



CHAPTER III

THE RESEARCH METHODOLOGY

A. The Research Design

This research was an experimental research. According to Gay (2000, p.367), the experimental method is the only method of research that can truly test hypotheses concerning cause and effect relationships. The group design of this research was a quasi experimental design. According to Ary (2006, p.316), quasi-experimental designs are similar to randomized experimental designs in that they involve manipulation of an independent variable but differ in that subjects are not randomly assigned to treatment groups. This research also used the nonequivalent control group design. According to Cohen (2007, p.283), non-equivalent control group design is the experimental and control groups have not been equated by randomization.

This research consisted of two groups. One was an experimental group and the other one was control group. The experimental group was treated by using Sociodrama method, and control group was not treated by Sociodrama method. There were two variables involved in this research, one was an independent variable (Sociodrama method) and the other was a dependent variable (students' motivation in learning speaking English).

According to Louis Cohen (2011, p.218), the nonequivalent control group design can be seen as follow:

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O1	X	O2	(Experimental Group)
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O3		O4	(Control Group)
O ₁ and O ₃			: Pre Questionnaires
O ₂ and O ₄			: Post Questionnaires
X			: Treatment by using Sociorama Method

B. The Location and Time of the Research

This research was conducted 1 month started from April 28th - May20th 2017 at Islamic Senior High School Insan Cendekia Siak. It was located on Pemda Street, Perawang, Siak.

C. The Subject and Object of the Research

The subject of this research was the first year of Islamic Senior High School Insan Cendekia Siak. It consisted of four classes. While the object was use Sociodrama Method on the students' motivation in learning speaking English.

D. The Population and Sample of the Research

The first year students at Islamic Senior High School Insan Cendekia Siak was the population of this research. In this case, the writer took two classes by doing Cluster Random Sampling. According to Gay (2000, p,129) cluster random sampling select groups, not individual. All the members of cluster random sampling select groups, not individual. All the members of selected groups have similar characteristics. It means that each group of the population has an equal chance being selected as the sample of this research.

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Table III. 1
The Total Population of the First Year at
Islamic Senior High School Insan Cendekia Siak

No	Classes	Total
1	X Mipa 1	20
2	X Mipa 2	20
3	X IPS 1	20
4	X IPS 2	20
Total		80

All of the populations above have the same opportunity as the representatives of all samples. Furthermore, the writer used lotery and randomly chose class X Mipa 2 as an experimental group and class X IPS 2 as a control group. The number of the students in those classes was that 40 students. Thus, 40 students were representative enough to be sample of this research. The specification of the sample can be seen in the table below:

Table III.2
The Sample of the First Year Students at
Islamic Senior High School Insan Cendekia Siak

No	Class	Type	Total
1	X Mipa 2	Experimental class	20
2	X IPS 2	Control class	20
Total			40

The first class was an experimental class (X Mipa 2) treated by using Sociodrama Method and the second class was labeled as a control class (X IPS 2) treated without using Sociodrama Method.

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E. The Technique of Collecting Data

In collecting the data, the writer used questionnaire and observation list as the technique of collecting data. This method was used to find out how is the students' motivation in learning speaking English after being treated with Sociodrama method for experimental class, and control class without treatment.

1. Questionnaire

According to Riduwan (2003, p.52), this questionnaire consists of some questions for the respondents. It will be twenty items that be representative the statement of students' motivation. The questionnaire that writer used is likert chart scale. Cresswell (2012, p.175) stated that there are five options that can be used for the answering, they are:

Table III. 3
The Likert Chart Scale of Questionnaire

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5

2. Observation

An observation is the current status of a phenomenon determined by observing. According to Suharsimi (2006, p.157) there are two types of observation; systematic and non-systematic observation. In this research, the researcher used the systematic observation. The observation was used to get the clear data about the implementation of sociodrama method on

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students' motivation in learning speaking English. It was used by the English teacher as the observer by using observation list.

According to Smith (2015, p.2), to measure data obtained from observation on the factors that influence students' motivation in learning speaking English, the researcher give the criteria as follows:

Table III.4
Criteria of Students' Motivation

No	Percentile Meaning	Impact
1	90% - 100%	Very Strong
2	75% - 89%	Strong
3	40% - 74%	Enough
4	25% - 39%	Low
5	0% - 24%	Very Low

F. The Technique of Data Analysis

In this research, the writer analyzed the data by using T-test formula.

According to Gay (2000, p.484), T-test is used to determine whether two means are significantly different at a selected probability level. The writer also used SPSS 16 version to analyze the data. Based on the formulation of the problem, the writer analyze the data through the following procedures for each problem by using SPSS:

1. T Paired (Non Independent Sample T-test)

According to Gay (2000, p.488), non-independent sample T- test is used to compare a single group's performance on a pre-test and post-test in experimental class. It was used to answer the first and the second formulation of the problem. The formula:

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

2. Independent Sample T-test

According to Gay (2000, p.484), independent sample T-test is two samples that are randomly formed. It means that independent samples T-test was used to compare Mean of post questionnaires between the two classes (experimental and control). It was used to answer the third formulation of the problem. According to Sumanto (2002; 216), the formula is:

$$t = \frac{M_1 - M_2}{\sqrt{\left(\frac{SS_1 + SS_2}{N_1 + N_2 - 2}\right) \left(\frac{1}{N_1} + \frac{1}{N_2}\right)}}$$

Then, before analyzing the data into SPSS, to answer the second formulation of the problem, the writer analyzed the score interpretation criteria of the students' motivation in learning speaking English. According to Anas Sudjono in Chandra (2012, p.44), the formulation is:

$$P = \frac{F}{N} \times 100 \%$$