CHAPTER III

RESEARCH METHOD

A. Research Design

This research has been done the result about the significance of round table technique toward students' writing achievement. For this reason, the design of this research is experimental research. Gay and Airasian (2000:367) state that experimental research is type of research that the researcher can prove the hyphothesis to know the relationship of cause and the effect.

In this research, the writer used Round Table Technique as independent variable and writing activity as dependent variable. There are two groups involved in this research, the one is experimental and the other one is control group. Both of groups get the same topic, the same length of time and the same teacher, but different techniques. The experimental group is taught by using *Round Table Technique* and control group does not taught by this technique. The treatment is given to experimental group about six meetings; it is assumed that six meetings are enough to see the differences that were arisen between using Round Table Technique and without Round Table Technique. Every meeting, the writer was given different topics. At the end of treatment the writer give the students post-test.

At the end of the research, the writer was took the result of post-test of both classes. Written test was given to the students. The students make a simple narrative text with their words and observe the component of writing. And then, to determine whether Round Table Technique gives significant effect toward students' writing ability or not, the result of students writing in

post test will describe and analyze. It is experimental research which was designed by *post test and only control design group.* The research design can be seen on the table below:

Table 3.1. Research Design

Group	Independent variable	Dependent variable
E	X	O
C	-	O

Where :

X = Experimental group

C = Control group

O = Post test (writing test)

X = Treatment (teachning through round table)

B. Population and Sample

1. Population

Population is the number of students on this research. The population is all of the member that consist of five classes. Gay and Airasian (2000:122) state that population is the group of interest to the researcher. It means that the writer would like to know the result of the study to be generalized. The population of this research is the VIII Grade at Islamic Junior High School 4 Pesisir Selatan who are registered at 2016/2017 academic year. The population of this research is 133 students from Nature Science Program at MTsN 4 Pesisir Selatan. There are five classes of Nature Science Program at the school. Thus, the population of this research can be seen in the table below :

Table 3:3
Total of Students Eight Grade of Islamic Junior High School 4 Pessel
Academic Year 2016/2017

Class	Students' sum
VIII A	26
VIII B	27
VIII C	26
VIII D	27
VIII E	27
Total	133

2. Sample

Sample is a set of elements selected in some way from a population. It means, a sample is a part of a population or large group that interest and chose by the writer with uses a way or technique. The aim of sampling is to save time and effort and also gain information about the population by using the sample. The sample of the research was taken based on the normality and homogenous of the students' test score.

Gay and Airasian (2000:121) content that sampling is the process of selecting a number of individuals for a study in such a way that they represent the larger group from which they were selected. In order to get sample, the writer will use cluster random sampling. It selects groups and has similar characteristics. In doing this research, the writer need two classes as the sample; the experimental and control class. Gay and Airasian (2000:129) says the cluster random sampling is a way to select sample in groups, not individualy but randomly selected.

In this research, the researcher was found the experimental class to get a class for treatment, every class VIII of Islamic Junior High School 4 Pessel is given a lottery such as class VIII.1 lottery A, VIII.2 Lottery B,

VIII.3 lottery C, VIII.4 lottery D, VIII.5 lottery E, and put all of the lotteries in a box than the writer shake it and removed a lottery. In this case at last the writer get class VIII.D as experiment group and VIII.E as control group.

Table. 3.4
Sample of Research

No	Grade	Total of Students
1	VIII D (Experimental Class)	27
2	VIII E (Control Class)	27
Total		54

The researcher took the sample to see the normality or homogeneity by doing these steps:

a. Collected the Midterm test score data from all students at eighth grade in second semester see appendix 2
b. Test of normality

Normality test had an objective to know the population normal or not. In this research, to do the normality test the writer used Kolmogrov Smirnov and Shapiro Wilk. This test was SPSS test. If the data was significant or more than 0.05 the class was normal. Then, two classes had a normal data (VIIID and VIIIE). Based on the graphics Q-Q Plot, if the data were around and near with the line, it meant, the data was normal. The normality table as is stated as follow:

