a core component of language, vocabulary supports the development of listening, speaking, reading, and writing skills. A strong vocabulary enables learners to understand messages, express ideas clearly, and interact effectively in various contexts. Hartini and Ardini (2024) state that vocabulary is closely related to students' overall language proficiency and reflects their ability to use language across skills. Learners with limited vocabulary often face difficulties in communication and comprehension, which may reduce motivation and confidence. Thus, vocabulary mastery is essential for achieving communicative competence in English. Vocabulary mastery refers to the ability to understand and use words effectively, including their form, meaning, and use in context. Learners with strong vocabulary mastery can comprehend spoken and written texts more easily and express ideas with greater accuracy and fluency. Workie (2022) emphasizes that a limited vocabulary prevents learners from understanding and conveying ideas clearly. In addition, knowledge of vocabulary includes pronunciation, spelling, grammatical behavior, collocations, and connotations. Therefore, mastering vocabulary is not only about knowing word meanings but also about using words appropriately to communicate effectively.

Vocabulary plays a crucial role in language learning because it serves as the foundation for effective communication. According to Webb and Nation (2017), vocabulary knowledge encompasses multiple dimensions and cannot be reduced to merely knowing the meanings of words. Learners are required to understand different aspects of vocabulary in order to comprehend and use words appropriately in various contexts. Therefore, vocabulary learning should address three essential dimensions: form, meaning, and use. These dimensions enable learners to recognize words in their spoken and written forms, understand their meanings, and employ them accurately in communication. A comprehensive understanding of these aspects is essential for supporting both receptive and productive language skills.

Using media in teaching vocabulary is a crucial aspect of English language learning, as it helps students understand and remember new words more effectively. Media assist teachers in creating an engaging classroom atmosphere where students can connect new vocabulary with real-life contexts. By providing visual, auditory, and interactive experiences, media make learning more enjoyable and meaningful. According to Alqahtani (2015), vocabulary learning becomes more effective when learners are exposed to multiple forms of media that stimulate their senses. The use of pictures and visual media can support students in connecting words with real meanings and situations more easily. Visual learning activities also help students remember new vocabulary for a longer period of time because students receive both visual and verbal input during the learning process. In addition, the use of interesting media can increase students' attention, participation, and motivation in learning English vocabulary.

Visual media have been proven to be one of the most effective tools in helping learners remember and understand vocabulary. According to Tambunan et al. (2023), visual materials such as flashcards, posters, charts, and videos can stimulate learners' visual memory and enhance word retention. When students are exposed to visual representations, they can connect words with images, which strengthens their understanding. Visual media also make lessons more engaging by appealing to students' curiosity and attention. In addition, visual representations help students understand the meaning of words more easily and encourage active participation during classroom activities. Therefore, visual media play a significant role in making vocabulary learning more concrete, interactive, and memorable.

Digital and interactive media offer modern ways to enhance vocabulary learning in English classrooms. Alhazmi (2024) argues that platforms like Quizizz, Kahoot!, and Duolingo provide engaging activities that allow learners to practice vocabulary interactively. These digital tools give immediate feedback, allowing students to assess their progress in real time. Additionally, online media promote autonomous learning by enabling students to review and practice vocabulary independently. Thus, digital and interactive media not only develop students' motivation but also support long-term vocabulary retention. Pictures are one of the most practical and effective media for teaching vocabulary, especially at the beginner and intermediate levels. According to Primadika et al. (2024), pictures help learners associate words with visual representations, making the meaning clearer and easier to remember. Teachers can use various types of pictures, such as photographs, drawings, and flashcards, to illustrate the meaning of new

words. Pictures also encourage active participation, as students can describe, compare, or match them with corresponding vocabulary.

