

CHAPTER III

RESEARCH METHODS

3.1 Approach and Type of The Research

Approach and type of the research are crucial in determining the appropriate methodology to achieve the research objectives. The selection of an appropriate approach will affect the way data is collected, analyzed, and interpreted. Therefore, researchers need to consider the context and objectives of their research when choosing which research approach and type to use.

This study aims to determine how to increase students' Vocabulary mastery through wordwall application at sevent grade UPTD SMP Negeri 2 Gunungsitoli Alo'oa. So in this research, the reseacher will use the Classroom action Research method (CAR). Classroom Action Research (CAR) is an approach used to improve teaching practices through cycles of planning, action, observation, and reflection.

Mills (2020) states that classroom action research (CAR) provides an opportunity for teachers to become researchers in their own classrooms. By conducting action research, researchers can collect data on the effectiveness of the teaching methods used and make data-based decisions for improvement. CAR also encourages researchers to innovate and adapt to the needs of students. Suhartini and Sari (2022) also revealed that CAR can increase student involvement in learning. Through actions taken based on observation results, teachers can create a more interactive and fun learning environment. They also emphasized the importance of reflection in each CAR cycle to ensure continuous improvement.

The steps in Classroom Action Research (CAR) include problem identification, action planning, implementation, observation, reflection, plan revision, and continuous cycles. This process allows teachers to systematically evaluate and improve their teaching practices, as well as contribute to ongoing professional development.

a) Problem Identification

Creswell and Poth (2019) explain that problem identification is the process of finding and formulating a relevant and significant problem to research. They emphasize the importance of understanding the context in which the problem arises, as well as its impact on the individuals or groups involved. This process involves gathering initial information and analyzing existing literature to ensure that the problem identified is well-founded and relevant.

b) Action Planning

Arhar, Holly, and K. A. R. (2013) in *Action Research in Education* emphasize the importance of designing specific and measurable interventions to achieve learning objectives. By designing clear and measurable interventions, educators can more effectively increase learning strategies, monitor student progress and evaluate the success of actions taken. This contributes to improved teaching quality and student learning outcomes.

c) Action Implementation

Mills (2014) explains that teachers must implement actions consistently and in accordance with the plan that has been made. Consistency in increase essential to ensure that interventions can be accurately evaluated and deliver the expected results. By following the established plan, researcher can be more effective in achieving learning objectives and improving their teaching practices.

d) Observation

Cohen, Manion, and Morrison (2011) state that systematic observation is important to obtain accurate information on the effectiveness of the actions taken. By conducting structured observations, the researcher or teacher can identify the impact of the intervention, enabling them to make better decisions on increase teaching and learning practices. Systematic observation also helps in collecting relevant data for further analysis and reflection.

e) Reflection

Kinsella (2023) emphasizes that reflection is an ongoing process and should be part of every stage of research. He argues that reflection not only helps researchers to understand the results of the research, but also to develop critical and analytical skills. Kinsella also suggests that researchers record their reflection process to assist in future evaluation and development.

f) Revised Action Plan:

Mills (2014) states that CAR is cyclic, so teachers can continuously improve their teaching practices based on the feedback obtained. By following this cycle, researchers can conduct ongoing evaluations of their teaching methods, identify strengths and weaknesses, and make necessary adjustments to achieve better learning outcomes. This cyclical approach supports continuous professional and increase educational quality.

g) Continuous Cycle

Stringer (2014) in Action Research explains that this cycle allows researchers to continuously improve the quality of learning and teaching. Applying a cyclic approach allows researchers to evaluate and reflect on their practice, identifying areas for increase and scaling up necessary changes. This contributes to sustainability in the educational process and increase student learning outcomes.

Classroom Action Research (CAR) provides an opportunity for researchers to systematically evaluate and improve their teaching methods. In this context, researchers can plan the use of tools such as Wordwall, implement learning activities, observe the results, and reflect on the process.

3.2 Variables of the Research

Research variables are attributes or properties of something (people, objects, or activities) that have certain variations set by researchers for further study (Sugiyono, 2019). This variable is important for obtaining relevant information and drawing conclusions from research. Research variables are concepts that

contain a variety of values (Effendi, 2020). This variable has a diverse nature, which refers to a variety of characteristics that differ from one another.

