CHAPTER III

RESEARCH METHOD

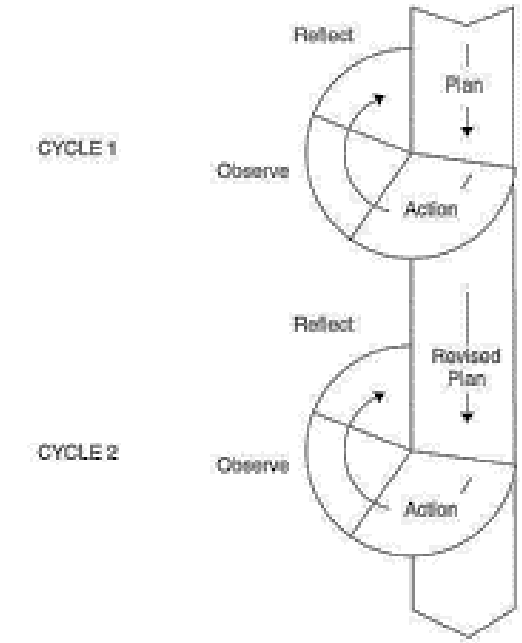
This chapter discussed the research design, subject of the research, instrument of the research, technique of data collecting, and technique of data analysis. More explanations are presented below.

A. Research Design

The research design in this research is Classroom Action Research (CAR). Classroom Action Research (CAR) typically involves the use of qualitative interpretive modes of inquiry and data collection by teachers (often with help from academic partners) with a view to teachers making judgments about how to improve their practices Kemmis et al. (2014). Moreover, action research is research carried out in the classroom by the course's teacher, mainly to solve a problem or improve the teaching/learning process. In other words, the purpose of classroom action research is to find out and solve the problem in the teaching-learning process in the classroom. In this study, classroom action research was aimed to apply semantics mapping to teaching vocabulary to young learners.

Moreover, this classroom action research used the design by Kemmis et al. (2014). Action research activities in the classroom involved a repeating cycle. Each cycle consists of four steps: planning, action, observation, and reflection. The result of one cycle is used to determine the need for the next cycle until the strategy resolves the issue. The cycle is illustrated as follows.

Figure 2.1 Kemmis and Mc Taggart Model of Classroom Action research



In planning, the researcher will provide the lesson plans and tools needed for the first cycle. The second step is action. At this stage, the researcher will begin implementing the plan about the lesson plan created. The next step is observation, performed simultaneously with the researcher's actions as a collaborator. Based on the observations, researchers look back at what happened and evaluate the outcome of their actions.

Moreover finally, the researcher decides if improvements are needed for the next cycle. If the first cycle is successful, the researcher will stop the research. However, if the first cycle fails, the researcher modifies the plan and moves on to the next.

B. Subject of the Research

The researcher conducted this research at the junior high school level. The subjects of this research are the seventh-grade students in 7B class of MTs N 1. This class consisted of 32 students. The school was located at H. Samanhudi street, Palihan, Pucangsewu, Pacitan Regency, East Java Province. The researcher chose seventh grades students as the subjects of this research because of several reasons. The first reason is that they need to be prepared with a lot of vocabulary knowledge. It will be easier to learn English if they have a lot of vocabulary knowledge. The following reason is because of their age. Students in the seventh grade are categorized as young learners because they are 12 years old. They often feel bored with the teaching-learning activities, which are monotonous. So, they need a variety of teaching-learning activities.

C. Time of the Research

The researcher managed the time of the research in order to make the research effective and efficient. Time table is essential for researchers as a schedule for doing research. So, all the steps and procedures of the research could be done orderly. The researcher started to write the proposal in October 2021. The report was arranged until May 2022. The time of the research is presented in the table below.

