

Using Mobile Game-Based Learning Method with Wordwall Application to Potray Students' Vocabulary Improvement

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ABSTRACT: The aims of this research is to portray students vocabulary improvement by using the wordwall application method. Classroom action research design through planning, action, observation and reflection was used in this study. The subjects of this study were students of class VIII which consisted of 23 students. By applied qualitative and quantitative data. The results of this study indicate that there was an increase in the percentage of students' KKM completeness in vocabulary learning by using the wordwall application method. On the pre-test students who did not reach the KKM (75) was 0%. In the first cycle the students who achieved the KKM (75) were 34.78%. and in the second cycle the students who achieved the score above the KKM (75) were 73.91%. Thus, teaching vocabulary using the wordwall application method can improve students' vocabulary skills.

KEYWORDS: Online teaching, gamification, undergraduate.

I. INTRODUCTION

Vocabulary is one of the important language components in learning English. Without having a vocabulary, anyone will have problems speaking, reading, listening and writing. In other words, the first to become a master for language learners in learning languages, especially English, is vocabulary. This means that learning vocabulary is very important, especially for students in junior high school. They must master English vocabulary and grammar rules to establish communication with other people (Syaeful Rizki et al., 2013:129).

According to Juhendi 2011 (Cited in Alvisar & Malik, 2016: 62) in his research said that "vocabulary is a vital aspect in language, because it appears in every skill of language including listening, speaking, reading and writing skills. Many people realize that their vocabulary is limited so that they have difficulties in expressing their ideas". So if a student is weak in mastery of vocabulary, students cannot communicate their thoughts and ideas clearly as desired, both orally and in writing. This shows that English has a special place in teaching foreign languages in schools, especially junior high schools. Problems in learning and teaching English still exist in schools, because English is completely different from Indonesian in its structure, pronunciation and vocabulary system (Mumary Songbatumis, 2017:55). For teachers who teach English so that learning is effective and efficient is not an easy job, therefore English teachers must be able to present material using appropriate method. A good teaching method makes students understand and master the lesson like any other subject that requires an appropriate method. In fact, learning English, especially to memorize vocabulary, is boring for some students.

Vocabulary is complicated to learn. There are several aspects that must be learned in mastering vocabulary: they are the meaning of the tenses of words, and the use of words, pronunciation of words and spelling of words. Some of the problems faced in learning English vocabulary is that they learn new vocabulary but they tend to forget what they have learned after learning it. Reading English texts can require students to master a lot of vocabulary. Otherwise, students will become passive. In fact, there are still many students who lack vocabulary mastery (Afzal, 2019:84).

The researcher found that at MTS Fathur Rahman Al-Qalasadi there are still many students who lack vocabulary, which results in their poor performance in English skills. They do not know the meaning of many words in a sentence or text and also the form of words. In expressing ideas both in writing and verbally, they have difficulty. This is evident when researchers ask students to read the text and answer questions based on the text, they still open the dictionary to find out most of the meaning of a text. And also when the researcher asked some questions to the students they asked the researcher to translate the meaning into the first language. In spoken form, they result in poor spelling and pronunciation. In the middle of the teaching and learning process, sometimes students lose concentration and the class atmosphere becomes ineffective (Rohmatillah, 79). These problems can be used as justifications that students do not master the vocabulary. Someone may have difficulty mastering vocabulary, due to the students' lack of interest in learning English. The students lack interest and feel bored when they learn vocabulary by rote without

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training in vocabulary learning. Nagashibaevna (2019:798) describe Passive learners are usually caused by the absence of instrumental motivation and determination to learn, especially English. in addition, the lack of teacher involvement in using learning methods. Sometimes this condition can lead them to the conclusion that they have poor memorization and this condition is feared to make them lack of motivation to learn.

To make students interested in learning English vocabulary and become able to communicate in English, it is the teacher's job to make and determine strategies that are only used to teach and improve students' vocabulary. Wina Sanjaya 2006 (cited in Khausar, 2014: 73) states that the success of implementing learning strategies is very dependent on how teachers use learning methods because a learning strategy may only be implemented through the application of learning methods. On the otherhand, one method of obtaining information is reading. By reading students can increase they knowledge and better understanding of what is going on in the world. Reading is an activity that can improve children's ability to expand their knowledge and vocabulary(Ibhar, 2022:26).

