# CHAPTER III

RESEARCH METHOD

3.1 Research Design

Research design plays an important role in a research because the quality of research greatly depend on the design. In this research, the researcher wants to describe Round Robin technique can enhance student's vocabulary mastery. Theresearcher used Round Robin technique and conducted a quantitative research using quasi experimental design. The researcher wanted to conduct a research for getting a data to continue and complete this research.

Cohen, Manion, Morrison (2005: 65) stated that essential of experimental research is that investigators deliberately control and manipulate the conditions which determine the events in which they are interested. At its simpled an experiment involves making a change in the value of one variable called the independent variable and observing the effect of that change on another variable called the dependent variable.

In this study the researcher took two classes of the tenth grade of MA WalisongoPecangaanJepara chosen as the experimental group and control group. The both classes tested by post test and pre test.

The process of Experimental Research Treatment

E01 X 03
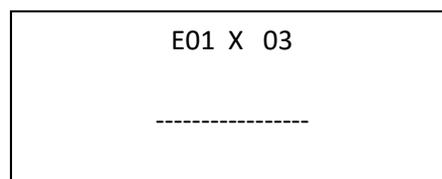
(Mubarok, 2015)

Where:

E   : The experimental group

C   : The control group

X   : The treatment using Round Robin

Y   : The treatment using conventional method

01   : Pre-test for experimental group

02   : Post-test for experimental group

03   : Pre-test for control group

04   : Post-test for control group

The steps by using experimental group and control group. The treatment conducted to experimental group the experimental group that taught by using Round Robin and the contol group the treatment without Round Robin or by using conventional method. The last the result of post-test and pre-test was counted in the end of meeting using statistics.

3.2 Population and Sample

3.2.1. Population

Mubarok (2015: 38) stated that population is a unit of the object or subject that has certain qualities and characteristics which are studied by the researchers then be deduced. In this research, the populations is all the tenth grade students of MA WalisongoPecangaanJepara in academic year 2018/2019.

3.2.2. Sample

According to (Mubarok, 2015: 41) sample is part of quality and characteristics of the population. Samples taken must be truly representative because the conclusions drawn from these sample is more favorable if it was compared with studies using population. In this research the sample of the population were the tenth students of MA WalisongoPecangaanJepara, in tenth grade there are three classes, X MIA 1and X MIA 2. The resarcher was use simple random sampling. In this part, the researcher only choose two classes was control class and experiment class.

3.3 Research Variable and Hypothesis

3.3.1. Variable

According to Cohen, Manion and Marison (2007: 78) there were two variables that are written in their book. First is Independent Variable, independent variable is an input variable, that which causes, in part or in total, a particular outcome it was a stimulus that influences a response, an antecedent or a factor which may be modified (e.g. under experimental or other conditions) to affect an outcome. Independent variable in this research was round robin, and the second was Dependent Variable. A dependent variable, on the other hand, the outcome variable, that which was caused, in total or in part, by the input, antecedent variable. It was the effect, consequence of, or response to, an independent variable. This was a fundamental concept in many statistics. Dependent variable in this research is students' mastery vocabulary.

3.3.2.   Hypothesis

In this study, the hypothesis was presented as bellow:

3.3.2.1   Null Hypothesis (Ho)

There was no significant difference between the student's vocabulary mastery between the students who taught by using Round Robin and those who are taught without using Round Robin.

3.3.2.2   Working Hypothesis (Ha)

There was significant difference between the student's vocabulary mastery between the students who taught by using Round Robin and those who are taught without using Round Robin.

3.4 Instrument

According to Sukardi in Ahkam (2013: 87) Testwas a set of stimulation presented to individual in order to elicit responses on the basic of which a numeral score can be assigned. The researcher was easily remembering the information through photographs, writings that can be used as a validity reference to the research. In this, research the instrument used in the form of test. Mubarok (2015)test is a test in simple terms, is a measuring a person's ability knowledge, or performance in a given domain. The researcher compiles 50 items of multiple choice question. In the test, the students have to choose the correct answer of the questions by crossing A, B, C, or D.

3.5 Trying Out The Instrument

3.5.1. Validity

This analysis was meant to find out the validity and reliability of the instrument before it was used as the pre-test and post-test. This test was conducted on September3, 2018. Try-out test was conducted for X IPS class. There were twenty two students as respondent.

The validity was an important quality of any test. It was a condition in which a test can measure what was supposed to be measured. Arikunto (2006: 66) stated that test were valid if it measures what it purposes to be measured.

