

CHAPTER III

RESEARCH METHOD

3.1 Approach and Type of the Research

A research method is an organized and methodical process for gathering, analyzing, and interpreting data within a study. It outlines the instruments, strategies, and steps utilized to explore a research issue, address questions, or evaluate hypotheses.

Firdaus & , Zulfadilla (2021) state that research method is the systemic way that researchers use in the collection of data necessary in the process of identifying and explaining social phenomena that are being investigated. According to Osuagwu (2020: 48) research methods, generally include designing studies, collecting data, analyzing collected data, testing for relevant relationships/differences between/among variables, making sense out of research findings, and reporting the findings to the relevant audience in the appropriate format.

In conclusion, a research method is a systematic approach used to collect, analyze, and interpret data in a study. It involves designing the study, gathering data, analyzing it, and presenting the findings in a clear and structured manner. Research methods serve as a crucial framework for exploring research questions, identifying relationships, and drawing meaningful conclusions to address the objectives of the study.

Moreover, this research employed a Classroom Action Research (CAR) approach to investigate the effectiveness of using visual arts in improving vocabulary mastery among seventh-grade students at UPTD SMP Negeri 2 Gunungsitoli Alo'oa. This approach is particularly suitable for addressing classroom-based problems and enhancing teaching effectiveness. According to Arikunto in Napitupulu (2021: 6) classroom action research is a study of activities that are intentionally designed to appear and happen in a class.

Napitupulu (2021: 4) further explains that Classroom Action Research is a method used to solve problems encountered in teaching and learning processes within the classroom. Sunata (2019: 119) adds that Classroom Action Research

aims to improve the quality of teaching by upgrading learning materials, inputs and outputs, processes, and objectives. On the other hand, it is also intended to foster a culture of research among educators to motivate them to actively seek solutions to classroom problems. In simpler terms, Classroom Action Research can be understood as a controlled and cyclical approach to directly overcome real and specific problems in the learning process Sunata (2019: 120).

In conclusion, this research utilized Classroom Action Research (CAR) to explore the effectiveness of using visual arts in improving vocabulary mastery among seventh-grade students. CAR is a suitable approach for addressing issues in the classroom and enhancing teaching effectiveness. The approach aims to improve teaching quality by refining learning materials, processes, and objectives, while also promoting a culture of research among educators. By applying a cyclical and controlled method, CAR directly addresses real and specific problems within the learning process.

The stages of Classroom Action Research (CAR) consist of identifying problems, planning actions, implementing interventions, observing outcomes, reflecting on results, revising plans, and repeating the cycles as needed. This approach enables educators to methodically assess and enhance their instructional strategies while also fostering continuous professional growth.

- a. Kallio (2022) mentions that problem identification is recognizing and articulating a gap, whereas problem solving is the set of actions to move to the desired state. Problem identification involves recognizing an issue and determining its root cause. This process entails collecting preliminary data and reviewing existing studies to confirm that the identified issue is valid and significant.

- b. Action Planning

Action planning is a common approach used in physical activity interventions. The aim of this study was to assess the association of frequency, consistency and content of action planning with physical activity behavior, intention strength and habit strength. Rebar et al (2023). By examining its frequency, consistency, and content, the research provides valuable insights into how structured

planning can influence individuals' behavioral patterns, strengthen their intentions, and foster lasting habits. These findings emphasize the importance of incorporating effective action planning strategies into physical activity interventions to achieve sustainable behavior change.

c. Action Implementation

The implementation of the research is carried out through the Planning flow, at this stage the teacher plans and prepares the needs needed during the Action, such as: Learning Program Plan, media, schedule, assessment, subject, class, and permissions. Siregar et al (2022). In conclusion, a well-structured planning phase plays a crucial role in the success of classroom action research. By meticulously organizing all essential components beforehand, teachers can ensure a smoother implementation process, leading to more effective teaching strategies and improved learning outcomes for students. This reinforces the importance of thorough preparation as a foundation for achieving educational goals.