It can be seen from the facts above, the researcher uses the wordwall method in teaching vocabulary. The wordwall method allows students to make connections between new words and the remaining words that students have and students try to develop from the core words with other related words.Through the wordwall method students are expected to be able to remember and produce words that have been learned more easily, than by memorizing through a list of words. students will be more interested in learning vocabulary with this method so that students' vocabulary skills will increase(Harwika, 2019:19).In the wordwall method, students play a major role in the teaching and learning process,the teacher only leads the students.The students are activelyinvolved in the teachingand learningprocess, the wordwall method uses context clues that make it easier for students to learn vocabulary. Researchers hope this method can help students at MTS Fathur Rahman Al-Qalasadi school.

II. LITERATURE REVIEW

A. Wordwall

Wordwall is a collection of words used for various ages, which are classified into types and several types which are located in a wordwall application for students, so that students can easily understand and learn words(Rini, 2021: 21).

Wordwall media is media that can be used for language learning. Media wordwall is a group of words displayed on a web wordwall. These words are referenced continuously by teachers and students during various activities. In the learning process using this media, more emphasis is placed on children's full understanding of the vocabulary given through wordwall media. The meaning is made as clear as possible through an explanation from the teacher using wordwall media. It also describes tools for teaching vocabulary that can help teachers choose vocabulary for word walls in the class to be studied (Naila et al., 2018: 5)

Wordwall is an application that can be used as a learning media, learning resource or online-based assessment tool that is attractive to students. Word walls are designed to serve as visual scaffolds and are a common classroom tool used to support reading and language arts instruction. To support vocabulary development in science and support students who are ELLs, by Husty and Jackson 2008 (cited in Jackson, 2014: 45) created interactive word walls that resemble semantics maps by Masters, Mori, and Mori 1993 (cited in Jackson ,2014: 45).

Semantic maps are graphic organizers that help students identify important ideas and how those ideas fit together. They visually showcase relationships among concepts and may also be referred to as web or concept maps. An interactive word wall, as opposed to the traditional word wall, provides visual aids that assist in illustrating word meanings and conceptually organize words to deepen understanding. These word walls usually include a visual representation of the word along with a vocabulary label. Definitions are optional. In this article, we describe our efforts to implement interactive word walls at a middle school in central Texas (Jackson, 2014: 45).

A word wall is a group of words that are displayed on a wall, bulletin board, chalkboard, or a whiteboard in a classroom. It meant the technique direct students" attention to the words on the wall during lessons, in this way the students saw the progress in developing their reviewed of vocabulary and have a reference point when working on other vocabulary building activities(Cronsberry, 2004: 3).

Then, according to Allen in book of "Inside Words: Tools for Teaching Academic Vocabulary" word walls can work in a variety of ways to support reading, writing, and talk in classrooms(Glass, 2015: 1). According to Hellen (cited in Indrawati et al., 2015: 231), word wall is systematically organized collection of words displayed in large letters on a wall or other large display places in the classroom. It can be considered to give practice in all skills such as: reading, writing, and speaking.Word Wall is concerned primarily with developing skill, but some of them are more actively oral and give better situation where the teacher wants to provide the relief. This media can be designed to improve learning and group activities that can involve students in the making process and usage activity. By using word wall media, is expected that students could increase understanding of the English language vocabulary without depend on the use of a dictionary or even the meaning of the word given by the teacher.

In the initial view of the wordwall, there are learning options such as tests and billing exercises. In the test and practice billing display students directly learn skills in their accuracy such as matching the correct vocabulary based on the slides they see.

