

The Effect of Collaborative Learning Using WordUp Application on Vocabulary Mastery

 <https://doi.org/10.31004/jele.v9i4.531>

*Melati¹, Sabarun², Nurliana³ 

¹²³IAIN Palangkaraya

Corresponding Author: melatinmel90@gmail.com

ABSTRACT

Vocabulary mastery is a crucial for learning english. This research investigated the effect of collaborative learning using WordUp application on seventh-grade students' vocabulary mastery proficiency at MTs Raudhatul Jannah, Palangkaraya. Using Quasi-experimental design with a purposive sampling of 58 students divided into experimental and control groups, quantitative methods were employed. WordUp was utilized for collaborative learning in experimental class, whereas the control classes did not. The averages pretest scores of the experimental class was 66.21, compared to 57.12 in the control group. After given treatment, the average scores of the experimental class increased to 77.12, whereas it was 67.52 in the control class. Statistical analysis using SPSS and t-test confirmed a significant increase in vocabulary mastery in the experimental group, supporting the alternative hypothesis (Ha). Hence, collaborative learning with the WordUp application has significant effects on the vocabulary mastery of seventh-grade students at MTs Raudhatul Jannah Palangkaraya.

Keywords: *Collaborative Learning, The Effect, Vocabulary Mastery, WordUp Application*

Article History:

Received 26th June 2024

Accepted 03rd August 2024

Published 15th August 2024



INTRODUCTION

Vocabulary plays an important role as a basic element in language. Every language depends on its words, which function as representations or symbols of our thoughts. Effective communication depends on vocabulary, as it provides content to convey ideas. In addition, vocabulary is important in developing competence across English foreign language skills there is: Speaking, Reading, Listening, and Writing. The collection of words one uses to communicate is known as one's vocabulary, and it is one of importance aspects in learning English. The most fundamental skill a learner of English has to have is vocabulary mastery. (Nini Sarmila, 2022) Nothing can be communicated without language, and very little can be communicated without grammar. The following is what David Wilkins said about the value of learning vocabulary. Grammar can only convey a very limited amount of information, whereas language can convey nearly anything. In communication, vocabulary is very important in the process of conveying and receiving information in the community.

"The words that we should know to communicate effectively that is; words in Listening (receptive expressive vocabulary) and Speaking (expressive vocabulary)" is the definition vocabulary. In general, vocabulary refers to a term about a new word that we teach in a foreign language to students. For instance, the terms "post office" or "mother-in-law" is consist two or more, that together convey a singularity notion. (Syafrizal, 2018) Being able to measure someone's vocabulary is one way to determine if they are a good language learner or not. Next, vocabulary instruction has to focus on communication effectiveness. Learners ought to be able

to communicate clearly while making the most of their existing level of competence. Their goal should be to prevent misunderstandings caused by their command of the language. (Nur Azmi Rohimajaya, 2018)

Language plays a crucial role in communication. English is now widely spoken all over the world as a universal language. Ton & Pham (2010) found that English is widely used as an international language for communicating with people from various languages around the world. Therefore, everyone's ability to communicate in English is crucial. According to Jumiarti (2010), a critical part of learning English foreign language is learning vocabulary. If students learn more foreign language words and phrases, their progress will be significantly enhanced. Regardless of whether understudies' sentence structure is brilliant, they experience issues in speak with English without a vast vocabulary. (Matra, 2020) with mastering vocabulary, peoples will capable to expressing their ideas and understand what others peoples are saying. (Raudhatul Hasanah, 2022)

According to the English teacher at MTs Raudhatul Jannah Palangkaraya, class VII students have a low vocabulary. This is proven based on the test results in their English subjects, where students struggle to understand the meaning of common words during learning activities and doing assignments. Another factor is the lack of learning the media provided by the teacher so that the learning activity feels monotonous which results in less student interest in learning English. It was found that many students lacked vocabulary.

