

CHAPTER III

RESEARCH METHODOLOGY

This chapter deals with all of the research methods. It contains some sub chapter, there are research design, subject of study, data collection technique and instrumentation and data analysis.

A. Research Design

In this study the researcher applied Classroom Action Research (CAR), the researcher chose this design because it relates to learning activities in the classroom so that it can confirm how or see improvements and describe student participation when use of flashcard in the classroom. Norton (2009,p.52) states that action research is a form if self-meditation interview with participants in social situations, improving the coherence and impartiality of their own practices, their perception of those practices, and the circumstances in which they are practiced, it is for doing.

Meanwhile, according to Fraenkel and wallen (2009,p.p.589) Classroom action research is conducted by one or individual or group for purpose of solving a problem or obtain information in order to inform local practice. the research can repeat the research class action if it is not according to what the researcher expects then the researcher can take the class action by repeating it so that the researcher gets satisfactory results in doing the research class action, the class action can be done if the first cycle fails then you can continue to the second cycle, if the researcher feel dissatisfied with the results possessed by the researcher, the researcher can

take the next class of research action. According to Burn (2010,p.7) argued that the first cycle can be a spiral of continuous or permanent cycles that repeats until action researcher get satisfactory result and believe it's time to stop. It means, the cycle consist two, specifically cycle 1 and cycle 2, each cycle is divided into four stages, namely planning the action, implementation the action, observation and perception, and analysis and reflection. If the first cycle is unsuccessful, it will continue to the second cycle.

In classroom action research, a teacher must do everything possible to improve or find solution to problem faced by the teaching and learning process, therefore, researcher must have references in changing education for the better so that the educational context can be one of the references in overcoming problems that arise occur in the classroom and can also find solution to problem in the classroom so that the teaching and learning process can be achieved. Classroom action research should focus on the teaching and learning process in the classroom. One of the classroom action research as follows:

a. Research

Researcher conduct research activities when the teaching and learning process in class aims to collect data or information as well as things that are of interest to researcher.

b. Action

There are several activities that have been made for the purpose of data collection in which this research is an action that must be taken by researcher in obtaining data results. In this study, it is also a cyclical activity, where the action is the steps that the researcher wants to achieve, the action is also an awareness of educational theory and learning approaches that have been adapted previously.

c. Class

Class is a place used for teaching and learning activities. In the class there are also many students who are following the lessons give by a teacher. Class is the scope between teachers and students, where teachers ad students take classroom action when learning is carried out such as doing activities in class, for example doing classroom practice.

Therefore, the researcher chose the Classroom Action Research (CAR) design because it was in accordance with the needs of this research. Classroom Action Research is research that is directly applied in the classroom. The problems in this study were Addressed through a series of cycle, cycle 1 and cycle 2. This cycle aims to determine the expansion of students basic knowledge of vocabulary mastery.

The researcher design used is the Kemmis and Mc Taggart cycle model. Which this cycle does not only take place once, but several time to achieve the desired goal. The designed of this research is

planning, structure and research strategy in order to control deviations that may occur and answer question that may occur. The flows of this action research consists of four steps and can be described as follows (Burn 2010,p.8) said the four steps in did action research that are planning,action, observation and reflection.

1. Cycle 1

a. Planning

Planning is a plan that must be developed and important actions taken and can be used to improve what will happen. Classroom Action Research also has a plan that is flexible enough to deal with unforeseen effects as well as obstacles or obstacles that cannot be seen. Therefore, the plan of a classroom action research should be appropriate based on more appropriate initial observations. According to Burns (2010,p.8), plan is the first step in regulatory research. Researcher identify problems and develop action plans. A plan is an adjustment of an action under consideration in the future. Adapted as a teacher guide for use in the classroom. Planning affect thinking convert and appraise to follow the event that have been happened and pursue ascertain ways to conquer problem detect. Meanwhile, there are fifth point were specification of the first planning such as :

1. Conduct a cycle at meeting.
2. Manage the leaning process about vocabulary in accordance
With the learning plan that will be implemented
3. Conduct a vocabulary mastery test by flashcard.
4. Prepare instruments to collect data, such as observation
checklist and field note
5. Recording the teaching and learning process by using flahcard

b. Action

In this section, students carry out activities related to questions and answer on flashcard that have been explained by the teacher. The teacher use flashcard as a teaching and learning process in the calssroom. Flashcard can give students an idea and purpose on the flashcard so that students can understand vocabulary well. It can affect their memory on the vocabulary learned using flashcard.