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Many types of games are offered by this learning evaluation software, including classic games such as Quiz (quiz) and Crossword (crossword puzzle). There are also game types such as; Find the Match, Random Wheel, Missing Word, Random cards, True or False, Match up, Whack-a-mole, Group short, Hangman, Anagram, Open the Box, Wordsearch (Search for words), Ballon pop, Unjumble, Labeled diagrams, and Gameshow Quiz by Sun'iyah 2020 (cited in Sari & Yarza, 2021:196).

Every media had the advantages and disadvantages, word wall is no exception. There are some advantages of using word wall media in teaching vocabulary, word walls provided students with easy access to words they need to know during activities. Other advantages a word wall serves a variety of purposes, included the following, provides a visual for students that help them to remember words, serves as an important tool for helping students learn to read, foster student independence, and promotes reading and writing.

The advantage of this application is that it has many templates that can be made by teachers. This application is free for the Basic option with a choice of 5 templates. Games that have been made can be directly shared via a link sent with the Whatsapp, Google Classroom or Email application. In addition, another advantage of this application is that the games that have been designed can be printed in PDF form, making it easier for students who are constrained by the network. Grave 2007 (cited in Arafah & Ahmad, 2020: 13231) notes that vocabulary instruction is most effective when learners are given both definitions and contextual information when students experience multiple encounters with words. Said somewhat differently, vocabulary instruction is most effective when it is rich, deep, and extended.

Wordwall has a long been a useful strategy for helping and very important for younger students process words multiple times over the school year. Weinstein inby Kasim 2011 (cited in Arafah & Ahmad, 2020 :13232) states that the word wall works for every age and every student. This is an important realization. If the teachers make it fun for all ages, the word wall will be a success (Arafah & Ahmad, 2020: 13231).

The procedures of teaching vocabulary through word wall are, Use the favorite words that most appropriate on particular theme, so they are easy to remember, Create these words in a variety of forms that will be more interesting for students, Make it useful by often using these words in a variety of activities such as, listening, speaking, reading or writing, Make it easy to see, to write a script which is large and placed on a wall in the classroom (Badrah, 2018: 36).

Tutorial on Using the Wordwall Application, Register an account at <https://wordwall.net/>. Click Sign.up then fill in your name, email address, password and location, Select Create Activity and then select one of the provided activity templates and write down the title and description of the game, type your content according to the type of game. In some types, you are allowed to upload images, Click done when finished.

B. Vocabulary

Vocabulary is a basic requirement that affects students' achievement when learning English. Without vocabulary we are not able to communicate, read, listen, or write. Thus, it is important for us to know exactly what vocabulary is. Willis 2008 (cited in Wilsana et al., 2015:24) describes when students can build their mastery of vocabulary, they can also be more effective in communicating ideas, knowledge and their opinions. According to Nist and Mohr 2002 (cited in Wilsana et al., 2015:24), vocabulary is a basic part of reading comprehension. Simply put, they argue that if students do not know enough English words they will have problems in reading and comprehending a text. Throughout Indonesia, there is always a reading comprehension test on the National Exams for junior high school. I would argue that vocabulary is very important to learn because when students have a limited vocabulary they are not able to express their thoughts accurately and answer questions on their test. If students do not know how to improve their vocabulary, they will most likely lose interest in learning English.

Vocabulary is a total number or list of words that have meaning and are indispensable to express our thoughts. A person is expected to continue to develop their vocabulary in order to continue to communicate effectively, both in oral and written form. A good understanding of vocabulary will also help students be successful in their English test (Wilsana et al., 2015). Vocabulary is one of four language components which are spelling, grammar, phonology and vocabulary. Vocabulary is an important component that should be mastered by the students. Thornbury 2004: 13 (cited in Rohmatillah, tanpa tahun: 70) states that without grammar very little can be conveyed, without vocabulary nothing can be conveyed. It means that even someone has good grammar but it will be useless if they do not know many vocabularies. In addition, it is supported by (Ur, 1996: 60) that vocabulary is one of important things to be taught in learning foreign language because it will be impossible to speak up without variety of words. Those statements imply the importance of teaching vocabulary as a foreign language.