Researchers use collaborative learning methods, which are able to increase students' ability to interact with their friends in class and groups compared to studying in general or individually. In this collaborative learning, students are required to be active in exploring information related to the learning topics in their respective groups. Students are not only required to be active in collaborative learning, but they will also be given responsibility for their respective study groups. The objective of using this cooperative learning strategy is to help students' become more proficient in English vocabulary. (Sekarinasih, 2022) Researchers also use an application to help students learn more easily. Researchers use the WordUp application which is an application equipped with Artificial Intelligence (AI). WordUp is a sophisticated application equipped with AI (Artificial Intelligence) which can make student learning activities easier. The ability of machines or computer programs to mimic or carry out activities that typically call for human intelligence, such as decision-making, speech or image recognition, and problem-solving, is known as artificial intelligence (AI). (Fadli Agus Triansyah, 2023) for Examples of current artificial intelligence applications that include recommendation algorithms, smart assistants, and translation of languages and others (Arnanda-Munoz, 2022)

The collaborative learning (CL) approach is student-centered, permitting the students to shape their learning through a meaningful group process rather than simply looking, listening, and copying notes. (Nerona, 2019) Working together in a group is an effective way to practice and master discourse skills. When working in a group, students are not only involved in completing the assigned tasks, which they can also do individually, but they also have the opportunity to participate in face-to-face dialogue. This process is essential for their development as social beings, as it allows them to acquire important communication skills such as negotiation, inference, qualification, clarification, hypothesis, proposal, generalization and refutation. (Long & Porter, 1985). (Ariffin, 2021). collaborative learning is generally seeing as an effectives tool on students learning (Swain,1997,2000). (Masoumeh Kouhsarian, 2023).

WordUp is a groundbreaking mobile application designed to improve English vocabulary through innovative methods and cutting-edge technology. Unlike other language learning apps, its main purpose to combine inventive concepts with the latest digital tools to help global users overcome language barriers. Created with a philanthropic vision, this

application aims to help individuals in improving both productive and receptive English vocabulary without any financial obligation, offering a modern and inventive approach. An important feature of Word Up is the unique ranking of English words based on their utility, achieved through Computer Aided Corpus Analysis. This ensures users optimize their learning efforts by focusing on the most beneficial words. Additionally, the app analyzes a large amount of diverse content-such as movies, newspaper articles, songs, stories, TV shows, and quotes from famous figures-to provide users with interesting and practical examples of each word. Central to its mission is contextual learning, where users understand to use words in every situation, and also in their real life while enjoying the learning journey. (Maenza, 2020)

The researcher used the WordUp application, in teaching vocabulary; the steps to use a WordUp application that is: First, the students are instructed by the researcher to install the WordUp application. Then, at that point, the scientist acquaints the WordUp Application with them, making sense of how it can assist with working on their vocabulary. Second, the researcher invites the students to use the WordUp app to learn vocabulary. the researcher divides the students into several groups. To make learning vocabulary easier, the researcher provides clues for themes like sociality, history, or birthday parties. The researcher then instructs the students to look up words in texts that contain various aspects of vocabulary. The researcher then uses the WordUp application to explain the words. After that, the researcher randomly asks each group questions about the new vocabulary and its meanings. The researcher then evaluates the students' progress. Lastly, researchers gave 30 multiple-choice questions. The test covers nouns, verbs, adjectives, and adverbs. As for the implementation, it will take the students' 60 minutes to answer to 30 questions. The test's implementation system is as follows: first, it is a paper-based multiple-choice test with 30 questions written on a piece of paper. secondly, all students are expected to answer all the multiple-choice questions that have been given without leaving any blanks. After completing the 60-minute test, all students are expected to submit their test results to the teacher for assessment.

In the WordUp application you can learn many things, for example in (Figure 1.a) is an example of self-introduction, from asking who is the name and in (Figure 1.b) is how to answer self-introduction. (Figure 2) is learning how to ask someone where they are from and how to answer. Meanwhile (Figure 3) is an exercise provided by the WordUp Application to test students' learning outcomes and understanding of related learning. Can be seen in figure 3, there are two test. in (figure 3.c) is a test instructed to compose a sentence, (Figure 3.d) is instructed to speaking or pronunciation practice.