d. Observation

Systematic observation instruments are most important in assessing teaching quality, Kohake (2024). Kohake adds emphasizes that structured observation is a meaningful method for evaluating instructional quality and serves as a foundation for future enhancements. By applying this approach, educators are able to gain significant insights into their teaching performance, allowing them to recognize both strengths and aspects that require improvement. This form of assessment supports continuous professional development and contributes to better learning outcomes for students.

e. Reflection

Sudarwati & Manipuspika (2021), highlights that reflection plays a crucial role in Classroom Action Research. It marks the final stage

of each cycle, where both the researcher and the collaborating teacher assess the effectiveness of the implemented strategy. This stage is essential for identifying the positive aspects and shortcomings of the teaching approach, helping determine whether the intended goals were met. Reflection not only evaluates the outcomes but also serves as a foundation for planning further improvements, ensuring that the instructional process continues to adapt to students' needs.

f. Revised Action Plan:

The modified action plan was designed to overcome the shortcomings observed during the reflection phase while maintaining the effective aspects of the previous strategy. This revised plan involved enhancing instructional methods to boost student participation and comprehension, including the integration of more dynamic activities and a broader selection of visual learning resources. Evaluation techniques were also enhanced by incorporating a range of question types and considering alternative forms of assessment, such as project-based tasks. To promote stronger interactions between the teacher and students, the researcher scheduled more individual consultations and created space for students to share their feedback during lessons. Additionally, the collaborating teacher engaged in further professional development aimed at strengthening their skills in utilizing visual arts to support vocabulary instruction. A progress-tracking system was also implemented to monitor the impact of these improved strategies and ensure the continued advancement of students' vocabulary acquisition and learning outcomes.

g. Continuous Cycle (n-Cycle)

The continuous cycle focuses on an ongoing process of reflection, adjustment, and improvement. After implementing the revised action plan, the next phase involves further observation and evaluation of the teaching strategies and student progress. Based on

the outcomes and feedback, the strategies will be refined again, ensuring that each cycle brings about meaningful changes to enhance teaching and learning. This iterative process encourages continuous development, as each cycle builds on the previous one, allowing for more effective strategies to be identified and implemented. The continuous cycle promotes sustained growth, ensuring that both teaching practices and student learning continuously evolve to achieve optimal results.

Classroom action research is an ongoing process that involves identifying problems, planning actions, implementing strategies, observing outcomes, reflecting on progress, and revising action plans to enhance teaching practices and student learning. Through systematic observation and reflection, the effectiveness of teaching strategies is continuously evaluated, and adjustments are made to improve student engagement and academic performance. This iterative cycle of action planning and evaluation allows for the refinement of teaching methods, ensuring they meet the evolving needs of students. By embracing this approach, educators can foster a dynamic and responsive learning environment that leads to sustained improvement in both teaching practices and student outcomes.

3.2 Variables of the Research

In this study, the independent variable (X) is Visual Arts Integration. This variable refers to the incorporation of various forms of visual arts, such as images, paintings, sculptures, photography, and digital media, into the English language learning process. These visual arts serve as tools for enhancing students' understanding and retention of vocabulary, helping them create strong associations between words and visual representations.

The dependent variable (Y) is Seventh Graders' Vocabulary Mastery. This variable measures the level of students' vocabulary learning and retention after the integration of visual arts in the learning process. It includes the students' ability to understand, recall, and use English vocabulary effectively in speaking, reading, writing, and listening tasks.

According to Andrade (2021) variables are characteristics of the sample that are examined, measured, described, and interpreted. In this study, the independent variable (X) – Visual Arts Integration – will be manipulated by the researcher, while the dependent variable (Y) – Vocabulary Mastery – will be measured to observe how the integration of visual arts impacts students' vocabulary learning.

