Can Picture Dictionaries Unlock Vocabulary Mastery? Unveiling Insights Through Quasi-Experimental Research

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Abstract

The current study assessed the effectiveness of employing a Picture Dictionary to enhance the vocabulary acquisition of junior high school learners. A significant improvement in vocabulary comprehension was found to have been correlated with learners taking advantage of a visual dictionary compared to those who did not use such a resource. This idea points out that visual dictionaries could be a good option for students to enhance their vocabulary acquisition efforts. This research used a quasi-experimental design and the test as the research instrument to determine the students' vocabulary mastery. In this research, the test is the research instrument to determine the student's vocabulary mastery. This research has been conducted on seventh-grade students in the academic year 2022-2023 with a total sample of sixty respondents. A random sampling technique was employed to determine the group of respondents. The experimental and control groups' average scores differ, as determined by the data analysis. By comparison, the control group attained an average score of 61.7, but the group participating in the experiment attained a mean score 80. The average scores indicate that the group participating in the experiment achieved a mean score greater than the control class.

Keywords: English; Picture dictionary, vocabulary, EFL, English language learning

INTRODUCTION

Today, English is recognized as an international language, and due to its status as such, it has grown in acceptance in Indonesia and throughout the world. English is regarded as a foreign language in Indonesia, which indicates that the Indonesian population does not utilize English as a second language. However, English remains a subject that is offered to young learners. Since English is so extensively used, students must possess a solid lexical foundation to articulate their thoughts and compose comprehensible communications. Vocabulary is crucial for students to achieve proficiency in a particular language. Vocabulary

refers to the collection of words that individuals acquire when learning a new language (Krepel et al., 2021; Lijewska & Błaszkowska, 2021).

Vocabulary plays a pivotal and indispensable role in learning a language. More vocabulary is needed to improve efficient oral and written communication and comprehension of others' communications. In line with this view (Supriya, 2020 and Susanto et al., 2020) stated that vocabulary refers to a compilation of terms someone uses to deliver information, expression, or arguments in communication. Therefore, vocabulary is the foundation for building a thought or ideas. Consequently, vocabulary plays a crucial role in language instruction. Due to insufficient vocabulary, speakers cannot express their ideas, perspectives, or notions in real interaction (Al-Ahdal & Alharbi, 2021; Reynolds et al., 2022).

To attain proficient interaction in a foreign language, English learners must accumulate and precisely employ a sufficient collection of vocabulary. An extensive vocabulary enables individuals to interact more effectively than those with little lexical knowledge. Vocabulary is crucial for students as it is the fundamental ability required to create and organize ideas into logically effective sentences. The quality of sentences significantly produced depends on the student's vocabulary level. According to

Bergström (2023) and Frances et al. (2020), acquiring a wide range of vocabulary is crucial for effectively learning and mastering a new language, as it is an essential prerequisite for engaging with unfamiliar linguistic systems.

Vocabulary should be learned since the students need to communicate with others. At the same time, the need for more vocabulary could hinder the students from speaking because they need more vocabulary. This idea is in line with what is affirmed by Bergström (2023) and Brown (2022) who emphasized that achieving proficiency in vocabulary involves a preliminary phase of passive acquisition before transitioning into proactive understanding. Vocabulary acquisition is crucial for gaining knowledge of words, comprehending their meanings, and effectively incorporating them into sentences or phrases. This idea aligns with the claim by Sun et al. (2023) and Teng and Mizumoto (2023), who reported that vocabulary is a basic skill that must be mastered; it involves much more than simply introducing unfamiliar vocabulary. Expanding one's vocabulary enables learners to better understand words and their appropriate usage within a sentence. Vocabulary refers to a person's understanding of the definitions and meanings of words.

Visual aids, such as pictures, serve as practical tools for educators to help students understand the significance and structure of language (Liando et al., 2022; Prasertsin et al., 2020). The teachers are capable of managing the challenges associated with teaching English. A picture represents reality and serves as an abstract description of an individual, location, or object. Pictures serve as a medium for interaction that visually represents individuals, settings, and objects far from the students' personal experiences. An image can give individuals more distinct ideas or data than linguistic expressions (Altakhaineh & Shahzad, 2020; Djahimo, 2018). Various forms of visuals are employed in the instruction and

acquisition of the English language. One of them is a picture dictionary. The picture dictionary is the introductory component of a comprehensive word-by-word development process. It provides diverse printed and digital resources for schooling across all grades (Kara & Kucuk, 2023; Suniyasih et al., 2020).

