**CHAPTER III**

 **RESEARCH METHODOLOGY**

This chapter presents the description of the research used in classroom action research. It presents the research design, research procedure, researcher’s attendance, setting and subject of the study, data and source of data, data collection method and data analysis.

* 1. Research Design

The research study was classified as classroom action research. The research design was a plan and research structures was arranged that the researchers can obtain the answer to research questions (Masnur Muslich, 2011:14). Generally, the purpose of this study to improve students' ability in vocabulary mastery in fifth grade students at MI Gendingan Kedungwaru by used mind mapping as technique. According to the purpose of this study, The design of the research was classroom action research. Arikunto (2010 : 129) states that action research is a strategy to solve the problem with a real action in innovative development to detect and solve the problem. It means that a classroom action research was intended to solve the problem either faced by the teacher and the students in the classroom.

 In this study, the problem here was the students are lack to the memorize vocabulary mastery of fifth grade at MI Gendingan. The alternative solution was to solve the problem used mind map as technique in learning process. Researchers conducted the research the used of mind mapping as a technique in language

learning, especially English language in vocabulary mastery for fifth grade students at MI Gendingan Kedungwaru, it means to improve students skills in vocabulary masteryof fifth grade students based on the aspects of spelling, word order and meaning.

This research was collaborative classroom action research. It mean that the researcher collaborates with one of the English teacher of the school where the study was executed. The teacher as a collaborator helps the researcher to observe the students’ activity during the process of teaching and learning. In this study, the researcher acts as a practitioner. Accordingly, implementation of the mind mapping technique in teaching vocabulary mastery was conducted by the researcher.

The data in the study was obtained from the actions of cycles given to the students in class. Each action is conducted in the form of cyclical process referred to Kemmis and Mc. Taggart’s model (in Arikunto, 2010). This research consisted of four steps: planning, acting, observing and reflecting.

Planning as the first step of the research conducted cycle concerns with teaching preparations designed by the researcher. It includes the lesson plan containing the instructional objectives to be achieved, the material to be taught, and the task given to the students as the evaluation of the applied strategy. It was deal with observation sheets used to collect the data during the learning teaching process.

The second step of the cycle is implementing the plan. This step deal with the application of the mind map technique for teaching vocabulary as written in the lesson plan. During the implementation of the strategy, the third step (observation) was also conducted simultaneously to gather the data needed in the study and to make sure that the learning teaching activities had been conducted in line with the preparation of lesson plan.

The next step after planning, action, and observing is reflecting. The aim of the reflecting is to reflect the result of the observing phase. In reflecting the action, the activity focused on analyzing the collection data from each cycle to determine whether or not a following cycle was necessary to conduct. The cycle w stopped if the criteria of success used in the study was achieved. On the other hand, if the criteria of success are not reached, it is necessary for the researcher to revise the plan and to conduct next cycle for implementing the following action.

* 1. Setting and Subject of the Study

3.2.1Setting

This research was conducted in fifth grade students of MI Gendingan which it located in Jl. Sultan Agung, Gendingan Kedungwaru.The setting class of MI Gendingan as like picture bellow:

clock

pasteboard

Student’s desk

door

Student’s desk

cupboard

Student’s desk

Student’s desk

Teacher’s desk

**black board**

door

3.2.2Subject of the Study

The researcher was choosen this class V MI Gendingan, Kedungwaru and the number of the students of the class was 30 students as the subject of the study because the class has low score in English subject. Besides having low score in English subject, many students at this class are crowded because they think English is a difficult lesson and they have no motivation. So, the students need another technique in learning English in order to them was interested in learning vocabulary process.

* 1. Data and Source of Data

There are two data in this study. They are test score, and documents. In this research, score test taken from the student individual work, and the documents taken from field documentation students activities of making mind mapping notes or administration data.

Data source is subject where the data can be found (Arikunto, 2002 : 107). In this study sources of data are: Students’ works (this source is used to take students’ score), and students (this source is used to take the data of from documents, and observation sheet.

* 1. Data Collection Method

There are two ways in collecting data that conducted in this research, test and non-test. The test is one of the method of data collection that often to used in collected the data.(Muslich, 2011:146). In this research the data collection method that used is both test and non-test. The test data is taken by administering the vocabulary test, and data collection method from the non-test is taken by doing observation, and taking documentation.