- Independent Variable (X): Visual Arts Integration
- Dependent Variable (Y): Vocabulary Mastery

3.3 Setting and Schedule of the Research

This study took place at UPTD SMP Negeri 2 Gunungsitoli Alo'oa, located in Lololawa village, Gunungsitoli Alo'oa sub-district, Gunungsitoli City. It was involve seventh-grade students, with a total of 20 participants. The research was scheduled to be carried out in April until May 2025, during two cycles.

3.4 Procedure of the Research

1. Planning

In the planning stage, the researcher designed lesson plans that integrated visual arts as a medium for vocabulary learning. Teaching materials, including images visual and video visual, were prepared to enhance students' vocabulary acquisition. Additionally, the researcher developed assessment tools such as evaluation test to measure students' vocabulary improvement. A structured timeline was organized for the implementation of the research, ensuring that all necessary resources, including multimedia and printed visual arts, were available for classroom activities.

2. Action

During the action stage, the researcher implemented the designed lesson plans by introducing vocabulary through visual arts and guiding students in associating words with the provided visual representations. Interactive activities were conducted, such as describing, categorizing, and using vocabulary related to visual arts in sentences. Students also participated in group discussions and completed exercises that encouraged the

practical application of newly learned words. The researcher facilitated the learning process, ensuring active student engagement.

3. Observation

In the observation stage, the researcher monitored students' engagement, participation, and reactions throughout the learning process. Formative assessments were conducted through oral questioning, class activities, and written exercises to track students' progress. The researcher took notes on challenges encountered by students while learning vocabulary through visual arts and gathered feedback regarding their learning experience. This observation helped identify areas for improvement in the teaching method.

4. Reflection

The reflection stage focused on analyzing students' pre-test and post-test results to evaluate vocabulary improvement. The researcher reflected on the effectiveness of visual arts as a vocabulary learning tool and identified necessary modifications for the next cycle. Feedback from students and observations were used to refine teaching strategies and materials. When needed, the researcher made adjustments to enhance learning outcomes, ensuring that visual arts were effectively utilized in vocabulary learning. This cycle was repeated until significant improvement was observed in students' vocabulary mastery.

Classroom action research is one of the important duties of teachers to do in parallel with learning management to develop themselves and students systematically, Wongwanich in Meesuk et al (2020). "Classroom action research must conduct by teachers in order to solve problems in the classroom and use it to improve teaching or to maximize the development of teacher and learners", Wongwanich Meesuk et al (2020). Its mean that Classroom action research (CAR) is an essential approach for teachers to implement, as it plays a significant role in addressing various issues in the classroom. Through CAR, teachers can identify challenges faced by both students and themselves, as well as design appropriate solutions to enhance the effectiveness of the learning process. Moreover, this research contributes to improving teaching quality by developing more relevant

methods, strategies, and materials. Furthermore, CAR provides opportunities for both teachers and students to grow continuously, as the process of reflection and evaluation enables ongoing innovation in teaching and learning. Therefore, CAR serves as a strategic tool to support comprehensive improvements in education quality.

In preparing the actions to be implemented in the classroom, researchers design test questions related to the material being studied, along with observation sheets and evaluation forms. After completing the necessary preparations based on the established plan, the researchers proceed to implement the actions as outlined in the teaching module. During this phase, the researchers deliver the prepared teaching materials and closely observe the students' progress to analyze their learning abilities. Ultimately, students show improvement, although the changes observed between the initial test and cycle II test are relatively modest.

To enhance the research process, researchers should ensure the test questions align with the learning objectives and provide a clear measure of students' understanding. Observations can be complemented with detailed notes on student engagement, participation, and challenges encountered during the learning activities. Furthermore, evaluation sheets should include criteria for assessing not only academic achievement but also skill development and attitude changes. By refining these aspects and conducting further cycles, researchers can aim for more substantial and measurable improvements in student outcomes.