A variable is a characteristic or attribute that can vary or change. In the context of research, variables can be measured and used to test hypotheses. Creswell (2014) explains that variables are elements that can be measured and serve as a focus in research to answer research questions. Based on the understanding of variables is an essential component in research that allows researchers to measure, analyze, and understand the phenomenon being studied. By understanding and managing variables well, researchers can produce significant and relevant findings, and make a meaningful contribution to knowledge in the field under study.

Variables serve to measure certain characteristics or attributes relevant to the research. By measuring variables, researchers can collect the data needed for analysis. Creswell (2014) explains that variables are elements that can be measured and serve as a focus in research to answer research questions. Variables are used to test the hypotheses proposed in the research. By identifying independent and dependent variables, researchers can determine the cause-and-effect relationship between different factors. Best & Kahn (2006) explain that independent variables are factors that are considered as causes, while dependent variables are the expected results of research that are influenced by independent variables. Overall, variables have very important functions in research, from measuring characteristics, testing hypotheses, to analyzing data and generalizing findings. Understanding the functions of variables helps researchers design more effective studies and produce valid and useful findings.

Variables are very important in research because they help researchers gather relevant information and draw accurate conclusions. In addition, research variables encompass a wide range of concepts with diverse values, reflecting differences in existing characteristics. Thus, an understanding of research variables is essential for designing and conducting effective research.

From the research title “Increasing The Students' Vocabulary Mastery Through Wordwall Application At Seventh Grade Uptd Smp Negeri 2 Gunungsitoli Alo'oa” there are two variables found, namely the dependent

variable “Vocabulary” and also the independent variable “Wordwall Application”. This research focuses on the relationship between two variables: Wordwall application as (independent variable) which is expected to improve students' vocabulary (dependent variable). This reserach aims to help improve students' vocabulary through the use of Wordwall application.

3.3 Setting and Schedule of the Research

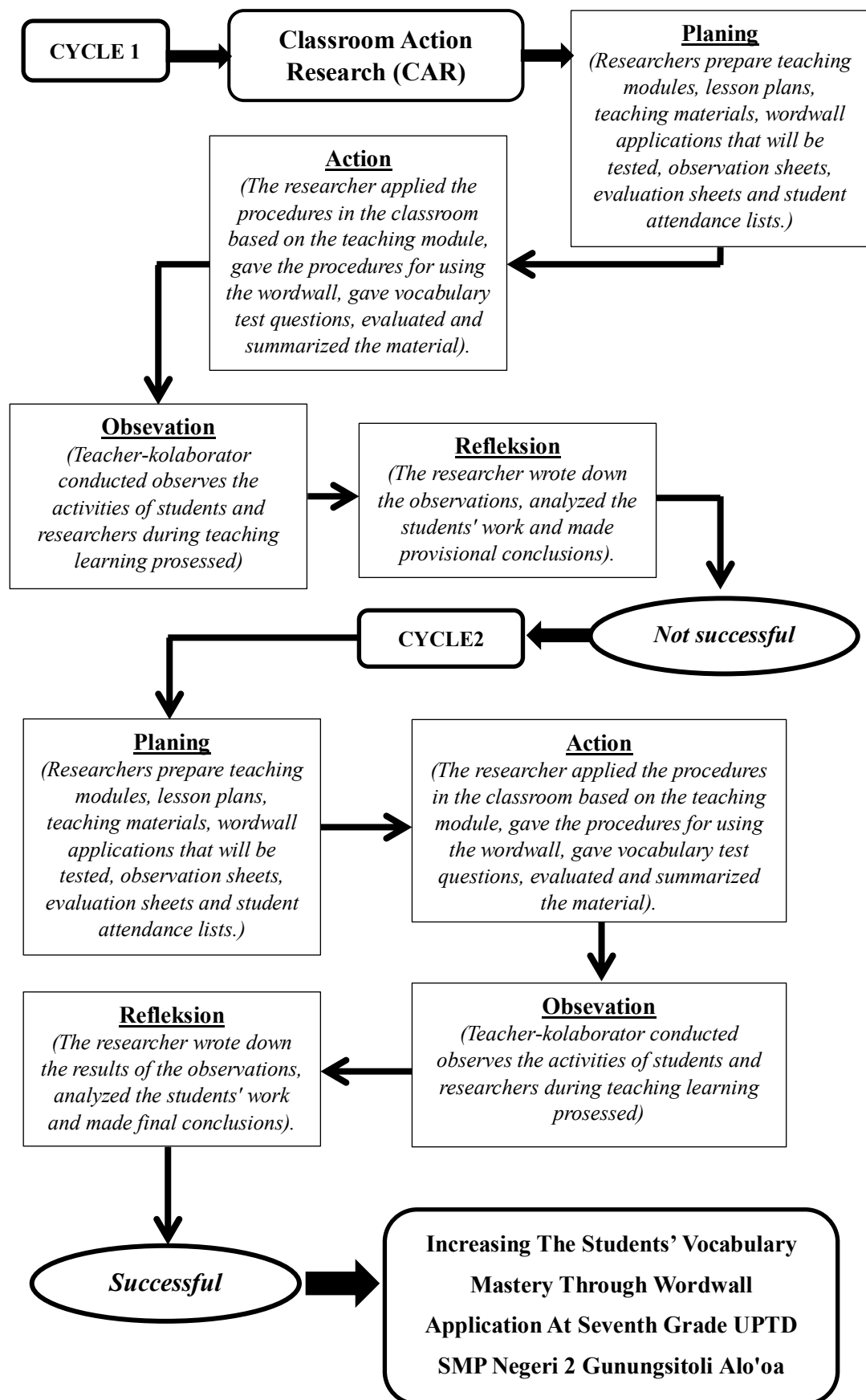
This research will be conducted at UPTD SMP Negeri 2 Gunungsitoli Alo'oa, Lololawa village, Gunungsitoli Alo'oa sub-district, Gunungsitoli City which will be conducted in seventh grade with 21 students and this research in March 2025 for two meetings in the classroom.

