

Improving Elementary School Students' Vocabulary Mastery Using Wordwall Game

Maya Safitri^{a,1,*}, Hafizhatu Nadia^{b,2}, Noor Aida Aflahah^{c,3}

^{a,b,c}Universitas Muhammadiyah Banjarmasin, Jl. Gubernur Syarkawi (Lingkar Utara), Barito Kuala 70582, Indonesia
¹mayasafitri169@gmail.com; ²hafizhatunadia@umbjm.ac.id; ³nooraida_aflahah@umbjm.ac.id

ARTICLE INFO

Article history:

Received: 13/2/2025

Revised: 3/7/2025

Accepted: 4/7/2025

Keywords:

Elementary School Students;

Vocabulary Mastery;

Wordwall Game;

ABSTRACT

Wordwall, are effective resources for English teachers to improve vocabulary acquisition in EFL classrooms. However, However, limited research has been conducted to explore the effectiveness of Wordwall in enhancing English vocabulary acquisition. This study attempted to increase the vocabulary mastery of elementary school students in terms of both vocabulary knowledge and pronunciation through the use of Wordwall game. Students in the fourth grade at an elementary school in Banjarmasin participated in the research. This study included 29 students as its subjects. This study was a two cycle Classroom Action Research (CAR) in collaborative with the English teacher. Four research processes were conducted in each cycle: planning, acting, observing, and reflecting. The research's instruments were field notes, which were examined by qualitative and students' test results which were examined by quantitative. The results proved that Wordwall game engagement improved students' vocabulary mastery. It revealed how students' pre and post-test results had improved. Students' mean scores on the pre-test were 45,17 for pronunciation and 58,10 for vocabulary knowledge. Students' mean scores on the post-test were 74,1 for pronunciation and 83,8 for vocabulary knowledge. The results of this study also shown how other strategies, such as using pictures and small group discussion might enhance the efficiency of the learning process. The authors recommended doing more research on the usage of Wordwall game to improve students' English proficiency in addition to their vocabulary mastery. By implementing Wordwall game, the author can also discover additional techniques and classroom management that could optimize students' learning outcomes.

I. Introduction

The function of language, as one of the important components in communication, is expressing people's thoughts, ideas, and feelings. Due to globalization, people must communicate with each other in a variety of situations, and English is the primary language used for this (1). English is widely accepted throughout the world as evidenced by its ability to link individuals from east to west as well as from north to south in almost all fields including trade, commerce, engineering, technology, science, education, scientific research, tourism, advertising, film industry, business, and diplomacy (2). The widespread use of English in communication has greatly increased interaction worldwide.

In Indonesia, English has become a required subject since elementary school and several primary schools have started teaching English to their students. Students in primary and elementary school are described as young learners (3). Young learners are students between the ages of six and twelve years old (4). The authors came to an understanding that the young learners in this study were students who studied English in primary and elementary schools and ranged in age from six to twelve. Since the children are still in their golden age era, teaching them English is crucial (5). Young learners still have a good memory and it is the right time to teach them a new language.

Young learners have different characteristics from mature learners. Young learners can quickly receive and learn new information (6). Young learners are difficult to handle and get bored easily, so teachers cannot do a long activity (7). Young learners love to learn simply and imagine the actual condition (8). At this moment, young learners usually learn simple vocabulary about things around them and their daily activities. English teachers should consider all those young learners'

characteristics as the basis for creating lesson plans, deciding on learning methods, and managing the class environment.

Teaching English, especially for young learners from a country where English is not the first language, should be step by step, starting with the basic skills; enriching vocabulary. Vocabulary is the basic knowledge of English that is needed for oral and verbal communication (9). Vocabulary is a skill that influences students' English ability (10). Vocabulary is the fundamental knowledge that has to be mastered by students as the basis for all English skills which are speaking, listening, and writing (11). Vocabulary is one of the most essential components in English teaching and learning process (12). Thus, vocabulary mastery is a basic of fundamental knowledge that becomes the essential components for young learners who want to master English. Vocabulary mastery is described as the ability to master of aspects of vocabulary. There are eight aspects, which are meaning, pronunciation, grammar, collocation, word formation, idiom, connotation, and register (13). In this study, the authors decided to focus on meaning and pronunciation aspect.