Some previous researchers studied picture dictionary media to improve students' vocabulary (Levushkina, 2021; Nurdini, 2018; Octaberlina & Anggarini, 2020). These previous researchers reported that visual Picture dictionaries effectively develop students' English vocabulary. Prior research has solely examined the argument that visual pictures can improve students' proficiency in English vocabulary. However, it has yet to demonstrate the possibility of picture dictionaries as a different way to address the diverse challenges students encounter in mastering English vocabulary, including pronunciation, spelling, and meaning. The existence of this gap has motivated researchers to continue the present study, which also distinguishes it from prior research findings.

Picture Dictionary is a valuable tool for teaching and enhancing students' vocabulary, encompassing pronunciation, spelling, and meaning. These three essential elements are crucial for EFL learners' English language learning. In addition, the Picture Dictionary enhances the effectiveness of acquiring vocabulary and other crucial elements in one's vocabulary. It fosters an enthusiasm for learning among younger learners in the particular scenario. This reasoning aligns with using a Picture Dictionary, an effective remedy for children struggling with acquiring a comprehensive vocabulary. This media can assist learners with enhancing their lexical proficiency. A picture dictionary is a visual depiction that serves as an abstract portrayal of an individual, location, or object. It visualizes specific concepts that should be introduced to English as a foreign language learner. Regarding using a pictorial dictionary in teaching, (Abbasi et al., 2019; Baskin & Mumcu, 2018) asserted multiple advantages of visual material, such as picture series. (1) Pictures are useful for introducing unfamiliar grammar and vocabulary concepts; (2) enable students to practice and apply the vocabulary and structures taught by the teacher in a meaningful way; (3) pictures serve as a springboard for using the language in speaking, reading, and writing activities; (4) pictures can be used for reviewing terminology and structures between courses and for permanent encouragement; (5) pictures may enhance the textbook or course materials being used by the teacher and students; and (6) pictures are simple to find, modify, create, and movement. Meanwhile, a picture or visual dictionary is a lexicon that incorporates visual representations to enhance the comprehension of words, primarily focusing on objects (Khazali et al., 2023; Sankaran & Wedel, 2020).

Considering the description and data provided, the researchers were highly focused on posing a research question: Could a Picture dictionary accelerate the achievement of vocabulary proficiency for young learners? Referring to this research question, the study's objective is to assess whether the Picture Dictionary facilitates young learners' rapid acquisition of language skills.

METHOD

The study employed a quasi-experimental research procedure, particularly utilizing a pre-test and post-test design, to assess the student's level of vocabulary learning. The researchers conducted a quasi-experiment to assess visual vocabulary's efficacy in augmenting students' vocabulary. The research focused on two classes: the experimental class and the control class. Furthermore, the experimental class was the group that received treatment through the picture dictionary technique. In contrast, the control class was instructed to utilize a non-picture dictionary technique. In addition, the study focused on a population of seventh-grade students from SMPN 5 Langke Rembong, Manggarai, East Nusa Tenggara. One hundred twenty students participated in the study, which took place from February to March 2023. The researchers selected a sample of sixty students from the population using the random sampling technique. The determination of these two classes also depends on the findings of the homogeneity test.

Furthermore, four research procedures were conducted, including a homogeneity test to determine the sample (two classes). The treatment class utilized the picture dictionary technique for four sessions, while the control class did not use any picture dictionary. The researchers administered post-tests to two classes and compared the average post-test scores between the experimental and control groups. The researchers compared the average post-test scores using a test used as the research instrument. The type of examination researchers utilize is a summative test, which is presented as a multiple-choice test that consists of twenty-five questions. The twenty-five multiple-choice questions have undergone a validation process involving English-language experts in collaboration with the school teacher and their approval.

