

## CHAPTER III

### METHOD OF THE RESEARCH

#### A. Location of Research

This research had been conducted at SMP NEGERI 1 BAMBEL in the academic year 2020/2021. The reason to choose school was based on the researcher's experience during doing teaching practice process (PPL) at that school, she found the students feel boring to read a text because it was not interesting. The students have limit vocabulary so they are difficult to understand the reading text, and the students don't know the structure of the sentence, it makes them work hard to translate the words in the sentence of the text. That all conditions cause bad result.

#### B. Population and Sample

##### 1. Population

Sugiono defined population as all members of any well defined class of people, events on objects that has certain quality and characteristics made by researcher to study and taken the conclusion.<sup>19</sup> The population of this research would take from the VIII grade students of SMP NEGERI 1 BAMBEL at academic year 2020/2021 in which there are two parallel classes. They are VIII-A1, VIII-A2. There are 32 students in VIII-A1, 32 students in VIII-A2. So, the total number of populations are 64 students.

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<sup>19</sup>Sugiyono. 2012. *Metode Penelitian Kuantitatif Kualitatif dan R&D*. Bandung: Alfabeta. P.

## 2. Sample

According to Sugiono “A sample is any group of individual, which is selected to represent population due to the large number of the students and for the purpose of efficiency”.<sup>20</sup> In this research, the researcher use Cluster random sampling take the sample. The researcher made some pieces of paper that contained the lists of class. After that the researcher got VIII-A1 and VIII-A2. The researcher used two classes from the four as the sample.

In this research all the population take as the sample that are 64 students, of those two classes (VIII-A1 and VIII A2) and due to there are only two classes with less students, this research applied total sampling.

**Table 3.1**  
Population and Sample

No	Class	Number of Population	Sample
1	VIII-A1	32	32
2	VIII-A2	32	32
<b>Total Number</b>		<b>64</b>	<b>64</b>

### C. Research Design

This research conducted by using quantitative design. The experimental research is used to carry out this research. The sample then will be divided into two groups, experimental and control group. The experimental group is taught by using neurological impress method and the control group by using grammar translation method.

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<sup>20</sup> Ibid., p. 81.

Both of groups give pre-test before doing the treatment and the test itself is the same test. Finally, the students both in the experimental and control group had been given post-test with the same test. The design apply in order to find out the effect of neurological impress method on the students" ability in reading narrative text.

**Table 3.2**  
Research design

<b>Group</b>	<b>Pre-Test</b>	<b>Treatment</b>	<b>Post-Test</b>
<b>Experimental</b>		<b>Neurological Impress Method</b>	
<b>Control</b>		<b>Grammatical Translation Method</b>	

In this research, there were three procedures were hold to collect the data. They will be representative as follows :

### 1. **Pre-Test**

A pre-test conducted to find out the homogeneity of the sample. It would use to determining whether the two groups are relatively equal in reading. The homogeneity was seen from the average score of each group. Before starting the experiment, a pre-test administrating to sample both groups with the same items. It will expect the difference of the average score between them not too far because the two groups are in the same level knowledge.

### 2. **Treatment**

The treatment would be conducted after the administration of the

pre-test. The process of experiment conducted in three meetings. The activities during the treatment are neurological impress method in teaching narrative text in the experimental group, as describe in table 3.3.

**Table 3.3**  
Teaching Procedure in Experimental Group

No	Teacher activities	Students activities
1	Teacher guiding the students and checking the attendances list, then introducing the lesson that will be teach.	Students giving responses to the teacher and listening to the teacher.
2	The teacher introducing the concept of comprehension monitoring strategy.	Students listening to the teacher's explanation.
3	Teacher giving a text for each students.	The students have the text, but they don't read the text until the teacher giving them an instruction
4	Before reading the text the teacher asking the students to make a list of words or information that interrupting their reading.	The students listening to the teachers' instruction and make a list of words in their notebook.
5	After finishing making a list, the teacher asking the students to guess the meaning first if it does not make sense, the students should check them out from dictionary.	The students done the teachers' instruction.
6	After reading the text, the teacher guiding the students' interaction by asking them some question concerning with the text.	The students answering the teacher's question.
7	The teacher asking the students to make their own question that possible occur the rest.	The students done the teacher's instruction. Make the question based on the text.

8	Teacher asking students retell what will reading some ways, orally (students listening and retelling orally) or oral drawing (students listening and retelling by drawing).	The text by using in of the way.
9	The teacher also asking students to summary the text, but the teacher explaining first how to make the summary, the students should shorting the passage without omitting the important.	The students make the summary
10	The teacher evaluating the students by giving them real question.	The students answering the set of questions.

**Table 3.4**  
Treatment in Control Group

No	Teacher activities	Students activities
1	Teachers guiding the students and checking the attendances list, and then introducing the lesson that will be teach.	Students giving responses to the teacher and listening tk the teacher.
2	Teacher giving a text for each students.	The students have the text but they don't read the text until the teacher giving them an instruction.
3	The teacher asking the students to read.	The students read the text lodly.
4	After finishing to read the teacher giving the students a set of question to answer.	The students answering the question.
5	At last, the teacher with the students discussing the answer together.	The students and the teacher discussing the answer of the question.

