CHAPTER III

Research Methodolgy

In this chapter, the researcher would like to give the description about the research method which used to conduct the study. This chapter consists of research desaign, population and sample, research instrument, data collection and data analysis.

3.1 Research Design

This research is use *Quasi-Experimental Desaign*. According to Sugiyono (2010) explained that *Quasi-Experimental Design* is a form of experimental design that is also a development of true experimental design, which is difficult to implement. The researcher chose quasi-experimental design because the school does not allow the researcher to do randomization and do true experiment at SMP Muhammadiyah 07 Cerme. This is because if the sample selected randomly, it is feared would disrupt the learning process at the school.

The researcher used one class as the experimental class and one class as the contriol class. There are 2 test that use in this research namely pretest and posttest. The purpose of the pretest activity is to know the students' speaking ability before being given treatment. And the purpose of posttest activity is to see whether there is any effect on the students' speaking ability after being taught using dictogloss technique.

In conducting this research, the data were taken by having pretest (Y1) and posttest (Y2) on the sample, using the following formula:

Group	Pretest	Treatment	Posttest
E	Y1	X	Y2
C	Y1	-	Y2

Tabel 3.1: Quasi - Experimental design

The formula can be explained as follows:

E : Experimental Group

C : Control Group

Y1   : Pretest

Y2   : Postest

X   : Treatment

Based on the table above it can be conclude that both of groups are given pretest. In the experimental class will use dictogloss technique, and in the control class will use small group discussion. The posttest activity will also given for both of groups.

3.2 Population and Sample

3.2.1 Population

This research was conducted in SMP Muhammadiyah 07 Cerme in academic year 2018/2019. The reason of the researcher choose this school is because the location of the school is strategic, facilities and infrastructure is also quite adequate, such as LCD, so it makes easier for reseracher to conduct the research. And in this school also still has never applied dictogloss technique, so the researcher want to try to test this technique in English learning process especially in speaking skill. It is known from the results of interview reseacher with English teacher in SMP Muhammadiyah 07 Cerme.

The population of this research is students at 8th grade in SMP Muhammadiyah 07 Cerme academic year 2018/2019, which consist of 75 students.

Class	Students
8A	25
8B	25
8C	25
Total Students	**75**

Tabel 3.2: Population in 8th Grade of SMPN 4 Gresik

3.2.2 Sample

Because the population is large, so the researcher chose cluster sampling as a technique to take sample because researcher does not have authority to set a

class using random sampling. The researcher chose two classes as the sample, that are class VIII A as the experimental group which consist of 25 students, and class VIII B as the control group which consist of 25 students. So the total number of students as sample was 50 students. The reason this classes is uses as the subject of study because the results of the teacher test before conduct the research, the value of students' speaking ability are still lower than other class, and there are still many who have not reached the KKM.

3.3 Data Collection

In this study, researcher collect the data from speaking test by conducting pretest before treatment that given for experimental group and control group. It is used to determine the impact that produce by dictogloss technique on students' speaking ability of eight grade at SMP Muhammadiyah 07 Cerme. The first data given on the students is pretest, it is done to know the effect of the teacher's technique on students speaking ability before they get the treatments. After pretest, the researcher will give treatment for four times using dictogloss technique that done in the experimental group. And the last data retrieval is posttest, that is done to know the effect of dictogloss technique on students speaking ability. After that, the researcher collects the data from students pretest and posttest score by using independent sample t-test in SPSS 16.0 program.

3.3.1 Instrument of The Study

In the process of achieving the objectives of the study, it is very important for the researcher to be able to select the appropriate type of test in order to produce valid data. In this study, the writer used the test as instrument to collect data, and the test will be given after the material is explained. There are two test that use by the researcher, that are pretest and postest. The test will be conducted in 8th grade of SMP Muhammadiyah 07 Cerme. It is to find out whether there is significant effect or not of dictogloss technique on the students speaking ability. The design of the pretest and postest are different, but for topic and items remain the same. Test are made based on the source of the eight grade book and also the internet.

In the selection of tests used on pre and post-test adapted to the syllabus at eight grade that focus on the speaking skill.

3.3.1.1 Test

Test is the most important part in this research, because researcher use the test as an instrument. Research instrument used to collect the required data. So the instrument greatly affects the succes or not this research. There are two test that use by the researcher, that are pretest and posttest. Pretest and posttest are given to both of groups that are experimental and control, it is used to determine the level of the student mastery in the speaking ability. The test was made based on the syllabus of eight grade and focus on the speaking skill.

a. Pretest

Pretest given to the students to determine their ability on the speaking skill before giving the treament. Pretest will be conducted on two groups that are experiment and control, to know the differences between the group that use traditional methods and dictogloss technique.

b. Posttest

Posttest given to the students to determine their ability on the speaking skill after giving the treament. For the experimental group was used dictogloss technique, and for control group was used small group discussion.