Thornburysaid (cited Samhudi, tanpa tahun: 82), If you spend most of your time studying grammar, your English will not improve very much. You will see most improvement if you learn more words and expression. You can say very little with grammar, but you can say almost anything with words. "It can be said that if we want to improve our language ability we have to mastery vocabulary first because we can say anything with words. Therefore we can make a communication if we have good vocabulary mastery.

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From the statement above it can be said that mastering vocabulary is important, by Brown states (Cited in Wulandari, 2020: 31), vocabulary is seen in its central role, conceptualized meaningful language. Based on the statement, it is important for the teacher to create some ways or techniques in teaching and vocabulary. So the students can receive and understand the material simply. Moreover, it is expected by mastering great number of vocabulary, it will be easier for students to learn a foreign language and use it for communication. From the explanation about, it can be concluded that vocabulary should be mastered in language learning, especially in teaching and learning English, because vocabulary can be presented or explained in all kinds of activities. It can be said that vocabulary mastery is knowledge of a list or a set of words that make up a language which might be used by particular person, class, or profession.

Vocabulary has some types that need to be learnt. There are types of vocabulary that are explained by the experts. Thornbury is one of the experts that explained that there are at least four types of vocabulary. There are Adverb, Adjective, Noun, and Verb.

RESEARCH METHOD

The subject of this research is the students in grade VIII at MTS Fathur Rahman Al-Qalasadi Langkat academic year 2022/2023. It was used purposive sampling technique and it was taken VIII students which is consisted of 23 students as the subject of the research. Because it was found that they have a low ability in vocabulary.

This research was conducted by using Classroom Action Research (CAR). Classroom Action Research is a method to find out what works best in your own classroom, so that you could improve students' learning. In this classroom action research, the cycles depend on the indicators, whether the indicators were already achieved or not. The first was conducted based on the problem faced by students' ability in vocabulary through Wordwall application. Then, the researcher was analyzed and discussed the result both writing test and observation. If the result achieves the indicator, the researcher was conducted the next cycle. It was focused on the weakness of the previous cycle and so on. Each cycle consists of: Planning, action, observation and evaluation. The researcher was used three instruments, they are Documentation, Observation sheet and test. The researcher applies qualitative and quantitative data, where qualitative data was used to describe the situation during the teaching process while the quantitative data was used to analyze the score of the students.

RESEARCH AND DISCUSSION

Classroom action research is carried out together with one class teacher and one student, who are conducting research based on classroom action research. Collaborative research was carried out at the Fathur Rahman Al-Qalasadi MTS school, Langkat district, starting with observation activities on 27 June 2022 and pre-research, including preliminary tests, on 19 July 2022. The subjects studied were 23 grade VIII students with a composition of 13 male students and 10 female students.

This research was conducted in order to improve the quality of learning practices, student behavior with indicators of student activity, student interest in learning, and student vocabulary mastery in English subjects through the Wordwall method. The description of the pre-research data is as follows:

Description of Pre-research Results Data (Preliminary test)

Vocabulary tests were carried out before the first cycle, to determine the level of student competence in the vocabulary skills. In the pre-test, the total score of students is 780 and the number of students is 23, from the analysis of student achievement in low vocabulary, the average student is 34. Students who score up to 75 in the pre-test are 0 students. From the table analysis, students' vocabulary ability is very low. The number of students who passed the pre-test session was 0 (0%).

Table 1 Students' Preliminary test Result

No	Criteria	Score	Pre-test
1.	Passed KKM	75-100	0
2.	Failed	0-74	23

From the results of student work on the tests that have been designed by researchers the results are less than satisfactory. The results of 23 students in the class showed that there were 0 or 0% students did not achieve. From the explanation in the following table 2.