FINDINGS

The researchers administered a pre-test to the students to assess their English learning abilities and challenges before completing the real research process. The researchers subsequently conducted the pre-test on the experimental and control groups to assess the participants' previous vocabulary proficiency. A total of sixty students participated in the test, with 30 placed in the experimental group and 30 put in the control group. The respondents' poor performance on the pre-test indicated that their vocabulary comprehension needed to be improved. Consequently, in order to address the issue, the researchers employed a picture dictionary technique. The comparison of results after various treatments in the two groups is comprehensively represented in Tables 1 and 2 below.

Table 1. Mean Score in the Pre-Test for Two Groups

Group	N	Mean	Median	Modus	Stand .Dev.	Variance	Range	Min	Max
Experimental	30	53.16	55	55	9.42	88.77	30	40	70
Control	30	52.33	52.5	55	9.71	94.36	35	35	70

Table 2. Mean Score in the Post-Test for Two Groups

Group	N	Mean	Median	Modus	Stand. Dev.	Variance	Range	Min	Max
Experimental	30	80	82.5	95	13.84	191.37	45	55	100
Control	30	61.67	65	65	12.68	160.92	45	40	85

The classical averages of the two groups above differ significantly before and after treatment. Before administering treatment in the experimental group with the Picture Dictionary, the researchers conducted a normality test and a homogeneity test. The primary aim of these two initial tests is to disprove the assumption that the average initial abilities of the respondents are comparable and that the data follows a normal distribution.

Normality testing of the experimental and control group pre-test results was done using the Shapiro-Wilk formulas. This normality test is conducted to determine whether the data is normally distributed. Based on the Kolmogorov-Smirnov and Shapiro-Wilk formulas, data is categorized as normally distributed if the significance level is greater than > 0.05. Conversely, the data is categorized as abnormally distributed if the significance level is less than < 0.05. The significance level of the Kolmogorov-Smirnov normality test on the control group pre-test results is 0.200, and the experimental group is 0.136. Meanwhile, the significance level of the Shapiro-Wilk normality test on the control group pre-test results is 0.374, and the experimental group is 0.055. The four results meet one of the criteria for normality testing using the Kolmogorov-Smirnov and Shapiro-Wilk formulas. The data is normally distributed if the significance level is more than > 0.05.

Moreover, the significance level of the Kolmogorov-Smirnov normality test on the control class post-test results is 0.157, and the experimental class is 0.036. The significance level of the Shapiro-Wilk normality test on the experimental group's post-test results is 0.278, and the control group is 0.027. The results also meet one of the criteria for normality testing using the Kolmogorov-Smirnov and Shapiro-Wilk formulas, which say that if the significance level of the normality test results is more than > 0.05, then the data is said to be normally distributed. Based on these criteria, the data obtained from the experimental and control group post-test results are normally distributed.

The t-test was performed following the normality and homogeneity tests. A prerequisite for doing a t-test is that the data have to demonstrate homogeneity. The study employed a t-test using SPSS version 24, specifically an independent sample t-test. A t-test is used to determine if there are any significant differences in English vocabulary achievement

between learners in both control and experimental groups. Furthermore, the t-test for independent samples can also address the assumption made in this study. The answer to the assumption will be elucidated in the subsequent section.

A sample of thirty pupils from the control and experimental groups was selected. According to the findings of the independent sample t-test presented in the table above, the mean scores of both the control and experimental groups are statistically different. The control group achieved a mean score of 61.67, while the experimental group achieved a mean score of 80.00. The experimental group had an improved mean score compared to the control group based on the mean scores.

Moreover, the top value obtained is 5.350. Meanwhile, the df (degree of freedom) value is 58, and the significance level (2-tailed)/p-value is 0.000. These results are smaller than < 0.05; it can be written as 0.000 < 0.05. Furthermore, these results show that it has fulfilled one of the hypotheses in this study, namely the alternative hypothesis (Ha) was accepted if p-value < by 95% significant degree of 5% (0.05); sig. 2-tailed was lower than alpha. There is a notable difference in vocabulary score achievement between pupils who were given instructions using the Picture Dictionary and those who were not.