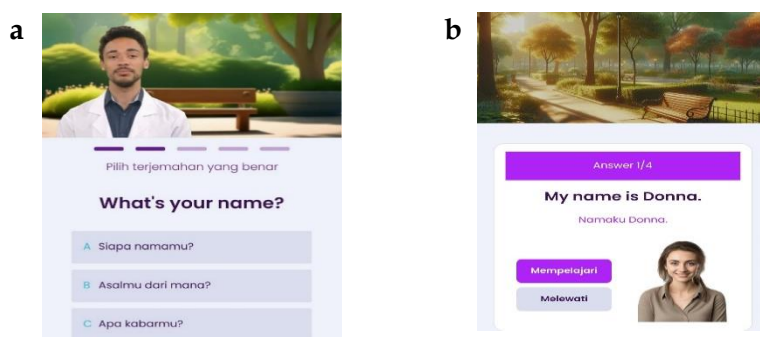


Figure 1. Display about Self-Introduction from WordUp Application

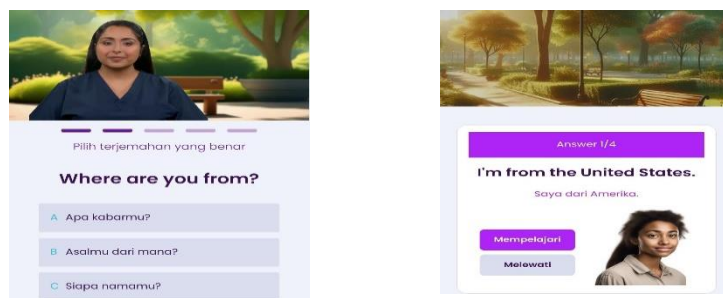


Figure 2. Display about How to ask someone from inn WordUp Application

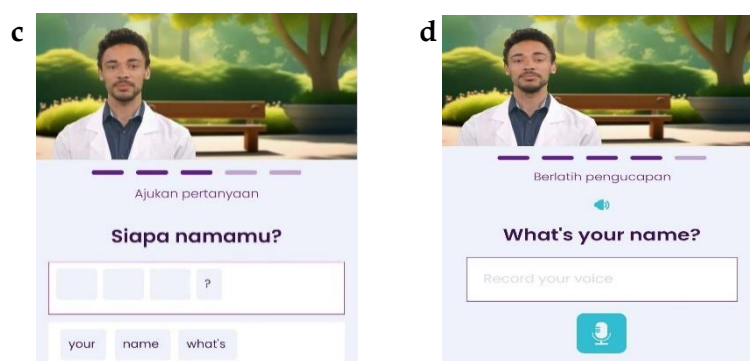


Figure 3. Test of compile and speaking or pronunciation practice

Many researchers have studied collaborative learning, each in a different field, and, of course, each research has its advantages and disadvantages. They either aimed to improve certain aspects or sought new insights. In addition, the study focused on how students' vocabulary mastery, get the effect of collaborative learning with using WordUp app. the result of collaborative learning using WordUp application gives an effect on students' vocabulary mastery, the issue that had not been thoroughly investigated by previous researchers. Particularly in this article, the researcher utilized the WordUp Application as media for continuous collaborative learning.

Previous studies have underscored the effectiveness of collaborative learning in improving vocabulary mastery. (Alharbi, 2021) emphasized the suitability of collaborative learning for students. (Ariffin, 2021) stated that using collaborative learning methods was an effective technique for working on vocabulary due to the interactions that occurred through discussions. (Nerona, 2019) stated that the use of collaborative learning on students had positive effects on students perform. Meanwhile, (Melda Nofri Yanti Sinaga, 2024) and (Masoumeh Kouhsarian, 2023) explained the positive effects of collaborative learning on vocabulary mastery and student engagement.