### 3. Post-Test

After have conducting the treatments, both of groups has been tested by giving a post-test. The researcher give the students a post-test in order to see the result whether the method would effective or not. The post-test is exactly the same as pre-test. It was intended to found out the mean of both groups.

### 4. Scoring the Test

In scoring the reading narrative text of the students, the researcher scoring it based on the literal and interpretative comprehension, in scoring the test, this research using score ranging from 0-100 by counting the correvt answer and applying this formula :

$$S = \frac{R}{N} \times 100$$

Where :

S = Score of The Test

R = Number of Correct Answer

N = Number of Question

### D. Operational Definition of Variable

In this study, there are two variables, they are independent variable and dependent variable. The independent variable is the effect of applying neurological impress method, neurological impress method is the method that used in reading comprehension. In this case I focus on reading comprehension and the students' ability at reading comprehension is as variable Y in this study.

#### E. Instrument of Collecting Data

In collecting the data, the instrument will use the multiple choice test will apply. The data of this research collected by giving test, a pre-test and post-test that is given to experimental and control group. The test consisting 20 items which consisting of 5 options ; each correct answer is given 1, and the incorrect answer is given 0. The highest score is 100 calculating by using formula.

$$\text{Score} = \frac{\text{total of answers}}{\text{total number of items}} \times 100\%$$

#### F. Technique for Collecting the Data

In this research, the data will be collected by using technique. There are some steps for collecting the data, they are :

1. Giving pre-test to both classes
2. Teaching in the experimental group by neurological impress method
3. Teaching in the control group by Grammatical Translation Method
4. Giving post-test to both classes
5. Scoring the test
6. Evaluating the effect of neurological impress method

#### G. Techniques for Analyzing the Data

After collecting the data from the test, the data will be analyzed by applying the following steps.

1. Scoring the sample answer
2. Listing the scores in two table scores. First scores for the experimental

group (X) and second for the control group (Y)

3. Finding the mean (average) of each group

The formula :

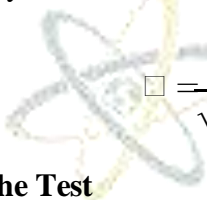
$$M = \frac{\sum ZT}{n}$$

4. Determining coefficient  $r^2$  by formulation :

$D = r^2 \times 100$ , where :

$$R = \frac{N \sum x_i y_i - (\sum x_i)(\sum y_i)}{\sqrt{\sum Z^2}}$$

5. Determining t-test by formulation :


$$t = \frac{\bar{x} - \bar{y}}{\sqrt{\frac{s^2}{n} + \frac{s^2}{n}}}$$

### 5.1 Normality of the Test

Normality test was used to determine whether data set well or not which was modeled by a normal distribution and to compete how likely it was for random variable underlying the data to be normally distribution.

- a. Normality Test of X variable

The normality test of variable x used Lilliefors test :

1. Listing the students' score from the lowest to the highest.
2. The score made to  $Z_1, Z_2, Z_3, \dots, Z_n$  by using formula :

$$Z_i = \frac{x - \bar{x}}{s}$$

3. The table of  $Z_i$  could be seen from the table of normal curve

$$F(Z_i) = \frac{FK}{n} = \frac{1}{25} = 0.04$$

- b. The normality test of variable Y used Lilifors test :

1. Listing the students' score from the lowest to the highest.



2. The score made to Z1, Z2, Z3, ..... Zn by using formula :

$$Z_i = \frac{x_i - \bar{x}}{s}$$

3. The table of Zi could be seen from the table of normal curve

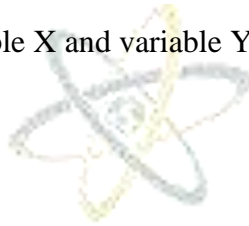
$$F(Z_i) = \frac{FK}{n} = \frac{5}{25} = 0.2$$

### 5.2 Homogeneity of the Test

Homogeneity test was performed to determine whether the variances of data were equal from two distribution groups.

The data of variable X and variable Y :

#### a. Variable X



$$\bar{x} = 80$$

$$S_1^2 = 62.5$$

$$N = 25$$

$$F = \frac{\text{THE HIGHEST VARIANCE}}{\text{THE LOWEST VARIANCE}}$$

$$= \frac{62.5}{37.5}$$

$$F = 1.66$$

#### b. Variable Y

$$\bar{x} = 68$$

$$S_1^2 = 37.5$$

$$N = 25$$

## H. Statistical Hypothesis

Based on the problem of the study, the hypothesis is formulated as the following :

If  $\text{test} \geq T_{\text{table}} = H_a$  is accepted and  $H_0$  is rejected, but If  $\text{test} \leq T_{\text{table}} = H_a$  is accepted and  $H_0$

is accepted

$H_a$  : there is a significant effect of neurological impress method to the students" in reading comprehension (the hypothesis will accepted).

$H_0$  : there is not significant effect of neurological impress method to the students" in reading comprehension (the hypothesis will rejected).

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