c. Observation

Observation is use to document the effects of related actions. Observation need to be planned and also based on open views and thoughts and are responsive. The object of observation is the entire process of related actions, the effects of which can be (intentional and unintentional), the circumstances and constraints that are had in the planned action and its effects, and other problems that arise in the relevant context

d. Reflection

In reflection, the researcher obtain feedback on the learning process through observation result, existing problems and the causes of the problems. If the result do not achieve the specified objectives, the researcher decide to proceed to the second research cycle. Therefore, action is used to help researcher adjust the next step. Researcher can conclude that classroom research aims to improve student learning outcomes and the teaching process. This approach aims to improve classroom practice. According to Burn (2010,p.9), this model is classic and frequently appears in the literature on AR. This model is useful because it summarizes the important phases of the process concisely. Therefore, this model was chosen as a practical way to structure the discussion on AR in this study. Furthermore, this model focuses on four steps: planning, action, observation and reflection. The cyclical AR model is based on Kemmis and Mc Taggart (1998) in burn (2010,p.9) with the following estimates is bellow:

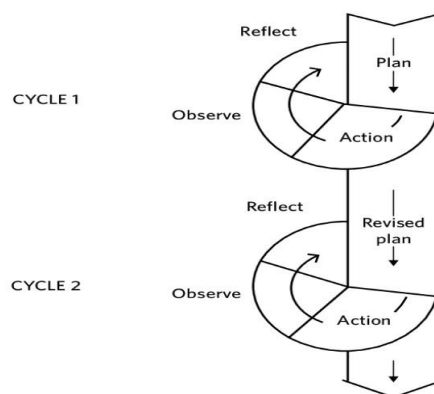


Figure 3.1 Cyclical AR model based on Kemmis and Mc Taggart (1988)

2. Cycle II

Cycle II plans are made based on the results of reflections obtained from observations that have been made so as to get better results. The revised plan consist of two scopes, namely: they are vocabulary mastery and classroom situation when flashcard are applied to students in class. In cycle II the researcher made lesson plan which consisted of material preparation, learning media, student exercises and everything related to action. The second cycle was carried out in one meeting, the second cycle is carried out based on reflection in cycle I.

In using flashcard as media that will be applied in the classroom, teacher must pay attention to teaching procedures using flashcards, so that teaching and learning activities in class can run well.

B. The Subject of the study

The research conducted in SMP Negeri 03 Dedai. It located at Dedai, The subject of this research is student seventh grade in academic year 2022/2023. The subject of this research were 16 students seventh grade SMP Negeri 03 Dedai. 5 female and 11 male in the classroom. The researcher conducted research at SMP Negeri 03 Dedai, specifically with seventh grade students, because SMP Negeri 03 Dedai, because the student SMP Negeri 03 Dedai have a lack of vocabulary, the student difficult in learning in English therefore the researacher uses the flashcard to improve the student vocabulary mastery.

C. Data Collection Technique and Instrumentation

1. Data Collection Techniques

In this research the researcher uses observation, interview, and test, documentation to collection the data. The collect the data as research material, observation, interview and artifact are needed. There are three methods to help the researcher to collected data as a consequence of the research conducted. The techniques used in this study are observation of activities in the classroom and interview that were presented to the teacher. The distinctive of qualitative research was given clear. Data collection method in qualitative research can be divided into our basic types: qualitative observations, qualitative interview and qualitative documents. The following are parts of qualitative data, namely:

a. Observation

The researcher conducted observation to find out the improvement in the student learning process and during classroom action research (CAR) the researcher do observe the performance of the class situation and participant the student use of vocabulary by flashcard.

b. Field note

Field note is known as an instrumentation that frequently uses in the observation activity in which it is containing a note about the activeness, situation or condition during the research, the continuity of research implementation and so on. Meanwhile, according to Leavy (2017,p.136) Field note is written notes used in observation activities that contain

notes about activities situation or condition during research and continuity of research. Besides that the field note is accurate, detail because in the field note have written notes used in activities of student and also the activities the situation in the classroom.