3.4 Procedure of the research

Creswell and Poth (2019) explain that research procedures include systematic steps taken by researchers to collect and analyze data. Hidayah (2016) defines CAR as research conducted by teachers to identify problems in the learning process and find effective solutions through planned actions. CAR focuses on improving learning practices by involving teachers and students in the research process. Thus, CAR not only serves as a tool for collecting data, but also as a means for teacher reflection and professional development. CAR is usually carried out in cycles consisting of several steps, namely planning, action observation and reflection.

In planning the actions to be taken in the classroom, researchers make preparations in the form of teaching modules, test questions on the material to be tested, observation sheets and evaluation sheets. After making preparations with the plans that have been prepared, the researcher takes action in accordance with what has been made or planned in the teaching module. Then, researchers made observations by providing teaching materials that had been prepared to analyze the students' abilities. In the end, in the last cycle, students got a change that was not so significant when compared to the first test and Cycle II test.

For more details, the researcher has summarized the Classroom Action Research Procedure about the cycles that have been carried out by researchers in conducting research which can be designed into the following concept:



3.4.1 The concept procedure in Classroom Action Research (CAR).

In the diagram it is explained that :

a. Cycle I

Cycle I was conducted in March 2025. Some of the steps in the cycle used by researchers in carrying out this research include: Planning, Action, Observation and Reflection. Here are some explanations at the first cycle stage, namely:

1. First Meeting

In cycle I, the first meeting was held on Wednesday, 19st March 2025 with 3x40 minutes, starting from 09.55 - 11.05 WIB. Third to fifth lessons in English subjects. Learning is carried out in class VII UPTD SMP Negeri 2 Gunungsitoli Alo'oa, with a total of 21 students consisting of 9 men and 12 women. The stages carried out by researchers at the first meeting are as follows:

a) Planning

In the initial stage, researchers prepared everything needed for the implementation of learning, such as learning modules, lesson plans, teaching materials, wordwall applications, observation sheets, evaluation sheets, and student attendance lists. Researchers increase the instruments that will be used to collect data, such as vocabulary test questions, observation sheets, and evaluation sheets.

In the first meeting, researchers need to prepare many things to be applied in the teaching and learning process such as: Teaching modules, teaching materials, lesson plans, wordwall applications, vocabulary test questions in wordwall applications, observation sheets and field notes, vocabulary skill assessment sheets, student attendance lists.

b) Action

In the next stage, the researcher implements learning in accordance with the plan that has been prepared. The use of the wordwall application and giving vocabulary test questions are part of the actions taken. After the learning is complete, researchers

evaluate student learning outcomes by giving vocabulary tests and analyzing observation results.