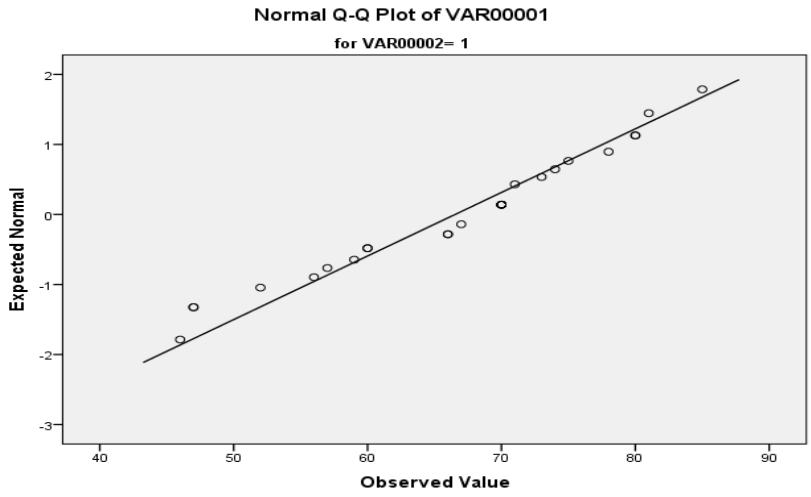
Tests of Normality

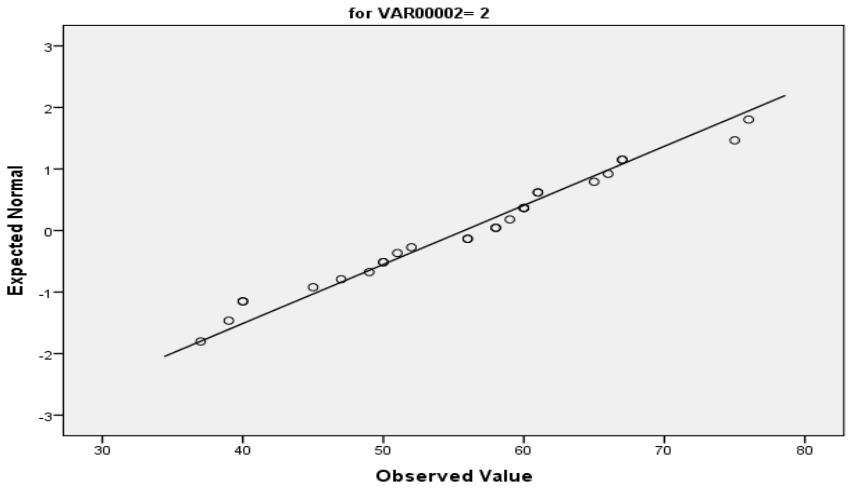
	VAR00002	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	Df	Sig.	Statistic	Df	Sig.
VAR00001	1	,162	26	,078	,951	26	,244
	2	,104	27	,200*	,969	27	,584

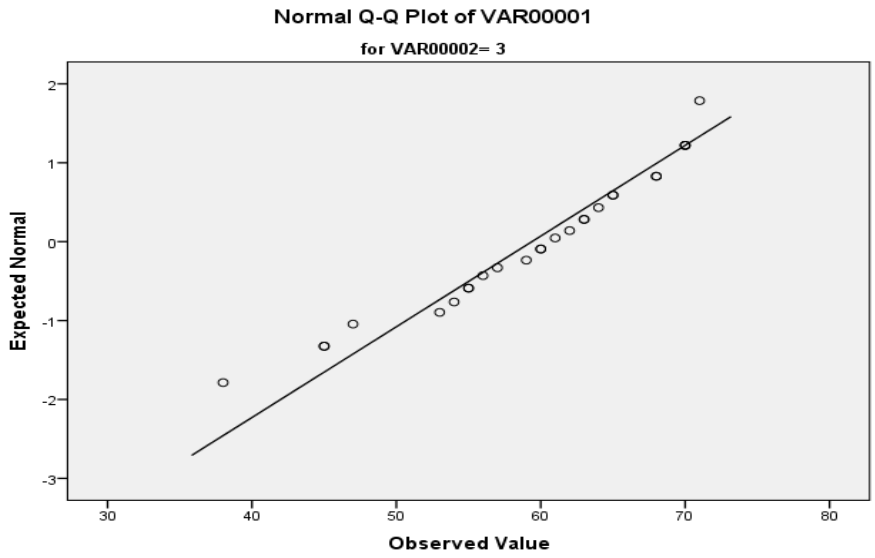
3	,105	26	,200*	,939	26	,130
4	,143	27	,165	,966	27	,496
5	,140	27	,187	,951	27	,224

