

CHAPTER III

METHOD OF THE RESEARCH

A. Research of Method

Method of the research is a quantitative method. According to Creswell that quantitative research is testing objective theories by examining the relationship among variables by using research instruments that produce data with analyzed by statistics.¹ It means the variable of the research can be measured and analyzed to see the effect among variables. In this research there are two variables, variable X and variable Y. Pair work technique as (X) variable while speaking ability as (Y) variable.

Moreover, in this research uses experimental research the researcher choose an experimental research because this research using treatment by the purpose to search the effect of certain treatment on others with controlled conditions.² Then, the researcher wants to know the effect pair work technique on student speaking ability. In addition, this research using Quasi Experimental by using the pre-test and post-test design by taking one of class as an experimental class which given pre-test, the treatment by pair work technique and given post-test to measure the treatment is influence or not. And the researcher take tenth

¹ John W Creswell, *Research Design (Qualitative, Quantitative and Mixed Methods Approaches)* (India : Sage Publication, 2014).

² Sugiono, *Metode Penelitian Pendidikan (Pendekatan Kuanititaif, Kualitatif dan R&D)*, (Bandung : Alfabet, 2015), 107.

class as a control class, the class is given pre-test, treatment without pair work technique and post-test.

B. The Place and Time of Research

The research was held at “SMAN “ 1 Baros Serang. For this research the writer needs three meeting to do research. The research will conduct from the 10th of September until 11th of October.

C. Population and Sample

1. Population

The population in this research is students of tenth grade in SMAN 1 Baros Serang that consists 64 students divided into two classes.

2. Sample

The sample consists of two classes from the tenth grade. Class X IPS 1 consist of 32 students as experimental class and Class X IPS 2 consist of 32 students as a controlled class.

D. The Research Instrument

1. Observation

Before doing the research, the researcher does the observation directly to the school which become the place of this research and the population who becomes the object of this research. The researcher uses observation to identify the condition of students in the class and investigate their problem and difficulties in study. The purpose of this observation is to get information about teaching learning of students in English subject.

2. Lesson Plan

Lesson plan is used for treatment process. The purpose is to make systematical learning process. This lesson plan is attached.

3. Scoring Sheet

Scoring sheet is used to make the researcher know about the ability of students in speaking. After giving test to the students the researcher has measured and score the result of them by the purpose to analyze the test that was given by researcher. Based on FSI Proficiency Ratings (as cited in Higgs & Clifford, 1982)³ the scoring sheet as follow:

The rating sheet of speaking test

Name :

Class :

Table 3.1

The Criteria of Students' Score

Conversational English Proficiency Weighting Table

WEIGHTING TABLE							
	1	2	3	4	5	6	SCORE
Accent	0	1	2	2	3	4	
Grammar	6	12	18	24	30	36	
Vocabulary	4	8	12	16	20	24	

³ Jack C. Richards and Willy A. Renandya, *Methodology in Language Teaching – An Anthology of Current Practice* (Cambridge: Cambridge University Press, 2002), 316.

Fluency	2	4	6	8	10	12	
Comprehension	4	8	12	15	19	23	
						Total	

Letter	Score	Description
A	83 – 99	Very Good
B	63 – 82	Good
C	43 – 62	Enough
D	26 – 42	Less
E	16 – 25	Low

4. Tape Recorder

Recording was used to record the students' voice when they speak during the test. The researcher used a tape recorder like hand phone. The purpose this recording is to analyzing the scoring rubric of speaking.

E. The Technique of Data Collecting

The collecting of data is a systematic procedure and standard obtain the necessary data. For collecting the data in this research, the researcher uses test (pre-test and post-test) and documentation.

1. Pre-test

Before applying the pair work technique in experimental class, the researcher gives the pre-test to experiment and control class in the first meeting to know the initial students' speaking skill.

2. Post-test

Both experiment and control class have the post-test after giving the treatment for experimental class. It is used to measure the effect of pair work technique toward students' speaking ability.

3. Documentation

Documentation was collecting data to see a report that is available. This method is taken some pictures and record audio.

Both the test are assessed by two raters ; by the researcher herself and the English teacher. It is doing to keep the validity and reliability.

F. The technique of Analysis Data

The technique of analysis data in this research uses t-test. According to Anis Sudijono t-test is used for testing the null hypothesis of the mean differences of two samples.⁴ Because the quasi experiment use pre-test and post-test then the researcher uses this test to measure the final test between experiment class and control class.

The steps for statistic analyze that are⁵ :

1. Determining mean of variable X1 with formula :

$$M_1 = \frac{\sum X_1}{N_1}$$

⁴ Anas Sudijono, *Pengantar Statistik Pendidikan* (Jakarta: PT Raja Grafindo, 2014), 278.

⁵ Sudijono, *Pengantar Statistik Pendidikan*, 317.

2. Determining mean of variable x_2 with formula :

$$M_2 = \frac{\sum x_2}{N_2}$$

3. Determining derivation score variable x_1 with formula :

$$x_1 = X_1 - M_1$$

4. Determining derivation score variable x_2 with formula :

$$x_2 = X_2 - M_2$$

After collecting the data from pre-test and post-test, the researcher analyze it by using statistic calculation of t-test by using fisher formula with significance degree 5% and 1%. The formula is as follow :

$$t = \frac{M_1 - M_2}{\sqrt{\left(\frac{\sum x_1^2 + \sum x_2^2}{N_1 + N_2 - 2}\right) \left(\frac{N_1 + N_2}{N_1 \cdot N_2}\right)}}$$

Notes :

M_1 = Mean score of the experiment class

M_2 = Mean score of the control class

$\sum x_1^2$ = Sum of square deviation score in experiment class

$\sum x_2^2$ = Sum of square deviation score in control class

N_1 = Number of students of experiment class

N_2 = Number of students of control class

2 = Constant number

df = Degree of Freedom (df = $N_1 + N_2 - 2$)

G. Research Procedure

In general, the procedure of this research can be described as follows :

1. Observation the English teaching activity.
2. Provide pre-test of the experimental class and control class.
3. Provide treatment to the experimental class using pair work technique and control class without pair work technique as follow :

a. Experimental Class

- 1) Preparation
 - a) Preparing the lesson plan
 - b) Preparing the material
 - c) Preparing the task for students' speaking
- 2) Implementation
 - a) Teacher explain the material
 - b) Teacher gives the example
 - c) Teacher guide students to make pairs and discuss the material
 - d) Teacher guide students to speak the result of discussion by using the pair work technique

b. Controlled Class

- 1) Preparation
 - a) Preparing the lesson plan
 - b) Preparing the material

- 2) Implementation
 - a) Teacher explain the material
 - b) Teacher gives the example
 - c) Teacher ask the students to speak in front of class
4. Provide post-test of the experimental class and control class.
5. Analyzing the data from pre-test and post-test
6. Drawing the interpretation based on the result of test and making conclusion.