In vocabulary instruction, pictures play an important role in helping learners connect words with their meanings. Pribadi et al. (2024) found that the use of pictures in English language teaching improves vocabulary retention, increases learners' motivation, and promotes classroom interaction. Pictures also make abstract or unfamiliar vocabulary more concrete and easier to understand. By linking words with visual representations, students can remember vocabulary more effectively. Consequently, picture-based media provide a practical strategy for enhancing vocabulary mastery in EFL classrooms.

Supporting the effectiveness of visual media in vocabulary instruction, Astuti et al. (2022) investigated the use of flashcards to improve students' vocabulary achievement. The study revealed that students who learned vocabulary through flashcards showed significantly better performance than those taught using conventional methods. The researchers concluded that flashcards effectively enhanced students' vocabulary acquisition because they provided visual support that helped learners associate words with their meanings and retain new vocabulary more easily. Since flashcards are a form of picture-based media, these findings further suggest that visual representations can facilitate vocabulary development and improve students' learning outcomes.

Further evidence regarding the effectiveness of visual media in vocabulary instruction was provided by Budiman et al. (2025), who investigated the implementation of flashcards in teaching vocabulary. Their study revealed that the use of flashcards consistently improved students' vocabulary achievement across various educational settings. The researchers also found that flashcards increased students' motivation, facilitated vocabulary comprehension, and encouraged active participation during learning activities. Since flashcards are a form of picture-based media, these findings support the idea that visual representations can effectively assist students in developing vocabulary mastery.

In Indonesia, English language instruction under the Kurikulum Merdeka emphasizes student-centered learning and encourages teachers to implement interactive and meaningful learning media. For Grade VIII students, vocabulary development is particularly important because it helps them understand various text types and participate effectively in classroom interaction. However, many students at SMP Negeri 1 Taopa Parigi Moutong still face challenges in developing their English vocabulary. Preliminary classroom observations revealed that students frequently struggled to recall previously learned words and were often reluctant to participate in vocabulary-related activities. Furthermore, an interview with the English teacher indicated that students had limited vocabulary mastery and tended to lose interest when learning activities were dominated by memorization and textbook-based instruction. These conditions suggest the need for more engaging instructional media to support vocabulary learning.

One possible solution to these problems is the use of pictures as learning media. Pictures help students associate new words with clear visual representations, making vocabulary learning more meaningful and easier to remember. This approach is supported by the Dual Coding Theory, which suggests that combining visual and verbal information enhances comprehension and memory (Wooten and Cuevas, 2024). In line with this theory, Menggo et al. (2024) found that the use of picture-based media effectively supports students in developing vocabulary by strengthening word-meaning connections.

Several related studies have demonstrated the effectiveness of pictures in vocabulary learning. Makaruku (2021) reported that students showed significant improvement in vocabulary development after learning through picture cards. Similarly, Sakinah et al. (2022) revealed that students were more motivated and actively engaged when vocabulary learning integrated pictures and other visual media. Rafli et al. (2024) also found that the use of picture series positively influenced students' vocabulary development. These findings highlight the potential of pictures as an effective medium for teaching vocabulary.

Despite the positive findings reported in previous studies on the use of pictures for vocabulary learning, the existing literature shows several limitations. Many studies employed different research designs, such as classroom action research and experimental studies, and were conducted with participants from elementary schools or higher education institutions. While these studies generally reported improvements in students' vocabulary achievement and learning motivation, their findings cannot be directly generalized to junior high school students, who have different cognitive and linguistic characteristics. In addition, few studies have specifically

examined the effectiveness of picture-based instruction for Grade VIII students within the context of the Kurikulum Merdeka. Therefore, this study seeks to address this gap by investigating the effectiveness of using pictures to develop the vocabulary mastery of Grade VIII students at SMP Negeri 1 Taopa Parigi Moutong through a quasi-experimental design. Thi and Lan (2020) emphasize that vocabulary learning strategies should be adapted to students' educational levels and learning contexts to achieve optimal results. Therefore, the present study aims to investigate the effectiveness of using pictures in developing the vocabulary of Grade VIII students at SMP Negeri 1 Taopa Parigi Moutong, and seeks to provide evidence that pictures can significantly enhance students' vocabulary mastery in line with the principles of the Kurikulum Merdeka.

