

CHAPTER III

RESEARCH METHOD

A. Research Design

The design of this research was Pre-experimental research, One group pretest posttest research. According to Gay (2000: 265-266), the One group pretest-posttest design involves a single group that is pretested (O_1), exposed to a treatment (X), and then tested again (O_2). The success of the treatment is determined by comparing pretest and posttest score. The study conducted into two steps: Pre-test and Post-test. The pre-test was given at the first meeting of the research to see the students' writing ability before doing the treatment, and the post-test was done at the last meeting of the research to find out the result of the treatment given. Based on the design, Gay (2000:265) shows the one group pretest-posttest in schema below:

Table 1

O_1	X	O_2
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Where:

O_1 : Pre-test

X : Treatment

O_2 : Post-test

By doing this research, the researcher gave pre-test before give the treatment to the students, after that the researcher provided some treatments by using Listing Technique. At the end of the research, the researcher gave post-test to the students to know their abilities in writing procedure text.

Table 2
Procedure of One Group Pre Test-Post Test Design

STEPS	PROCEDURES	AIM
Step 1	pretest (writing test)	To measure the degree of the dependent variable before the treatment
Step 2	Treatment (2-5) presentation, listing, and written.	To influence the dependent variable
Step 3	Posttest (writing test)	To measure the degree of change on the dependent the variable

B. Population and Sample

1. Population

Population is the objects of the research or a set (or collection) of all elements possessing one or more attributes of interest (Arikunto, 2006: 130). The population of this research was the third Year Students of Junior High School 1 Kubung. The third year's students were spread on six classes. There are 174 students in IX classes.

Table 3
Population of Class IX Junior High School 1 Kubung
AY 2017/2018

Class	IX 1	IX 2	IX 3	IX 4	IX 5	IX 6
Total students	28	29	30	29	29	29

Population of five classes used SPSS to know the normality and homogeneous data, to show the sample was representative or not. The table below show the result of normality and homogeneity test.

Table 4
Test of Normality

		Tests of Normality					
	VAR00002	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	Df	Sig.	Statistic	df	Sig.
	1	.117	28	.200 [*]	.957	28	.292
	2	.167	29	.038	.947	29	.156
	3	.116	30	.200 [*]	.957	30	.262
VAR00001	4	.137	29	.175	.966	29	.458
	5	.193	28	.009	.883	28	.005
	6	.117	29	.200 [*]	.964	29	.418

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

a. Lilliefors Significance Correction

Based on the table, can be seen that the significance or probability score of all classes bigger than 0.05 in both Kolmogorov-Smirnov and Shapiro-Wilk. To see whether the sample normal or not in distribution, researcher also used normal graphic of Q-Q plot. Based on the graphics Q-Q Plot, if the data are around and near with the line, it means, the data was normal.

After did the normality test, researcher analyzed the homogeneous variation test. This test has an objective as to know whether the sample homotent or not. The researcher did the test of homogeneity by using Test of Homogeneity of variance. Population has homogeneity variance if P-value is bigger than 0.05. see the table below;

Table 5
Test of Homogeneity of Variances

Test of Homogeneity of Variance					
	Levene Statistic	df1	df2	Sig.	
VAR00001	Based on Mean	.917	5	167	.471
	Based on Median	1.005	5	167	.416
	Based on Median and with adjusted df	1.005	5	156.251	.417
	Based on trimmed mean	.973	5	167	.436

Based on the data above, it can be seen that column test of homogeneity variance was bigger than 0.05. so it can be concluded that all the class were homogent.

2. Sample

Sample is a part of population that can represent the problem values of the population. A sample comprises the individuals, items, or events selected from a large group referred to as a population. The purpose of sampling is to gain information about the population by using the sample.

The sample of this research used simple cluster sampling. Gay (2000: 131) says that Simple cluster sampling is the process of selecting a sample in such a way that all individuals in the defined population have an equal and independent chance of selection for the sample. The selection of the sample is completely out of the researcher's control; instead, a random, or chance, procedure selects the sample. In other words, every individual has the same probability of being select and selection of one individual in no way affects selection of another individual. The sample of this study

was IX 5 and the students consist of 29 as sample. This class was chosen because it could represent the homogenous population. To get the representative sample of this research the researcher will use Simple Cluster Sampling.