The procedure of the research cycles conducted by researcher follows the principles of Classroom Action Research (CAR) and consists of several iterative phases designed to address classroom challenges and improve teaching and learning outcomes systematically. The cycles are described as follows:

➤ **Cycle I procedure:**

a. Planning:

In the planning stage, the researcher prepared all the necessary materials, including lesson plans that integrated visual media, such as pictures, sculptures, and learning videos, for vocabulary instruction. The researcher also developed student worksheets, observation sheets, and evaluation test instruments to assess students' vocabulary learning.

A research schedule was set, and a camera was prepared to document the teaching process. In addition, the researcher determined the research sample by selecting one class as the experimental group for the study.

b. Action

In the action stage, the researcher implemented the teaching process by using visual arts to enhance vocabulary learning. The lesson began with an initial evaluation test to assess students' existing vocabulary knowledge. Then, the researcher introduced vocabulary through visual arts by showing pictures, sculptures, or learning videos related to the target words. Students participated in interactive activities such as describing images, associating words with visual elements, and using vocabulary in sentences. Additionally, students engaged in group discussions and hands-on activities to reinforce their learning. After the treatment, a final evaluation test was administered to measure students' vocabulary improvement.

c. Observation

In the observation stage, the researcher will observe students' engagement and participation in the learning process. Observations will be documented through observation sheets and classroom recordings to capture students' interactions and responses to visual arts-based learning. The researcher will also interpret the collected data, noting any difficulties faced by students and their level of enthusiasm during the lessons.

d. Reflection

In the reflection stage, the researcher analyzed the collected data using the mean formula to assess students' vocabulary improvement. Evaluation test scores from each cycle were compared to determine the effectiveness of visual arts in vocabulary teaching. Additionally, student feedback and classroom observations were reviewed to identify strengths and areas for improvement in the teaching process. The researcher reflected on the results and made necessary modifications for the next cycle to enhance learning outcomes.

➤ **Cycle II procedure**

a. Planning

In the planning stage of Cycle II, the researcher revised the previous teaching strategy based on the results and reflection from Cycle I. The researcher prepared updated lesson plans, focusing on reinforcing vocabulary through improved visual materials. Additional vocabulary worksheets and revised evaluation test instruments were created to suit the new instructional focus. The schedule for Cycle II was arranged to accommodate two meetings, and all teaching tools, including printed visual images and supporting materials, were made ready. The researcher also coordinated with the collaborating teacher to ensure consistency in observation and support throughout the teaching process

b. Action

In the action stage of Cycle II, the researcher implemented the revised lesson plans. In the first meeting, students watched a different visual arts video still related to the “Home Sweet Home” theme. The video contained a new set of vocabulary items, and students were asked to identify, discuss, and pronounce the words. In the second meeting, the researcher used printed visual images (pictures) of objects from the same theme to reinforce the vocabulary taught earlier. Students engaged in vocabulary games and matching activities using the images. These activities were designed to enhance vocabulary retention in a fun and interactive way. At the end of the second meeting, an evaluation test was given to assess students’ vocabulary mastery in Cycle II.

c. Observation

During the observation stage, the researcher and the collaborating teacher monitored student behavior and participation throughout both meetings. Observation sheets and video recordings were used to document the learning process. The researcher noted student responses, enthusiasm, and ability to apply the vocabulary in classroom tasks. Special attention was given to students’ interaction with the visual materials and their engagement in vocabulary games

d. Reflection

In the reflection stage, the researcher reviewed the results of the Cycle II evaluation test and compared them with those from Cycle I. The data showed improvement in students' vocabulary scores, with a higher percentage of students reaching the minimum mastery level. Student feedback and classroom observations also indicated greater confidence and enthusiasm during vocabulary activities. Based on these findings, the researcher concluded that the use of visual arts both video and images effectively supported vocabulary learning. Since the desired outcomes were achieved in Cycle II, no further cycle was needed.