In conclusion, collaborative learning methods significantly give an effective on vocabulary acquisition in English language learning. An interview with a class VII English teacher at MTs Raudhatul Jannah Palangkaraya revealed that learning resources are underutilized and students' vocabulary mastery is insufficient. To overcome this challenge, researchers have devised a strategy using collaborative learning methods using the WordUp application downloaded on students' smartphones, which aims to strengthen vocabulary acquisition and encourage increased engagement.

The rationale for researching the effectiveness of collaborative learning using the WordUp application in improving students' vocabulary mastery stems from the gaps identified in the literature and the difference between the theoretical framework and practical implementation in vocabulary teaching. Even though mastering vocabulary is crucial, particularly when learning English, there aren't many thorough studies that look at creative ways to address students' disinterest and lack of proficiency in this area. In addition, although previous research has highlighted the benefits of collaborative learning methods, the emergence of digital platforms such as the WordUp application provides an opportunity to overcome existing limitations and increase the effectiveness of this pedagogical tool. By leveraging the WordUp app's easy-to-use interface and rich features, teachers can use the WordUp app in visually engaging and interactive ways that resonate with today's students, revitalizing vocabulary instruction and encouraging greater engagement and retention among student.

METHOD

The method was quantitative research was used in this research to investigate the effects of collaborative learning with the WordUp application on students' vocabulary mastery. Jack R. Frankle, & Norman E. Wallen (1993: p.271) and Creswell (2011: p.313) stated that "Quasi-Experimental design did not included the used of random assignment. Researchers who employed these designs relied instead on other techniques to controlled (or at least reduce) threats to internal validity. (Asmi Naziatul Nuryaningsih, 2024) Creswell (2014) stated, "*research methods involve the form of data collection, analysis, and interpretation that research proposes for the study*" (Sugiyono, 2019) The research design used was The Non-equivalent. However, samples was not taken randomly, either for the experimental class or for the controlled classes.

Respondents

This research was conducted starting in May 2024 at the MTs Raudhatul Jannah Palangkaraya. The populace in this research was seventh-grades at MTs Raudhatul Jannah Palangkaraya with total 118 students, and classes VIIB and VIID as sample research. The total number of students in classes VIIB and VIID are 58 students. The researcher took this sample using the *purposive sampling* method. The *purposive sampling* is method of taking that based on certain considerations and objectives and criteria from the researcher. As for the reason for choosing this sampling technique, is that the sample was not chosen randomly according to research.

Samples

The present research selected the samples by using *purposive sampling*, which is a non-randomly sampling method wherein researcher deliberately select the participant or elements based on specific identities relevant to the research objective. (Lenaini, 2021) Creswell (2012) state that sample is subset of the populace that represent the entire populace. According to Sugiyono (2010), purposive sampling is a method to ensure research illustration with parts certain considerations the aim is to provide information you will get it later more representative. (Lenaini, 2021) samples were students' of MTs Raudhatul Jannah Plangkaraya, consisting of 58 students from the even semester. They consisted of 33 male and 25 female students.

Instruments

A test with a *pretest* and *posttest* consisting multiple-choice questions was used. The analyst has made numerous of questions that relates of English education subjects to quantify understudies' vocabulary levels. Students on the experimental and control classes were asked to answer 30 multiple-choice questions. They will be required to take two tests: *pretest posttest* for experimental and control classes. *Posttest* given for experimental class, after the

experimental class has received treatment. The objective of this test is to determine whether or not the student got significant effects as a result of using the collaborative learning method. After the test done to determine the remarkable difference in the students of vocabulary understudies.