RESEARCH METHOD

This study employed a quantitative approach using a quasi-experimental design. The research involved two classes of Grade VIII students: an experimental class and a control class. The experimental class received vocabulary instruction using pictures as the primary teaching medium, while the control class was taught through conventional textbook-based methods without pictures. Both classes were administered a pre-test before the treatment and a post-test after the treatment to measure students' vocabulary achievement. The pre-test was administered to measure students' initial vocabulary mastery before the treatment. The post-test was conducted after the treatment to assess improvements in students' vocabulary mastery and learning outcomes.

The research design follows the non-equivalent control group design by Cohen et al. (2007), represented as: O1 X O2 / O3 – O4, where O1 and O3 are pre-tests for the experimental and control groups respectively, X is the treatment using pictures, and O2 and O4 are post-tests for both groups. This design was used to compare the students' vocabulary achievement before and after the treatment in both classes. Through this design, the researcher was able to identify the effectiveness of using pictures in improving students' vocabulary mastery. Furthermore, the inclusion of a control group enabled the researcher to determine whether any observed improvement was attributable to the treatment rather than to external factors. The use of pre-test and post-test measures also provided a clear basis for evaluating students' progress throughout the study.

The population of this study consisted of all Grade VIII students at SMP Negeri 1 Taopa Parigi Moutong in the academic year 2025/2026, totaling 113 students distributed across four classes (VIII A: 28 students, VIII B: 28 students, VIII C: 29 students, and VIII D: 28 students). The sample was selected using cluster random sampling, in which the existing classes served as clusters. Two classes were randomly chosen from the four available classes, with one assigned as the experimental group and the other as the control group. Cluster random sampling was considered appropriate because the students were already organized into intact classroom groups. This technique provided each class with an equal opportunity to be selected and helped reduce selection bias while maintaining the natural classroom setting. Furthermore, the selected classes were assumed to have relatively similar academic characteristics and learning conditions before the treatment was implemented, making cluster random sampling suitable for educational research involving naturally formed groups (Cohen et al., 2007).

Data were collected using vocabulary tests consisting of three item types: (1) multiple-choice questions (10 items, 20 points), (2) picture-matching questions (10 items, 30 points), and (3) fill-in-the-blank questions (10 items, 50 points), giving a total of 100 points. Both the pre-test and post-test shared the same structure but with different item arrangements to avoid memorization effects. The tests were designed to measure students' understanding of vocabulary meaning, word recognition, and the ability to use vocabulary appropriately in context. Through these test formats, the researcher was able to evaluate students' vocabulary mastery before and after the treatment.

The treatment was implemented across eight sessions in the experimental group. Each session followed a three-stage procedure consisting of presentation, practice, and production (Harmer, 1991). During the presentation stage, new vocabulary was introduced through pictures. In the practice stage, students completed matching, labelling, and fill-in-the-blank activities to reinforce word meanings. Finally, in the production stage, students used the target vocabulary in communicative activities such as describing pictures, storytelling, and role-play. Topics covered included classroom vocabulary, school facilities, and food and drinks, aligned with the Grade VIII Kurikulum Merdeka syllabus. During the learning activities, students were encouraged to

participate actively by identifying pictures, answering questions, and using new vocabulary in simple communication activities. The use of pictures helped create a more interactive and enjoyable learning atmosphere throughout the treatment sessions.