After planning and preparation, Cycle I first meeting continued with the action. In the initial activity that lasted for 20 minutes, the researcher entered the classroom in a friendly manner and greeted the learners. As a first step, the researcher asked one of the students to lead the prayer before the learning began. After that, the researcher checked the students' attendance and readiness, ensuring that all participants were present and ready to learn. The researcher then introduced herself and explained the purpose of her arrival, which was to provide useful learning. Before continuing, the researcher invites students to make a class agreement so that the learning process can run smoothly. To spark students' interest, the researcher displayed a picture of a house and asked for its English translation, followed by a picture of the room and the objects in it. The researcher introduces the topic, which is descriptive text about "Galang's House", and explains the learning objectives, which are for students to be able to communicate their ideas and experiences through simple and structured paragraphs and increase vocabulary acquisition.

In the core activities that lasted for 20 minutes, the researcher explained the meaning of descriptive text with the help of the Wordwall application. Students were invited to read together the definition. The researcher then explained the parts of descriptive text and displayed an example of descriptive text about "Galang's House". The researcher read the text slowly, followed by students reading along. After that, the activity continued with a 15-minute break.

After the break, the core activities continued for 65 minutes. The researcher asked the students to note the words contained in the descriptive text that they did not know the translation of. The researcher then gave the translation of the words

and translated an example of descriptive text about “Galang's House” for the students to record. Next, the researcher displayed pictures of various objects, such as tables, chairs, stairs, living room, dining room, bathroom, garage, bedroom, closet, and stove, asking students to choose the right English vocabulary or name for each picture. After displaying all the pictures, the researcher asked the students about the names of the objects they already knew and their English translations. The researcher and students then read each vocabulary displayed on the Wordwall app together.

In the closing activity which lasted for 15 minutes, the researcher gave feedback on student performance during learning. The researcher also reflected on the effectiveness of the activities that had been carried out and conveyed the agenda for the next meeting. Before ending the meeting, the researcher gave assignments to students to find and memorize noun vocabulary as an exercise. In closing, the researcher asked one of the students to lead the prayer as a sign of the end of the meeting.

c) Observation:

During the learning process, a collaborator will observe the activities of the researcher and students. The results of these observations are recorded in the observation sheet.

d) Field notes

Field notes aim to document the researcher's observations, experiences, and reflections during the research. It helps the researcher to capture nuances and context that may not be captured through other methods, such as interviews or surveys.

e) Reflection

In this case, researchers analyzed the data obtained from the results of tests, observations, and evaluations. Based on the results of the analysis, researchers drew temporary conclusions regarding the success of the actions taken.

2. Second Meeting

In the second meeting was held on Wednesday, 26nd March 2025 with 3x40 minutes, starting from 09.55 - 11.05 WIB. Third to fifth lessons in English subjects. Learning is carried out in class VII UPTD SMP Negeri 2 Gunungsitoli Alo'oa, with a total of 21 students consisting of 9 men and 12 women. The stages carried out by researchers at the first meeting are as follows:

a) Planning

In the second meeting, researchers need to prepare many things to be applied in the teaching and learning process such as: Teaching modules, teaching materials, lesson plans, wordwall applications, vocabulary test questions in wordwall applications, observation sheets and field notes, vocabulary skill assessment sheets, student attendance lists.

b) Action

After planning and preparation, Cycle I second meeting continued with the action. In this research activity, the researcher started by entering the classroom and greeting the learners warmly. In a familiar atmosphere, the researcher asked one of the students to lead the prayer before the learning began. After that, the researcher checked the attendance and readiness of the learners, ensuring that all students were ready to take part in the lesson. Before continuing, the researcher invited students to make a class agreement so that the learning process could run smoothly. The researcher then asked some triggering questions to arouse students' memories, such as the material learned in the previous meeting and the names of objects they know in English. Next, the researcher introduced the topic of the material to be discussed, namely descriptive text about "Budi's House", and explained the learning objectives, namely so that students can communicate their ideas and experiences through simple and structured paragraphs and improve vocabulary mastery.