Table 2 Summary in Preliminary test

Value	Number of students'	Percentage
<75	0	0
>75	23	100%

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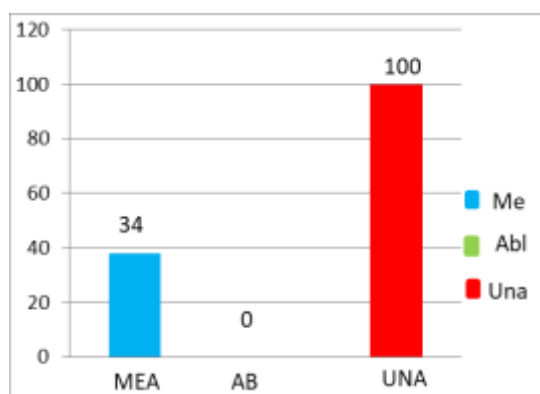


Figure 1 Student's Score in pre-test

Description of Research Result Data Cycle I

Planning. Before the implementation of the action, the first with planning. Planning is designed based on the results of tests and initial observations, namely (a) creating vocabulary scenarios in accordance with game-based learning concepts using the wordwall application method that will be used in action. (b) make observation sheets to see the learning environment, and activities of students and researchers, and (c) design an evaluation tool to see the increase in students' vocabulary in game-based learning with the wordwall application method.

Action Before applying the method, the researcher stood in front of the students and began to attract the students' attention, and asked them about their knowledge of vocabulary. Students give their opinion about the type of vocabulary to be studied. Students express all their knowledge both right and wrong. After that, the researcher gave some examples of vocabulary and then the researcher gave a link to analyze the vocabulary in the wordwall application. Students must be able to match the picture with the words listed in it. When finished, students can see the score they got.

Observing and evaluating

Student's Score. Based on the results of the first cycle test, the total student score was 1620 and the number of students was 23, so the average score was 70. Students who scored more than 75 were 34.78% or 8 students and students who scored less than 75 were 65.21% or 18 students. So the frequency of students in the first cycle is 34.78%. Student scores in cycle I can be seen from the table below:

Table 3 The data of students' who passed standard Minimum Score (KKM)

No	Criteria	Score	Total	Percentage	Mean
1.	Passed KKM	75-100	8	34.78%	70
2.	Failed	0-74	15	65.21%	
Total			23	100%	

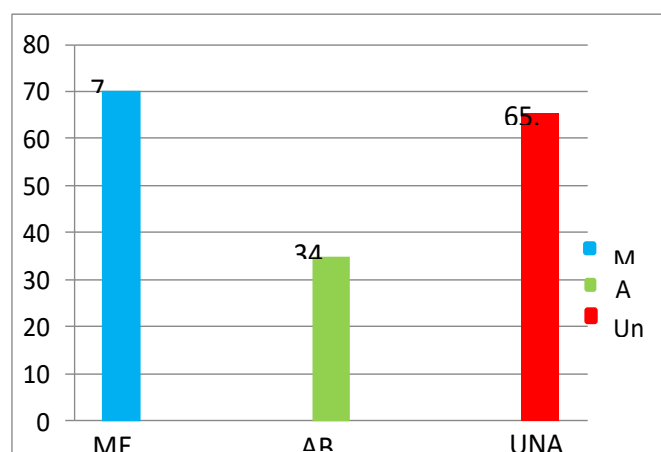


Figure 2 Student's Score in Cycle I

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Observation of Student's Activity. Student activities were observed after the first cycle based on the criteria of very good, good, fair and less. Can be seen in the following table:

Table 4 Score of Students' Activity in the Learning Process of Cycle I

No	Aspects of Observation	Score
1.	Interest	69.57%
2.	Attention	76.81%
3.	Participation	81.16%
4.	Presentation	79.71%
Mean		76,81%

The data above shows that students' learning activities using the wordwall application method in vocabulary achieved 69.57% interest, 76.81% attention, 81.16% participation, and 79.71% presentation. These data indicate that student participation in learning is the highest compared to other aspects. Because when teachers ask their opinion about what they know about vocabulary, they are very enthusiastic to answer the questions given by the teacher. The lowest score is the aspect of interest, because when students are given assignments to answer questions about vocabulary, students are not interested in answering these questions. The students were more enthusiastic about answering questions directly. From this amount, the average level of student activity in learning activities in the first cycle is 76.81%.

Observation of Teacher Activity's. The results of observing teacher activities in the learning process by applying the wordwall application method in vocabulary learning can be stated in the table in the appendix.

