

CHAPTER III
RESEARCH METHOD

A. Research Design

Research design that will be used in this research is quasi experimental design. Sugiyono (2010:122) states that the characteristic of quasi experimental design is the sample which is used for experiment group or control group are taken by using random technique from certain population. There are two kinds of quasi experiment design; they are posttest-Only Control Design and Pretest-Posttest Control Group Design. In this research, the researcher chooses Pretest-Posttest Control Group Design. In this design, there are two groups are chosen by Convenience sampling technique. These groups will be given pre-test to know students' ability in beginning. The designs according to Arikunto, Suharsimi (2006: 86) as follow:

E	O ₁	X ₁	O ₂
C	O ₁	X ₂	O ₂

Note:

E = Experimental Class

C = Control Class

O₁ = Pre-Test

X₁ = Treatment in experiment group using Webtoon

X₂ = Treatment in control group using regular technique

O₂ = Post-Test

Based on the explanation above, this design is used in this research.

B. Population and Sample

1. Population

the population is all the organism that both belong to the same group or species and live in the same geographical area. In ecology the population of a certain species in a certain area is estimated using the Lincoln Index. The area that is used to define a sexual population is such that inter-breeding is possible between any pair within the area and more probable than crossbreeding with individuals from other areas. Normally breeding is substantially more common within the area than across the border.

According to Arikunto, population is the whole of research subject, if someone wants to research all of the elements in research area his research is called population research on census study.

In this research, The Population of the research is students at tenth grade of Minhajuttulab Senior High School, consists of two classes with 20 students in each class, so the population is 40 students.

2. Sample

Sugiyono (2010: 81) states that sample is part of whole characteristic from population itself. In this research to determine the sample, the researcher use Convenience sampling technique. In this research the researcher takes on class from the population of students at tenth grade of Minhajuttulab Senior High School as the sample. Therefore, the researcher uses Convenience sampling

C. Research Instrument

Based on Arikunto (2006:192) research instrument is the equipment or tool that used all the research conducted to get the final goal of the research. In other

words, it can be said that research instrument is very essential because it is a device of research. Therefore, the researcher has to make research instrument before conducting the research. In this research, speaking test is used as research instrument. The researcher taking two class in this research, the subject of this research is students of tenth grade of Minhajuttulab Senior High School that consist of Science Class and Social Class.

Speaking test is kind of tests that can be used to get the data. Here, there are three kinds of test in speaking test, they are pre-test, treatment and post-test. The researcher will use pre-test and post-test to measure the result of students' speaking ability before and after the treatment. The form of speaking test is oral test. The students are asked to retell the story about topics provided. There is some aspect which are scores namely pronunciation, vocabulary, grammar, fluency, and comprehension.

Table 3.1 Based on Brown, (2004: 172-173)

ASSESSMENT OF SPEAKING

Aspect	Number	Criteria
<i>Pronunciation</i>	5	Equivalent to and fully accepted by educated native speakers.
	4	Errors in pronunciation are quite rare.
	3	Errors never interfere with understanding and rarely disturb the native speaker. Accent may be obviously foreign.
	2	Accent in intelligible though often quite faulty.
	1	Errors in pronunciation are frequent but can be understood.
<i>Grammar</i>	5	Equivalent to that of an educated native speaker.
	4	Able to use the language accurately on all levels normally pertinent to professional needs. Errors in grammar are quite rare.

Aspect	Number	Criteria
	3	Control of grammar is good. Able to speak the language with sufficient structural accuracy to participate effectively in most formal and informal conversation on practical, social, and professional topics.
	2	Can usually handle elementary constructions quite accurately but does not have thorough or confident control of the grammar.
	1	Errors in grammar are frequent, but speaker can be understood.
<i>Vocabulary</i>	5	Speech on all levels is fully accepted by educated native speakers in all its features including breadth of vocabulary and idioms, colloquialisms, and pertinent cultural references.
	4	Can understand and participate in any retelling story within the range of his experience with a high degree of precision of vocabulary.
	3	Able to speak the language with sufficient vocabulary to participate effectively in most formal and informal conversations on practical, social, and professional topics. Vocabulary is broad enough that he rarely has to grope for a word.
	2	Has speaking vocabulary sufficient to express himself simply with some circumlocutions.
	1	Speaking vocabulary inadequate to express anything but the most elementary needs.
<i>Fluency</i>	5	Has complete fluency in the language such that his speech is fully accepted by educated native speakers.
	4	Able to use the language fluently on all levels normally pertinent to professional needs. Can participate in any story within the range of this experience with a high degree of fluency.

