

CHAPTER III

RESEARCH METHODOLOGY

In this chapter, the researcher discusses some important ideas in conducting study are research design, population, sample and sampling, research variable, research instrument, validity and reliability testing, data collecting method, and data analysis.

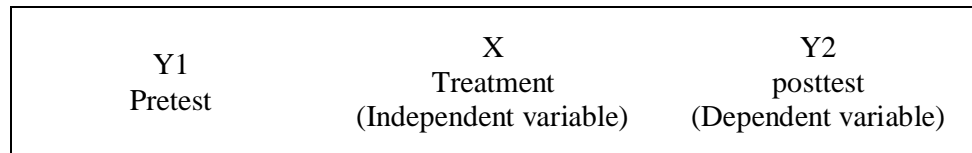
A. Research Design

This study was conducted in pre-experimental design with one-group pretest- posttest design using quantitative approach. Experimental research is a scientific investigation in which the researcher manipulates one or more independent variables, control any other relevant variables, and observes the effect of the manipulation on the dependent variables (Ary et al, 2002: 276). Experimental research can be done in the laboratory, in the class and in the field. In this study, the experimental research was done in the class with taking students as population.

An experiment involves the comparison of the effects of a particular treatment with that of a different treatment or of no treatment. In a simple conventional experiment reference is usually made to an experimental group and to a control group.

This research is intended to investigate the influence of word wall in teaching vocabulary for the seventh year students of MTs Aswaja

Tunggangri. The research design used by the researcher is pre-experimental design in the form of one-group, pretest-posttest design. A diagram of one-group pretest-posttest design:



B. Population, Sample and Sampling

1. Population

Population is a set to which a researcher wishes to generalize. More technically, the population is a sample space of elementary events. Another way to think of the population is a set of units from which the researcher will sample. The units need not be restricted to people; researchers may be interested in populations of animals or objects (Wampold, 1990:84).

The population of this research was the seven grade students of MTS Aswaja Tunggangri in academic year the 2016-2017. The number of population 90 students consisted of four classes; each class consisted of 20-27 students.

2. Sample

Sample is a part of population representative which is researched Arikunto (2010: 174). In this study, the researcher takes one of six classes of first grade of MTs Aswaja Tunggangri as the sample. The class is VII-A class amount 27 students consist of 9 males and 18 females.

3. Sampling

Sampling is also as a way the researcher select number of individuals as a sample which represents the population. Sampling is the process of selecting a number of individuals for a study in such as a way that the individuals represent the large group from which they were selected. The purpose of sampling is to gain information about a population; rarely is a study conducted that includes the total population of interest as subject (Gay, 1992:123).

Sampling is a technique of taking sample which gives opportunity for every element or population member to be chosen as sample. In this study the researcher used purposive sampling. Purposive sampling was technique to determine sample with a particular consideration. According to Cohen et al., (2007: 34) in purposive sampling technique, sample is satisfactory to specific needs. As its name suggests, the sample has been chosen for a specific purpose. The researcher took VII A as the sample of the study because this class was low in vocabulary mastery.

C. Research Variable

According to Ary (1979:124) variable is an attribute that is regarded as reflecting or expressing some concept or construct. Variable is something that may vary or differs. This research consists of two variables. They are:

1. Independent Variable

Independent variable is an antecedent of the depend variable (Ary, 1979: 29). Independent variable is variable selected by the research to the

effect on or relationship with dependent variable. The independent variables are the conditions or characteristics that the experimenter manipulates in his or her attempt to ascertain their relationship to observed phenomena. In this research, the independent variable is the use of word wall.

2. Dependent variable

The dependent variables are the conditions or characteristics that appear, disappear, or change as the experimenter introduces, removes, or changes independent variables. The dependent variables are the measured changes in performance attributable to the influence of the independent variables. In this research, the dependent variable is vocabulary mastery.

D. Research Instrument

In this study, the instrument which is used by the researcher to collect the data is tests. Ary (2006: 210) stated test is a set off stimuli presented to individual in order to elicit responses on the basis of which a numerical score can be assigned. In this study, the test is administered twice are pre-test and post-test. Pre-test is administered to measure students' vocabulary mastery before being done treatment, and post-test is administered to measure students' vocabulary mastery after being done treatment.

