CHAPTER III

RESEARCH METHODOLOGY

A. Research Method

In this research, the writer uses the experimental research to know the real data that got from the respondent. Experimental research is a research technique that tests the hypothesis which has the form of cause and effect relations by manipulating dependent variables during manipulating time, the writer has to control extraneous variables, perhaps the transitional that occurred really as an effect of manipulating which is out caused by other variables. Donaldet, al. stated that "An experimentis a scientific investigation in which the researcher manipulates one or more independent variables, controls any other relevant variables, and observes the effect of the manipulations on the dependent variable(s)."[1] Experimental Research is The Appropriate approach when we want to know about the frequency and magnitude wich with something happens is defferent externally determined circumtances.[2] kinds of experiment techniques are pre experimental design, true experimental design, and quasi experimental design that one of other has different characteristics.

The data analysis uses is the quantitative research it means that the writer collects the data from the field and must go to place of the research. Moreover, in this research the writer uses quasi-experiment because in the research there will be

[1]C.R Kothari,*Research of Methodolgy,* (Jaipur University: New Age Publisher, 2004), 14.
[2] Constance T Fisher, *Qualitative Research,* (New York: Elsevier, 2003), h.16

pre-test and post-test get the data. Two classes where involved in this research, it is experimental class and control class. The experimental class consists of the students who received treatment. However, the control class was not. Both classes received a pre-test on whatever instrument is used to assess the effect of the experiment before the treatment has been given. To make this research more clear, the writer provided the research design as follows:

Table 3.1

Quasi Experiment Design

No	Class	Pre-test	Treatment	Post-test
1.	Experimental class	X	X	X
2.	Control class	X	0	X

B. Place and Time

The writer takes a place of this research at the second grade of the SMP Daar El-Qolam Jayanti Tangerang SMP Daar El-Qolam 3 Jayanti Tangerang. This research was conducted on Maret 2019, it was during four meetings. The writer chose that school to conduct this research because students in the second grade of the SMP Daar El-Qolam Jayanti Tangerang SMP Daar El-Qolam Jayanti Tangerang felt difficult in English learning, and the learning strategy such as

Speaking skill the whole text is not effective, it makes students were bored in English learning process.

C. Population and Sample

1. Population

   According Fraenkel and Wallen that "In educational research, the population of interest isusually a group of persons (students, teachers, or otherindividuals) who possess certain characteristics."[3] The population of this research are entire students of the the second grade of the SMP Daar El-Qolam Jayanti Tangerang SMP Daar El-Qolam Jayanti Tangerang it consist of 190 students

2. Sample

   According to Fraenkel and Wallen that "A sample is any part of a population of individuals on whom information isobtained."[4]In this research, the writer uses Nonprobability sampling where to get the data using saturated sampling or known with census sampling. saturated sampling is part of nonprobability sampling where all members of population are sample.[5] Because it was only two classes in first grade.

   The writer took two classes as sample research from the second grade of the SMP Daar El-Qolam Jayanti Tangerang SMP Daar El-Qolam Jayanti Tangerang. The writer use two classes, The fisrt is as experimental class and the

[3] Jack R. Fraenkel and Norman E. Wallen, *How To Design And Evaluate Research in Education*, (New York: McGraw- Hill, 2009), 91.

[4]Fraenkel and Wallen, *How To Design and Evaluate Research in Education*, 105.

[5]Sugiyono, *Statistika untuk Penelitian* (Bandung: Alfabeta, 2013), 68.

second as control class. The writer take the subject as the sample in this as many as 76 students, 38 Students of experimental class, and 38 students of class control.

D. Technique of Data Collecting

The research used three kinds of research instruments namely interview, observation, and test. This technique is used in order to get specific data related to problems of research. The instruments of research will be discussed in the followings paragraphs.