Teachers often find several obstacles to teach vocabulary in teaching-learning process. As an English Foreign Language (EFL) learners, students have different cultures and spelling habits from native speakers that made students struggling to pronounce the word (14). Based on the preliminary study, in the term to identify class problems, the authors did preliminary study in fourth grade classroom at an elementary school in Banjarmasin by observing the class and interviewing the English teacher. The authors found that the students did not familiar and less interest in using English because there is little awareness in students' society about the importance of English. In addition, students only use English in school and found it difficult then got less motivation to learn English. The authors also found that teacher has limited source of learning media so the class became boring and students got less interested to learn English. Based on the class problem, the authors and English teacher decided to find out the right strategies to increase students' English ability especially vocabulary mastery.

The massive development of technology in this century has changed the paradigm of teaching English vocabulary and one of the renewal strategies is using digital games. Young learners found that learning using digital games makes learning more enjoyable, decrease young learners anxiety, and it can help students remember English vocabulary easily (15). The use of games for teaching English made students feel confident because it is fun, then it can increase students' motivation to learn English (16). English teacher must be able to use digital games to provide enjoyable, meaningful, and successful learning process.

Considering the advantages of using digital games in teaching English for young learners, the authors and teacher decided to use games as a solution for the class problems. One of the popular digital games that can present a meaningful learning process for students is Wordwall game. Before this study, Word Walls are a useful tool for improving EFL students' vocabulary mastery, according to recent studies. Following the implementation of Word Wall, several classroom action research studies have demonstrated notable increases in vocabulary test results (17) (18). For example, one study found that mean scores increased from 60 to 76.2 (17), and another found that mean scores increased from 50 to 93 across two cycles (18). Word Walls boost student interest and engagement in learning English in addition to improving vocabulary proficiency (Aisiyah et al., 2024; Sari, 2024). The efficacy of Wordwall was further supported by a pre-experimental study that used the digital game version and discovered a substantial difference between pretest (82.34) and posttest (98.31) scores (Sakkir et al., 2023). In addition, a qualitative study with 10 English literature students finding that the use of Wordwall proved to be effective as a learning tool for vocabulary due to its fun and interactive features, ease of use, and ability to increase student engagement (19). Then, a true experimental design conducted for Junior High School to find out the effectiveness of using Wordwall game in increasing students' vocabulary knowledge. It showed that the post-test mean score of the experimental group was 89.13, compared to 77.90 in the control group. The independent sample t-test revealed a significant difference ($p = 0.001$), indicating that Wordwall is an effective tool for enhancing vocabulary acquisition among junior high school students.(20). The difference between the current study and previous study is its goal, the previous research tried to prove that Wordwall game is effective to increase students' vocabulary knowledge but current study tried to give a solution for class problems and to find the appropriate implementation in using Wordwall game to increase students' vocabulary mastery. The authors decided the action success criteria were 70% of fourth grade students' scores exceed the minimum completeness standard on post-test in the term of vocabulary knowledge and also pronunciation.

II. Method

This study used Classroom Action Research (CAR) in collaboration with the English teacher at an elementary school in Banjarmasin. CAR has at least two cycles of action research which consisted of four components; planning, acting, observing, and reflecting (21). The English teacher should do all the components and the authors participated in planning lesson plan, observing class environment while the teacher do acting component, and reflecting the process with the English teacher. Meanwhile, the English teacher should do all of CAR components to keep the naturality of the class.

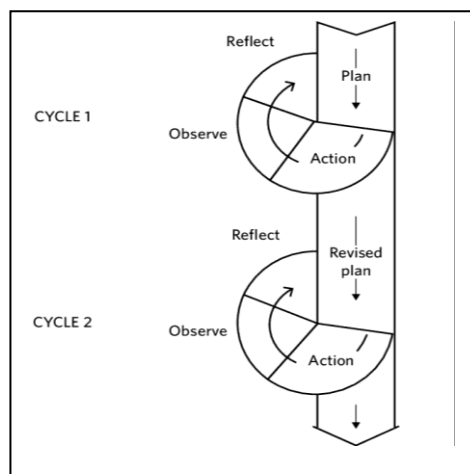


Fig. 1. Kemmis and McTaggart (1988) Action Research Design

As the first step of research procedure, planning is done to provide a solution for the classroom's problems based on the preliminary study. After planning the concept, the researcher let the English teacher lead the treatment which is teaching English vocabulary by using Wordwall game based on the plan. While the English teacher do acting components, the authors will do classroom observation. After that, the author and the English teacher will evaluate research activities in the first cycle. The result of the reflecting activity will be used for planning the second cycle and expected the better result in second cycle. The data was gained from authors' field notes while observing the class, students' score in pre and post-test.

