

CHAPTER III

RESEARCH METHODOLOGY

A. Research Design

1. Classroom Action Research (CAR)

The Classroom Action Research (CAR) technique was employed in this study, which is research undertaken to identify a practical knowledge base to change the situation that is carried out on a restricted basis in the classroom. This strategy was employed by the researcher to increase the quality of learning. The researcher wants to discover what students' problems are in vocabulary learning so that they can identify solutions to improve students' vocabulary mastery.

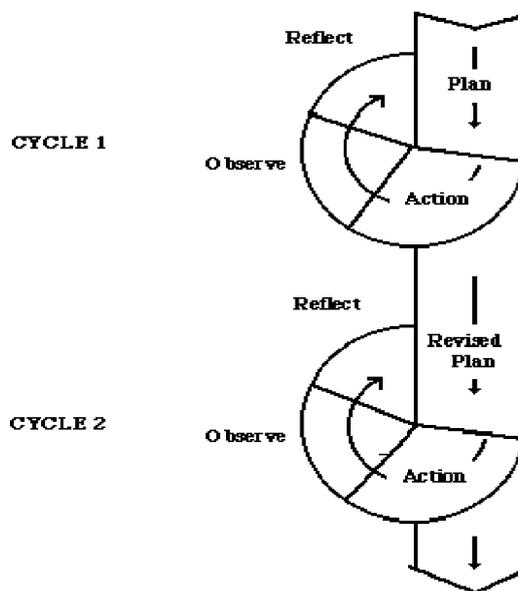
The Classroom Action Research (CAR) method will be employed in this study, with four stages every cycle: preparation, action, observation, and reflection. According to Syah (2016), the action research method begins with identifying an issue, followed by proposing viable solutions to the problem, implementing a solution, and ultimately assessing the outcome of the action. Classroom action research is a repetitive (reflective) study in which action is recycled to improve or improve learning processes in the classroom in a more professional manner.

Classroom action research should show a positive change toward improvement. The main characteristic of classroom action research is the participation and collaboration between the researcher and members of the target group. Research is arguably the most important component of school reform, Semathong (2023). If the action brings weakness, decline, or negative change it means that it violates the character of classroom action research.

2. Procedure of Classroom Action Research

The procedure in research is critical since it is necessary to understand the procedures in performing research. The researcher employed classroom action research in this study. There are various steps involved in

implementing classroom action research. This study made use of the model developed by Kemmis and McTaggart (1988, in Burns, 2010:9) as cited in Syah (2016: 6). The graphic below depicts classroom action research:



Picture 3.1

Cyclical Action Research model based on Kemmis and McTaggart (1988, in Burns, 2010:9) as cited in Syah (2016: 6)

Based on the figure above, the procedures of classroom action research are explained below:

Cycle 1:

a. Plan

The research plan is the initial step. During this phase, the researcher identifies problems and creates an action plan to address certain aspects of the research context. This pertains to the amount of time spent conducting research, the classroom materials used, and the teaching and learning process. The researcher analyzed what might be done in practice, the limits of the classroom scenario in which the research will be conducted, and the potential changes that the researcher believes could be made.

The first cycle was held on September 20, 2023. Before using word card media in teaching and learning activities, the researcher created a

lesson plan that included a teaching scenario using word card media. The observer checklist was created by the researcher.

b. Action

The implementation of the researcher's plan is referred to as action. The strategy has been thoroughly researched, and it includes some active intervention in the researcher's teaching situation, which the researcher will carry out over an agreed-upon period. An action refers to the activities carried out in the classroom by the researcher linked to the use of word card media in students' vocabulary mastery.

The first meeting in cycle 1 was held on September 20, 2023. The researcher introduced students to word card media and used a word card game to teach vocabulary competence. The second meeting was conducted on September 25, 2023, and the researcher described how to use words to teach vocabulary at this meeting.

c. Observation

This phase entails the researcher systematically observing the effects of the action as well as documenting the context, action, and selections of those involved. This is the data gathering phase, in which the researcher gathers information about what transpired using 'open-minded' instruments. When the researcher teaches students vocabulary in class using word card media, collaborators using an observation checklist and field notes would carry out activities in the observation phase.

On September 20, 2023, both the researcher and the collaborator witnessed the entire process and attempted to determine the student's strengths and weaknesses. The kids did not pay attention when the teacher explained the content, as observed. Students are less engaged in the learning process.

d. Reflection

The final step in classroom action research is reflection. In this phase, the researcher reflects, evaluates, and describes the effect of the

action to better understand what happened and the problem that the researcher has investigated.

The actions that occurred when the researcher used word card media throughout the learning process were covered in cycle 1. This is done to be ready for the following cycle. The researcher and collaborator reviewed what needed to be done to go to the next cycle so that the implementation of vocabulary acquisition using word card media may be successful in the following cycle. As a result, the researcher and collaborator identified the cause of this method's failure in cycle 1 and sought strategies to make it effective in the following cycle. The researcher and collaborator altered a lesson plan because the lesson plan in the first cycle was the cause of the method's failure and was ineffective.