DISCUSSION

The comprehensive assessment of data revealed a disparity in the mean scores between both control and experimental groups. The experimental group had a mean score of 80, while the control group achieved a mean score of 61.7. The results indicate that the experimental class students whom Picture Dictionary taught had better achievement than the control class whom Picture Dictionary did not teach. This Picture Dictionary technique significantly affects students' performance, especially in learning vocabulary. Experts are convinced that the Picture Dictionary positively influences enhancing students' vocabulary, fostering language proficiency, and stimulating engagement in language learning and communication (Liando et al., 2022; Sormin et al., 2022). These prior studies asserted that students might enhance their language skills, particularly their vocabulary comprehension, by utilizing the Picture Dictionary. Their claim is further substantiated by a prior study done by Baskin and Mumcu (2018), Kara and Kucuk (2023) and Levushkina (2021), who stated that a Picture Dictionary is one of the useful tools for improving students' vocabulary mastery.

The Picture Dictionary and vocabulary are designed for young Junior High School learners. This method aligns with their learning characteristics, which include color, body movement, sequence, and repetition. According to Šamo and Đurić (2021) and Supri et al. (2019), the characteristics of young learners include being actively engaged in the learning process, relying on their senses to acquire knowledge, responding to language through tangible objects, and displaying a keen interest in physical actions and practical tasks to stimulate cognitive processes. They will exhibit enthusiasm if instructed through engaging activities, have a passion for play, and acquire knowledge most effectively when

experiencing enjoyment. Thus, creating something new or doing the lesson creatively is essential to meet the student's needs. Moreover, many young learners can acquire knowledge efficiently when teachers use multimodal learning activities, encompassing auditory, visual, and kinesthetic elements in their vocabulary teaching.

From the rationales provided by experts and prior researchers, utilizing powerful media in teaching might improve student engagement and participation in learning. Besides, in doing that, the teacher should know the characteristics of their students well. In addition, in the context of Junior high school, learning English as a foreign language is challenging; the students mostly use English words only in the classroom. When teaching a foreign language, problems might develop regarding the role of the teacher as the instructor and the students as both recipients and active learners. According to Nikitina (2021), the acquisition and instruction of the English language necessitate synchronous engagement between educators and students. They further confirmed that practical instructional materials can consist of genuine encounters that empower learners to practice and utilize their target language more authentically.

In addition, pertinent research on acquiring English as a second language has expressly asserted that English, when taught as a foreign language in the classroom, does not serve a social purpose in the everyday lives of students learning English as a foreign language. It signifies that individuals acquiring knowledge or skills will find it difficult to practice the language outside the classroom since they need partners to practice it in real life (Menggo & Suastra, 2020; Pujiani et al., 2022). According to them, when teaching English, learners may occasionally reflect shyness in asking questions, lack enthusiasm for studying, and fear making mistakes. The student's need for more motivation in studying English, particularly vocabulary acquisition, is obvious.

Challenges in acquiring vocabulary are unavoidable when studying the English language. These diverse issues arise from numerous variables, including the teacher's employing appropriate and correct methods of instruction and media choices. Nevertheless, this study demonstrates that using a Picture Dictionary technique enables young learners (namely Junior High School students in the Indonesian context) to enhance and expand their understanding of the English language. The effectiveness of implementing the Picture Dictionary technique in teaching English is validated by the findings of the study undertaken by Khazali et al. (2023), Prasertsin et al. (2020) and Saleh (2023), who revealed that a visual or pictorial dictionary is highly efficient in aiding pupils' comprehension of word meanings, pronunciation, and representation in visual form. Therefore, in teaching the learning process for both classes, there are some interesting things that the researchers found, such as their English skills needing improvement. However, they were eager to learn, especially when they saw the props being given to them or being displayed. Moreover, despite their lack of knowledge of English words, they still enjoy learning, and they are always excited and curious about something new in their English learning.

Thus, the Picture Dictionary strategy impacts teaching English, especially students' vocabulary improvement (Djahimo, 2018; Hashemifardnia et al., 2018; Sormin et al., 2022). This argument supports the researchers' premise that using the Picture Dictionary technique for teaching vocabulary was effective. The technique facilitated the students' enjoyment and their English vocabulary development. Furthermore, the researchers observed that students who were given instructions using the Picture Dictionary technique had greater enthusiasm and actively engaged in classroom activities than students who were not taught using the Picture Dictionary. However, due to the study process's limitations, the manuscript cannot present and analyze the data related to the student's engagement throughout this experimental class. Undoubtedly, this note will prove to be invaluable for future studies.