Then, the data in this study will be analyzed using quantitative and qualitative data analysis. The quantitative data was gained from the pre-test result at the beginning of the first cycle and the post-test at the end of second cycle. This study used test for measuring students' vocabulary mastery ability and to find out students' achievement and improvement. First, the authors would do scoring and classifying students learning outcomes from pre-test and post-test by using this formula according to Pusat Kurikulum (2006) in (22):

$$\text{Score} = \frac{\text{Students' correct answer}}{\text{Total Number of Item}} \times 100$$

Scoring students' pronunciation in pre-test and post-test by using the formula

$$\text{Score} = N \times 5$$

N: Number of students' correct pronunciation

After scoring students' vocabulary and pronunciation test, the authors will classify students based on this classification table that was adapted from Ufrah (2009) in (19):

Table 1. Classification of students' pronunciation

Classification	Score
Excellent	90 – 100
Good	70 – 89
Average	50 – 69
Poor	30 – 49

Very Poor 10 – 29

After scoring and classifying, the authors would find the mean score of students' scores according to Gay (1981) in (19):

$$\bar{x} = \frac{\sum x}{N}$$

\bar{x} : Mean score
 $\sum x$: The sum of all score
 N : The number of students

After finding students' mean score, the authors would find the percentage of students that passed the standard minimum completeness according to Gay (1981) in (19):

$$\% = \frac{f}{N} \times 100\%$$

% : Percentage
 f : Frequency of students with scores above 70
 N : The total number of all student

Meanwhile, the qualitative data was gained from authors' field notes based on the class observation. Analyzing qualitative data can also be used to identify and characterize problems in the field or to define the structures and procedure of practice (23). There are three steps in analyzing qualitative data which are data reduction, data display, and drawing conclusions (24). Lastly, the conclusion of this study will answer the problem formulation.

III. Result and Discussion

After collecting the data the authors analyzed students' improvement in each cycle. The research results will be divided based on the cycle.

Table 2. Students' mean score recap

Test	Vocabulary knowledge	Pronunciation	
Pre-test	58,10	45,17	
Post-test	83,8	74,1	
Cycle	Meeting	Average	Reconducted
1	1	62,9	71,4
	2	81,5	73,4
	3	66,6	76,6
2	1	82,1	
	2	85,2	
	3	88,6	

A. The use of Wordwall game can improve elementary school students' vocabulary mastery

From the data of pre-test and post-test above, it showed that there was an improvement in students' vocabulary mastery. In the pre-test, students' mean score for vocabulary knowledge section was 59,1 then improved to 83,8 in the post-test. Students' mean score for pronunciation section was 46,2 on pre-test then improved to 74,1 on post-test. Based on the data that had been obtained in pre-test, the students had narrow vocabulary knowledge. In accordance with the interview with the teacher, teacher explained that students' were not familiar with English due to limited opportunity to use English in students' daily activities. In addition, based on pre-observation, teacher had limited source of learning activities that make students less motivated to learn English.

This large improvement showed that the use of Wordwall game could improve students' vocabulary mastery. The use of media such as games, pictures, and videos are effective in engaging young learners to learn English vocabulary (5). Students could remember vocabulary without feeling that they were very serious in studying through the use of Wordwall game (25). Furthermore, the

results of this research confirmed that the use of Wordwall game can improve elementary school student' vocabulary mastery and became effective solution for class problems.

B. The use of pictures can support the improvement of elementary school students' vocabulary mastery

Based on the research findings mentioned above, there were reconducted assessment in first-cycle to ensure the impact of using picture in research implementation.