Reflection. Based on the data obtained from the results of observations and evaluations are findings as reflections. The successes and failures in the first cycle are as follows; Students do not understand learning activities with the wordwall application method. This can be seen from the average result of observing student activities in the learning process with a percentage of 76.81%, Some students have not implemented the wordwall application method as a learning medium optimally, Researchers still appreciate or not to create an active learning atmosphere using the wordwall application method in enriching vocabulary, The level of student mastery of teaching materials that has not been maximized. In other words, the level of students' ability in vocabulary has not been completed. With an average value of only 34.78%, Based on the results of the first cycle, it still needs to be continued to the second cycle, because the results in the first cycle show that students' achievement in vocabulary is still lacking.

Description of Research Data Cycle II

Planning. In cycle II, the action plan taken is a follow-up to the problems or obstacles encountered in the implementation of the actions in cycle I. The main problem in cycle I is related to the student's learning experience using the wordwall application method which is applied in vocabulary learning. Learning in the second action aims to increase student learning activities in order to achieve the specified indicators. The implementation of cycle II is substantially similar to the implementation of cycle I.

Acting The implementation of the actions in the second cycle is in principle the same as the implementation of the actions in the first cycle. In this second cycle, the research was carried out in two meetings. At the beginning of the learning process in this cycle, a technical explanation of using the Wordwall Application was given to students in order to improve students' vocabulary. Then, the next learning process is the same as the previous meeting, but with the same learning material.

Observing and Evaluating. Student's Score. Based on the results of the second cycle test, the students scored 1760 and the number of students was 23, so the average score was 77. Students who scored more than 75 were 73.91% or 17 students or 17 students and students who scored less than 75 were 26.09 or 6 students. So the frequency of students in the second cycle is 73.91%. This can be seen from the table below:

Table 5. The data of Students' who passed Standard Minimum Score (KKM)

No	Criteria	Score	Total	Percentage	Mean
1.	Passed KKM	75-100	17	73.91%	77
2.	Failed	0-74	6	26.09%	
Total			23	100%	

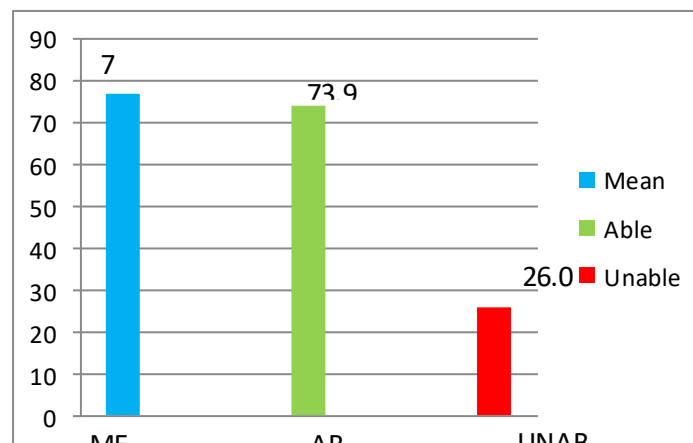


Figure 3. Student's Score in Cycle II

Observation of student activity. Observation of student activity after cycle II was based on very good, good, sufficient and poor criteria. This can be seen in the following table:

Table 6. Score of Students' Activity in the Learning Prcess of Cycle II

No	Aspects of Observation	Score
1.	Interest	77.17%
2.	Attention	84.78%
3.	Participation	76.09%
4.	Presentation	90.22%
Means		82.07%

Based on the table above, it can be explained that in the process of teaching and learning activities, students have shown very good development with an average percentage of 82.07%. With these four aspects of observation, the presentation aspect got the highest score of 90.22%. while the lowest value is for the participation aspect with a value of 76.09%. The table above shows that the activeness of students in the learning process in cycle II increased significantly. This means that there is an increase in student learning activities between cycle I and cycle II. This can be seen from the average student activity score between the first cycle of 76.81% and the second cycle of 82.07%, with a difference of 5.26% in comparison. This figure shows that student learning activity is increasing.