3.3.1.2 Validity

Before the item is used for pretest and posttest, the item must be validity tested first to confirm if the item is able to measure the instrument of speaking skill according to the ones listed in the curriculum and syllabus K13 for Junior High School. There are two kinds of validity, that are content validity and construct validity. *Content validity* is often called curriculum validity which means that a measuring instrument is considered valid if it matches with the content of the curriculum to be measured. One way to determine validity is to exemine the content of the test. *Construct validity* implies that a measuring instrument is said to be valid if it has matched the theoritical constructs in which the test was made. In other words, a test is said to have construct validity if the problem is measuring every aspect of thinking as described in the standard

competence, that is basic competence and the indicator contained in the curriculum. Based on the explanation above, the ressearcher using content validity to make sure that the test is based on silabus and curriculum k13.

3.3.1.3 Scorring Guide

To assess the students speaking test, the researcher adapted scoring guide of speaking practice by Syakur (2000:78) There are at least five components in speaking skills to be noticed by teachers while teaching speaking, that are; Pronunciation, vocabulary, fluency, grammar, and comprehension. The researcher uses analytical scoring rubric that has been created with several modifications and additional detail criteria. The scoring guide of speaking skill for junior high school it can be seen in the following table:

Rating Score					
No.	Criteria	Poor (1)	Enough (2)	Good (3)	Excellent (4)
1.	Pronunciation (20%)	Unclear pronunciation reaches 20 words from the correct pronunciation that are 30 words.	Unclear pronunciation reaches 15 words from the correct pronunciation that are 30 words.	Unclear pronunciation reaches 10 words from the correct pronunciation that are 30 words.	Unclear pronunciation reaches 5 words or less than 5 words from the correct pronunciation that are 30 words.
2.	Vocabulary (25 %)	The mastered vocabulary reaches 15 words from 30 words that should be mastered.	The mastered vocabulary reaches 20 words from 30 words that should be mastered.	The mastered vocabulary reaches 25 words from 30 words that should be mastered.	The mastered vocabulary has reaches 30 words or more than 30 words.
3.	Fluency (25%)	The speed is too slow. There are too many uncompleted sentences.	The speed is very slow. There are many uncompleted sentences.	The speed is slow. There are some uncompleted sentences.	The speed is normal. There is no uncompleted sentences.
4.	Grammar (15%)	Grammatical errors reaches 20 words from the correct grammatical	Grammatical errors reaches 15 words from the correct grammatical	Grammatical errors reaches 10 words from the correct grammatical	Grammatical errors reaches 5 words or less than 5 five words from the

		that are 30 words.	that are 30 words.	that are 30 words.	correct grammatical that are 30 words.
5.	Comprehension (15%)	Delivering with limited understanding of content.	Delivering with some understanding of content.	Delivering with many understanding of content.	Delivering with full understanding of content. There is no repitition and full of rephrasing.

Tabel 3.3: Scoring Guide

Categorize:

Exceleent   : 90 – 100

Good   : 80 – 89

Fair   : 70 – 79

Poor   : 60 – 69

Description:

Minimum standard of speaking value is 75, Thus, the minimum value that students have to get is 75 or more, the value is the success criteria of speaking mastery. According to the table above, the maximum scores that can be obtained by each student is 4, and the minimum score is 1. The value of students is obtained by dividing the total acquisition value by a total score of 20 multiplied by 100. As described by scoring technique below:

$$Assessment: \frac{Skors\ Obtained\ X\ 100}{Maximum\ Score}$$

3.3.2   The Procedure of Collecting Data

The first step is preparing instruments, the researcher identify the topic from the curriculum and syllabus to make items for test. The second step is the researcher tried out the test to find out the validity of those items. The third step is giving pretest both of the classess before implementing dictogloss technique and getting the score of the test. The fourth step is the researcher giving treatment to

experimental class by implement the dictogloss technique. The fifith step is giving posttest to both of classess. And the last step is all the data have already done, the last thing that researcher should do is calculating all of the data to know the effect of dictogloss technique on students speaking ability. Schedule:

No.	Date	Activities
1.	First Meeting	Giving pretest for experimental and control group
2.	Second Meeting	Giving first treatment (Using Dictogloss Technique)
3.	Third Meeting	Giving second treatment (Using Dictogloss Technique)
4.	Fourth Meeting	Giving third treatment (Using Dictogloss Technique)
5.	Fifth Meeting	Giving fourth treatment (Using Dictogloss Technique)
6.	Sixth Meeting	Giving fifth treatment (Using Dictogloss Technique)
7.	Seventh Meeting	Giving sixth treatment (Using Dictogloss Technique)
6.	Eighth Meeting	Giving postest for experimental and control group

Table 3.4: Schedule

3.4 Data Analysis

After collecting data using pretest and postest. The researcher analyze the data using Statistical Package for Social Sciences (SPSS) program And also use independent sample t-test. Analyzing the data is very important in a research, because it is to answer the research problem whether there is an significance effect or not on both of group experimental and control.