Procedures

This research aims to know the effects of collaborative learning used WordUp application on students' vocabulary, especially in experiment class. The method of collecting research data is by giving forward vocabulary tests for the students in multiple choice. This applies to experimental class and control classes, and a test is given to find out students vocabulary knowledge before being given a treatment. In (week 1) The researcher made observations in class VII to see how the English teacher taught and what kind of responses the students gave during the learning process. After conducting class observations, the researcher can determine which class will be an experiment class and control classes. After determining the class, the researcher divided the class into a control class and experimental classes. then, the researcher gave a *pretest* (2nd week). the test assigns students to multiple choice. The test given to students in the form of 30 multiple-choice questions regarding vocabulary that contain nouns, verbs, adjectives, and adverbs. Then gives the treatment in class experiment used mobile application media, namely the WordUp application (weeks 3-9). And in (weeks 10) the students' would be given the *posttest*. Here the researcher provides treatment in an experimental class with WordUp application as media to help students on their vocabulary mastery. The meeting was held in five meetings.

Data analysis

In *pretest-posttest* scores of experimental class and control classes was looked at utilizing the t-test as a factual instrument for examination. Prior to directing the examination, the analysts performed checks for normality and homogeneity utilizing the Kolmogorov-Smirnov test in SPSS Adaptation 26. A normality test if the score greater than 0.05 was required to guarantee that the data adhered to the normal distribution assumption. But then, if the scores less than 0.05 indicated that, the data has declared not normally distributed.

The steps for calculating t-test data are as follows:

First, open SPSS version 26 software. Second, input the data ensuring the variable names are written in the Variable View section. Then, input the data in the Data View section. Once completed, proceed to click Analyze > Descriptive Statistics > Frequencies. Third, enter dependent data to the Dependent List section and then, the other data into the Factor List section. Fourth, click Plots then, checklist Normality plots with test and Power Estimation. Then, click Continuous and then OK. Next, test homogeneity. Start by opening SPSS Version 26 software. Enter the data after making sure the variable name is recorded in the Variable View section and enter the data in the Data View section. When you're done, click Descriptive > Statistical Analysis > Frequency. Thirdly, enter the dependent data into the Dependents List section and other data into the Factors List section. Fourth, clicks Plot and check the Power Estimate. click Continuous then OK. The final test is the t-test, which determines if there is a discernible difference between two classes. This study employed the independent sample T-test. If the data show Sig.(2-tailed) more than 0.05, the null hypothesis is accepted. Below are the procedures for conducting the Independent Sample T test:

To begin, open SPSS Version 26 software. Before inputting the data, ensure the variable to be analyzed is properly named in the Variable View section. Once this is done, input the data into the Data View section. After completing these steps, proceed by click Analyze > Compare Means > Independent Samples T Test. Open the box corresponding to the variable name in the Independent Samples T test dialogue. Use the arrow to move the variable to the List Variables box, then specify another variable name in the (Grouping Variable-Define Groups box). click Continuous, then Ok to proceed with the analysis.

FINDINGS AND DISCUSSION

This research is carried out individually, and using the WordUp application is not difficult to implement. There are several steps involved in its use. First, the researcher instructed the students to download the WordUp application to their cell phones/smartphones. Second, the researcher provided instructions on how to navigate and use the WordUp application. Using WordUp application is very easy and doesn't take up too much internet quota. This application has a fairly standard capacity for use on cellphone/smartphones, and of course the WordUp application is equipped with Artificial Intelligence, which can help users to learn more excitingly. How to use it is very simple, just download the application, log-in using e-mail or via Google, choose your English level, set the right time when you want to learn vocabulary in everywhere dan anytime and don't forget to choose what you want to learn such as writing, speaking, listening, and also pronunciation. Third, the students were divided into two groups because the researcher used a collaborative learning method, and each group was given materials corresponding to those found in the application. Fourth, students answer questions related to the material learned in the application, choosing random words to form sentences based on the examples provided. In addition, students engage in pronunciation exercises to improve the retention of learned words.