C. Place and Time

This research was carried out at Junior High School 1 Kubung. The treatment was conducted at the third year students of first semester. The treatment was done six times meeting started on October 4th 2017 until October 18th 2017 where the researcher gave students the pre-test in the first meeting, gave treatment four times for four days and the last meeting, the researcher gave past-test in order to know the students' writing skill. To see whether the use of listing technique gave significant effect on students' writing skill, the researcher compared the pre-test and post-test result in the class. The schedule of the research also can be seen as the table below:

Table 6
Research Schedule

No.	Day/Date	Class	Time	Activity
1.	Tuesday, October 4 th 2017	IX 5	10.10 – 11.30	Pre-Test
2.	Wednesday, October 5 th 2017		10.50 - 12.20	Treatment
3.	Tuesday, October 10 th 2017		10.10 – 11.30	Treatment
4.	Wednesday, October 11 th 2017		10.50 - 12.20	Treatment
5.	Tuesday, October 17 th 2017		10.10 – 11.30	Treatment
6.	Wednesday, October 18 th 2017		10.50 - 12.20	Post-Test

D. Instruments

Instrument is a tool to collect the data from the sample. There was an instrument that was used in this research. The instrument was a writing test. The test was written test and the researcher made the test. The tests was given in the first meeting (pre-test) and at the end of the meeting (post-test). In pre-test and post-test, the students were given some topics and then they were asked to write some paragraphs consist of 100-150 words. The students must pay attention to their writing of five aspects namely content, organization, vocabulary, language use and mechanics.

E. Techniques of Data Collections

The data of this research consisted of students' scores in pre-test and post-test. The data was collected from students' writing about how to make fried rice as the test. Pre-test was given before the treatment and post-test was given at the end of the research or after finishing the treatment for four meetings. The procedure for doing post-test as follow:

1. The researcher prepared a worksheet of post-test consist of the topic, the instruction, and components of writing that will be evaluated. The researcher evaluated the students' writing by using writing rubric that states by Jacob (1981: 90) see the appendix.
2. The researcher determined a topic for the students' test. The students were given the same topic.
3. The researcher asked the students to write main idea using listing technique in three sub lists, they are goal, material and steps.

4. The researcher asked the students to write their paragraph based on their list.

F. Research Procedures

To achieve the goal of the research, it was needed several procedures as preparation, application, and finishing.

1. Preparation Steps

The researcher collected the data that relate with preparation steps:

- a. Planning learning in experimental class
- b. Determining learning material
- c. Determining population and sample
- d. Preparing learning design
- e. Preparing research instrument

2. Application Steps

The scenario of learning in experimental class can be seen in Lesson Plan.

Table 7
Procedure of Experiment

NO	EXPERIMENTAL CLASS	TIME
1.	a. Greeting b. praying c. Check attendance d. Asking the students about the last material	5 minutes
2.	Building Knowledge of the Field (BKOF) 1. Teacher give motivation to the students related to the text (5) 2. Teacher ask students knowledge related to the topic (5) 3. Teacher explain the students' knowledge (5)	15 minutes
	Modeling of the Text (MOT) 4. Teacher asks the students' to observe the text such as	20 minutes