c. Measurement

In thesis writing, measurement is often used in the research methods (methodology) section to explain how the research variables were measured and data were collected. For examples, in study on the effectiveness of learning methods, researchers would explain how they measured the level of student understanding. According to Marczyk G, David D,&David F(2005, p.95) Measurement is often considered the foundation of all scientific research, and therefore measurement techniques and strategies are an integral part of research methodology. The researcher gave a test in this research, the research did activity for the student, specially for junior high school with give a test. The test given by teacher to know the improvement of students' vocabulary mastery by using flashcard in this research, in this test, the students has to active and enthusiastic in teaching and learning besides that the student has activities spelling the word, pronounce the word, memorizing the word and meaning the word on the flashcard in improving student vocabulary mastery, rather, the test is used to collect data for quantitative data in the form of student scores.

The researcher used statistical analysis. The steps were below:

a. Scoring rubric and assessment indicator the students vocabulary

mastery, the scoring rubric used is as follows:

Table 3.1 Scoring rubric and assessment indicators the students vocabulary mastery.

No	Rated aspect	Score			
		1	2	3	4
1.	Spelling	The students cannot spelling word correctly.	The students spelling word incorrectly	The students spelling well but there are some error.	The students can spelling word correctly and well.
2.	Pronounciation	The students cannot pronounce vocabulary is correctly	The students not easy to pronounce correctly	The student can pronounce vocabulary but not correctly	The students can pronounce correctly.
3.	Memorizing	The students do not able to memorizing the word correctly.	The students limited memorizing the word correctly.	The student few able to memorizing the word.	The student able to memorizing word correctly.
4.	Meaning	The student do not know meaning of the word correctly	The student limited know meaning of word correctly.	The students few able to the word correctly.	The student able to meaning word correctly.

Next, the researcher calculate the means of students between the result of assessment indicator student vocabulary mastery. The researcher would apply the following formula :

X : The mean of students core
 $\sum X$: Obtain score
 N : Total score

$$X = \frac{\sum x}{N} \times 100$$

a). Classifying the score of the students' vocabulary

Allocate the score of the student vocabulary by the following classifying:

Table 3.2 Classifying the score student vocabulary

No	Percentage of the correct answer	Grades
1.	90-100	Excellent
2.	80-89	Good
3.	70-89	Fair
4.	0-69	Poor

d. Documentation

Documentation is done to get detailed information. Documentation can be in the form of recordings of student and teacher activities in teaching educational courses such as photography or video. Documents generated in this study include classroom instruction and learning descriptions, observation notes, lesson plan and student assessments.

The researcher take a photo and video as documentation or responses. Documentation taken by researcher when the student learn about the material by using flashcard in teaching and learning in the classroom. Documentation taken by researcher during teaching and learning in the classroom. This document is record of events that have already been captured, document can take the form of recording the activities the student teaching and learning process by using flashcard. The function of the documentation method is to make conclusive the results of observation and test. Documentation is done to get detailed information.

2. Instrumentation

The tools used in this study are observation checklist, field note, test sheet, documents. According to Creswell (2012,p.9) The collecting data is identifying and selecting individuals for study, asking their permission to do the research, and gathering information by interviewing people or observing their behavior. That means the data collection involves identifying and selecting students for research, which also requires permission for research. In research, the researcher collect student information by asking students question and also observing students in their behavior. Besides, The tool uses in this study are observation checklist, field note, test sheet and documentations.

a). Observation Checklist

The observation checklist is a detailed guide that contains the steps that must be taken to conduct observation starting from formulating the problem, the framework of the theory to describe the behavior to be observed, recording procedures and techniques, analysis criteria to interpretation. The observation sheet is used to measure student learning independence during the learning process. The observation sheet is also used as material for the reflection of the next cycle. Observation sheet is a worksheet that has a function to observe and measure the level of success or achievement of learning objectives in teaching and learning activities in the classroom.

b). Field note

The field note is written notes used in observation activities that contain notes about activities situation or condition during research and continuity of research. Besides that Field note is a the observation protocol that contain detail descriptions of what reseacher see, listen and sense during the observation and the thoughts, feeling and understanding these observations provoked. The more researcher get description, the more meaningful the observation (Efron & Ruth Ravid, 2013. P.88). The field note given to the observer.