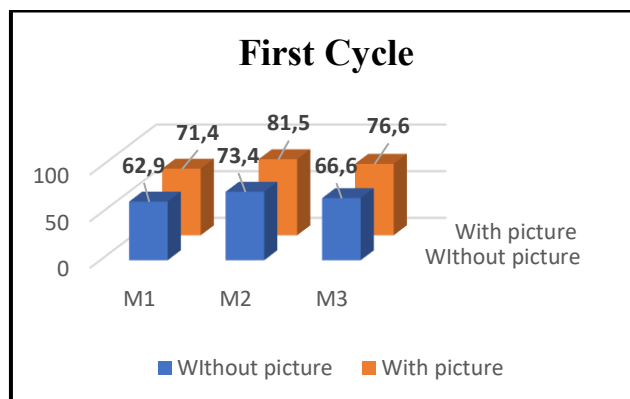


Fig. 2. Diagram of students' average score in first cycle assessments

The chart above showed that there were more significant improvements of students' mean score in the meeting where the assessment equipped with pictures than in the meeting where the assessment was not equipped with picture. In the first meeting with picture, students' average score was 71,4 higher than the first meeting without picture, only 62,9. In the second meeting with picture, students' average score was 81,5 higher than the second meeting without picture, only 73,4. In the third meeting with picture, students' average score was 76,6 higher than the third meeting without picture, only 66,6. Related to (5), the use of games, pictures, and videos are effective in engaging young learners to learn English Vocabulary. In accordance, In accordance, (26) argued that the use of picture in Wordwall game could help students to understand the meaning of vocabulary. Therefore, the researcher concluded that the use of picture could support students' vocabulary mastery improvement.

C. The use of small group discussion can maximize students' learning outcomes

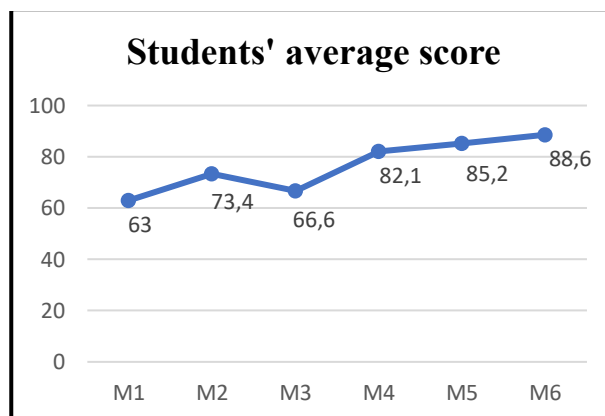


Fig. 3. Diagram of students' mean scores of all meeting assessments

Based on the data above, it showed that class with individual setting on the first meeting on the first cycle could improve students' score from 59,1 in pre-test to 63 in the first meeting but not as maximal as class with small group setting on third meeting (groups with 2-3 members) and second meeting (groups with 4-5 members). It showed on the data above, students' learning outcomes on first cycle were more optimal in the second meeting than the third meeting. According to this result,

the researcher and teacher decided to conduct all meetings on the second cycle using small group discussions in order to maximize students' learning outcomes.

In the second cycle, students' learning outcomes were more significant than first cycle. In the first meeting of the second cycle, students divided into 14 small groups consist of 2-3 members and students' average score was 82,1. In the second meeting of the second cycle, students divided into 9 groups consist of 3-4 members with students' average score was 85,2. In the third meeting of the second cycle, students divided into 7 groups consist of 4-5 members and students' average score was maximum in 88,6. Related to the findings above, small group discussion has given significant effect and highly effective to help the English teacher in teaching learning process (27). Small group discussion is one of cooperative activity where students gather for gaining knowledge. Previous studies explained that small group discussion is effective in increasing students' participation (28), motivation (29), and concept understanding (30). According to (31) (32) stated that interaction between students in small group discussion is important to achieve optimal learning outcomes by training students critical thinking and problem-solving skill in analyzing the game. Thus, the researcher concluded that small group discussion also gave positive impact in maximize students' learning outcomes.

