

## CHAPTER III

### RESEARCH METHODOLOGY

#### A. The Research Design

The design of this research is an experimental research. According to Creswell, experimental research is traditional approach to conduct quantitative research, whether it influences an outcome or dependent variable.<sup>1</sup> The method of this research is pre-experimental research. Then, the research design of this research is one-shot case study. According to Gay, one-shot case study involves a single group that is exposed to a treatment (X) and then post tested (O).<sup>2</sup> Moreover, in this research, there are two variables. The first is independent variable. It is the use of think-pair-share strategy which is symbolized by “X”. The second is dependent variable that is students’ speaking ability which is symbolized by “Y”.

#### B. The Location and the Time of the Research

This research was conducted on January 3<sup>th</sup> until February 2<sup>nd</sup> 2014 at Madrasah Aliyah Al-Muttaqien. It is located on Jalan Imam Bonjol in Siak regency of Bungaraya district.

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<sup>1</sup>John W. Creswell. *Education Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research, Third Edition*. (New Jersey: Pearson Education International, 2008), p. 298

<sup>2</sup>L. R. Gay and Peter Airasian. *Educational Research: Competencies for Analysis and Application, Sixth Edition*. (Prentice Hall Inc: New Jersey, 2000), p. 387

### **C. The Subject and the Object of the Research**

The subject of this research was the second grade students at Madrasah Aliyah Al-Muttaqien, Siak regency. Then, the object of this research was the use of think-pair-share strategy and students' speaking ability.

### **D. The Population and Sample**

In conducting the research, the writer took the second grade students at Madrasah Aliyah Al-Muttaqien. The total number of the second grade students at Madrasah Aliyah Al-Muttaqien was 20 students. Because the population was not large in size, the writer used total sampling technique. It means that the writer used all populations as respondents of this research.

### **E. The Technique of Collecting Data**

#### **1. Test**

Test was a technique to know students' speaking ability. In this research, the test was oral presentation test. Because the research design was one-shot case study, the writer used the score of students' speaking ability at the post-test. To assess students' speaking ability, the researcher used some aspects that were used by English teacher at Madrasah Aliyah Al-Muttaqien. Those aspects are accent, grammar, vocabulary, fluency, and comprehension. Then, the score of students' speaking ability is

included into some levels such as very good (80 - 100), good (66 - 79), enough (56 - 65), less (40 - 43), and bad (30 - 39).<sup>3</sup>

## F. The Technique Data Analysis

To analyze the data in this research, the writer used the technique of statistics. In other words, to know the contribution of using think-pair-share strategy toward speaking ability, the writer used the formula of t-test. In this research, the sample was not large. So, the suitable formula is as follows:

$$t_o = \frac{\frac{\sum D}{N}}{\frac{SD_D}{\sqrt{N-1}}}$$

Where:

$t_o$  = The value of t-obtained

$\sum D$  = The total of students' score

$SD_D$  = Standard deviation

$N$  = Number of Students.<sup>4</sup>

In this research, the writer used one sample t-test through SPSS version 17.0. In SPSS version 17.0, there are three kinds of t-test. They are one sample t-test, paired sample t-test, and independent sample t-test. In this research, the writer used one sample t-test because there was just a post-test.<sup>5</sup> In other words, there was not control class and pre-test. After computing t-test, it is necessary to obtain the degrees of freedom that was used to determine

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<sup>3</sup>Suharsimi Arikunto. *Dasar-Dasar Evaluasi Pendidikan: Edisi Revisi*. (Jakarta: Bumi Aksara, 2009), p. 245

<sup>4</sup>Hartono. *Statistik untuk Penelitian*. (Yogyakarta: Pustaka Pelajar, 2008), p. 181

<sup>5</sup>Wahana Komputer. *SPSS 17, untuk Mengolah Data Statistik*. (Semarang: Andi, 2009), p.

whether the t-score is significant or not. The t-obtained value was consulted with the value of t-table by using degrees of freedom. The formula of degrees of freedom is as follows:<sup>6</sup>

$$df = N - 1$$

Where:

df : The degrees of freedom

N : The number of students in experimental class

If the writer had consulted the t-obtained value with t-table by using degrees of freedom, the writer concluded that if  $t_o < t\text{-table}$ ,  $H_0$  is accepted. It means that there is no significant contribution of using think-pair-share strategy toward speaking ability of the second grade students at Madrasah Aliyah Al-Muttaqien Siak regency. Then, if  $t_o > t\text{-table}$ ,  $H_a$  is accepted. In other words, there is significant contribution of using think-pair-share strategy toward speaking ability of the second grade students at Madrasah Aliyah Al-Muttaqien Siak regency.

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<sup>6</sup>Suharsimi Arikunto. *Prosedur Penelitian: Suatu Pendekatan Praktik*. (Jakarta: Rineka Cipta, 2010), pp. 350-352