Table 1 below is the result of students statistical scores for experimental and control classes:

Table 1. The Statistics of Experimental Class and Control Classes

		Pretest Experimental	Posttest Experimental	Pretest Control	Posttest Control
N	Valid	33	33	25	25
	Missing	0	0	8	8
Mean		66.21	77.12	57.12	67.52
Std. Error of Mean		.55	.44	1.10	.75
Median		66.00	78.00	57.00	68.00
Mode		66 ^a	78	55	70
Std. Deviation		3.17	2.55	5.51	3.8
Variance		10.05	6.49	30.4	14.1
Range		12	11	26	13
Minimum		60	70	40	60
Maximum		72	81	66	73
Sum		2185	2545	1428	1688

The data presented above illustrate the performance of experimental and control classes. In experiment class, the average *pretest* scores were 66.21. The *pretest* score ranged from a minimum of 60 to a maximum of 72. Following the implementation of collaborative learning through the WordUp application, the average *posttest* score increased to 77.12, with the lowest and the highest scores being 70 and 81 respectively.

In contrast, the control class started with an average *pretest* score of 57.12, ranging from 40 to 66. In contrast to the experimental class, the control group didn't receive any specific learning treatment beyond the traditional methods outlined in the teacher's handbook. Therefore, the average *posttest* scores for the control group were 67.52, with individual scores ranging from 60 to 73.

Table 2. Normality Test

	Class	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistics	df	Sig.	Statistics	df	Sig.
Result	Pre-test experimental	.11	33	.20	.96	33	.23
	Post-test experimental	.15	33	.06	.93	33	.05
	Pre-test Control	.15	25	.15	.92	25	.06
	Post-test Control	.23	25	.002	.91	25	.034

Based on table 2, shows that experimental class and control classes of the data for *pretest* and *posttest* was declared to be normally distributed. This can be seen from the Kolmogorov-Smirnov^a and Shapiro-Wilk sig > 0.05.

Table 3. Test of Homogeneity of Variance

Result		Levene Statistic	df1	df2	Sig.
	Based on Mean	4.2	3	112	.008
	Based on Median	3.9	3	112	.011
	Based on Median and with adjusted df	3.9	3	76.43	.012
	Based on trimmed mean	4.2	3	112	.007

Table 3, shows that the sig. value based on Mean is .008 which is more than 0.05, so it can concludes that the classes of the data is homogeneous. After obtaining the normality data and homogeneity data, the researcher used the Independent Sample t-test to test the hypothesis. The independent sample t test results can be seeing on the tables below:

Tabel 4. Independent Sample T test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Hasi I_bel ajar	Equal variances assumed	6.9	.011	11.6	56	.000	9.60	.83	7.94	11.3
	Equal variances not assumed			11.01	40.00	.000	9.60	.83	7.84	11.4

Table 4 indicates that the *posttest* sample yielded a *p-value* or Sig.(2-tailed) of .000. This indicates that the results rejected the null hypothesis and accepted the alternative hypothesis because the p-value (.000) is less than 0.05. specifically, there is a significant impact of collaborative learning on students' vocabulary mastery. Collaborative learning is not merely an ordinary method; using this approach encourages students can be more active in asking

questions, discussing, and experiencing an engaging learning process, potentially enhancing their English vocabulary knowledge. The students will be divided into two classes that is: experiment class and control classes. The data collection utilized a test as a research instrument, comprising both *pretests* and *posttests* on vocabulary (Nouns, Verbs, Adjectives, and Adverbs) administered to both groups. The experimental class initially have a low average *pretest* scores of 66.21. However, after implementing collaborative learning method and conducting the *posttest*, their average score increased significantly to 77.12. This improvement suggests that the experimental class benefitted from collaborative learning intervention, surpassing the shows of the class control. Specifically, the control class had an average of *pretest* score of 57.12 and an average *posttest* score of 67.52. This comparison underscores the effectiveness of collaborative learning in the students' vocabulary mastery compared to traditional instructional methods.