IV. Conclusion

This research purpose was to give a solution for improving elementary school students' vocabulary mastery through Wordwall game and find out the implementation of Wordwall game in the teaching-learning process. This research was conducted by Classroom Action Research (CAR) in collaboration with the English teacher. According to the findings and discussion in the previous chapter, it can be concluded that the use of Wordwall game can improve elementary school students' vocabulary mastery. In the research process, the researcher found that the use of pictures and small group discussion can optimize students' learning outcomes. It was also proved by the students' learning outcomes improvement in pre-test and post-test. In the pre-test, students' mean score for vocabulary knowledge section was 59,1 then improved to 83,8 in the post-test. Students' mean score for the pronunciation section was 46,2 on the pre-test then improved to 74,1 on the post-test. Hence, the use of Wordwall game with the right strategies can improve elementary school students' vocabulary mastery.

References

- [1] N. A. Ilyosovna, "The Importance of English Language," *Int. J. Orange Technol.*, vol. 2, no. 1, pp. 22–24, 2020. [Online]. Available: www.researchparks.org
- [2] P. S. Rao, "The importance of speaking skills in English classrooms," *Alford Counc. Int. English Lit. J.*, vol. 2, no. 2, pp. 6–18, 2019. [Online]. Available: www.acielj.com
- [3] S. S. Cahyati, A. Parmawati, and N. S. Atmawidjaja, "Optimizing English Teaching and Learning Process to Young Learners (A Case Study in Cimahi)," *J. Educ. Expert*, Vol. 2, No. 2, pp. 107–114, 2019. [Online]. Available: <https://doi.org/10.30740/jee.v2i2p107-114>
- [4] A. R. Sitompul, "EFL young learners' vocabulary learning strategies: An overview," *RETAIN: J. Res. English Lang. Teach.*, Vol. 8, No. 2, 2020.
- [5] R. Deni and F. Fahriany, "Teachers' perspective on strategy for teaching English vocabulary to young learners," *Vision: J. Lang. Foreign Lang. Learn.*, vol. 9, no. 1, pp. 48–61, 2020.
- [6] P. C. Pradini and N. L. P. E. Adnyayanti, "Teaching English vocabulary to young learners with Wordwall application: An experimental study," *J. Educ. Study*, vol. 2, no. 2, pp. 187–196, 2022.
- [7] R. R. F. Sinaga and L. Oktaviani, "The implementation of fun fishing to teach speaking for elementary school students," *J. English Lang. Teach. Learn.*, vol. 1, no. 1, pp. 1–6, 2020.
- [8] V. H. Saputra, D. Pasha, and Y. Afriska, "Design of English learning application for children early childhood," in *Proc. Int. Conf. Sci. Educ. (ICSE)*, 2020, pp. 661–665. [Online]. Available: <https://sunankalijaga.org/prosiding/index.php/icse/article/view/582/556>