Table 2. 1 Time of the Research

No	Activities	Time						
		Oct	Nov	Dec	Jan	Feb	Mar	Apr
1	Research preparation and submission							
2	Submitting proposal							
3	Seminar proposal							
4	Research approval							
5	Doing treatment and gathering data							
6	Data analysis							
7	Reports arrangement							

D. Research Instrument

There are several kinds of research instruments. Research instruments are the tools used in this research to collect the data. In this research, the researcher used tests and observation to measure students` achievement and performance during the activities.

1) Pre-test and post-test worksheet

According to Donald Ary (2010), tests are valuable measuring instruments for educational research. A test is a set of stimuli presented to an individual to elicit responses based on which a numerical score can be assigned. This score, based on a representative sample of the individual's behavior, is an indicator of the extent to which the subject

has the characteristic being measured test is a requirement that the researcher in educational research should carry out. In this research, there were pre-test and post-test. The pre-test is the test given before applying the semantics mapping strategy. The next is the post-test, the test given after the researcher applied the semantics mapping strategy, and the post-test measured the students` vocabulary achievement. Pre-test and post-test were used to know the differences in students` abilities before and after the method was given to the students.

2) Observation sheet

The researcher did the observation during the teaching-learning proses. The observation process was to tell how well the semantics mapping strategy could achieve the results to satisfy the success criteria in teaching vocabulary activities. The researcher took observation sheets or field notes during the observation in the classroom. Observation sheets were needed to write the student's performance during the teaching-learning process.

3) Voice notes/ voice recording

The researcher used WhatsApp voice notes as media for the speaking test. Voice notes were used in both pre-test and post-test. The researcher sends five words to students and asks them to pronounce those words on voice notes. Then, the researcher gives corrections to students` pronunciation. The researcher uses Oxford Dictionary as a reference for giving corrections.

4) Questionnaires

The Researcher give the questionnaire to the students after the treatment was done. The questionnaire aimed to know the students` responses toward the application of semantics mapping to teaching vocabulary. It consists of five questions using Google Form as the media.

E. Research Procedures

This classroom action research used the design by Kemmis et al. (2014). Action research activities in the classroom involved a repeating cycle. Each cycle consists of four steps: planning, action, observation, and reflection. The first cycle may be continued to the next until the result reaches the indicator of success. The cyclical classroom action research is presented as follows:

1. The Procedure of Cycle I

There are four activities in cycle I: planning, acting, observing, and reflecting.

a. Planning

The first step in this cycle is planning. The Researcher making plan in order to focus in achieving the research objectives. Here are the steps in planning:

1) The researcher prepared a lesson plan

2) The researcher prepared an observation sheet

3) The writer prepared a questionnaire

4) The Researcher prepared the instruments for the vocabulary test

b. Acting

In this step, the researcher conducted some activities in the classroom as follows:

1) Pre-Activities

a) The researcher prayed and greeted the students

b) The researcher checked the present list

c) The researcher prepared the class

2) Main activities

a) The researcher applied the lesson plan to the teaching-learning process

b) The researcher explained the procedures of semantics mapping to students

c) The researcher made group of 5-6 students and asked each group to make semantics mapping in the worksheet.

d) The researcher asked the one of students in each group to read the words which they had written

e) The researcher gives correction to the students` pronunciation

3) Post-activities

a) The researcher gave some questions to students

b) The researcher gave a conclusion of the material

c) The researcher gives a score to students

c. Observing

In this step, there are some activities as follows:

1) The teacher observed the teaching-learning activity.
2) The Researcher calculated students` score after cycle I and compared them with the score in the pre-test to measure the improvement.

d. Reflecting

The last step in this cycle is reflecting. The researcher analyzed the result of both the observation and test. There are some activities as follows:

1) The Researcher analyzed the problem in cycle I and found the solution.
2) The Researcher prepared the instrument for the next cycle to repair the process in cycle II.