CONCLUSION

The study was conducted at SMPN 5 Langke Rembong, Manggarai region, East Nusa Tenggara Province. The experimental group received instruction utilizing the Picture Dictionary, whereas the control group received instruction employing non-Picture Dictionary processes. The objective of this study is to determine the impact of utilizing a visual dictionary in the process of acquiring English vocabulary. This study addressed the problem of whether students who received instruction using a pictorial dictionary exhibited superior English vocabulary acquisition compared to students who did not get such instruction. In addition, researchers collected data from the final results of the subsequent study's pre-and post-tests. Here are the final results: First, the pupils in the group participating in the experiment, who were instructed to use a picture dictionary, achieved a much higher average score of 80, in contrast to the students in the control group who were not taught using the Picture Dictionary approach and obtained an average score of 61.7. Evidence demonstrates that the Picture Dictionary has an advantageous effect on enhancing the English vocabulary of pupils in the experimental group.

Moreover, this study analyses the effectiveness of the Picture Dictionary technique for enhancing Junior High School students' acquisition of English vocabulary. It utilizes a pre- and post-test design and assesses the advancement of learners with a summative test consisting of multiple-choice questions. It is expected that other researchers will come to study the same technique to develop other instruments and research outcomes from different perspectives, such as student perceptions, efficacy, or changes in vocabulary learning habits regarding implementing the Picture Dictionary in the learning process.

REFERENCES

Abbasi, W. T., Ahmad, M. M., & Mohammed, F. A. E. (2019). Learners' perceptions of monolingual dictionaries in learning English as a foreign language. *International Journal of Education and Literacy Studies*, *7*(3), 10–18. https://doi.org/10.7575/aiac.ijels.v.7n.3p.10

Al-Ahdal, A. A. M. H., & Alharbi, M. A. (2021). MALL in collaborative learning as a vocabulary-

enhancing tool for EFL learners: A study across two universities in Saudi Arabia. *SAGE Open*, *11*(1), 1–9. https://doi.org/10.1177/2158244021999062

Alamri, H. R., & Hakami, H. M. (2022). Exploring perspectives of EFL students on using electronic dictionaries to improve vocabulary learning: A comparative study. *International Journal of Curriculum and Instruction*, *14*(2), 1578–1599.

Altakhaineh, A. R., & Shahzad, N. M. (2020). Using pictures in teaching metaphorical expressions to Arabic-speaking EFL learners. *Asian Journal of Applied Linguistics*, *7*(1), 32–44.

Baskin, S., & Mumcu, M. (2018). Dictionary culture of university students learning English as a foreign language in Turkey. *International Education Studies*, *11*(3), 101–114. https://doi.org/10.5539/ies.v11n3p101

Bergström, D. (2023). The text comes first–principles guiding EFL materials developers' vocabulary content decisions. *Scandinavian Journal of Educational Research*, *67*(1), 154–168. https://doi.org/10.1080/00313831.2021.1990122

Brown, D. (2022). The most appropriate lexical unit for L2 vocabulary research and pedagogy: A brief review of the evidence. *Applied Linguistics*, *43*(3), 596–602. https://doi.org/10.1093/applin/amaa061

Dilman, H. (2021). Activating and applying schema theory to vocabulary teaching in foreign language learning. *Synergy II: Linguistics: Contemporary Studies on Turkish Linguistics*, 225–246.

Djahimo, S. E. P. (2018). The power of games and pictures in teaching EFL class. *Asian EFL Journal*, *20*(2), 252–261.

Familiar, L. (2021). *A Frequency dictionary of contemporary Arabic fiction: Core vocabulary for learners and material developers*. https://doi.org/10.4324/9780429490842

Fatkurohmah, U., Fitriyah, I., & Donasari, R. (2023). The effect of guessing picture application on the student's vocabulary mastery of 7th graders at SMPN 1 Plosoklaten. *JALL (Journal of Applied Linguistics and Literacy)*, *7*(2), 280–298. https://doi.org/10.25157/jall.v7i2.11461

Frances, C., De Bruin, A., & Duñabeitia, J. A. (2020). The effects of language and emotionality of stimuli on vocabulary learning. *PLoS ONE*, *15*, 1–21. https://doi.org/10.1371/journal.pone.0240252

