CHAPTER III

METHODOLOGY OF THE RESEARCH

A. The Method of Research

In this research, the method that was used is an experimental research. There are four types of experimental designs: pre-experimental, true-experimental, factorial experimental, and quasi-experimental. The researcher proposes one or more hypotheses that explain the variables that are hoped for in this experimental study. The method of the research is an experimental research in the design quasi-experiment. This Quasi-experimental form is a development of true experimental design, which is difficult to implement. This design has a control group, but it cannot fully function to control the external variables that affect the implementation of the experiment. However, this design is better than the pre-experimental design. Quasi-experiment was used because in reality it was difficult to get a control group to use for research. The writer used quasi-experiment as the research design to see the effect of English Sound to improve students' pronunciation ability on English words.[1]

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[1] Prof. Dr. Sugiono, *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*, (Bandung:ALFABETA cv, 2016), 73.

Experimental research is one of the most important research methodologies available to researchers. The experiment is the best way to create cause-and-effect relationships among variables among the many types of research that can be used.[2]

Experimental research can test hypotheses and demonstrate cause and effect relations. This is the most powerful line of argument about the relationship between variables. In experimental research, the researcher manipulates at least one independent variable while controlling for other relevant variables to see how it affects one or more dependent variables.[3]

A typical experimental study investigates a research issue by using comparison or control groups. A comparison of two or more classes is used in many second language research studies. This is known as a between groups design. This comparison can be made in one of two ways: two or more groups with different treatments; or two or more groups, one of which, the control group, receives no treatment.[4]

The creation of a high-quality but necessarily imperfect source of counterfactual inference, as well as comprehending how this source differs from the treatment condition, are two of the most important jobs in experimental design.[5]

To conduct this study, the writer used two classes of second-grade students from Junior High School in the second semester as the experiment and control

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[2] Jack R fraenkel, How to design and evaluate research in education (London: McGraw Hill, 2008), 261.

[3] L. R. Gay, *Educational Research* (America: Pearson Education, 2012). 250.

[4] Alison Mackey, Susan M. Gass, Second Language Research, (London: IEA, 2005), 146.

[5] Glenn H Bracht and Gene V Glass, 'The External Validity of Experiments', 5.4 (1966).

classes to examine the effect of English Sound by comparing pre-test and post-test measurements and comparing them scores between two classes. The efficacy can be seen in the improvement of the experiment class's post-test score after receiving treatments and the collaboration of both classes. The technique was taught to the experiment class using English Sound, although the control class did not.

B. The Place and Time of Research

In this research the writer took place in MTs Mathla'ul Huda Pandeglang. It is located on Jl Raya Tb. H. Ghazali, Dalembalar Cimanuk Pandeglang, Banten. The researcher has conducted the research in the academic year 2021-2022, which took approximately one month and was carried out from 14 August until 11 September 2021. The students come from various regions with various scientific backgrounds. The students learn English in the class every week, but most students have difficulty pronouncing English words.

C. Population and Sample

a. Population

Population is a generalization region consisting of objects that have certain qualities and characteristics set by researchers to be studied and then drawn conclusions. Population is also not just the number of objects / subjects

studied, but includes all the characteristics of the traits owned by that subject or object.[6]

Generalizing the population of available subjects for experimentation (accessible population) to the complete population of people he is interested in (target population) necessitates a detailed understanding of both groups' features. The results of the experiment may only apply to certain sorts of persons who were chosen to experiment with the subject and not to some of the wider groups.[7]

The population of this research is all of the second grade students of Mts Mathla'ul Huda (located on Jalan Raya Tb. H. Ghazali, Dalembalar Cimanuk Pandeglang, Banten) in the academic year 2020-2021. The second-grade students were chosen because they learn English, but challenging to pronounce lots of English words. They also were selected because English Sound very suitable for them because the words were easy, which was being learned by them. The total number of the population come class A and B. The total number of students is 40.

b. Sample

The sample is part of the number and characteristics possessed by this population. When the population is large, and researchers are not possible study

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[6] Prof. Dr. Sugiono, *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*, (Bandung:ALFABETA cv, 2016), 80.
[7] Bracht and Glass. 'The External Validity of Experiments', 5.

everything in the population, for example, because of limitations funds, energy and time, the researcher can use that sample taken from that population. What was learned from the sample, the conclusions will be applicable to the population. For that sample taken from the population must be truly representative.[8]

The sample for this study was two classes. There are VIII-A and class VIII-B. Then the researcher manipulates the sample, VIII-A as experimental class and VIII-B as controlled class. The class VIII-A has its member for about 20 students and the class VIII-B has 20 students.