3.5 Source Data

The sources of data in this research come from several key elements involved in the teaching and learning process. The primary data source is the students, whose performance is assessed through pre-tests and post-tests. Teacher observations also play a crucial role, with the researcher recording students' engagement and participation during lessons. Additionally, observation sheets and field notes document classroom dynamics and any challenges that arise. Evaluation sheets provide further data on students' achievements and understanding. Lastly, student feedback is gathered informally through questionnaires or discussions to gain insights into their learning experiences. These varied sources provide a comprehensive analysis of the intervention's effectiveness.

3.6 Instrument of the Research

Riswana & Nasution (2024), mentions that research instruments are tools used to collect data in research. These instruments play a crucial role in ensuring the accuracy and validity of the data gathered. In the context of this study, the instruments used include the following:

a. Observation

Observation was a crucial tool in Classroom Action Research (CAR) for gathering real-time data on student behavior, teacher-student interactions, and classroom activities. The researcher used observation sheets to

systematically record students' engagement, participation, and responses to the teaching strategies applied. This method provided direct evidence of how students interacted with visual arts-based vocabulary learning and helped evaluate the effectiveness of the intervention.

b. Field Notes

Field notes served as a detailed record of classroom dynamics, unexpected occurrences, and students' reactions during the learning process. The researcher took descriptive and reflective notes to document teaching strategies, student engagement, and any challenges encountered. These notes complemented the observation data by capturing nuances that may not have been reflected in structured observation sheets.

c. Test

Evaluation tests were administered to measure students' vocabulary improvement. The initial evaluation test assessed students' existing vocabulary knowledge before the implementation of visual arts-based learning, while the final evaluation test measured their progress after the intervention. The comparison of these test scores determined the effectiveness of the teaching method in enhancing students' vocabulary mastery.

d. Documentation

Documentation was taken to record the teaching and learning process, including classroom interactions, student activities, and the use of visual arts in vocabulary instruction. These images served as supporting evidence of student engagement and the implementation of the instructional strategies. Additionally, they provided a visual record that aided in further reflection and analysis of the research findings.

3.7 Data Collecting Technique

Data collection techniques are the approaches used to gather and analyze information in a research study. This research utilized several methods for data collection, such as:

a. Observation

The researcher observed students' engagement, participation, and responses during visual arts-based vocabulary learning activities. Using an observation sheet, the researcher documented students' interactions, enthusiasm, and overall classroom dynamics. These observations helped assess the effectiveness of visual arts in enhancing vocabulary learning.

b. Field Notes

Field notes were used to record detailed information during the teaching and learning process. The researcher took descriptive and reflective notes to document classroom dynamics, student reactions, levels of engagement, and any unexpected occurrences throughout the vocabulary lessons using visual arts media. These notes complemented the observation sheet by capturing aspects that may not have been formally recorded, such as spontaneous student responses, classroom atmosphere, or technical issues. The field notes provided valuable qualitative data that supported the interpretation of students' behavior and progress. Through field notes, the researcher was able to reflect on the effectiveness of the instructional strategies, identify areas needing improvement, and adjust the learning approach for the next meeting or cycle.

c. Test

To measure the effectiveness of using visual arts in improving students' vocabulary learning, the researcher administered a vocabulary test. This test **was** a multiple-choice test that evaluated students' comprehension and retention of vocabulary learned through visual arts-based activities. This test provided quantitative data on how well students had mastered the vocabulary after the intervention.

d. Documentation

Relevant documents, such as lesson plans, teaching materials, student work samples, and progress reports, were collected and analyzed. These documents provided additional context and helped the researcher evaluate how visual arts were integrated into lessons and how effectively they contributed to vocabulary learning. The documentation provided insight

into the teaching strategies and how they were implemented in the classroom.