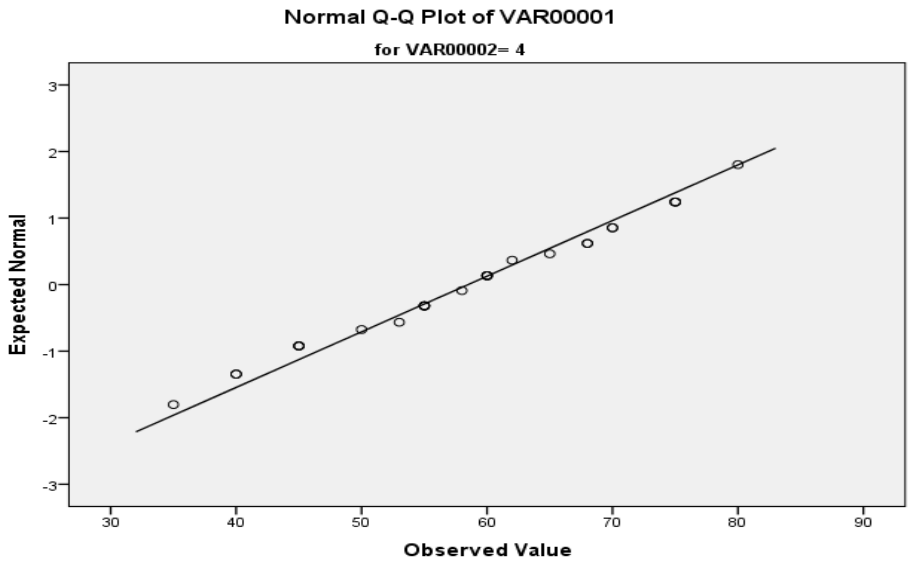
*. This is a lower bound of the true significance.

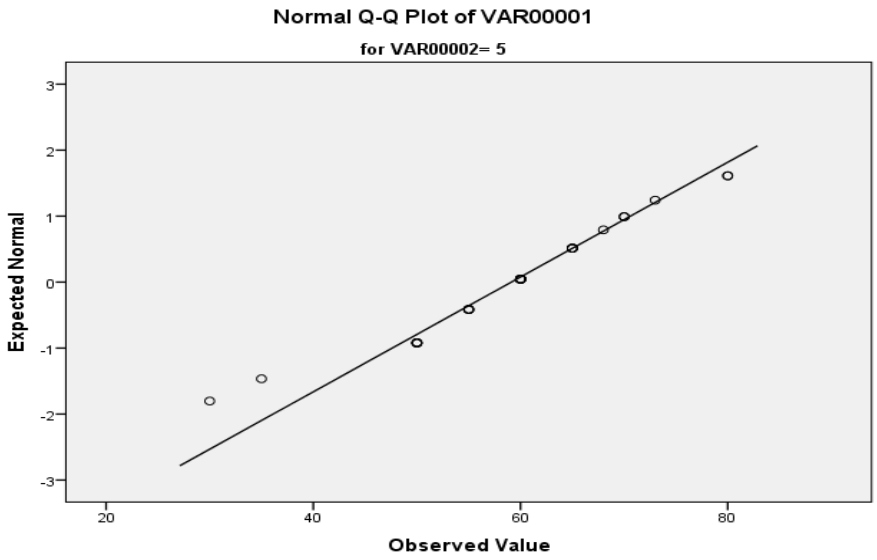
a. Lilliefors Significance Correction






Normal Q-Q Plot of VAR00001
for VAR00002= 3
Expected Normal
Observed Value
2
1
0
-1
-2
-3
30
40
50
60
70
80


Normal Q-Q Plot of VAR00001
for VAR00002= 4
Expected Normal
Observed Value
3
2
1
0
-1
-2
-3
30
40
50
60
70
80
90



c. Test of Homogeneous Variances

After done the normality test and got the normal data. Then the researcher did the homogeneous variation test. This test had an objective as to know the sample homogeny or not. This test used SPSS with levene test, if the data were significant or the data were more than 0.05 it meant the data was homogeneous.

Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
VAR00001	Based on Mean	,640	4	128	,635
	Based on Median	,538	4	128	,708
	Based on Median and with adjusted df	,538	4	121,692	,708
	Based on trimmed mean	,661	4	128	,620

C. Place and Time of the Research

This research was held in Islamic Junior high school 4 Pesisir Selatan, the treatment was conducted at the first year students at first semester. The experimental was treatment from October until December (six times of

meeting). The treatment was carried out based on the teaching schedule of MTsN 4 Pesisir Selatan**.**

D. Instrument of the Research

The instrument for this research is the form of writing test. The researcher used the test type from Jacob's criteria (1981:90) in scoring students' writing test.

