

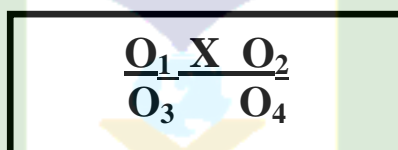
CHAPTER III

RESEARCH METHOD

This part describes about the description of the research design, location of the research, population, sample, instrument of research, and procedure of collecting data.

3.1 Research Design

This research design was applied to a quasi-experimental design that would use two classes, the experiment class, and the control class. This design provides some improvement over the first, for the effects of the treatment are judged by the difference between the pre-test and post-test scores. No comparison with a control group is provided.¹ The design described as follows:



Where:

R : Experimental Class and Control Class

O_1 : Pre-test Experimental Class

X: Treatment

O_2 : Post-test Experimental Class

O_3 : Pre-test Control class

O_4 : Post-test Control class

3.2 Location and Time of the Research

The location of this study was conducted in the first year of SMP 12 Parepare in academic year 2018/2019. The duration of this study was six meetings namely once in the pre-test, four times in treatment and once in the post-test. This research requires one month.

¹John W. Best, *Research In Education* (United States Of America: Prentice-Hall Inc, 1981), p. 81.

3.3 Population and Sample

3.3.1 Population

The population of the research is the first year at SMP 12 Negeri Parepare. There are four classes as the population in this research, and the number of all the class is 103. All the population is illustrated on the table below.

Table 3.1 Population

CLASS		TOTAL
VII	VII.1	26
	VII.2	25
	VII.3	27
	VII.4	25
TOTAL		101

3.3.2 Sample

The writer was use a purposive sampling technique to take two classes of class VII SMP 2 Parepare. This technique chooses one class as an experimental class and one class as control class automatically as a sample and it is class that VII.2 as experiment class and VII.4 as control class. The experiment class, VII.2 consists of 25 students as a sample. While, the control class, VII.4 consists of 25 students as a sample.

3.4 Instrument of the Research

The instrument of this research is a vocabulary test which applied in pre-test and post-test. The pre-test was be used to find out the students' before vocabulary before given the treatment. While, post-test was be used to measure the students' vocabulary after being given treatment, to know the effectiveness of mnemonic keyword method in improving students' vocabulary mastery.

3.5 Procedure of Collecting Data

In this research, data is all information that is directly gathers from the research subject.² The technique of collecting data in this research explained as follows:

3.5.1 Pre-test

Before giving treatment, the writer gave the students pre-test as an activity in the first meeting. It purposes to know the students' ability in vocabulary before treatment. The writer gave treatment to the students in class experimental and the writer not gave treatment in class control. After giving the pre-test the next time the writer didn't gave the students treatment.

3.5.2 Treatment

After giving pre-test, the writer gave treatment to the students in class experimental and it was being done for four meetings. In this meeting, the writer used the mnemonic keyword method in teaching vocabulary.

3.1.1.1 The first meeting

In the first meeting, the writer opened the class and greet them, and then the writer gave motivation to the students about the important to learn English before giving material. Next, The writer gave some vocabulary about "Animals" and explained how to use mnemonic keywords in vocabulary about "Animals". After that, the writer invited students to ask questions that were lacking understood about the material. After giving responses to students' questions, the writer gives the task of making keywords, and sentence. the writer examines the results of the assignments that students do after that asks some students to read the results of their assignments. The writer explains the errors students make and gives the solution, the writer concluded the material. the writer closed the meeting.

3.1.1.2 The second meeting

In the second meeting, the writer opened the class and greet them, and then the writer gave motivation to the students about the important to learn English before

²Suharsini Arikunto, *Prosedur Penelitian* (Jakarta: PT. Rineka Cipta, 1997), p. 117.

giving material. the writer asks the students about the material in the last meeting. After that, the writer divided the students into five groups. The writer gave each group some vocabulary about "part of the body" and after that students look for the meaning of the vocabulary, make a keyword and sentence. Next, the writer invited students to read their duty in front of the class. The writer explains the mistakes students make and gives a solution, the writer concluded the material. The writer closed the meeting.