Aspect	Number	Criteria
	3	Can discuss particular interests of competence with reasonable ease. Rarely has to grope for words.
	2	Can handle with confidence but not with facility most social situations, including introductions and casual story about current events, as well as work, family, and autobiographical information
	1	No specific fluency description.
<i>Comprehension</i>	5	Equivalent to that of an educated native speaker
	4	Can understand any retelling story within the range of his experience
	3	Comprehension is quite complete at a normal rate of speech.
	2	Can get the gist of most story of non-technical subjects.
	1	Within the scope of his very limited language experience can understand simple questions and statements if delivered with slowed speech, repetition, or paraphrase.

D. Data Collecting Technique

Collecting data is the most important step in conducting the research. After counting pre-test data, the researcher gives the test with valid and reliable instruments. In collecting data, the researcher will use test as data collecting technique. The test is covered by:

1. Pre-Test

Pre-test is important to be done in this research. The aim is to know the students' basic knowledge. The pre-test is given before treatment. Pre-test consist of one question about retell. The students are performed to express

how to retell story. The students' speaking score is based on the pronunciation, vocabulary, grammar, fluency, and comprehension.

2. Treatment

Treatment is something which given in the activities in the learning process. It is given after pre-test and before post-test. In this research, the researcher using comic stories in the webtoon application as a source of stories that are used to retell the story to find out how far the students' speaking skills, because the webtoon is a pictorial story that can make it easier for students to understand the contents of the story. The aim of treatment is to develop the student' speaking ability.

3. Post-Test

Post-test is important to be done in this research. The aim is to know the progress students' speaking ability. The Post-Test is given after treatment. Post-test consist of retelling story and the student practice it. The students' speaking score is based on the pronunciation, vocabulary, grammar, fluency, and comprehension.

E. Data Analysis Procedure

In this research, the researcher explains the procedures how to analyze the data. There are some steps in analyzing the data. They are normality and homogeneity tests after that hypothesis test. Below is the explanation.

1. Normality Test

It is used to know whether the data of two classes are normally or not. Normality tests are used to determine whether a data set is well-modeled by a normal distribution or not. Some statistic technique, especially parametric

statistic ordered that should be followed normal distribution form. With the hypothesis are:

$H_a = L_{ratio}$ is lower than L_{table} (the distribution of data is normal)

$H_o = L_{ratio}$ is higher than L_{table} (the distribution of data is not normal)

Notes:

H_o = The variance of the data is homogenous

H_a = The variance of the data is not homogenous

2. Homogeneity Test

Homogeneity mean a size can use to know variance of data or homogeneity test is a measurement which can used to determine a data variation. It has many methods used to test homogeneity a sample. It is used to know the data are homogenous or not. The formula based to Ahmadi, Ahmad (2010: 32) of homogeneity test as follow:

$$F = \frac{S_1}{S_2}$$

Note:

S_2 : The largest variance

S_1 : The smallest variance

The criteria are:

$H_a = F_{ratio}$ is lower than F_{table} (The distribution of the data is homogenous)

$H_o = F_{ratio}$ is higher than F_{table} (The distribution of the data is not homogenous)

3. Hypothesis Test

After the researcher analyzes the normality and homogeneity test, she wants to prove whether the hypothesis is accepted or rejected by using

hypothesis test. The formula of hypothesis test based to Ahmadi, Ahmad (2010: 32):

Test criteria.

accept H_0 if $t_{ratio} \leq t_{table}$, with $df = n_1 - 1$ or $n_2 - 1$

accept H_1 if $t_{ratio} \geq t_{table}$, with $df = n_1 - 1$ or $n_2 - 1$

$H_0 = \mu A1 = \mu A2$

$H_1 = \mu A1 > \mu A2$

$H_1 = \mu B1 = \mu B2$

$$t_{hit} = \frac{\bar{X}_1 - \bar{X}_2}{Sg \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$$

$$\text{with } S_g^2 = \frac{(n_1 - 1)S_1^2 + (n_2 - 1)S_2^2}{n_1 + n_2 - 2}$$

Based on the explanation above, the researcher concludes that statistic hypothesis is an assumption about population parameter. This assumption may or not be true. If sample data are not consistent with the statistical hypothesis, the hypothesis is rejected, because the test will be used to know whether the hypothesis that is proposed can be accepted or rejected.