

## **CHAPTER III**

### **METHODOLOGY OF THE RESEARCH**

#### **3.1 Setting of the Research**

This research was conducted in MA Al-faizin Guyangan Bangsri Jepara. That school is located on Perempatan Sukun street of Guyangan Bangsri Jepara. This research was conducted on even semester. The researcher did the research for six meetings. It consists of pretest on first meeting, the application of Think-Pair-Share technique and whole class teaching on the second until the fifth meeting, and the posttest in the sixth meeting.

#### **3.2 Subject of the Research**

The population of this research was the eleventh grade students of MA Al-faizin Guyangan in the academic year of 2018/2019. The total number of population in this research was 46 students who were divided into 2 classes. The XI-A was 22 students and XI-B was 24 students. Both experiment class and control class were taken 10 students. The writer used simple random sampling in choosing a sample.

#### **3.3 Research Design**

Garton, Ratti, & Giudice (2004) stated that experimental research is the most powerful tool for identifying causes and should be used more in wildlife studies. In this experimental research, to collect data the writer used field research by true-experimental design with pretest-posttest

control group design. The field of research was carried out by teaching practice and test.

In this experimental research, the writer used two classes as an experiment class and control class. In experiment class, the researcher applied think-pair-share technique while in control class used traditional model to teach. The writer gave a pretest and posttest before giving a treatment to two classes. Pre-test were given in the first because the writer wants to know that two classes have a same knowledge. After that, the students were given a posttest after learning process. It was to know the result of this research.

The model is:

R O <sub>1</sub>	X	O <sub>2</sub>
R O <sub>3</sub>		O <sub>4</sub>

Mubarok (2015: 101)

In which:

R: Group which are selected randomly

X: Treatment in experiment class

O<sub>1</sub>: Pretest in experiment class

O<sub>2</sub>: Posttest in experiment class

O<sub>3</sub>: Pretest in control class

O4: Posttest in control class

### 3.4 Method of Data Collection

The writer used test to get the data as follow:

#### a. Pretest

The writer gave a test first to all class (experiment and control class) before apply the technique in the learning process. It aims to measure the capacity of their knowledge before receive a treatment. Both class get the same test. The test organized as multiple choice. The students must answer by themselves.

#### b. Treatment

After doing the test. The writer gave a treatment by applying a think-pair-share technique twice in the experiment class. In this research, the writer as a teacher. The writer taught about Report Text using Think-Pair-Share technique. The writer did the treatment for two meetings in both experiment class and control class.

#### a. Experiment Class

**Table 3.1**

Table of Experimental Treatment Activities

<b>Experiment Class</b>	
Treatment 1	<ul style="list-style-type: none"> <li>➤ The writer gives explanation about report text and think-pair-share technique.</li> <li>➤ The writer asks students to analyze</li> </ul>

	and identify the generic structure of the text.
Treatment 2	<ul style="list-style-type: none"> <li>➤ The writer reviews the previous material.</li> <li>➤ The writer gives a text and ask students to identify by themselves, after that students discuss with their pairs, the last they must share the result in front of class.</li> </ul>

### b. Control Class

**Table 3.2**

Table of Control Treatment Activities

<b>Control Class</b>	
Treatment 1	<ul style="list-style-type: none"> <li>➤ The writer explains about report text.</li> <li>➤ The writer gives a text ask students to do the exercise individually.</li> </ul>
Treatment 2	<ul style="list-style-type: none"> <li>➤ The writer reviews the previous material.</li> <li>➤ The writer gives a text and asked students to do the exercise in pairs.</li> </ul>

### c. Posttest

Posttest was given in the end of teaching learning process. This test was given to experiment and control class to measure their

improvement after using the think-pair-share technique in the learning process. The test organized as multiple choice.

### 3.5 Method of Data Analysis

#### 3.5.1. T-test

The writer used a quantitative data which is related to numerals and it was analyzed by statistics. It used “t-test” formula to calculate the data by comparing students’ pretest and posttest. T-test was used to examine whether there was a significant difference between the score of students’ achievement in learning reading comprehension by applying Think-Pair-Share technique and whole class teaching.

The formula of t-test is expressed as follows:

$$t = \frac{X_1 - X_2}{\sqrt{\left(\frac{SS_1 + SS_2}{n_1 + n_2 - 2}\right) \left(\frac{1}{n_1} + \frac{1}{n_2}\right)}}$$

Sukardi (2008: 90)

Where:

t = t-Value

$X_1$  = the average score of experimental class.

$X_2$  = the average score of control class.

$SS_1$  = standard deviation of experimental class

$SS_2$  = standard deviation of control class

$n_1$  = the number of students in the test in experimental class

In order to get the calculation of t-test, there are some of steps to be taken. The steps are:

- a. Determining the average score of experimental class.

$$X_1 = \frac{\sum X_1}{n_1}$$

- b. Determining the average score of control class.

$$X_2 = \frac{\sum X_2}{n_2}$$

- c. Determining the standard deviation of experimental class.

$$SS_1 = \sum X_1^2 - \frac{(\sum X_1)^2}{n_1}$$

- d. Determining the standard deviation of control class.

$$SS_2 = \sum X_2^2 - \frac{(\sum X_2)^2}{n_2}$$

- e. Finding the t-value using t-test.

$$t = \frac{X_1 - X_2}{\sqrt{\left(\frac{SS_1 + SS_2}{n_1 + n_2 - 2}\right) \left(\frac{1}{n_1} + \frac{1}{n_2}\right)}}$$

### 3.5.2. Trying-Out of the Instruments

The instrument that used in this research is a test (pretest and posttest). Tryout test applied first to know that the test was good before giving the test to the students. The result of the test was used to find the validity and reliability.

#### a. Validity

To calculate the validity, the writer used the Product Moment formula:

$$r_{xy} = \frac{(N \cdot \sum XY) - (\sum X \sum Y)}{\sqrt{\{N \cdot \sum X^2 - (\sum X)^2\} \{N \cdot \sum Y^2 - (\sum Y)^2\}}}$$

In which:

$r_{xy}$  : the item of the test reliability

$N$  : the number of respondent

$X$  : total score of each item

$Y$  : individual total score

$X^2$  : total for the square for each item

$Y^2$  : total for the square of individual total score

$(X)^2$ : the square of the total score for each item

$(Y)^2$ : the square of the individual total score

Arikunto (2014: 213)

#### **b. Reliability**

To measure the reliability of the test, the writer used the following formula:

$$r_{11} = \frac{2 \cdot r_{hh}}{1 + r_{hh}}$$

In which:

$r_{11}$  : coefficient of reliability

$r_{hh}$  : reliability of half test

Sudijono (2013: 216)

### 3.6 Timeline

**Table 3.3**

Activities	June				July				August				September			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Doing preparation of the study	X															
Plan for doing research		X														
Making research instruments			x	X	X											
Doing observation							X	X								
Analysing the data										X	X					
Consultation of the research													x	X	x	X