	<p>the goal, generic structure and language feature of the text (5)</p> <ol style="list-style-type: none"> 5. Teacher explains the element of procedure text (the goal, generic structure and language feature of procedure text). (7) 6. Teacher give the samples of procedure text (3) 7. Teacher introduces the topic and gives learning about listing (10) <ol style="list-style-type: none"> a. Teacher asks the students to give their ideas about the text (including the element of text) and the teacher writes the students' idea in the whiteboard. b. The teacher and the students divide the ideas into list. Teacher ask the students to enjoy with their thought, feeling in writing their list c. Teacher and students discuss about the listing <p>Joint Construction of Text (JCOT)</p> <ol style="list-style-type: none"> 8. Teacher divide the students into groups consist of four person each group (2) 9. Teacher push the students to create an outline with their group (8) 10. Guiding the students to construct their ideas into form of listing (10) 11. Students write paragraph based on their lists that arrange before(10) <p>Independent Construction of Text (ICOT)</p> <ol style="list-style-type: none"> 12. Teacher monitors the students' activities 13. Teacher asks the students to make the text individually (10) 14. Teacher asks 4 of all groups to present their text (5) 15. Teacher gives opportunity for the students to ask their difficulties <p>Evaluation</p> <ol style="list-style-type: none"> 16. After the students write their paragraph, and some of them present it in front of the class, the teacher introduce to the students about the concept and benefits of peer review (5) 17. Teacher ask the students to change their text with the other groups 18. Teacher asks the students to read and revise their friends text by asking some questions, correcting the 	<p>30 minutes</p> <p>15 minutes</p> <p>20 minutes</p>
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	grammar and so on and the teacher guides them (5) 19. Teacher monitors the students and group progress 20. Teacher asks the students to list all of their comments on a piece of paper and indicate whether they will revise based on each comment and why (5) 21. Teacher gives her comment on the students' revise draft 22. Students are ask to write their final draft based on comment from their peers and the feedback from the teacher (5)	
3.	23. The teacher conclude the lesson 24. Teacher give advice to the students 25. Teacher collect students' writing 26. The teacher close the lesson and class	5 minutes

3. Finishing steps

- a. Giving post test
- b. Processing data
- c. Taking conclusion from technique of data collection

G. Technique of Data Analysis

All of students' performances in writing learning process was noted. The result of the pre-test and post-test of the course was analyzed. Pre-test was used to assess students' writing ability while post-test was used to measure students' writing improvement. The researcher saw whether or not the aspects of writing skill can be improved through listing technique.

Students' competences in writing were graded through five general categories including: Content, Organization, Vocabulary, language use and Mechanics (Jacobs, 1981: 90).

This research would involve many activities, therefore various data were need to be analyze and describe to find the accurate result of experiment. There is kind of main data, generally, that the researcher tried to analyze

through this research students' writing test. It was analyzed by using ESL Composition Profile which consists of five components such as: Content, Organization, Vocabulary, Language Use, Mechanic. The researcher tried to know about the effective component by using Listing Technique.

The data was analyzed by using the statistical procedures. T-test means a statistical procedure used to determine whether there is any significant difference between the means of the two sets of scores or between coefficient of correlation. The purpose was writing skill achievement. It used to see the different quality of the students' writing before and after using listing technique.

In analyzing the students' test score, some steps had been done before analyzing the different mean using t-test formula as follows:

- a. This formula was applied to decide mean of students' test score in experimental class.

$$M_x = \frac{\sum fX}{N}$$

Where:

M_x : Mean value of students

$\sum fX$: Total of value every student

N : Number of students

- b. This formula was applied to decide standard deviation of experimental class.

$$SD = \sqrt{\frac{\sum fx^2}{N}}$$

Where:

SD : Standard Deviation

$\sum fx$: Total of value every student

N : Number of students

After that the data was analyzed above formula and next analyzed by t-test formula as follows:

$$t = \frac{\bar{D}}{\sqrt{\frac{\sum D^2 - \frac{(\sum D)^2}{N}}{N(N-1)}}$$

Where:

t : t-test

D : Deviation (variable X-Y)

$\sum D$: Sum of Deviation (variable X-Y)

N : Number of students

The t-table was employed to see whether there was a significant difference between the mean score of pre-test and post-test in experimental class. The value of t obtained is consulted with the value of t-table. The data was analyzed by using simple regression for hypothesis with 1% of significance level, 5 % (=0.05) of significance level and the value of t-table of the level of freedom $df = N-1$.

If the value t-obtained or t-test is bigger than the value of t-table, the null hypothesis is accepted. On the contrary, if the value of the t obtained is equal, bigger or smaller than the value t-table, the alternative one is not accepted (t-table) t-obtained.

The students' writing were scored by two scorers. The researcher did not score the students' writing by herself in case to make the data more valid. The researcher explained how to score the students' writing to the scorers before. The formula is follow:

$$\text{Score} = \frac{\text{score 1} + \text{score 2}}{2}$$



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