Data were analyzed using SPSS version 25. The analysis included: (1) descriptive statistics to obtain mean scores and standard deviations; (2) the Shapiro–Wilk normality test; (3) Levene's Test for homogeneity of variance; and (4) an Independent Sample T-Test for hypothesis testing. Descriptive statistics were used to describe students' vocabulary achievement before and after the treatment, while the normality and homogeneity tests were conducted to ensure that the data met the assumptions required for hypothesis testing. In addition, these preliminary tests were important for determining the suitability of the data for parametric analysis and ensuring the validity of the statistical results. The Independent Sample T-Test was then used to determine whether there was a significant difference between the experimental and control groups. This test enabled the researcher to compare the post-test performance of both groups and evaluate the effectiveness of picture-based instruction on students' vocabulary mastery. A significance level of 0.05 ($p < 0.05$) was used throughout the analysis.

RESEARCH FINDINGS AND DISCUSSION

Research Findings

In this section, the researcher presents the research findings and the results of data analysis obtained throughout the study. The research was conducted using a quasi-experimental design involving two groups: an experimental group and a control group. The experimental group received vocabulary instruction through the use of pictures, while the control group was taught using conventional teaching methods without pictures. Before the treatment was administered, both groups were given a pre-test to measure their initial vocabulary mastery. After completing the treatment sessions, a post-test was conducted to assess students' vocabulary achievement and improvement. The vocabulary test served as the primary research instrument and focused on students' mastery of nouns, verbs, and adjectives. The collected data were analyzed based on the students' pre-test and post-test scores using descriptive and inferential statistical analyses. The comparison of the results from both groups provided empirical evidence regarding the effectiveness of using pictures in developing students' vocabulary mastery.

Pre-test Result

The results show that students' vocabulary mastery before the treatment was relatively similar in both groups. The experimental group obtained a mean pre-test score of 54.71, while the control group achieved 53.29. After the implementation of pictures, the experimental group's mean score increased significantly, indicating substantial improvement in students' vocabulary learning. In contrast, the control group showed only a slight increase in performance. These findings suggest that pictures helped students understand and remember new vocabulary more effectively by providing visual support and meaningful context. Therefore, the use of pictures contributed positively to improving students' vocabulary mastery.

Post-test Result

The post-test results show that the experimental group achieved a mean score of 78.17, while the control group obtained a mean score of 55.69. The experimental group also recorded scores ranging from 70 to 88, whereas the control group's scores ranged from 50 to 62. The findings indicate that students who learned vocabulary through pictures performed better than those who received conventional instruction. The higher mean score and wider achievement range in the experimental group suggest that pictures facilitated vocabulary learning by making word meanings more concrete and easier to understand. As a result, students were able to recall and use vocabulary more effectively during the post-test, leading to better overall learning outcomes.

Normality Test

The normality test was conducted using the Shapiro–Wilk test because the sample size in each group was less than 100. The results show that the data in both the experimental and control groups were normally distributed. In the control group, the significance value was 0.723 for the pre-test and 0.757 for the post-test. Meanwhile, in the experimental group, the significance value was 0.867 for the pre-test and 0.863 for the post-test. Since all significance values were

greater than 0.05, the data met the assumption of normality. Therefore, the analysis was continued using parametric statistical tests.

Homogeneity Test

Based on the homogeneity test, the significance value in “Based on Mean” was 0.182, which is greater than 0.05 (0.182 > 0.05). This result indicates that the variance between the experimental and control group was homogeneous. Therefore, the assumption of homogeneity was met, and the data were suitable for further analysis using the independent sample T-Test. The homogeneity of variance suggests that the two groups had comparable levels of score dispersion before the treatment, so the subsequent statistical analysis could be interpreted more confidently as being related to the treatment rather than differences in group variability.

Hypothesis Testing

The Independent Sample T-Test produced a Sig. (2-tailed) value of 0.014, which is lower than the significance level of 0.05 (0.014 < 0.05). This result indicates that the null hypothesis (H_0) is rejected and the alternative hypothesis (H_1) is accepted. Thus, it can be concluded that the use of pictures has a significant effect on the vocabulary mastery of eighth grade students at SMP Negeri 1 Taopa Parigi Moutong.