3.8 Data Analysis Technique

Islam (2020), states that data analysis is defined as a process of cleaning, transforming, and modeling data to discover useful information for business decision-making. This process involves evaluating and organizing raw data into a more interpretable format, allowing businesses to derive insights that can guide strategic choices

Drawing from the data discussion, the following techniques are used to analyze the collected data:

1. Qualitative Data

This study used qualitative data analysis as outlined by Rijali in Gea (2023). According to Tisdell, (2016) Qualitative research involves the use of verbal data, which are gathered and interpreted through various methods. The model is consistent with four key steps: data collection, data reduction, data display, and conclusion drawing and verification.

a. Data Collection

Data collection involves gathering information systematically to address the research objectives. In qualitative research, data is often collected through various methods, such as interviews, observations, and document analysis, to ensure a comprehensive understanding of the subject matter. Once the data is collected, it undergoes a process of data reduction, where it is streamlined and focused. Data reduction simplifies the vast and complex information by identifying the most relevant and significant details, ensuring that attention is directed toward the core findings aligned with the research goals.

b. Data Reduction

Data reduction involves streamlining and focusing the collected data. In qualitative research, the data gathered is often extensive and complex, making it essential to narrow it down to highlight the most relevant details. This process aims to simplify complex data and emphasize key aspects aligned with the research objectives.

c. Data Displays

Data display refers to methods of organizing and presenting data in a structured and comprehensible manner. Effectively presenting data allows researchers to identify patterns, relationships, and themes within the collected information. A clear and well-organized data display enhances the understanding of both researchers and audiences, facilitating deeper insights into the analysis results.

d. Conclusion Drawing and Verification.

The final step in qualitative data analysis involves drawing conclusions and validating the findings. Drawing conclusions entails interpreting the analyzed data to generate meaningful insights, often by connecting the results to established theories or prior studies. Validation ensures that the conclusions are credible and well-supported, which can be achieved through methods such as data triangulation, member checking, or other strategies that enhance the reliability of the research outcomes.

The researcher used the following formula to analyze the qualitative data collected from observation sheets and field notes, ensuring a systematic interpretation of the result.

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

Where:

- **PD** refers to the percentage degree of success.
- **Done activity** represents the number of tasks successfully completed by the students and the researcher, and
- **Whole activity** indicates the total activities recorded in the observation.

Subsequently, qualitative data from field notes were analyzed through the following stages:

1. **Data Reduction:** Filtering and focusing on relevant information from the field notes to highlight significant data.
2. **Data Display:** Organizing the reduced data in a narrative or visual format to identify patterns and relationships.
3. **Conclusion Drawing & Verification:** Drawing conclusions based on the analyzed data and comparing them with the observation results and the theoretical framework supporting the study.

In this study, the main instrument used to measure students' vocabulary learning was a multiple-choice test. This test was designed to assess the extent to which students could recognize, understand and use vocabulary in various contexts. Each question in the test consists of one correct answer and several incorrect choices, which aims to reduce the possibility of guessing and increase the validity and reliability of the. The test questions include various forms of questions that test students' understanding of words, both in the context of sentences and in longer texts. For example, one of the questions tested students' understanding of the meaning of the word "widow" described in the text. Scoring is done by giving a score of 1 for correct answers and 0 for incorrect answers. The total test score is calculated by totaling the number of correct answers, giving an idea of the student's vocabulary learning level. The advantage of multiple-choice tests is the ease with which scoring can be automated, as well as their ability to test vocabulary recognition, understanding of word meaning, and context of use. However, it has limitations as it cannot measure students' ability to generate or use words in a wider context.

In addition to the multiple-choice test, the Percentage Degree (PD) formula is used to analyzed qualitative data collected through observation sheets, field notes, and vocabulary tests. PD is calculated by dividing the number of successfully completed activities by the total number of recorded activities, then multiplying by 100. The result of this formula provided a percentage of success that reflects the extent to which the tasks performed by students and researcher was successfully completed, which was an objective indicator of success in achieving the learning objectives. By using a combination of multiple-choice tests

for vocabulary measurement and the PD formula for analyzing activity results, this research instrument allowed researcher to systematically collect and analyze data, which was then used to draw conclusions and as certain the effectiveness of the teaching methods applied.