DISCUSSION

This research was conducted to solve to a problem in the field. where students at MTs Raudhatul Jannah have difficulty understanding English lessons, not only that, they also have difficulty knowing the meaning of words from basic vocabulary. Researchers found this problem based on their learning results, which were not appropriate or did not reach the Kkm score at school. Therefore, researchers began to observe further what causes students' difficulties in understanding English lessons. After the researcher asked the English teacher who was responsible for teaching students at MTs Raudhatul Jannah Palangkaraya, the researcher could conclude that the difficulties experienced by the students were because the students had difficulty focusing on learning activities, this was because the learning activities were too monotonous. This is where researchers take this problem so that it can be studied further. In this research the researcher using collaborative learning method and WordUp application as the media to help the students' on vocabulary mastery.

The outcomes of this research were in line with the previous study conducted by (Rahmi Putri, 2020), which confirmed that the collaborative learning method was an effective method for students to use. (Alharbi, 2021) stated that the use of collaborative learning methods made it easier for students to improve their vocabulary mastery. This was in line with this study because of the significant differences in student scores after they were taught using the collaborative learning method with the WordUp application. This meant that students could identify and remember vocabulary well. Meanwhile (Ariffin, 2021), (Masoumeh Kouhsarian, 2023), and (Melda Nofri Yanti Sinaga, 2024), explained the positive effect of using collaborative learning methods on vocabulary mastery and student engagement, which was in line with this study. Collaborative learning methods could have a positive effect on student vocabulary mastery, as evidenced by the results of the *posttest* administered students taught using collaborative learning methods with the WordUp application. Based on research findings, students showed improved English learning outcomes, as evidenced by higher grades.

CONCLUSIONS

Collaborative Learning was found to be positively correlated with students' vocabulary mastery, effectively helping in improve their English vocabulary. This effectiveness has been further enhanced by incorporating the WordUp application as the media, which facilitates learning for students. The WordUp application, equipped with Artificial Intelligence (AI), allows students to learn new vocabulary, practice pronunciation, and improve writing skills according to the topics provided in the application. The effectiveness of this method was demonstrated by learning the outcomes of the experimental classes, where students achieved an average *pretest* score of 66.21 and a *posttest* score of 77.12 after treatment, thus supporting the acceptance of the alternative hypothesis (Ha). To underscore the significance of the

Collaborative Learning method using the WordUp application in enhancing students' English vocabulary mastery.

ACKNOWLEDGMENTS

I would like to thank all the teachers and students who had helped and cooperated with me. The progress and success of my research depend heavily on effective collaboration between research teams and schools. Ideally, this joint effort would continue to accomplish better accomplishments later on. Much obliged to you for all the help, offices and open doors given to me during the exploration interaction. I have high hopes that MTs Raudhatul Jannah Palangkaraya will continue to be a school that is dedicated to providing high-quality education to the generations that will come after us in this country.