Hashemifardnia, A., Namaziandost, E., & Rahimi E., F. (2018). The Effect of teaching picture-books on Iranian elementary EFL learners' vocabulary learning. *Journal of English Language Teaching and Linguistics*, *3*(3), 247–258. https://doi.org/10.21462/jeltl.v3i3.151

Jwair, A. A. Bin. (2023). Improving middle-school students' English vocabulary via digital storytelling. *Journal of Educational and Social Research*, *13*(6), 195–211. https://doi.org/10.36941/jesr-2023-0158

Kara, S., & Kucuk, T. (2023). The Effects of picture dictionaries in promoting vocabulary development of EFL learners at tertiary level. *Novitas-ROYAL (Research on Youth and Language)*, *17*(2), 80–94. https://doi.org/10.5281/zenodo.10015826

Katsarou, E., & Kambakis-V., P. (2020). Exploring the role of self-regulation capacity and self-esteem on vocabulary learning strategy use by Greek university learners. *Asian EFL Journal*, *27*(42), 125–151.

Khazali, N. A., Ismail, I., Sakamat, N., Zain, N. H. M., Noh, N. A. M., & Ishak, N. H. (2023). Smart

pictorial dictionary via mobile augmented reality. *Bulletin of Electrical Engineering and Informatics*, *12*(2), 1019–1028. https://doi.org/10.11591/eei.v12i2.4009

Krepel, A., De Bree, E. H., Mulder, E., Van de Ven, M., Segers, E., Verhoeven, L., & De Jong, P. F. (2021). The unique contribution of vocabulary in the reading development of English as a foreign language. *Journal of Research in Reading*, *44*(3), 453–474. https://doi.org/10.1111/1467-9817.12350

Levushkina, O. N. (2021). A vocabulary lesson as a basis for dictionary culture formation in the process of teaching the Russian language. *Russian Language at School*, *82*(5), 7–14. https://doi.org/10.30515/0131-6141-2021-82-5-7-14

Liando, N. V. F., Tatipang, D. P., Tamboto, G., Poluan, M., & Manuas, M. (2022). Pictures as a learning media in teaching vocabulary. *Jurnal Ilmiah Universitas Batanghari Jambi*, *22*(3), 1944–1949. https://doi.org/10.33087/jiubj.v22i3.2832

Lijewska, A., & Błaszkowska, H. (2021). Non-identical cognates yield facilitation in translation - Does the way foreign vocabulary is learned affect its processing? *Poznan Studies in Contemporary Linguistics*, *57*(3), 329–358. https://doi.org/10.1515/psicl-2021-0017

Menggo, S., & Suastra, I. M. (2020). Language use and language attitudes of Sumbawanese speakers in Bali. *Register Journal*, *13*(2), 333–350. https://doi.org/10.18326/rgt.v13i2.333-350

Ng, L. L., & Raghbir, R. S. A. (2021). Learning English vocabulary via computer gaming. *Issues in Language Studies*, *10*(1), 93–109. https://doi.org/10.33736/ils.2708.2021

Nikitina, T. G. (2021). An idiom (phraseological) dictionary at school and at home: Which to choose and how to use. *Russian Language at School*, *82*(5), 26–36. https://doi.org/10.30515/0131-6141-2021-82-5-26-36

Nurdini, R. A. (2018). The use of picture to improve students' speaking skill in English. *IJET (Indonesian Journal of English Teaching)*, *7*(2), 157–162. https://doi.org/10.15642/ijet2.2018.7.2.157-162

Octaberlina, L. R., & Anggarini, I. F. (2020). Teaching vocabulary through picture cards in islamic elementary school a case study in Nida Suksa school, Thailand. *Madrasah Jurnal Pendidikan Dan Pembelajaran Dasar*, *13*(1), 26–38.

