

CHAPTER III

THE RESEARCH PROCEDURE

A. Method of The Research

In this research, the researcher will use Quantative Research in identifying The Influence of Memory Matrix of Classroom Assessment Technique (CATs) to Improve Students' English Vocabulary.

According to Kothari "Quantitative research is based on the measurement of quantity or amount. It is applicable to phenomena that can be expressed in terms of quantity"¹ According to Quantification is the "assignment of a number to represent an amount or a perceived degree of something. That is, the association of numbers with behaviors, objects, or events."² Because the analysis of The Influence of Memory Matrix on Classroom Assessment Technique (CATs) to Improve Students' English Vocabulary the researcher need to know the precentage of the Influence of the Memory Matrix on Classroom Assessment Technique (CATs) to Improve Students' English Vocabulary. Therefore, the researcher uses this method.

In analyzing the The Influence of Memory Matrix on Classroom Assessment Technique (CATs) to Improve Students' English Vocabulary

¹ C.R.Kothari, *Research Methodology*, (New Delhi:New Age International (P) Limited, Publisher,2004), 3.

² Richard Colwell, *Menc Handbook Of Research Methodologies*, (New York: Oxford University Press,,2006),95.

used the Experimental Reserach to test the hypotesis which has the form of cause and effect relations by manupulating dependent variables during manipulating time, the writer has to control extrancous variables, perhaps, the transitional that occured really as an effect of manipulating wich is out caused by other variables. According to Kothar “Experimental approach is characterised by much greater control over the research environment and in this case some variables are manipulated to observe their effect on other variables”³ . Because the technique to collecting data of this study is experiment. The researcher will do some experiment at the Classroom.

The data analysis uses is the quantitative research, it means that the writer collects the data from the filed and must go to place of the research. Moreover, in this reserach the writer uses quasi-experiment becasue in this reserach therewill be pre-test and post-test to get the data. Two classes where are involved in this research, it is experimental class and control class. The experiment class consist of the students who get the treatment. However, the control class was not. Both calsses recieved a pre-test to whatever instrument is used to asses the effect of the expeiment before the treatment has been given. To make this reaserach more clear, the writer provide the research as follows:

³ C.R.Kothari, Research Methodology, 5.

Table 3.1

No	Class	Pre-test	Treatment	Post-Test
1	Experment Class	X	X	X
2	Control Class	X	O	X

B. Place and Time Research

This research will be conducted on Classroom of Junior High School in SMPN 1 Karang Tanjung which located in kecamatan Karang Tanjung, Pandeglang. The writer's choose this school because this school is never observed by other researchers. The study will be conducted on April 2019.

C. Population and Sample

Population is set of all cases, situation or individuals who share one or more characteristic.⁴The population of this research will be conducted by students of SMPN 1 Karang Tanjung on the eighth grade of Junior High School consisted of more or less of 440 students.

The sample is random sample. This school has eleven classes, but the researcher will take two classes from 2nd grade conducted by the class A and B.; that is class A consisted of 40 students as the experimental class and class B consisted of 40 students for the controlled class.

⁴ David Nunan, *Research Method in Language Learning*, (New York: Cambridge University Press, 1992), 231.

D. The Research Instrument

In this research, the writer give two test. There are pre-test and post test. Pre-test will given before the writer taking the treatment in the class, and post test will given after the writer finished taking the treatment in the class by memory matrix. So the writer know there are differences before and after treatment or not. The test given by the writer to the students is fill. the blank of the table with the meaning and the sentences about the words. The test given to measure students' vocabulary mastery.

E. The Technique of Data Collecting

The researcher will collected the data used the follow instruments, there are:

1. Test

The researcher will use this techniq to get the data from the students. "Test is a method of measuring a person's ability, knowledge or performance in a given domain. Some test measure general ability, while others focus on very spesific competencies or objectives."⁵ The test will use to measure the students ability master.

The researcher will use test to relate English Vocabulary by Memory Matrix of Classroom Assessment Technique (CATs). The test will be present to the students' who learn English Vocabulary. The researcher will use pre-test and post-test. For pre-test the researcher will ask the students'

⁵ Douglas Brown, *Language Assessment Principles and Classroom Practices*, (San Francisco State University: Longman,2004), 3.

to write about the words and the meaning of the words they get on the class without special treat, and then the researcher will ask the students about the words they get on the next day. For the post-test the researcher will give some paper with coloums and rows and ask the students' to fill the coloums with the words, the meaning of the words they get on the class and then the students should make some sentences uses the words, after that the researcher will ask the students about the words they get on the next day.

a. Pre-test

The researcher give the test before the lesson is begin. It invloves basic infromation of students' English vocabulary. It is instead to know the first condition on students' knowledge of the material that will be thought.

b. Post-test

The researcher give post-test afeter the lesson is finished. This test will illustrate the difference between the control and the experimental class after treatment.

F. Data and Source of Data

In conducting this study, the researcher will employ on the filed study. And doing some experiment at the Classroom.

G. The Technique of Data Analyzing

Data analysis is the procedure of experiment, in this case, processing the data. Data processing is the step to know the result of both the experiment class and control class and also their difference.

To find out the difference of the students in using Memory Matrix of Classroom Assessment Techniques (CATs) to improve students English vocabulary the writer use test.

After getting the data from the pre-test, they are analyzed and processed by using statistic calculation of the t-test formula with the significance degree 5% and 1%. The formula as Follow:

a. Determining Mean with Formula

$$M_1 = M^1 \left[\frac{\sum fx^2}{n} \right]$$

M_1 = the average of variables score

$\sum fx^2$ = sum of frequency multiply the students

N = Number of students

b. Determining standard deviation score with formula

$$SD_1 = \sqrt{\frac{\sum fx^2}{N} - \left(\frac{\sum fx^1}{N} \right)^2}$$

SD_1 = Standard deviation of gained score X

$\sum fx^{1^2}$ = Sum of squared gained score

$\sum fx^1$ = Sum of Gained Score

N = Number of Students

- c. Determining of standard error mean with formula

$$SEm_y = \frac{SD_y}{\sqrt{N_2 - 1}}$$

SE M₁ = Standard error mean of gained score

SD₁ = Standard deviation of gained score

N = Number of Students

- d. Determining Standard Error of Different Mean of Variable X and Mean of Variable Y:

$$SEm_x - m_y = \sqrt{SEm_x^2 + SEm_y^2}$$

- e. Determining t-observation (to) with the formula:

$$t_o = \frac{m_x - m_y}{SEm_x - m_y}$$

- f. Determining t-table (tt) in significance level 5% and 1% with degree of freedom (df) with formula:

$$df = (N_1 + N_2) - 2$$

df = Degree of Freedom

N = Number of Students

In this study, because the main aim to analyze the influence of the memory matrix, the researcher will use statistic calculaton of students' test, with the following steps:

1. Checking the name and identity of respondent.
2. Checking the content of instrument data collections.
3. Scoring the quation items use objective answer with oral test.
4. Determining the interval class.

After all data has collected, the reseracher will use anlyze the data and the last is concluded.