REFERENCES

- Alharbi, A. A.-H. (2021). MALL in Collaborative Learning as a Vocabulary-Enhancing Tool for EFL Learners: A Study Across Two Universities in Saudi Arabia. *Sage Journal*, 1-9. doi:10.1177/2158244021999062
- Ariffin, A. (2021). Effects of Student Collaborative on ESL Learners' Vocabulary Development. *Asian Journal of University Education (AJUE)*, 17, 179. Retrieved from <https://doi.org/10.24191/ajue.v17i1.12627>
- Arnanda-Munoz, F. U. (2022). Co-Designing with AI in Sight. *Cambridge Journal Design*, 101. doi:10.1017/pds.2022.11
- Asmi Naziatul Nuryaningsih, A. A. (2024). Pengaruh Media Pembelajaran Game Genially Dalam Meningkatkan Sikap Nasionalisme di Era Global pada Generasi Digital Native. *Journal on Education*, 5. doi:<https://doi.org/10.31004/joe.v6i4.6188>
- Fadli Agus Triansyah, I. M. (2023). Bibliometric Analysis: Artificial Intelligence (AI) In High School Education. *Jurnal Ilmiah Pendidikan dan Pembelajaran*, 7(1), 112. doi:10.23887/jipp.v7i1.59718
- Lenaini, I. (2021). Teknik Pengambilan Sampel Purposive dan Snowball Sampling. *Jurnal Kajian, Penelitian, dan Pengembangan Pendidikan Sejarah*, 6, 34. doi:10.31764/historis.vXiY.4075
- Masoumeh Kouhsarian, B. G. (2023). How Collaborative Learning Impacts Motivation and Vocabulary Learning: The Case of Iranian High School Learners. *Research in English Language Pedagogy*, 138-150. doi:10.30486/RELP.2023.1979883.1438
- Matra, S. D. (2020). Duolingo Application as Vocabulary Learning Tools. *Journal of English Literature, Linguistic, and Education*, 46-47. doi:10.31941/jele.v1i1.1185
- Melda Nofri Yanti Sinaga, D. C. (2024). The Use of Collaborative Method through Jeopardy Games to Enhance Learners' Vocabulary Knowledge. *Journal of Language and Literature Studies*, 149. doi:10.36312/jolls.v4i1.1808
- Nerona, G. G. (2019). Effect of Collaborative Learning Strategies on Student Achievement in Various Engineering Courses. *International Journal of Engineering Education (IJEE)*, 1, 116. doi:<http://dx.doi.org/10.14710/ijee.1.2.114-121>
- Nini Sarmila, A. M. (2022). The Effectiveness of Electronic Dictionary In Learning Vocabulary at Indonesian Junior High School Context. *International Journal of Research on English Teaching and Applied Linguistics*, 3, 40. doi:10.30863/ijretal.v3i2.3903

- Nur Azmi Rohimajaya, D. Z. (2018). The Effect of Using Short Story Toward Students' Achievement In Vocabulary Mastery. *MENDIDIK:Jurnal Kajian Pendidikan dan Pengajaran*, 4, 133-134. doi:10.30653/003.2018.54
- Rahmi Putri, M. a. (2020). The Effect of Collaborative Learning Tecnique on Students' Reading Comprehension. *Atlantis Press*, 463, 166. doi:10.2991/assehr.k.200819.031
- Raudhatul Hasanah, I. E. (2022). The Effect of Guesing Game on Students' Vocabulary Knowledge. *Journal of English Language Education*, 46. doi:10.31004/jele.v7i1.204
- Sabarun, U. W. (2023). Exploring the Effectiveness of Grapic Organizers on EFL Learners' Writing Performance Across Different Learning Style Preference anad Gender at Higher Education. *Journal of Higher Education Theory and Practice*, 1-14. doi:https://doi.org/10.33423/jhetp.v23i16.6463
- Sabarun, U. W. (2023). Measuring the Effect of Learning Style Preference on Learners' Argumentative Essay Writing Across Different Writing Strategies. *Journal of Higher Education Theory and Practice*, 1-15. doi:https://doi.org/10.33423/jhetp.v23i5.5935
- Sabarun, U. W. (2024). The Correlation Between Different Interventions in Writing Strategy and Self-Confidence in Constructing Argumentative Essays at Higher Education Level. *Journal of Higher Education Theory and Practice*, 1-14. doi:https://doi.org/10.24191/ajue.v.20i1.26029
- Sekarinasih, A. (2022). Implementasi Metode Collaborative Learning untuk Meningkatkan Keterampilan Interpersonal Mahasiswa. *Quality Journal Of Empirical Research In Islamic Education*, 4. doi:10.21043/quality.v1i1.13830
- Sugiyono. (2019). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. (Sutopo, Ed.) Bandung: Alfabeta. Retrieved from www.cvalfabeta.com
- Syafrizal, H. (2018). The Implementation of Vocabulary Building Strategy in Teaching English Vocabulary to Young Learners. *Journal of English Language Teaching*, 5, 41-42. doi:10.33394/jo-elt.v5i1.2296