Prasertsin, U., Lopprasert, A., & Wanprakob, S. (2020). Guidelines on the use of vocabulary flashcard applications to develop reading skills of children with learning disabilities. *Kasetsart Journal of Social Sciences*, *41*(3), 545–550. https://doi.org/10.34044/j.kjss.2020.41.3.14

Pujiani, T., Harsiwi, W., & Almustaflikhah, N. (2022). The use of animation video as online learning media to teach English for young learners. *Acitya: Journal of Teaching and Education*, *4*(1), 244–251. https://doi.org/10.30650/ajte.v4i1.3220

Reynolds, B. L., Xie, X., & Pham, Q. H. P. (2022). Incidental vocabulary acquisition from listening to English teacher education lectures: A case study from Macau higher education. *Frontiers in Psychology*, *13*, 1–18. https://doi.org/10.3389/fpsyg.2022.993445

Saleh, A. Y. (2023). Augmented reality as a learning media to improve vocabulary learning among preschoolers. *Lecture Notes on Data Engineering and Communications Technologies*, *179*, 64–77. https://doi.org/10.1007/978-3-031-36258-3_6

Šamo, R., & Đurić, M. S. (2021). EFL reading with young learners: The teacher's perspective.

Second Language Learning and Teaching, 313–326. https://doi.org/10.1007/978-3-030-66022-2_17

Sankaran, S., & Wedel, T. L. (2020). Information systems education motion picture industry pension plan : A database design case. *Journal of Information Systems Education*, *31*(2), 124–130.

Sherine, A., & Supriya, M. J. (2020). Promoting vocabulary learning through mall: A comparative study. *International Journal of Advanced Research in Engineering and Technology*, *11*(2), 223–230. https://doi.org/10.34218/IJARET.11.2.2020.022

Siagian, E. N. M., Muliastuti, L., & Boeriswati, E. (2023). A need analysis of the high-frequency words (HFW) dictionary for the Indonesian language for foreigners (ILF)-1 learning. *Forum for Linguistic Studies*, *5*(2), 1–12. https://doi.org/10.59400/FLS.V5I2.1694

Sormin, R. K., Rizki, F., Sari, I. P., & Susiani, S. (2022). The effect of picture teaching media to the ability of grade 7th students in English vocabulary mastery of SMP Yayasan Perguruan Keluarga (YPK) Pematangsiantar. *International Journal of English and Applied Linguistics (IJEAL)*, *2*(3), 488–495. https://doi.org/10.47709/ijeal.v2i3.1960

Sun, D., Chen, Z., & Zhu, S. (2023). What affects second language vocabulary learning? Evidence from multivariate analysis. *Frontiers in Education*, *8*, 1–12. https://doi.org/10.3389/feduc.2023.1210640

Suniyasih, N. M., Ratminingsih, N. M., & Budasi, I. G. (2020). Development of multilingual thematic picture dictionary: A support for literacy. *Jurnal Pendidikan Dan Pengajaran*, *53*(3), 1–10. https://doi.org/10.23887/jpp.v53i3.27508

Supri, I. Z., Simatupang, E. C. M., & Hendar, H. (2019). Investigating a PC-based student-made application and its implementation in young learners' classroom. *Universal Journal of Educational Research*, *7*(4), 35–42. https://doi.org/10.13189/ujer.2019.071406

Susanto, A., Oktavia, Y., Yuliani, S., Rahayu, P., Haryati, H., & Tegor, T. (2020). English lecturers' beliefs and practices in vocabulary learning. *Studies in English Language and Education*, *7*(2), 486–503. https://doi.org/10.24815/siele.v7i2.16970

Suwanasilp, D., & Durongbhandhu, N. (2023). English vocabulary with a picture application for enhancing Thai EFL students' daily English vocabulary memorization. *REFLections*, *30*(3), 712–734. https://doi.org/10.61508/refl.v30i3.268078

Teng, M. F., & Mizumoto, A. (2023). The role of spoken vocabulary knowledge in language minority students' incidental vocabulary learning from captioned television. *Australian Review of Applied Linguistics*, *46*(2), 253–278. https://doi.org/10.1075/aral.22033.ten

Tüfekçioğlu, B. (2021). Cultural vocabulary in teaching Turkish as a foreign language. *Eurasian Journal of Applied Linguistics*, *7*(1), 338–358. https://doi.org/10.32601/ejal.911449

Yang, B. L. C., Ramanair, J., & Shing, S. R. (2023). Exploring vocabulary teaching: Planning and challenges with the implementation of audio-visual approach in rural East Malaysian primary-level English language classrooms. *3L: Language, Linguistics, Literature*, *29*(4), 228–243. https://doi.org/10.17576/3L-2023-2904-15