Reflecting. The following are some of the achievements after the implementation of cycle II, namely: 1). In the teaching and learning process, students' activities tend to be better towards the wordwall application method in vocabulary. This condition can be seen from the increase in student activity which is better from 70% in the first cycle to 77% in the second cycle, 2). The difference in student scores on learning materials has been seen to be significant based on the data on the average value of the results of student evaluations in cycle II. This can be seen in the first cycle data with an average value of 70% with students who scored more than 75 were 34.78%. while in the second cycle the average value of 77% with students who scored more than 75 was 73.91%. The increase in student scores in the pre-test, cycle I and cycle II can be seen in the graph below:

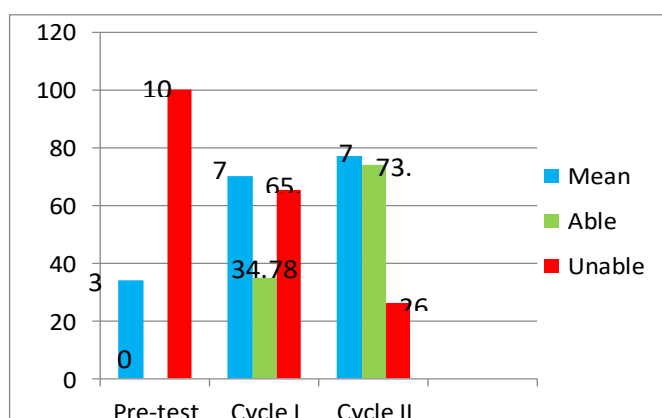


Chart 4. The Improvement of Students' Score in Pre-test, Cycle I and Cycle II

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Based on data analysis, it shows that students' vocabulary skills have increased by applying the wordwall application method. This can be seen from the quantitative data. The average value in the first cycle is 70% with the number of students who get a complete score is 8 students and the average value in the second cycle is 77% with the number of students who get a complete score is 17 students. The percentage of students in the first cycle who obtained a complete score was 34.78% and the percentage of students in the second cycle who obtained a complete score was 73.91. Qualitative data can be seen from the observation sheet with the average value of student activity in the first cycle is 76.81% and in the second cycle is 82.07%. In the process of teaching and learning activities students have shown good development. Qualitative data taken from the observation sheet also shows that teachers teach well in learning activities.

Based on the results of qualitative and quantitative data, it shows that the action and application of the wordwall application method can significantly improve students' vocabulary. Then, the researcher completed the research in cycle II, because it had reached the level of completeness, meaning that using a wordwall application could increase the vocabulary of students in class VII MTS Fathur Rahman Al-Qalasadi T.P 2022/2023.

CONCLUSIONS

Based on the data analysis, it can be concluded that there is an increase in students' ability in vocabulary using the wordwall application method. An increase in students' vocabulary can be seen from the students' scores. The average value of the pre-test at the first meeting was still very low, namely students who scored up to 75 were 0. In the post test results in the first cycle, students who scored more than 75 were 8 students and the post test in the second cycle scored more out of 75 are 17 students. Then, it can be concluded that there is an increase in students' ability in vocabulary by using the wordwall application method. To see the ability of the percentage of students can be seen from the results of the pretest, cycle I and cycle II. The average value of the pretest was 34, from Cycle I was 70 and from Cycle II was 77. Then, the percentage of students who scored more than 75 in the pretest to cycle II, namely for the pretest the value was 0, Cycle I was 34.78 and the cycle II is 73.91. The results of the observation sheet show that there is an increase in students' ability in vocabulary through wordwall application. Then, the wordwall method also makes students learn actively, because students are very interested in using this media.

ACKNOWLEDGMENT

This research was able to be carried out well and smoothly thanks to the assistance of several parties who contributed, therefore the researcher would like to thank the parties involved in making this journal. Thank you to students in grade VIII at MTS Fathur Rahman Al-Qalasadi Langkat, and english education program, faculty of teacher training and education, Universitas Muhammadiyah Sumatera Utara who are willing to collaborate with researchers in the process of publishing this educational journal.

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