Discussion

The findings of this study demonstrate that the use of pictures was effective in improving the vocabulary mastery of Grade VIII students at SMP Negeri 1 Taopa Parigi Moutong. The significant improvement shown by the experimental group indicates that pictures served as more than supplementary classroom materials. Instead, they functioned as meaningful learning resources that helped students understand, retain, and use new vocabulary more effectively. The results suggest that visual representations can support students in building a clearer understanding of word meanings and facilitate the learning process in ways that conventional instruction may not always achieve.

The effectiveness of picture-based instruction can be explained through Dual Coding Theory, developed by Paivio (1990). According to this theory, information is processed through two interconnected cognitive systems: the verbal system and the visual system. Learning becomes more effective when information is presented through both channels because learners are able to create multiple mental representations of the same concept. In the context of this study, students were exposed to vocabulary items together with corresponding pictures. This combination allowed them to connect the written form of a word with a visual image, creating a stronger association between language and meaning. As a result, students relied less on translation and understood vocabulary more directly and meaningfully.

The findings can also be interpreted through the Cognitive Theory of Multimedia Learning by Mayer (2009), which proposes that learners achieve better understanding when verbal information is presented together with relevant visual materials. According to Mayer (2009), meaningful learning occurs when learners actively select, organize, and integrate information from both words and images. In the present study, pictures supported students in processing vocabulary more effectively by providing visual context that complemented verbal input. As a result, students were able to develop a deeper understanding of word meanings and establish stronger connections between new vocabulary items and their existing knowledge.

The findings also suggest that pictures contributed to vocabulary retention. Vocabulary learning often becomes challenging when students are required to memorize unfamiliar words without meaningful context. Pictures help overcome this difficulty by providing concrete representations that make abstract or unfamiliar vocabulary easier to understand. When students encounter a word and its visual representation simultaneously, they are more likely to remember the information because it is encoded through both verbal and visual pathways. Paivio (1990) argues that information stored through dual coding has a greater chance of being retained and retrieved from memory. This theoretical perspective helps explain why students in the experimental group demonstrated better vocabulary achievement after receiving instruction through pictures.

Another important aspect highlighted by the findings is the role of pictures in creating a more engaging learning environment. Throughout the treatment sessions, students appeared more interested in classroom activities and showed greater willingness to participate in learning tasks. The presence of visual materials attracted students' attention and reduced the monotony that is often associated with vocabulary learning. Instead of focusing solely on word lists or definitions, students were able to interact with vocabulary through visual stimuli that made

learning more accessible and enjoyable. This increased engagement may have contributed to their improved performance because students who are actively involved in learning activities tend to process information more deeply and effectively.

The findings of the present study are in line with previous research on visual media in vocabulary learning. Milosavljevic and Reynolds (2024) reported that visual-based learning activities facilitated vocabulary acquisition and retention by providing learners with concrete representations of word meanings. Through visual support, learners were able to establish stronger connections between lexical items and their meanings, leading to improved vocabulary learning outcomes. Similarly, Bermillo and Remollo (2022) reported that the use of the Picture Word Inductive Model (PWIM), which utilizes pictures as the primary instructional medium, improved students' vocabulary achievement, learning attitudes, and vocabulary retention. These findings suggest that picture-based instruction can enhance learners' engagement and facilitate more effective vocabulary acquisition. The findings of the present study support these earlier studies by demonstrating that pictures can facilitate vocabulary learning through improved comprehension, stronger memory retention, and greater learner engagement. The consistency of these findings across different studies provides further evidence of the pedagogical value of visual media in language learning.

Although the findings align with previous research, several differences should be acknowledged. Earlier studies were conducted in different educational contexts, including elementary schools and higher education institutions, whereas the present study focused on junior high school students. Differences were also evident in the research designs employed. Some studies used classroom action research while the present study adopted a quasi-experimental design involving both experimental and control groups. These variations may influence the extent of learning gains reported in each study. Nevertheless, despite differences in participants, settings, and methodologies, the overall findings consistently point to the positive contribution of pictures to vocabulary learning. Such consistency strengthens the argument that picture-based instruction can be effectively implemented across a range of educational contexts.