According to Arikunto (2006) says "a test have had a validity if it could be measured the specific purpose related with the material that students have learned". In this research the writer used written test and the text as an instrument. Each student asked to write a text based on the topic that gave by the writer. The scoring of this research based on students abilities in writing such as: content, vocabulary, organization, language use, and mechanic.

According to Gay and Airasian (2000:145) instrument is a tool or something that is used in collecting data. The instrument which used in this research was writing test. According to Gay and Airasian (2000:153) a test is a formal, systematic, usually, paper and pencil procedure for gathering information about peoples' cognitive (e.g. achievement, ability, reading) and effective (e.g attitudes, emotions, interests, values) characteristics.

After giving the treatment for six meetings the researcher gave two classes post test in order to know the students' writing skill. And to see whether the use of Round Table Technique gives significant effect than conventional strategy, the researcher compared the result of post test of the classes. The instrument of this research was writing test and lesson plan. Writing test used to measure the students' skill in writing. Lesson plan used to treat students' problem in writing. The written test which was given in post

test for both of control and experimental class were the same writing test. The blue print of writing test can be seen in the following below:

Table. 3.5
Blue Print of Writing Test

No	Component of Writing Test	Indicator	Topic	Number of Item
1 2 3 4 5	Content Organization Vocabulary Language use mechanic	The students are able to write down a paragraph in good content, organization, vocabulary, language use, and mechanic.	1. Malin kundang 2. Snow white 3. The ant and the dove 4. The lion and the hare 5. The tittle mouse 6. The rabbit and the turtle	1 1 1 1 1
			Total	6

From the table above, the students were asked to write a narrative text based the topics given and also based on the orientation, events and re-orientation.

Researcher gave attention to the students about criteria to be evaluated from their writing such content, organization, vocabulary, language use and mechanics. The researcher used the students' writing to get the students' score by giving marks on each indicator were based on Jacob's writing indicators such, content (13-30), organization (7-20) vocabulary (7-20) language use (11-25) and mechanics (2-5).

Table. 3.6
Sample of Instrument in Giving Writing Scores

No	Name	Categories					Score
		Content	Organization	Language Use	Vocab.	Mec.	
1.							
2.							
3.							
4.							
5.							

E. Types of Data

The researcher collected the data in form of quantitative. The term quantitative data is used to described a type of information that can be counted or expressed numerically. This type of data is often collected in experiments and statically analyzed. Quantitative data can be representative get from the result of student's writing test in form of written test.

F. Technique of Data Collection

The writer was given both of group different treatment in writing test. Experimental class was taught by using Round Table Technique, and control class was taught by using conventional strategy. The data was collected through a post-test score. The post test score was took at the end after giving treatment. At the end, both groups was given the post test. The post-test was administrated to get the final result of the research.

To collect data by using test, the writer was guided with Jacob's criteria in writing. Those criteria can be seen in chapter 2.

G. Procedure of Research

The writer used two classes to get data. These two classes taught by using the same material. In experimental class, the researcher taught the students by using Round Table Technique and by using conventional strategy for control class. In short, the research proposed these procedures:

1. Technical Procedure
    1. Determining the research time
    2. Preparing the lesson plan arranged by curriculum.
    3. Explaining to the students about the planning in learning process.
    4. Preparing the final test
2. Application Phases

The application phases of the research can be seen in the table below :

Table.3.7

Teaching Procedure for Experimental and Control Group

No	Experimental group	Control group
1	**Pre-activity (15 minutes)** - Teacher greets the students - Praying - Teacher checks students' attendance - Teacher asks students about the last material - Teacher builds the students' background knowledge - Teacher explains the aim of teaching and learning - Motivate the students **Main activity (60 minutes)** *Observing* - Teacher gives the students samples of narrative text. - Teacher asks the students to read the sample texts.	**Pre-activity (15 minutes)** - Teacher greets the students - Praying - Teacher checks students' attendance - Teacher asks students about the last material - Teacher builds the students' background knowledge - Teacher explains the aim of teaching and learning - Motivate the students **Main activity (60 minutes)** *Observing* - Teacher writes down the topic on the white board - Teacher modeled narrative text asks students to read the