In the core activity, the researcher displayed an example of descriptive text about “Budi's House” and asked students to identify parts of the text. Students then read the text and noted down words that they did not know the translation of in Indonesian. The researcher helped by providing translations of difficult words and translating the descriptive text for students to record.

After a 15-minute break, the core activities continued with the researcher displaying pictures of various rooms in Budi's house, such as the living room, dining room, bedroom, kitchen, and bathroom. Students were asked to name the objects in each room and translate them into English. The researcher also asked them the names of the objects they already knew and their translations. To sharpen understanding, the researcher gave practice questions through the Wordwall application and asked students to take turns answering questions in front of the class. Afterwards, students were asked to show their evaluation scores, and the researcher asked about the difficulties they faced in learning descriptive text. Together, the researcher and students read the vocabulary displayed on the Wordwall app.

In the closing activity, the researcher gave feedback on the learners' performance and reflected on the effectiveness of the learning activities that had been carried out. Before ending the meeting, the researcher assigns students to find and memorize noun vocabulary as an additional exercise. In closing, the researcher asked one of the learners to lead the prayer, marking the end of a productive and fun learning session.

c) Observation:

During the learning process, a collaborator will observe the activities of the researcher and students. The results of these observations are recorded in the observation sheet.

d) Field notes

Field notes aim to document the researcher's observations, experiences, and reflections during the research. It helps the researcher to capture nuances and context that may not be captured through other methods, such as interviews or surveys.

e) Reflection

In this case, researchers analyzed the data obtained from the results of tests, observations, and evaluations. Based on the results of the analysis, researchers drew temporary conclusions regarding the success of the actions taken.

b. Cycle II

If in Cycle I the results obtained have not achieved the expected success, then Cycle II is carried out. The procedure in Cycle II is generally the same as Cycle I, but with some adjustments based on the results of the reflection in Cycle I.

Cycle II consists of 2 meetings, which have been designed in the lesson plan. Implementation of Cycle II began in April 2025. Cycle II has a time allocation of 3 x 40 minutes. The process of implementing Cycle II is as follows:

1. First Meeting

The first meeting of Cycle II was held on Wednesday, 9th April 2025. The time allocation at the first meeting in Cycle II was 3 x 45 minutes, using the Wordwall Application as a learning platform. The research implementation procedure is as follows:

a) Planning

The researcher revised the lesson plan based on the results of the analysis in Cycle I. Researchers prepare new teaching materials or make improvements to existing teaching materials.

At the first meeting of Cycle II, researchers need to prepare many things. These things will help researchers to achieve research objectives. Researchers prepare things in the learning process such as: Teaching modules, wordwall applications, teaching materials,

attendance lists, observation sheets, assessment sheets, and also recording devices for the learning process.

b) Action

The researcher carried out the re-learning by using the revised lesson plan and materials.

After preparing everything, researchers took action in the classroom. In the initial activity which lasted for 20 minutes, the researcher entered the classroom by greeting the learners and asking one of them to lead the prayer. This creates a warm and respectful atmosphere before the learning begins. After that, the researcher checks the learners' presence and readiness, which is important to ensure that all students are ready to learn. Before proceeding, the researcher makes a class agreement with the learners so that the learning can run smoothly. The researcher then asks triggering questions related to the material to be discussed, namely descriptive text about "My House". This question aims to arouse learners' memories of the English vocabulary they have learned before, as well as encourage them to translate the objects in their homes into English. The researcher also explained the learning objective, which was for learners to be able to communicate their ideas and experiences through simple and structured descriptive text paragraphs.

In the core activities that lasted for 30 minutes, the researcher displayed an example of descriptive text about "My House" and read slowly so that students could follow. Learners were asked to note down words that they did not know the translation of. The researcher then provided the translation of the words and translated the descriptive text for students to record. Next, the researcher used the Wordwall app to display a picture of an empty room and asked learners about the objects that should be in the room, and translated them into English. At the end of this

session, the researcher asked the students for the names of the objects they knew and their English translations.