* 1. Research Instruments

There are some instruments prepared in order to be easier in monitoring the implementation of teaching and learning activities. All of those instruments are described as follows:

* + 1. Vocabulary Test

A test is used to evaluate something and to see how it works better (Wallace, 1993 : 47). Test is given to studetns in every ending of the cycle of this study. Test will contain some questions from the students related to the vocabulary in the theme.

* + 1. Observation Sheet

Observation involve some form of observation of professional action or of learning process (Wallace, 1993 : 46). It means that the observation sheet is used to check whether all of activities during teaching and learning process. It is also formulated to help collaborator in observing students’ activities during teaching and learning class process.

* + 1. Documentation

The researcher use documentation technique to get the data, because it is very important to support the research. Documentation is something that is written ( Arikunto, 2010: 158). The researcher gets documentation in the form of notes or administration data. The data are printed information about the number of students at MI Gendingan, especially in fifth grade students’.

* 1. Research Procedure

The procedures of taking data used by the researcher in this study are presented in each phase as follows:

Figure 3.1 Classroom Actin Research Procedure

(Adapted from Kemmis Taggart, 2010)

Planning:

* Arrange the time schedule to enrich students’ vocabulary mastery through mind map.
* Collaborator with the teacher of making lesson plan.
* Preparing instruments vocabulary material.
* Determine criteria of success.

Analysis:

* Students have low motivation in learning vocabulary.
* Students have difficulties to pronounce words correctly.
* Students have difficulties to understand the meaning and difficult to answer the questions.

Preliminary Observation:

* Observing and identifying the student’s vocabulary mastery.
* Interviewing the English Teacher related to the method which used in teaching, and also the student’s problem in teaching vocabulary.

G

Observing

* Observe the student’s receive in learning vocabulary throught Mind Map.
* Observasing on both teacher and students’ activities in the implementing of the research.

Implementing

* Teacing English vocabulary by using Mind Map technique.
* Giving the procedure of the Mind Map applied.
* Guiding the students in learning English vocabulary using Mind map.

Cycle

Unsuccessful

Reflecting

* Analyze the effect of Mind Map applied.
* Identifing the improvement of the result of the test.
* Comparing the result with the criteria of success.

Revising the plan

Based on the result of reflection, it is necessary for the teacher and collaborator to revise the plan according to draw backs found in the previous implementation.

Successful

Cycle 2

* + 1. Preliminary Study

Preliminary study was important to defined the real problems in learning vocabulary mastery. The researcher starts the preliminary study was done by interview with the English teacher. It was done before the researcher start the action research to see what problem really exist during students activity in teaching and learning process.

By observe the students’ activities the researcher know that only few of them can do the task and vocabulary mastery . Most of students had some difficulties in vocabulary. They felt hard to take vocabulary of the word and answer the test given. The score of the students was low. These facts indicated that the students’ ability in vocabulary mastery was still low.

* + 1. Planning

After finding out the condition of the students’ performance in English teaching learning process in the preliminary study, the researcher made a plan to implement mind mapping technique. The researcher wants to solve the problems was done by designing the model of teaching with mind map technique to improve students’ vocabulary mastery. In this step, the researcher was make some preparation such as designing the teaching strategy, designing the lesson plan, designing vocabulary test, and determining the criteria of success.

* + - 1. Designing the Teaching Strategy

The researcher was provided mind mapping technique to solve the problems in vocabulary mastery. In this study, the student can easily understand to master vocabulary used mind mapping technique with the following steps. First, they should understand the theme or topic of the lesson was given. In this step, students classified of words, classify to the general word. Second, the students read the vocabulary on the text and given the meanings. Third, the students was made of mind mapping based on the theme or picture in the topic. In this step, the researcher focus on professions,weather and season. so the researcher was explained about the theme first. The final of the study, the students was memorize the vocabulary, and their mind map was express the main topic of vocabulary and classify in other words with the meanings.

* + - 1. Designing the Lesson Plan

A lesson plan was developed by the teacher to guide the instruction. In this research, the researcher make lesson plan to manage the classroom situation while the action was implemented. It consist of identify of School, competence standard and basic competence, indicator, object of the study, the material to be taught, the media, and the task given to the students as the evaluation of the applied strategy in class.