2. Procedure of Cycle II

The researcher revised the treatment in cycle I and continued to cycle II because the result in cycle I did not pass the standards of completeness. As same as cycle I, there are four steps as follows:

a. Planning

The first step in this cycle is planning. The Researcher makes planning in order to focus in achieving the research objectives. Here are the steps in planning:

1) The researcher prepared a lesson plan
2) The researcher prepared an observation sheet
3) The writer prepared a questionnaire
4) The researcher prepared the instruments for the vocabulary test

b. Acting

In this step, the Researcher conducted some activities in the classroom as follows:

1) Pre-Activities
   a) The researcher prayed and greeted the students
   b) The researcher checked the present list
   c) The researcher prepared the class
2) Main activities
   a) The researcher applied the lesson plan to the teaching-learning process
   b) The researcher explained the procedures of semantics mapping to students
   c) The researcher made a group of 5-6 students and asked each group to make semantics mapping in the worksheet.
   d) The researcher asked one of the students in each group to read the words which they had written
   e) The researcher gives corrections to students` pronunciation

3) Post-activities

a) The researcher gave some questions to students

b) The researcher gave a conclusion of the material

c) The researcher gives a score to students

c. Observing

In this step, the researcher observed the teaching-learning process during the treatment in cycle II. There are some steps as follows:

1) The teacher observed the teaching-learning activity and wrote it down on the observation sheet.
2) The researcher gave a post-test to students.
3) The researcher gives questionnaires to students.
4) The researcher calculated students` scores after cycle II and compared them with those after cycle I to measure the improvement.

d. Reflecting

In this last step, the researcher corrected and analyzed the result of the actions. The activities are:

1) The researcher and the teacher discussed the result of applying the semantics mapping strategy to teaching vocabulary.
2) The researcher analyzed the result of the questionnaire.
3) The researcher decided to stop the action or continue.

F. Technique of Data Collecting

Data collecting is a process whereby researchers systematically search and arrange their data to increase their understanding of the data and enable them to present what they learned to others (Donald Ary (2010). In this research, the data was collected by using qualitative and quantitative methods.

The quantitative data were collected by using a vocabulary test. The test here included pre-test and post-test. The pre-test was given to know the students' basic knowledge before the treatment. In contrast, the post-test was given to compare and measure the differences in students` abilities before and after the activities. Therefore, the pre-test was given at the beginning before the treatment, and the post-test was given at the end of each cycle. Then, the test results are used to measure the improvement of students` vocabulary mastery.

The qualitative data were collected by using observation in the teaching-learning process. The researcher takes observations during the treatment. The observation was taken to see the students` responses during the activity. Then, the researcher gives a questionnaire to the students at the end of the treatment. It aims to know the students' responses toward applying semantics mapping to teaching vocabulary.

G. Techniques of Data Analysis

Techniques of data analysis are a process of arranging and explaining the data. The researcher organized the data collected into explanations. In this research, the data were analyzed both quantitatively and qualitatively. The quantitative data were gathered from students` tests, while qualitative data were gathered from observation and questionnaires.

1. Data Analysis of Quantitative Data

The quantitative data in this research is the data from the test. The researcher identified the score of students` tests by comparing the result of the pre-test and post-test to measure whether the teaching-learning was successful or not. Both the result of the test was analyzed using the mean score in order to get the student's average score. The students were claimed to be successful if they reached the standards of completeness (75≥). The students` scores were calculated using the formula by Nurgiyantoro (in Abdurahman and Elya Ratna, 2003).

$$N = \frac{sm}{s_i} xSmax$$

Detail:

N = Mastery level

sm = score obtained by students

s_i = score to be achieved in a test

$Smax$ = scale used

The average of students' vocabulary calculated by finding the average with the arithmetic mean

$$M = \frac{\sum Fx}{N}$$

Detail:

M = Mean

$\sum Fx$ =The result of multiplying the frequency with the score obtained

N = number of students

2. Data Analysis of Qualitative Data

The qualitative data in this research is the data from observation and questionnaires. The researcher took the data during the observation of the teaching-learning process. Moreover, the researcher gives a questionnaire to know the students` responses after the treatment was done Donald Ary (2010) states that in analyzing qualitative data, there are three stages: organizing and familiarizing; coding and reducing; and interpreting and representing.