3.1.1.3 The third meeting

In the third meeting, the writer opened the class and greeted the students, the writer divided the students into 5 groups. The writer gives each group several vocabularies about "Food". Next, which each group searches for the meaning of the vocabulary, then creates keywords and make a sentence for the vocabulary. After that, each group reads their assignment in front of the class. Then the writer and other groups respond. the writer concludes the material. The writer closes the meeting.

3.1.1.4 The fourth meeting

In the fourth meeting, the writer opened the class and greet them, and then the writer gave motivation to the students about the important to learn English before giving material. the writer asks the students about the material in the last meeting. After that, the writer divided the students into 5 groups. The writer gives each group several vocabularies about "activity". Next, which each group searches for the meaning of the vocabulary, then creates keywords and associations for the vocabulary. After that, each group reads their assignment in front of the class. Then the writer and other groups respond. The writer checks the results of the assignments that students do after that tell some students to read the results of their assignments. The writer explains the mistakes students make and gives a solution, the writer concluded the material. The writer closed the meeting.

3.1.2 Post-test

After giving the treatment, the writer gave students post-test to find out the result of the treatment to measure students' vocabulary through mnemonic keyword method, the writer gave some test vocabularies.

3.6 Technique of Data Analysis

The data will be collected through the test that has been analyzed by using quantitative analysis employed statically calculation to test the hypothesis. The step is as follow:

3.1.3 The Classification Students' Score

Table 3.2 Score

No	Classification	Score
1	very good	80-100
2	Good	66-79
3	Fair	56-65
4	Poor	40-55
5	very poor	0-39

3.1.4 Scoring the students' writing of pre-test and post-test

$$\text{Score} = \frac{\text{Students' correct}}{\text{The total item}} \times 100$$

Finding out the mean score by using the following formula:

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

In which:

\bar{X} = Mean score

\sum = Total Score

N = The total number of students

Calculating the rate percentage of the students' score by using the following formula:

$$X = \frac{F}{N} \times 100\%$$

Where:

P = percentage

F = frequency

N = total of number of sample.

Finding out the variant by using the following formula:

$$S_1^2 = \frac{\sum X_1^2 - \frac{(\sum X_1)^2}{N_1}}{N_1 - 1} \quad S_{12}^2 = \frac{\sum X_{12}^2 - \frac{(\sum X_2)^2}{N_2}}{N_2 - 1}$$

where:

S_1^2 = variant of experimental

S_1^2 = variant of control class

$\sum X_1$ = the sum of the score of experimental

$\sum X_2$ = the sum of the score control

N_1 = total number of subject of experimental class

N_2 = total number of subject of control class

$(\sum X_1)^2$ = the square of the score sum of experimental class

$(\sum X_2)^2$ = the square of the score sum of control class

Finding out the Standard Deviation by using the following formula:

$$S = \sqrt{\frac{\sum f_i (X_i - \bar{X})^2}{(n-1)}}$$

Where:

S = Standar Deviation

n = Total Sample

$\sum f_i$ = Total Interval

X_i = Score x to -i

\bar{X} = Mean Score

Finding out the Score N-Gain

Table 3.3 Score N-gain

Score N-Gain	Category
$g > 0,7$	High
$0,3 \leq g \leq 0,7$	Medium
$g < 0,3$	Low

Finding out the correlation between independent variable and independent variable by using the following formula:

$$R_{xy} = \frac{\sum xy}{\sqrt{(\sum x^2)(\sum y^2)}}$$

Where:

R_{xy} = correlation product moment

x = the value of X_i in decrease the mean score of pre-test

y = the value of y_i in decrease the mean score of post-test

The guidelines to give interpretation coefficient correlation

Table 3.4 interpretation coefficient correlation

Coefficient interval	Correlation degree
0,00-0,199	Very low
0,20-0,399	Low
0,40-0,599	Average
0,60-0,799	Strong
0,80-1000	Very strong