After a 15 minute break, the core activities continued for 65 minutes. The researcher gave practice questions through the Wordwall application which functioned as a quiz on language skills. Learners were asked to take turns answering the questions in front of the class. The researcher also asked about the difficulties faced by the learners in learning descriptive text and reading the displayed comprehension together. The researcher encouraged students to practice improving their skills.

In the closing activity which lasted for 15 minutes, the researcher gave feedback on the learners' performance and reflected on the effectiveness of the learning activities. The researcher also conveyed the agenda for the next meeting and gave assignments to learners to understand and memorize vocabulary as practice. Before ending the meeting, the researcher asked one of the learners to lead the closing prayer. Thus, this learning activity is designed to improve learners' understanding and skills in using English descriptively.

2. Second Meeting

The first meeting of Cycle II was held on Wednesday, 16nd April 2025. The time allocation at the first meeting in Cycle II was 3 x 45 minutes, using the Wordwall Application as a learning platform. The research implementation procedure is as follows:

c) Planning

The researcher revised the lesson plan based on the results of the analysis in Cycle I. Researchers prepare new teaching materials or make improvements to existing teaching materials.

At the first meeting of Cycle II, researchers need to prepare many things. These things will help researchers to achieve research objectives. Researchers prepare things in the learning process such as: Teaching modules, wordwall applications, teaching materials,

attendance lists, observation sheets, assessment sheets, and also recording devices for the learning process.

d) Action

The researcher carried out the re-learning by using the revised lesson plan and materials. After preparing everything, researchers took action in the classroom. In the initial activity which lasted for 20 minutes, the researcher entered the class and greeted the learners kindly. As a first step, the researcher asked one of the learners to lead the prayer before the learning began. After that, the researcher checked the attendance and readiness of the learners to ensure that all students were ready for the lesson. Before continuing, the researcher invites learners to make a class agreement so that the learning process can run smoothly. The researcher then asked some triggering questions related to the material to be presented, such as asking the names of objects in English that had been learned previously and objects in the learners' homes along with their translations. Next, the researcher introduces the topic of the material, namely descriptive text about “Your House”, and explains the learning objectives, namely that learners can communicate their ideas and experiences through simple and structured descriptive text paragraphs, as well as improve their understanding of the text.

In the core activity which lasted for 30 minutes, the researcher displayed an example of descriptive text about “Your House” and read slowly so that students could follow. Learners were asked to note down words that they did not know the translation of in Indonesian. After that, the researcher provided translations for the words that the students did not understand and translated the descriptive text example for their notes. The researcher then displayed a picture of the first empty room, namely the Living Room, through the Wordwall app and asked learners if they owned the room and the objects in it. This process was repeated for the other rooms, such as the Dining Room, Bedroom, Kitchen, and

Bathroom, with the researcher continuing to ask about the objects in each room. At the end of this session, the researcher asked the students about the names of the objects they knew and their English translations.

In the closing event which lasted for 15 minutes, the researcher gave feedback on students' performance during the lesson. The researcher also reflects on the effectiveness of the learning activities that have been carried out. Before ending the meeting, the researcher gave an assignment to the learners to find and memorize the understanding of objects as an exercise. In closing, the researcher asked one of the learners to lead the prayer to end the meeting.

e) Observation and Reflection

Just like in Cycle I, the researcher observed and analyzed the data obtained. Based on the results of the analysis in Cycle II, the researcher drew a final conclusion regarding the success of the study.

After learning in cycle 1 has been carried out, the next activity is to carry out learning in cycle 2. At this stage, the researcher re-collects the learning with the students and collects the same data to evaluate the changes that occur in students. Comparison between the results of cycle 1 and cycle 2 allows researchers to assess the effectiveness of the learning methods applied, as well as provide insight into the increase the students' understanding and skills after the learning process.

So, the main objective of this research is to increasing the students' vocabulary mastery through wordwall application at seventh grade.

From the diagram presented, it can be concluded that this research uses the Classroom Action Research (CAR) method with the aim of increase the learning process and improving student learning outcomes. Researchers conducted repeated learning cycles

to achieve the desired goals. Each cycle consists of interrelated stages of planning, action, observation, and reflection.

3.5 Source of Data

Data sources in research refer to the place or manner in which the information or data needed for research is obtained. Data sources are very important because the quality and reliability of the data collected will affect the results and conclusions of the research.