* + - 1. Setting up criteria of success

The criteria of success of the research was included the criteria of success for the process of the learning activity used mind mapping technique for teaching vocabulary and the criteria of success for the students’ improvement in vocabulary mastery. To determine the successful research, the researcher had set the criteria of success to show whether the research was successful or not. The criteria of success was covered of two aspects, they are: first, there are 80% students who get good score equals (≥65) in vocabulary test. In this research, the researcher uses the scoring guidance that covers same aspects: word order, meaning and spelling.

3.6.3Acting

In the action phase, the researcher as the practitioner to implementation what the researcher had planned before. The cycle 1 consist of two meetings. The first meeting focus on introducing mind mapping technique. In the implementation of mind mapping technique, the process of the mind mapping technique to be follow both the teacher and the students during the teaching and learning process.

 In the first metting the actions was done by teacher included some actios, there are: the teacher was explained about the mind mapping technique, in this steps teacher explains about how to make mind map and some direction was given by teacher, it is as follows:

1. Take a piece of white paper and it is in a landscape position, Start by drawing in the centre of the paper and write the key word with capital letters or Make a central image in the centre of the paper.
2. Write some basic ordering ideas, spread out from the central image or the main themes of the mind mapping on the thick branches radiating out from the central image, Add other main themes branches around the map.
3. Thinking of all something interesting as much as possible and funny for you and it can be connected with the central image to give you the inspiration.
4. Add some branches to the basic ordering ideas using symbols, pictures, and colors or just letter as much as possible.
5. Thinking of the details which are interesting and it can encourage your curiousity, and the last add to your mind map.

After the the teacher explains how to mind map. The teacher ask the students to map their minds on the basis of the vocabulary given,the activities here are, students could to map their minds indoor and outdoor. Students make the first mind map indoor (class), because this process to practice by individually and the teacher can know how the students ability to understand the mind map. Besides the students make mind map indoor by individually, the minds map can done outdoor by groups. The students make mind map at home to more imagine with their friends, because students has long time to map their minds. So the teacher ask the students to make mind map at home and give homework to map their minds depend on the theme.

Based on the activities above, the teacher ask the students to submit their work to given score. Then, the teacher ask the students to explain the content of their map in English vocabulary with the meaning of word. There are procedures of teachers actions, as follows:

Explain about mind map and how to make mind map.

Practice / give example to mind map on the basis vocabulary in the theme.

Actions by Teacher

Asking the students to mind map their minds on the basis of vocabulary given.

Asking the some of students to explain the content of their map in front.

In the second meeting, the researcher remind the students of the last lesson. Then, the teacher ask the students to make mind mapping depend on the next theme with the meanings,and this meeting the researcher ask the students to do some exercise to measure their achievement in vocabulary. During the teaching learning process the researcher works as the teacher only.

* + 1. Observing

Observation is the process of recording and collecting data about many aspects during implementation of the action. During the lesson, the researcher acts as a teacher and the observer is the teacher of MI Gendingan. The teacher of MI Gendingan observes the teaching learning process done by the teacher and the students. In the last meeting, the researcher gives the test to know whether students’ vocabulary mastery has improved by using this technique or not. The students’ answer sheet of the test were collected and scored on the basic of simple scoring.

* + 1. Reflecting

In this step, the researcher was tried to criticize the weakness and the strengtth of the procedure in implementing the research. The researcher compared the test score to criteria of success, that there are 80% students who get good score (≥65) in vocabulary test. If the result of the analysis match with the criteria of success, the action was finish. However, if it not effective, there would be another action in another cycle to reach the criteria of success.

* 1. Data Analysis

The data were collected from observation, documents and vocabulary test.

* + 1. Data Analysis of Test

The data were collected from the students’ vocabulary test in cycle are computed quantitatively by using percentage formula. The formula used to find the mean score was as follow:

$\% X=\frac{X\_{1}}{N} ×100\%$

% X : percentage of success

X1 : number of the students who passed the test

N : total of students

Then, the results of the data analysis above are classified qualitatively to answer research problem based on the classification of the score below:

|  |  |
| --- | --- |
| Percentage | Category |
| 80 – 10070 – 7960 – 6926 – 59 | ExcellentGoodFairPoor |

 Adapted from Agustina (1999: 32) (in Kurniawati, 2011)

**3.7.2** Data Analysis of Observation and Documents.

The collected data from observation was analyzed qualitatively. It was describe based on the finding of class observation. In done the analysis of observation data, the researcher used field notes and the last, researcher transcribe the field notes to obtain the activity during teaching and learning process.