1. Interview

Interview is one of technique collecting data, information, or opinion with conversation and question-answer, both direct and indirect with data resource. This interview is referred to the students to get accurately data about student's response of using simulation method in Teaching speaking skill at the the second grade of the SMP Daar El-Qolam Jayanti Tangerang SMP Daar El-Qolam Jayanti Tangerang

2. Observation

The writer observes the application activities of technique and the way to learn reading comprehension in the class. Information will be got from:

a. The student's enthusiastic in the second grade of the SMP Daar El-Qolam Jayanti Tangerang SMP Daar El-Qolam Jayanti Tangerang

b. The situation in the class of English subject, especially in teaching and Speaking Skill, simulation method in learning speaking skill

3. Test

According to Noam Chomsky "Test one of technique or process to know about students' ability, knowledge or performance (skills) in a given domain"[6]. Then, the writer uses test to get data and information for student's value. In this research, the writer gives the students two test. Test consists of pre-test and post-test. The test is purposed to find out whether students speaking score is better than before or not.

a. Pre-test

The test includes 6 questions related to the passage, it involves basic information of the text. It is intended to know the first condition of students speaking skill, by using simulation method

b. Post-Test

The test includes 4 questions related to the passage, it is intended measure how students speaking skill, by using simulation method. In addition, this test will describe the differences between both control and experiment class after treatment.

E. Technique of Data Analyzing

To analyze the data, the writer applied the following techniques:

[6] H. Douglas Brown, *Language Assessment Principles and Classroom Practice*, (New York: Longman, 2004), 3.

1. Preparing the key
2. Correcting and scoring the students' answer sheet
3. Computing the students' correct answer on the test
4. After the data was collected, and then analyzing the data, to find out the result on Student's speaking skill, by using Simulation Method.Quantitative is analyzed by statistic calculation of t-test with the formula are follow:[7]
   a. Determining Range, Interval class
   b. Making distribution frequency
   c. Determining mean, by formula:

      $$\text{Mean} = M' + i\left(\frac{\sum fx'}{N}\right)$$

   d. Determining standard deviation, by formula:

      $$SD = i\sqrt{\frac{\Sigma fx'^2}{N} - \left(\frac{\Sigma fx'}{N}\right)^2}$$

   e. Determining error standard

      $$SE_{\bar{x}^2} = \frac{SDx^2}{\sqrt{N-1}}$$

   f. Making the polygon graphic
   g. Comparing the scores of experimental and control class.
   h. Determining average score

      $$M = M_2 - M_1$$

   i. Determining difference of error standard

[7]AnasSudijono, *Pengantar Statistik Pendidikan,* (Jakarta: PT Raja GrafindoPersada, 2014), 52,53,90,162 cet. 53

$$SE_{Mx} - SE_{My} = \sqrt{SEx^2 + SEy^2}$$

j. After getting the data from pre-test and post-test, the writer analyzis it by using statistic calculation of T-test with the degree of significances 5 % and 1%.

The formulas of T-test as follow:

$$t_o = \frac{M_{x-} M_y}{SE_{Mx-SE_{My}}}$$

F.Research Hypothesis

Donald et al., in Introduction to Research in Education, said thata research hypothesis states the relationship one expects to find as a result of the research. It may be a statement about the expected relationship or the expected *difference* between the variables in the study.[8] A hypothesis is a specific statement of prediction.It describes in concrete (rather than theoretical) terms what the writer expect will happen in this study.

Related to the objective of the research and definition of hypotheses above, the study proposes the null hypothesis (H_0) and alternative hypothesis (H_a) which is be formulated as follows:

H_0 : There is no improvement in teaching speaking by using simulation method at SMP Daar el Qolam

[8]Ary, Jacobs and Sorensen, *Introduction to Research in Education*, 91.

$H_{a\ :}$: There is an improvement in teaching speaking by using simulation method at SMP Daar el Qolam

If $t_0 \geq t_t$: the alternative hypothesis (H_a) is accepted and null hypothesis (H_0) is rejected. It means that there is significant difference between speaking skill, by using simulation method and speaking skill without speaking skill, by using simulation method. It means that using using simulation method has significant influence in teaching speaking skill

If $t_0 \leq t_t$: the null hypothesis (H_0) is accepted and alternative hypothesis (H_a) is rejected. It means that there is no significant difference between teaching speaking skill, by using simulation method