In this study, researchers will use a systematic and planned approach to collect data through interviews, surveys, and documentation at the research site.

3.5 Instrument of the Research

Creswell (2020) explains that in qualitative research, research instruments are often flexible and can be adapted to the research context. This instrument is not only a data collection tool, but also includes the researcher himself as the main instrument. Researchers interact directly with respondents to explore in-depth and complex information. Merriam & Tisdell (2016) say that instruments in qualitative research can include interviews, observation, and document analysis. These instruments are designed to collect rich and in-depth data, which allows researchers to understand the meanings and experiences of individuals in their social context.

a. Interviews:

According to Kvale and Brinkmann (2019), interviews are a way to understand the world from another person's perspective, and provide an opportunity for respondents to share their experiences, views and feelings. In the context of Classroom Action Research, interviews are an invaluable tool for eliciting in-depth information about the experiences and perceptions of students and teachers. By using interviews, researchers can gain better insight into the dynamics of learning in the classroom, which in turn can help in designing more effective interventions to improve the quality of teaching and learning.

The results of the researcher's interview with a seventh grade English teacher at UPTD SMP Negeri 2 Gunungsitoli Alo'oa revealed various problems faced by teachers when teaching in the classroom. One

of the main obstacles faced is the lack of interest and motivation of students in learning English. Many students find the material difficult, especially in terms of vocabulary and grammar, so they tend to participate less actively in learning. In addition, teachers also face the challenge of managing a diverse class, where there are students with different abilities. This makes teachers have to be more creative in developing teaching methods so that all students can understand the material well. In addition, limited facilities and adequate learning resources are also an obstacle, where teachers often have to struggle to create an interesting learning atmosphere with limited tools and media. Nevertheless, teachers still strive to give their best by applying various innovative teaching strategies and involving students in the learning process so that they can better understand and enjoy English lessons.

b. Observation

Creswell (2014) explains that observation is a data collection technique that involves direct observation of behavior, interactions, and social context. In qualitative research, observation can provide deep insights into situations that cannot be revealed through interviews or surveys. Creswell emphasizes the importance of recording relevant details and the context in which observations are made.

c. Test

The test must be able to provide consistent results. According to Sanjaya (2015), reliability can be tested with the retest method or the halved method to ensure that the results are not influenced by external factors. The test must be able to measure what it is supposed to measure. Validity can be tested by ensuring that each item is relevant to the research objectives. Sanjaya (2015) emphasizes the importance of validity to obtain valid data. Tests provide objective and measurable data, which is very important in quantitative research. By using valid and reliable tests, researchers can draw more accurate and reliable conclusions.

d. Document Analysis

Document analysis is a method that involves collecting and analyzing relevant documents to understand the phenomenon under study. The documents analyzed can be lesson plans, observation notes, learning outcome reports, and other documents related to the learning process. According to Creswell (2019), document analysis can help researchers to understand the context and background of the actions taken in the classroom. With its ability to provide context, explore change, and support the validity of findings, document analysis can be an effective tool for understanding complex phenomena in the learning process.

Based on these instruments allow researchers to understand the meanings and experiences of individuals within their social context, resulting in more in-depth and contextualized data.

3.6 Data Collecting Technique

Techniques for collecting and analyzing data are known as data collection techniques. Several data collection methods were used in this Research, including:

a. Test

The researcher will give a test to the students to measure how well they master vocabulary after using the Wordwall app. This test can be multiple choice questions, fill-in-the-blank questions, or other types of questions designed to assess students' vocabulary comprehension.

b. Observation

Observation data collection technique is a method that involves direct observation of the object or phenomenon being studied. This method allows researchers to systematically describe the behavior and interactions of subjects in the field. This method is used to obtain more accurate data.

c. Documentation:

The researcher will collect and analyze relevant documents, such as lesson notes, teaching materials, or student learning outcome reports. This documentation can provide additional context and information that supports the research results.

By using tests, interviews, and documentation, the researcher sought to obtain comprehensive and in-depth data on the use of Wordwall application in increase students' vocabulary acquisition. These methods helped the researcher understand not only the students' learning outcomes, but also their experiences and views during the learning process.