- [9] M. Jannah, "EFL students' perspectives on the use of Wordwall.net as vocabulary learning media," *J. English Lang. Teach.*, vol. 6, no. 1, pp. 115–124, 2022.
- [10] U. Fajriani, "Enriching students' English vocabulary using 'Hello English' application," 2020. (Catatan: Mohon informasi lengkap seperti nama jurnal/volume/halaman jika tersedia agar format IEEE dapat disempurnakan.)
- [11] A. A. Ali Mansoor, O. S. M. Mohammed, H. R. Ahmed, A. N. Munasser Awadh, H. M. Abdulfatah, and E. Y. Sheikh, "English language teaching through a short story: A technique for improving students' vocabulary retrieving," *Cogent Educ.*, vol. 10, no. 1, 2023. [Online]. Available: <https://doi.org/10.1080/2331186X.2022.2161221>
- [12] M. Widiawitasari, B. Simamora, and L. Oktaviani, "A strategy of English education students to improve English vocabulary," *J. English Lang. Teach. Learn.*, vol. 1, no. 2, pp. 44–49, 2020. [Online]. Available: <http://jim.teknokrat.ac.id/index.php/english-language-teaching/index>
- [13] J. Robert, *Aspects of Vocabulary Acquisition and Teaching: An Overview*. Kogakuin: Kogakuin University, 2007.
- [14] M. R. Setiawan and P. Wiedarti, "The effectiveness of Quizlet application towards students' motivation in learning vocabulary," *Stud. English Lang. Educ.*, vol. 7, no. 1, pp. 83–95, 2020.
- [15] W. R. A. Bin-Hady, "The role of games in enhancing EFL students' vocabulary acquisition," *J. Fac. Educ.*, vol. 1, no. 17, pp. 48–58, 2023.
- [16] M. L. Johandi, "International Journal of World Languages," *Int. J. World Lang.*, vol. 2, no. 1, pp. 1–10, Jan. 2022.
- [17] P. S. Sari, "Using Word Wall to improve EFL students' vocabulary achievement at junior high school," *J. English Teach. Learn.*, 2024.
- [18] S. Fatimah, "Students' vocabulary mastery through Word Wall at SMPN 44 Surabaya," *JournEEL (J. English Educ. Lit.)*, vol. 2, no. 2, pp. 22–33, 2020. [Online]. Available: <https://doi.org/10.51836/journeel.v2i2.166>
- [19] N. Ilahiyati, Z. Rohmah, and Hamamah, "The Implementation of WordWall Games in Vocabulary Learning," *Indonesian Journal of English Education*, vol. 10, no. 1, pp. 75–90, 2023. [Online]. Available: <https://journal.uinjkt.ac.id/index.php/ijee/article/view/29905>
- [20] F. B. Shabrina and W. Taufiq, "The Effect of Teaching English Vocabulary on Junior High School Students by Using Wordwall.net," *Preprint*, UMSIDA, 2023. [Online]. Available: <https://archive.umsida.ac.id/index.php/archive/preprint/view/2038>
- [21] S. Kemmis and R. McTaggart, *The Action Research Planner*, Australia: Deakin University Press, 1988.
- [22] A. R. Hajis, *Improving Students' Vocabulary by Using Visual Media at SMP Negeri 10 Makassar*, UIN Alauddin Makassar, 2014.
- [23] E. A. Mezmir, "Qualitative data analysis: An overview of data reduction, data display and interpretation," *Res. Humanit. Soc. Sci.*, vol. 10, no. 21, pp. 15 – 27, 2020.
- [24] E. Dull and S. P. Reinhardt, "An analytic approach for discovery," in *CEUR Workshop Proc.*, vol. 1304, pp. 89 – 92, 2014.
- [25] E. Dull and S. P. Reinhardt, "An analytic approach for discovery," in *CEUR Workshop Proc.*, vol. 1304, pp. 89 – 92, 2014.
- [26] R. Umar, R. A. Rahman, P. Mandarsari, S. Mawarwati, and S. Amir, "Using Wordwall website as a strategy to improve students' vocabulary mastery," *J. Educ.*, vol. 5, no. 3, 2023.
- [27] K. R. Amalia, *The Effect of Pictures as a Media on Students' Vocabulary Achievement*, Undergraduate Thesis, English Language Education Study Program, Syarif Hidayatullah State Islamic University, Jakarta, 2023.

- [28] Z. F. Siregar, E. S. Harida, and Z. Zainuddin, "Small group discussion for the students' reading comprehension of the senior high school students," TAZKIR: J. Penelit. Ilmu-ilmu Sos. dan Keislaman, vol. 6, no. 1, pp. 147 – 158, 2020.
- [29] M. K. Smith et al., "Combining peer discussion with instructor explanation increases student learning from in-class concept questions," CBE—Life Sci. Educ., vol. 10, no. 1, pp. 55 – 63, 2020.
- [30] Y. Maslina, The Use of Small Group Discussion (SGD) in Teaching Reading Comprehension: A Descriptive Study at the Second Semester Students of English Education Department at STKIP Bina Bangsa Getsempena Banda Aceh, Undergraduate Thesis, STKIP Bina Bangsa Getsempena, 2023.
- [31] L. K. Michaelsen, A. B. Knight, and L. D. Fink, Eds., Team-Based Learning: A Transformative Use of Small Groups in College Teaching. New York: Taylor & Francis, 2023.
- [32] P. J. Smith, "The influence of small groups on leader stability and task engagement in the language classroom," Lang. Teach. Res., vol. 28, no. 1, pp. 52 – 78, 2024.