The researcher presents some steps in developing test. The first step is reviewing syllabus and material. Then, the researcher identified syllabus and material to know the standard competence, basic competence, and topic that is used in seventh grade of MTs Aswaja Tunggangri. After that, the researcher

determined the topic or material that appropriate with this study. Then, the researcher determined the objective of test is to measure and followed by making drafting. In drafting the researcher designed a test. The test in form of fill in the blank tests, multiple choice tests, and matching the word tests.

There were two kinds of tests in this study, those were pre-test and post-test. Pre-test was intended to measure students' vocabulary mastery before the treatment given. While, post-test was to measure students' vocabulary mastery after the treatment given.

E. Validity and Reliability Testing

Instrument is important in research. The researcher needs consideration in developing instrument. The development of good instrument required considerable time, effort, and skill. In this study, the researcher should make a mastery, not other skill or component. There are two important characteristic to measure instrument, the instrument should get validity and reliability.

1. Validity

Test validity presupposes that the writer can be explicit about what is to be tested and takes steps to ensure that the test reflects realistic use of particular ability to be measured (Weir, 1993: 19). In this study, the researcher ensured that the test items are valid in term of face validity because the test is in the form objective test which was consulted to the English teacher of MTs Aswaja Tunggangri.

2. Reliability

Reliability is expressed numerically, usually as a coefficient, a high coefficient indicates high reliable. If a test is perfectly reliable, the reflects her or his true status with respect to the variable being measured. However, no test is perfectly reliable (Allison, 1999: 85). In this study, the researcher conducted test as try out before conducting pre-test and post-test to the students. Try out was administered to know whether the test reliable or not. To get reliability coefficient the researcher used SPSS program. After that, the researcher classified the reliability coefficient which taken from Sudjiono (1996: 209-230), as follows:

Table 3.1 The Classification of Reliability Test

Reliability Test Coefficient	Classification
0.99-1.00	More highly
0.70-0.89	High
0.50-0.69	Fair
0.30-0.49	Low

F. Data Collecting Method

Data collecting method is the technique to collect the data is needed by the researcher. In this study, the technique that is used by the researcher is administering test. The tests are pre-test and post-test where the kind of the test are fill in the blank tests, multiple choice tests, and matching the word tests. The researcher conducted this study in four meeting. The first meeting is administering pre-test continued by giving treatment. Pre-test was done on

Tuesday, April 4th 2017. The second meeting up to third meeting is administering treatment. The researcher gave the treatment in 2 times exactly on Thursday, April 6th until Monday, April 10th 2017. And the last meeting for administering post-test. Post-test was done on Wednesday, April 12th 2017. After administering pre-test and post-test, the result of both tests compared to know is there significant score before and after being taught using word wall.

G. Data Analysis

In managing and analyzing the data collected, the researcher use quantitative data analysis by using statistical analysis or inferential statistics. According to Best (1981: 256), statistical analysis the mathematical process of gathering, organizing, analyzing, and interpreting numerical data, and is one of the basic phases of research process. The analysis is used to find the significant difference of the students' vocabulary mastery before and after being taught using word wall media.

Analyzing data is a process of analyzing the acquired from the result of the research. The data which is needed in this research is students' vocabulary mastery of the seventh grade students of MTs Aswaja Tunggangri in the academic year 2016-2017 before and after being taught using word wall. To analyze the data, the researcher used Paired Samples Test that was calculated by SPSS 16.0 version. T-test is used to test the hypothesis that whether there is or no any significant before and after being taught using word wall. If the result of t_{table} was bigger than t_{count} at the level of significance 0.05, the null hypothesis could not be rejected indicating that word wall was

not effective on the students' vocabulary mastery. By contrast, if t_{count} was bigger than t_{table} at the level of significance 0.05, the null hypothesis could be rejected indicating that word wall was effective on the students' vocabulary mastery.