3.7 Data Analysis Technique

In the context of research, data analysis is a crucial step that aims to organize, interpret, and present the data that has been collected. According to Creswell and Clark in Onwuegbuzie (2011), data analysis includes several important aspects that need to be considered by researchers. Based on a discussion of the data, the following are techniques for analyzing data:

1. Qualitative Data

Henderson (2015), states that qualitative data analysis involves three important interactive activities :

a) Data Reduction

Data reduction is the process of simplifying and focusing the data that has been collected. In the context of qualitative research, the data obtained is often very large and complex, so it is necessary to reduce it to identify the most relevant information. The purpose of data reduction is to reduce data complexity and focus attention on the most important information.

b) Data Displays

Data displays is the process of presenting data in an organized and easy-to-understand form. Good data presentation allows researchers to see patterns, relationships, and themes that emerge from the data. Effective data presentation helps researchers and readers to understand the results of the analysis better.

c) Conclusion: Drawing/Verifying

The final activity in qualitative data analysis is drawing conclusions and verifying findings. Drawing Conclusions is interpreting the data that has been analyzed to produce significant findings. This includes relating the findings to existing theories or

previous literature. Verification is ensuring that the conclusions drawn can be justified. This can be done through data triangulation, member checking, or other techniques that increase the reliability of the research results.

The qualitative data was obtained from the observation sheets and field notes, the researcher analysed by using a formula that was adapted from tuckman (1975:287) in Nugiyantoro:

$$PD (\%) = \frac{\text{done activity}}{\text{whole activity}} \times 100$$

In which:

PD : presentage degree.

Done activities : all activities which are done by the researcher and the students during the implementation of the action.

Whole activities : total activities which are written down on the paper of observation, either for the research of the students.

2. Quantitative Data

According to Hatch in Clark (2020), qualitative data is a type of data that is descriptive and cannot be measured with numbers. This data is often obtained through data collection methods such as interviews, observation, and document analysis. Qualitative data is a powerful tool for understanding the complexity of human experience. By using appropriate methods and reflective analysis, researchers can extract deep meaning from qualitative data, making a significant contribution to the understanding of social phenomena.

The researcher analyzed the score of the students by using formula as below:

$$\text{Score} = \frac{(F + G\&V + P\&A)}{\text{maximum score}} \times 100$$

$$\Rightarrow \text{Score} = \frac{\text{obtaned score}}{\text{maximum score}} \times 100$$

Table 1.7 Rating Interval

Interval Percentage Mastery level	Four-Scale Transformation Value		Description
	1 - 4	D - A	
86 - 100	4	A	Excellent
75 - 85	3	B	Good
56 - 74	2	C	Fair
10 - 55	1	D	Poor

Source: (Nurgiyantoro 2010:253)

In which:

- Score** : The final grade obtained by a student after completing an assignment or test.
- F+G&V+P&A** : This is a representation of the total score a student earned from the various components of the assessment.
- F** : represents the score from the “fact” or “understanding” aspect of the material.
- G&V** : General Knowledge and Vocabulary which refers to the general knowledge and vocabulary skills that students have.
- P&A** : Problem-solving and Analysis which shows students' ability to analyze problems and find solutions.
- Maximum score** : The maximum score that a student may obtain if they answer all questions correctly or fulfill all assessment criteria.

Furthermore, to assess students' ability to identify the elements of news text using the following criteria:

Table 1.8 Criteria for assessing students' vocabulary skills

No	Criteria	Score			
		1	2	3	4
1	Answering vocabulary questions in the wordwall app				
2	Ability to translate vocabulary				
3	Ability to spelling vocabulary				
4	Ability to pronounce vocabular				

Source: Kusmayadi 2021

$$\text{Score} = \frac{\text{Total score obtained}}{\text{Maximum score}} \times 100 =$$

Score description:

4 = Excellent

3 = Good

2 = Fair

1 = Poor

Maximum score = 12

The above formula is used to calculate the percentage of the score obtained by the student from the maximum possible score. In other words, this formula converts students' raw scores into percentage values that are easier to understand and compare.

Based on the research, in Cycle 1, researchers found that students' ability to increase vocabulary was below the MCC (67). Therefore, the researcher continued the research in Cycle II. In Cycle II, researchers found that students' progress in vocabulary increased and reached the MCC. This is evidenced by the students' minimum score of 73 and maximum score of 87.