Overall, the findings indicate that pictures function not only as visual aids but also as cognitive tools that support language learning. By combining verbal and visual information, pictures help learners develop stronger connections between words and meanings, facilitate memory retention, and encourage active participation in classroom activities. The results provide empirical support for Dual Coding Theory and reinforce the importance of incorporating visual media into vocabulary instruction. For EFL learners, particularly at the junior high school level, picture-based instruction offers a practical and effective approach to enhancing vocabulary mastery while creating a more engaging and meaningful learning experience.

CONCLUSION

The findings conclude that the use of pictures effectively improved the vocabulary mastery of Grade VIII students at SMP Negeri 1 Taopa Parigi Moutong. The Independent Sample T-Test produced a significance value of 0.014 ($p < 0.05$), indicating a significant difference between the experimental and control groups. Students who were taught using pictures achieved better vocabulary learning outcomes than those who were taught through conventional methods. Therefore, the alternative hypothesis (H1) was accepted, while the null hypothesis (H0) was rejected. These findings indicate that pictures can facilitate vocabulary learning by providing clear visual representations that help students understand and remember word meanings more effectively. In addition, the use of pictures increased students' interest, motivation, and participation during classroom activities, creating a more engaging learning environment. These findings suggest that visual support can play an important role in helping learners acquire and retain new vocabulary.

From a theoretical perspective, the findings support the view that visual media contribute to vocabulary development by strengthening the connection between words and their meanings. Pictures provide meaningful visual cues that assist learners in processing, understanding, and retaining new vocabulary. Therefore, this study adds further evidence to the growing body of research highlighting the value of visual learning in English language instruction, particularly in vocabulary teaching.

Despite these positive findings, several limitations should be acknowledged. First, the study involved a relatively small sample from a single school, which may limit the generalizability of the findings to other educational settings. Second, the treatment was conducted over a relatively short

period, making it difficult to determine the long-term effects of picture-based instruction on vocabulary retention. Third, the study focused only on vocabulary mastery and did not examine the potential impact of pictures on other language skills. Based on these limitations, future research is recommended to involve larger and more diverse samples, extend the duration of the treatment, and investigate the use of pictures in developing other aspects of English language learning, such as reading, speaking, writing, and listening skills. Such studies may provide a broader understanding of the role of visual media in supporting language learning outcomes.

REFERENCES

Alhazmi, K. (2024). The effect of multimedia on vocabulary learning and retention. *World Journal Of English Language*, *14*(6), 390–399. https://doi.org/10.5430/wjel.v14n6p390

Alqahtani, M. (2015). The importance of vocabulary in language learning and how to be taught. *International Journal of Teaching and Education*, *III*(3), 21–34. https://doi.org/10.20472/te.2015.3.3.002

Astuti, W., Said, M. M., & Erniwati, E. (2022). Using flashcards to increase students' vocabulary. *E-Journal of ELTS (English Language Teaching Society)*, *10*(2), 105–117. https://doi.org/10.22487/elts.v10i2.2483

Bavi, F. (2018). The effect of using fun activities on learning vocabulary at the elementary level. *Journal of Language Teaching and Research*, *9*(3), 629–639. https://doi.org/10.17507/jltr.0903.24

Budiman, T., Manurung, K., & Maf'ulah, M. (2025). A study on the Implementation of Flashcards in Teaching Vocabulary. *E-Journal of ELTS (English Language Teaching Society)*, *11*(3), 498–506. https://doi.org/10.22487/elts.v11i3.4401

Cohen, L., Manion, L., & Morrison, K. (2007). *Research methods in education*. Taylor & Francis. https://books.google.co.id/books?id=jK9_AgAAQBAJ

Echalico-Bermillo, J., & Roma-Remollo, E. (2022). Picture word inductive model (PWIM) on students' vocabulary achievement and attitude. In *Indonesian Journal of Contemporary Education* (Vol. 4, Number 1).