	- Teacher asks the students to observe the texts, such as the goal, generic structure, and the language use. *Questioning* - Teacher helps the students to ask about the goal, generic structure, and language use in recount texts. - Teacher helps the students to ask the difference among the structure of the texts. - The students ask the other example of narrative texts. <u>*Associating*</u> - Teacher helps the students to analyze the information that they have learned in the last activity - Teacher helps the students analyze the material related to their real life. <u>*Exploring/Doing*</u> - The teacher the students made group and sit in circle. - The students made group and sit in circle. - The teacher asked students in every group served a paper and a pen on the table. - The students in every group served a paper and a pen on the table. - The teacher gave instruction that the students have to generate many ideas and got three chances to state idea on the paper based on the question alternately	modeled narrative text - Teacher ask students to read and identify the characteristic of a simple narrative text *Questioning* - Under the guidance of teachers, students ask about some vocabularies they did not know. - The students ask confirmation about the modeled narrative text, social function, the structure of the text, and linguistic elements of each of the text. - Teacher explains what the orientation is?, what complication is?, and what resolution is? <u>*Associating*</u> - The teacher gives responses to the entries made by students - The teacher guides the students to relate the material with the last material <u>*Exploring*</u> - Teacher asks students in pair, they are going to make a narrative text - Teacher asks students to identify the information from narrtive text have been discussed - Teacher and students discuss about some vocabularies related to the narrative text - Teacher ask students to discuss about purpose, generic structure, and language features of the text - Teacher asks students to

	- The students listened to the teacher - The teacher reminded the students which group member will begin and then they had t o pass the paper to friend next to him after two minutes. - The teacher show a picture and posed a question. - 1. What do you know about snow white story? - The students think about the answer for two minutes - The student read aloud the answer and started to answer the question on paper - The teacher guided the students to develop organize their idea on the paper. - The teacher guided the students to check language use such as grammar on the paper. - The teacher guided the students to check their vocabulary on the text - The teacher guided the students to check mechanic such as capitalization, punctuating and spelling on paper.	write a narrative text based on the characteristics, purpose, generic structure, and language features of the narrative text.
	Communicating - Teacher asks some groups to present their paragraph. - Teacher and students evaluate the paragraph together	*Communicating* - Teacher ask students to communicate their writing in front of the class - The teacher and the other students have to give confirmation about the student's performance. - Teacher collects the students' work
	Pos-Activity (15 minutes) - Teacher gives feedback to the teaching process - Teacher and students conclude what they learned	**Pos-Activity (15 minutes)** - Teacher gives feedback to the teaching process - Teacher and students conclude what they learned - Teacher gives the students

	- Teacher gives the students homework - Teacher informs the next material. - Teacher close the class	homework - Teacher informs the next material. - Teacher close the class

3. Final Phase

The writer was given the post-test to know the score of the students after giving the treatment for six meetings with different topic and it is based on the syllabus.

H. Technique of Data Analysis

In analyzing the data, the writer gave the scores of post tests both in experimental and control group. These scores analyze by using statistical analysis. The purpose is to see difference of writing achievement between experimental group and control group.

Furthermore, the data was analyzed by using T- test formula as suggested by Sudjana (2005: 239). T-test formulas develop which is presented as follow: In analyzing the students' test score, some steps were done before analyzing the different mean by using t-test formula as follows;

1. This formula was applied to decide mean of students' test score in experimental and control groups;

$$\overline{X_1} = \frac{\sum F_1 X_1}{\sum F_1} \text{ (Experimental group)}$$

$$\overline{X_2} = \frac{\sum F_2 X_2}{\sum F_2} \text{ (Control group)}$$

2. This formula was used to decide standard deviation of experimental group;

$$S_1^2 = \frac{n_1 x \sum F_1 x_1^2 (\sum F_1 X_1)^2}{n_1 (n_1 - 1)} s$$

3. This formula was used to decide standard deviation of control group;

$$S_2^2 = \frac{n_2 x \sum F_2 x_2^2 (\sum F_2 X_2)^2}{n_2 (n_2 - 1)}$$

The formula of t-test was as follows

$$t = \frac{\overline{X_1} - \overline{X_2}}{S\sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$$

With; $S^2 = \frac{(n_1 - 1)S_1^2 + (n_2 - 2)S_2^2}{n_1 + n_2 - 2}$

Where;

t : The value of t calculated / observer / obtained

$\overline{X_1}$: Mean score of experiment sample

$\overline{X_2}$: Mean score of control sample

n_1 : The number of subject of experimental group

n_2 : The number of subject of control group

S_1^2 : Standard deviation of experimental group

S_2^2 : Standard deviation of control group