3.4.1 Normal Distribution

Normal distribution test have aimed to find out the distribution of pretest score in two groups are normally distributed. The result of the normality distribution also used to find out the hypothesis which had been determined can be accepted. To analyze the normal distribution, the researcher uses kolmogrov smirnov sample test in SPSS version 16.0. If the results are significant, then the null hypothesis of no difference between the observed data distribution and a normal distribution is rejected. If the value is more than the level of significance (0,05) the null hypothesis is accepted; the score are normally distributed.

3.4.2 Homogenity Test of Variance

A homogenity test is necessary to determine whether the data in variables X and Y are homogeneous or not in a population having the same variance. Thus, the homogeneous data can be used for data analysis process at a later stage. There are two groups in this research, that are experimental group and control group. And for the homogenity test, the researcher uses Levene's test of homogenity in SPSS program version 16.0 because levene's test of the homogenity uses to assess the equality of the variance for a variable calculates for two or more groups. The Levene's test it can be defined as follow:

$$W = \frac{(N-k)}{(k-1)} \frac{\sum_{i=1}^{k} N_i (Z_{i\cdot} - Z_{\cdot\cdot})^2}{\sum_{i=1}^{k} \sum_{j=1}^{N_i} (Z_{ij} - Z_{i\cdot})^2},$$

Where:

W is the result of the test

K is the number of different groups to which the samples belong

N is the total number of samples

N_{ij} is the number of sample in the ith group

Y^{ij} is the value of Jth sample from the ith group

$$Z_{ij} = \begin{cases} |Y_{ij} - \bar{Y}_{i\cdot}|, & \bar{Y}_{i\cdot} \text{ is a mean of the } i\text{-th group,} \\ |Y_{ij} - \tilde{Y}_{i\cdot}|, & \tilde{Y}_{i\cdot} \text{ is a median of the } i\text{-th group.} \end{cases}$$

The significance of W is tested against F (ɑ, K-1, N-K) where F is a quintile of F distribution, with K-1 and N-K its degree freedom, and ɑ is the chosen level of significance (usually 0,05 or 0,01).

The homogenity assumption is checked in SPSS by Levene's test with the following procedures. The first procedure is inserting the pretest data both experimental and control groups using the data view. The second procedure is going to analyze menu, selecting compare means, and choosing independents sample t-test. The last procedure is interpreting the homogenity test output, the researcher need to see Levene's test Column to know whether the equality of variences in the groups of scores is homogeny or not.

3.4.3 Hypothesis Testing

The aim of this research is to know whether there is significant effect of dictogloss technique on students speaking ability or not. The hypothesis of this research can be formulated as follows:

H0: There is no significant effects for the students when use the dictogloss technique and not use the dictogloss technique.

H1: There is significant effects for the students when use the dictogloss technique and not use the dictogloss technique.

T-test was calculated in order to find out the comparison of two means between Control Group and Experimental Group pretest and posttest. In analyzing the data the researcher used independent t-Test formula. In calculating t-Test, the formula as follow:

$$t = \frac{(x_1 - x_2) - (\mu_1 - \mu_2)}{Sx_1 - x_2}$$

Where:

t   is t value

X_1 is avarage group 1

X_2 is avarage group 2

S   is standard error of the two groups

$\mu_1 - \mu_2$ is always defaults to 0

      Finally, following statistical procedures determine the result of the test. To calculate t-test, the researcher uses SPSS 16.0 program. The posttest of experimental and control group are analyzed by using SPSS 16.0 program with the following procedure. The first procedure is inserting posttest data of both experimental and control groups using the data view. The second procedure is going to analyze menu, selecting compare means, then choosing independent sample t-test. And the last procedure is interpreting t-test output, so automatically it could answer to the research questions about the comparison between two groups. However, pretest and posttest are employed to collect primary data in order to find out the significance on the effect of dictogloss technique on speaking skill at eight grade of SMP Muhammadiyah 07 Cerme.