Cycle 2:

a. Revised Plan

The re-planning in the second cycle departs from the problem encountered in the previous cycle, where the requirements were not met and inhibiting factors were present. This issue will be researched for other solutions, which will be re-planned.

On Wednesday, July 27, 2023, the researcher continued the second cycle. The researcher created the necessary materials, including a lesson plan, observation checklist, field notes, and a test. The second cycle was carried out by rectifying the shortcomings of the first cycle's instructional scenario. The researcher would make certain changes to the learning process.

b. Action

In this cycle, implementation is the stage of the English learning design that has been prepared. During the application of this learning, the researcher may adjust the original action while remaining consistent with the developed strategy.

The first meeting of cycle 2 was place on Wednesday, September 27, 2023. The researcher taught the same subject as well as how to develop vocabulary using word cards. The distinction between cycle 1 and cycle 2 is that the teacher asks students to guess the words surrounding them. The second meeting was held on Monday, February 2 October, 2023. To improve students' vocabularies, researchers used word card media in the learning system. Before that, researchers asked students to remember vocabulary so that they could guess it. Researchers and collaborators said that the students had learned the word cards after using them in the session. The teacher makes suggestions based on what they have learned. At last, students take teacher-assigned tests.

c. Observation

This cycle's observation collects data on problem-solving efforts and learning strategies that are being developed. What is seen is a happening that indicates the success of the problem-solving and learning processes that are being created. The observation is focused on the fact that the solutions proposed were successful in solving the difficulties as outlined in the planning stage.

On Monday, July 27, 2023, both the researcher and the collaborator witnessed the entire process to assess the strengths and weaknesses of the pupils. Observation revealed that pupils paid attention while the teacher explained the content. The children appeared to be enjoying the learning process.

d. Reflection

The second cycle of reflection aims to assess which criteria were not met and why these criteria were not met. Unmet criteria and influencing factors will be entered into the next cycle.

In the second cycle, the researcher and collaborator discussed the activities that occurred when the researcher used the word card media during the learning process. Cycle 2 showed significant improvement compared to cycle 1, so the researchers stopped the cycle.

B. Subject of Research

This research was conducted on class VII students of SMP Negeri 3 Mempawah downstream. This class has 30 students, consisting of 15 girls and 15 boys. The researcher has carried out pre-research by visiting there, and found that the research location is consistent with the context of the problem highlighted by the researcher. The researcher also gave vocabulary assignments, and many students got lower scores and only a few got higher scores. Therefore, researchers are interested in finding solutions to vocabulary mastery through the use of word cards.

C. Research Setting

1. Research Place

SMP Negeri 03 Mempawah Hilir is a junior high school that was founded in 1989. With accreditation B, this school is good and favorite. SMP Negeri 03 Mempawah Hilir has its address at JL. Raya Sengkubang, Desa Sengkubang, Kecamatan Mempawah Hilir, Kabupaten Mempawah, Provinsi West Borneo.

2. Research Time

The first meeting was held on September 20, 2023. Researchers introduced students to word card media and used word card games to teach vocabulary competencies. The second meeting was held on September 25, 2023, and the researcher explained how to use words to teach vocabulary at this meeting. The third meeting was held on Wednesday 27, September 2023. The researcher taught the same subject and how to develop vocabulary using word cards. The fourth meeting was held on Monday, October 2, 2023. The researcher implemented word card media in the learning system to increase students' vocabulary.

D. Technique of Data Collection

In completing the data, the researcher used qualitative data and quantitative data. Qualitative data consist of observation, while quantitative data consist of measurement test.

1. Observation Technique

Researchers use observational techniques to obtain data. Ciesielska et al. (2018: 33) stated that observation is one of the most important research methods in the social sciences and also one of the most diverse. Observation is a data collection technique in which researchers or their collaborators record information they witness during study. The purpose is a method of collecting data through direct observation of on-site situations or events. Observation can be used as a technique to verify information provided face-to-face. This study uses the observation method to study and observe the class situation.

2. Measurement Test

In this study, the researcher used measurement techniques to collect quantitative data. According to Papadimitriou et al. (2012: 63), measurement is a process used in the measurement process, whose inputs are “measurements” (measured quantities) and control variables, and whose outputs are “measurement results”. The form of measurement used in this study was a vocabulary test. Vocabulary tests in this study were used to measure students' individual and average scores. With this measurement technique, researchers use tests to determine how much students' vocabulary mastery will improve.

E. Tools of Data Collection

Tools are important as a supplement to data collection because tools are tools used for collection during observation and measurement. Tools vary in complexity, interpretation, design, and management, and caching tools are suitable for collecting specific types of information Pandey & Pandey (2015: 57). Observation and measurement tools are different. For observation

techniques, observation checklists and field recording tools were used. A vocabulary test was used during the measurement technique.