- The item test is valid if $r_{count} > r_{table}$

- The item test is invailid if $r_{count} < r_{table}$

- $r_{table} = N$

- N = 50

- In the table 5 % shows that 22 = 0,4044

Table 4.1
The Validity of the Tryout Test

Criteria	Number of Items	Total Items
Valid	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21, 22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38, 39,40,41,42,43,44,45,46,47,48,49,50.	50 items

The result calculations of r_{xy} compare with r_{table} of Product Moment by 5% degree of significance. If r_{xy} higher than r_{table} the items of questions is valid.

3.5.2. Reliability

Sugiyono(2008: 134) stated that reliabilityis consistency of measurement. A reliable test score would be consistent across different characteristic of the testing situation. Besides high validity, a good test should high reliability too.

Table 4.2

The Reability Computation Using SPSS Calculation

Case Processing Summary

		N	%
Cases	Valid	22	100.0
	Excluded[a]	0	.0
	Total	22	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.935	50

From the SPSS calculation above, showed that in Cronbach's Alpha column was 0,935 and the the r_{table} 0,4044 from the N. In the table significant 5% showed that number 22 is 0,4044. The reability can be said reable if the Cronbach's Alpha $>r_{table}$ in this part showed that 0,935 > 0,4044. It means that the instrument of the research was reliable.

3.6 Technique of Collecting Data

Related to the research which used by the writer in this study the instruments devide into pre-test, treatment and post-test.

3.6.1. Pre-test

In this part, the researcher give a test to the students. The researcher give some words, and the student mention the synonym or antonym of the words.

3.6.2. Treatment

In treatment, the researcher teach the students by using Round Robin to the experimental group and control group teach by the same teacher and material but different in teaching method.

Table 4.3

Group	Meeting	Treathment
Experimental group	Meeting 1	➢ The student were divided into small group, one group consist of 6 students. ➢ The teacher explain about material in power point. ➢ The teacher show the sample project as media and give guiding question. ➢ The teacher gives some word and the student creat antonim of the words. ➢ The students designing project and describe the project with their group. ➢ The mamber of the group search the information about the topic.

	Meeting 2	➢ After the information collect, the students can arrange it.
		➢ The teacher monitoring the progress of project by stidents.
		➢ After completing, the group members was take turns, moving clockwise and respond to the question. Teacher has to inform student that to prevent interrupting or inhibiting the flow of ideas, they must refrain from evaluating, questioning or discussing the ideas.
		➢ Next, if it would be beneficial for students to assume a role (such as recorder or enforcer), allow a few moments for role assignment.
		➢ After that, teacher tells students whether or not they will go around the group once or multiple times, announce a time limit, and pose the prompt.
		➢ Then, the teacher asks one student to begin the activity by stating an idea or answer aloud.
		➢ The next student continues the brainstorming session by stating a new idea. The activity continues, moving from member to member in sequence, until all students have participated.
		➢ Last the teacher and the students' make a conclusion and the teacher gives a feed back of learning process and outcomes.

| Control group | Meeting 1 | ➢ The teacher gave little explanation about the material about synonim and antonim words.
➢ The teacher asked the students to read and understanding material about synonim and antonim words. |
| | Meeting 2 | ➢ The teacher reviewed material in previous meeting.
➢ The researcher asked the students to make five word and mention the antonim of the words as a post test |

3.6.3. Post-test

After giving treatment, the researcher gives a test. So, there is significant or not after used Round Robin to enhance student's vocabulary mastery.

3.7 Technique of Analizing Data

The researcher using SPSS or statistical analyzeto analyze the data. The writer compares the scores of the experimental class and control class. This technique was useful to prove a significant difference between pre-test and posttest of two classes to find out the difference between the students who were teach by using Round Robin technique and the students who were not teach by using Round robin on vocabulary, especially in MA WalisongoPecangaanJepara. The writer was an analysis of quantitative data. The data was an obtainable by giving test to the experimental class and control class after giving different learning both classes.

The writer determines the material and lesson plan of learning. They were learning in the experimental class using round robin teaching material, while the control class without using round robin teaching material.

The subjects of this research were divided into two classes. They were experimental class (X MIA 1), and control class (X MIA 2). The writer prepares 50 items in pre-test and 50 items in post-test as the instrument of the test. Test was giving before and after the students following the learning process that provide by the writer.

After that the writer was be analyze the data. The first analyze data from control class and the experimental class was taking from pretest value. It was normally test and homogeneity test. It was use to know that two classes were normal and have same variant. Another analyzes data by the ending of control class and experimental class. It was use to prove the truth of hypothesis.