D. The Research Instrument

Students' pronunciation was measured using two types of tests: pre-test and post-test. The pretest–posttest control group design necessitates the formation of at least two groups, each generated by random assignment. For both the experimental and control groups, the researcher used the same test.[9]

a. Pre-test

A pretest is given to both groups, and each group receives a different treatment. The pre-test or initial reflection was administered in the first meeting to determine the subjects' pre-existing pronunciation before the researcher conducted the study using English Sound in the classroom.

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[8] Prof. Dr. Sugiono, *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*, 81.
[9] Gay. , *Educational Research* , 265.

b. Post-test

The post-tests were issued at the end of each session. The post-test was used to determine how effective English Sound was at teaching pronunciation.

At the conclusion of the trial, both groups are posttested. The success of the treatment is determined by comparing posttest scores. It is also possible to extend the pretest–posttest control group design..[10]

E. Technique of Data Collection

In collecting the data, the following technique was using pre-test and post-test. Test refers to the fact that when a person knows he or she is being tested this fact can change his or her performance on an exam. The researcher administers a pre-test before treatment and a post-test after treatment to collect data on the students' pronunciation. The aim of these tests is to compare and assess the achievement of students in both groups before and after treatment.[11]

a. Pre-test

The pre-test is administered at the start of class (by the researcher conducting the experiment) to determine the students' familiarity of the topic that will be discussed. The instrument consists of 25 items consist of words, each correct answer (pronunciation) had 4 points, and the incorrect answer got 0 point.

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[10] Gay. *Educational Research* 265.
[11]Steven R. Terrell, *Writing a Proposal for Your Dissertation,* (New York: The Guilford Press, 2016), 108.

As a result, this test has a total score of 100. The purpose of the pre-test conducted was to find out the initial condition of the subject in pronunciation.

b. Post-test

After the treatment, the researcher administers a post-test to determine the students' ability to master the newly learned material. The test consists of 10 sentences that includes 50 words which bold, each correct answer had 2 points, and the incorrect answer got 0 point. Thus, this examination has a total score of 100. The post-test would reflect the effectiveness of English Sound when applied in second-grade students of MTs Mathla'ul Huda Pandeglang in the academic year 2020/2021.

There are two types of tests: subjective and objective.

1) Subjective Test

A subjective test is one in which the examiners' opinion and judgment are used to evaluate the learners' abilities. The use of an essay or a short response is an example of a subjective test.[12]

2) Objective test

An objective test measures a learner's skill or success using a fixed collection of answers, implying that there are only two possible answers, correct and wrong. To put it another way, the score is determined by the correct

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[12] Geoffrey Broughton, Teaching English as a Foreign language, 146.

answer. Multiple choice tests, true or false tests, matching and problem-based questions are all examples of objective tests.[13]

In this research the writer only takes the objective test as an instrument. The Pronunciation test was given to identify learners' Pronunciation ability which consisted of pretest and post-test. The pretest was given before the treatment was conducted; firstly, the pretest was administered to find out the students' Pronunciation ability before treatment. The post-test was administered at the end of treatments in order to find out the results of students' Pronunciation after the treatments.[14]

F. Technique of Data Analysis

From pronounce test using English Sound, the writer got two data, the first datum is the result of pre-test and the second one is the result of post-test. The researcher uses statistical of t-test to determine the final calculation t (t observation) that will be measure the student's scores in pre-test and post-test. The process of data analysis through following some steps :

The formula for the small sample (N >30) that will be examined:

1. Determining the difference between scores from Variable I (X) and Variable II (Y):

   D = X-Y

2. Determining the Mean of Difference:

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[13] Geoffrey Broughton, Teaching English as a Foreign language, 146.

[14] L. R. Gay, *Educational Research*, 267.

$$M_D = \frac{\Sigma D}{N}$$

3. Determining deviation standard of variable x and y with formula:

$$SD_D = \sqrt{\frac{\Sigma D^2}{N} - \left(\frac{\Sigma D}{N}\right)^2}$$

N= number of class

4. Determining standard error of mean of difference with formula:

$$SE_{MD} = \frac{SD_D}{\sqrt{N-1}}$$

5. Analyzing the result by using calculation of the t-test as follow:

$$t_o = \frac{M_D}{SE_{MD}}$$