c). Test Sheet

The test sheet serves as a tool to collect data in the form of student score. According to Brown (2016,p.384) states that the test is method used measure a person ability or knowledge in a particular domain. It is a set of techniques, procedure and items which is a kind of instrument that requires performance or activity on part of the test. This test sheet will be given at the beginning of the lesson before using the flashcard and at the end of the lesson after applying the flashcard. Test sheets are given to students to see if there is an increase in student learning outcomes using the flashcard.

d). Documentation

Documentation is the process of collecting, selecting, proccessing and compling to obtain information or data. The

documentation give the data that the researcher doing the activities in the classroom. Documentation can be in the form of photography of student and teacher activities in teaching and learning process. Documents generated in this study include classroom instruction and learning description, observation checklist, lesson plan, students assessments.

D. Data Analysis

Data analysis consist of data from this research put the data analysis includes how to work with information or data to support the word, goals and plans to the research and also data analysis is improtan part to implementation Classroom Action Research.

1. Data analysis of Qualitative

Qualitative analysis found by describing the situation of the teaching and learning process, and the interview before and after the teaching and learning process by using a flashcard. According to burn (2010,p.104-105) The data analysis of this study can be divided into four phases. They are coding, data reduction and data display.

a. Coding

The first stage in analysing qualitative data here implicate coding, coding is steps taken by a researcher to obtain description of facts as a unit of qualitative data anaylsis and techniques of collecting and drawing conclutions psychological analysis strengthening qualitative data analysis through coding to the data obtained. The data

can be in the form of field note transkrip, observation sheets, documentation, video recording.

b. Data Reduction

The second step of data analysis is data reduction. Data reduction the process of selecting and simplifying rough data emerged from written notes in the field. This process continued throughout the research, even before the data is actually poised as can be seen this process continues throughout the study, even before the data is actually is equilibrium, as evidenced by the conceptual framework of the study, the problem of the study, and the approach data collected by the researcher. from research conceptual framework, study problem, and approach data collected selected by the researcher. At this stage the researcher obtained data from field note The result of the field note show note result in field or result note during teaching learning in the classroom. Inappropriate data is reduced and needed accurate data.

c. Data Display

Data display is an organized, compressed assembly of information that permits conclusion drawing and action. It is also help researcher to present the qualitative data. Data display is an activity when a set of data is arranged systematically and easily understood, this providing the possibility of generating conclusion. In this research data display is very important to help the researcher to gather the data

analysis. In data display consist of result of observation checklist, field note.

2. Quantitative Data

Data analysis which is by using descriptive statistics. quantitative is used to check that can good be answered by collecting and statically analyzing data that are in numerical form. In this research measure the improving students vocabulary mastery that will be stimulated by using flashcard. The researcher use quantitative data analysis by collecting all data form respondents. The quantative data analysis is an activity after data from all respondents. The quantative data analysis is an activity after data from all respondents or other sources is collected. Therefore, in qualitative research a test is given to students so that the researcher can find out whether or not a goal in this research is achieved.

3. Indicator of Success

In this research the researcher plans the Classroom Action Research or (CAR), each cycle consist of two meeting, each meeting the researcher needs criteria to determine the cycle success or not after teach in the classroom. this criteria of success use as a guide by the researcher, the criteria of success describe based on the data that collect by the researcher in the table below:

Table 3.3 Criteria of success

Aspect	Description
Observation	If 80% of students follow the learning process actively, enthusiastically and enjoy in the classroom during the lesson. It can be said that the cycle is successful.
Field note	If 80 % of the students enthusiastic and active in teaching and learning process during the activities in the classroom. it can be said that the cycle is successful
Measurement	If 80 % of the students vocabulary mastery has good score in the test, it can be said this cycle is successful

Based on description criteria of success, a cycle will be said to be successful if 80% of students' are able to obtain in minimum score in good criteria with a score range between 80 to 90 then the cycle is considered successful. Meanwhile, other success criteria also will be seen from observation checklist, interview, field note and documentation. The criteria of success in this research will also be seen in the student who are active, motivated, and enthusiastic in the teaching and learning process. If 80% or more students give a positive response to learning by using flashcard, then the cycle can be said to be successful and the researcher does not need to do another cycle.