Harmer, J. (1991). *The practice of english language teaching*. Longman. https://books.google.co.id/books?id=QQ1aAAAAMAAJ

Hartini, L. W., & Ardini, S. A. (2024a). Relationship between indonesian efl learners' vocabulary knowledge and english competencies. *Journal of English and Education (JEE)*, 55–66. https://doi.org/10.20885/jee.v10i1.33651

Juliana Pribadi, R., Fadlia Chozin, N., Qurotu Aini, S., Yulianti, I., Tarihoran Faculty of Tarbiyah, an, Training, T., & Sultan Maulana Hasanuddin Banten, U. (2024). *The use of pictures and its effectiveness in english language teaching: a systematic review*. *3*(2), 1–13. http://jurnal.anfa.co.id/index.php/seroja

Makaruku, H. (2021). Improving students' vocabulary mastery through picture cards. *LingTera*, *8*(1), 12–19. https://doi.org/10.21831/lt.v8i1.15423

Mayer, R. E. (2009). *Multimedia Learning* (2nd ed.). New York, NY: Cambridge University Press. https://doi.org/10.1017/CBO9780511811678

Menggo, S., Amul, A., & Ndiung, S. (2024). Can picture dictionaries unlock vocabulary mastery? unveiling insights through quasi-experimental research. *Voices of English Language Education Society*, *8*(1), 128–138. https://doi.org/10.29408/veles.v8i1.25334

Milosavljevic, M., & Reynolds, B. L. (2024). The effectiveness of comprehension-based visual arts instruction and production-based flashcard instruction in young English language learners' vocabulary acquisition and retention. *Studies in Second Language Learning and Teaching*, *14*(2), 311–338. https://doi.org/10.14746/ssllt.30183

Paivio, A. (1990). *Mental representations: A dual coding approach*. Oxford University Press. https://books.google.co.id/books?id=hLGmKkh_4K8C

Primadika. N, S., Yuliasri, I., & Wahyuni, S. (2024). Teacher's reflection and students' perception of the use of technology to promote student engagement in english class at SMA Negeri 3 Demak Academic Year 2024/2025. *EEJ*, *14*(3), 470–481. http://journal.unnes.ac.id/sju/index.php/eej

Rafli, Syatriana, E., & Ardiana. (2024). The effect of picture series media on students' vocabulary mastery. *English Language Teaching Methodology*, *4*(2), 165–170. https://doi.org/10.56983/eltm.v4i2.332

Sakinah, N., Zulandha Melani, B., & wilian, S. (2022). The use of photovoice techniques to explore students' strategies in learning english vocabulary. *Journal of Classroom Action Research*, *6*(2). https://doi.org/10.29303/jppipa.v6i1.7732

Tambunan, R. M., Ichsanda, B., & Hz, R. (2023). P-; learning english; covid-19 pandemic. *TELL-US Journal*, *9*. https://doi.org/10.22202/tus.2023.v9i3.7882

Thi, N., & Lan, H. (2020). *Strategies to improve english vocabulary teaching a literature review* (Vol. 12, Number 2020). http://tckh.daihoctantrao.edu.vn/

Webb, S., & Nation, P. (2017). *How vocabulary is learned*. Oxford University Press.

Wooten, J. O., & Cuevas, J. A. (2024). The effects of dual coding theory on social studies vocabulary and comprehension in elementary education. *International Journal on Social and Education Sciences*, *6*(4), 673–691. https://doi.org/10.46328/ijonses.696

Workie, M. B. (2022). Strategies of vocabulary instruction in english language teaching: A literature review. *International Journal of English Literature and Culture*. https://doi.org/10.14662/IJELC2020.105