1. Observation Checklist

An observation list is a list of things that an observer will see when observing a class. The list may have been created by the observer, the teacher, or both. According to Ong et al. (2017: 35), observation lists can facilitate useful observations in several ways. The observation checklist not only provides the observer with a structure and framework for the observation but also serves as a protocol for the teacher, allowing the teacher to feel more comfortable and receive specific feedback on various aspects of the lesson. In this study, the researcher prepared an observation list based on the teacher's performance at the beginning of learning and the teaching and learning process, the student's performance during the teaching and learning process, and the classroom situation.

2. Field Note

Field notes are also highly valuable in research when doing observation as an intermediary tool that the researcher sees, hears, and feels in the context of collecting data. According to Kawulich, as described in Deggs & Hernandez (2018: 2555), the field notes served as a record of the events or functions observed, as well as informal comments from the field. This is to assist report production because the data acquired would be readily forgotten by the researcher. Field notes should be descriptive, dated, and timed, and include fundamental information such as where the information was obtained, who was present, the physical setting of the area, social interactions, activities that occurred, and more.

3. Documents

Documents are records of past events. Documentation is one of the data collection processes that must be completed in research. The documentation used in this study includes lesson plans, lists of student scores, and pictures taken during the learning process. This method is used to obtain data on school students. Documentation serves as concrete

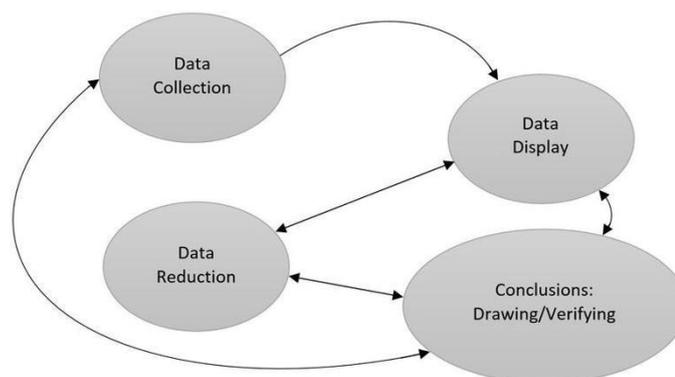
evidence of classroom action research activities carried out and collects important data about the place under study.

F. Techniques of Data Analysis

After collecting the data, the researcher would examine it using qualitative and quantitative data. The observation checklist and field notes would obtain qualitative data. The researcher would then collect quantitative data from the test.

1. Qualitative Data

Qualitative data, as opposed to numerical data, is used to explain or describe facts in a narrative style. Qualitative data is a type of non-numeric data that cannot be processed numerically. According to Miles and Huberman (1994:10), there are three processes for qualitative data analysis in this study:



Picture 3.2
The Components of Qualitative Data Analysis
Miles and Huberman (1994: 10)

a. Data Collection

Data collection is critical in research. The primary action in any research is data collection. The researcher completed a general examination of the situation/social object under study at this early stage. The researcher then collected a large amount of data and varied after

collecting the data. The observation technique was employed to collect qualitative data.

b. Data Reduction

A stage of qualitative data analysis approaches is data reduction. Data reduction is the process of reducing, categorizing, and deleting superfluous data for the data to provide relevant information and make it easier to draw conclusions. As a result, the reduced data presents a clear picture and makes it easy for researchers to acquire additional data and search for it if needed.

c. Data Display

A level of qualitative data analysis approaches is data display or data presentation. Data presentation is an activity in which a set of data is structured systematically and easily comprehended, allowing for the production of conclusions. The qualitative data might be presented in the form of narrative text (in the form of field notes), matrices, graphs, networks, or charts. The data will be structured and put in a relational pattern by presenting it, making it easier to understand.

d. Conclusion Drawing/Verification

The final stage in qualitative data analysis approaches is drawing conclusions and confirming data, which is done by looking at the outcomes of data reduction while still referring to the objectives of the analysis to be reached. This stage seeks to discover the significance of the obtained data by looking for connections, similarities, and to make conclusions as solutions to existing problems.

The preliminary conclusions are still incomplete and may change if no additional supporting information is discovered during the following step of data collection. However, if the conclusions advanced at the outset are supported by valid evidence, the resulting conclusion is trustworthy.

2. Quantitative Data

Quantitative data is data that can be measured and calculated directly. According to Ahmad et al (2019), the data collected by the researcher can be divided into categories or put into rank, or it can be measured in terms of units of measurement. In quantitative data, the researcher used two types of scoring, which are Individual scores and mean scores used to measure the students' vocabulary mastery through word card media. The researcher analyzed the data by using the following formula:

The individual score was used by the researcher to find out the individual score of the student's vocabulary mastery through the word card media. The formula for individual score is as follow:

$$X = \frac{A}{N} \times 100$$

Note :

X : The individual's score

A : The number of correct items

N : The total number of test items

100 : Maximum score

After the researcher calculated the individual scores of students, the researcher calculated the students' mean scores using the following formula:

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

Note :

X : The means score

$\sum x$: Sum student's score

N : Number of score

Table 3.1
The classification of students score

Qualification		Total Score
A	Excellent	81-100
B	Good	61-80
C	Average	41-60
D	Poor	20-40