**CHAPTER III**

**RESEARCH METHOD**

**A. THE RESEARCH DESIGN**

The type of the research was an experimental research. According to Creswell, experiment is you test an idea (or practice or procedure) to determine whether it influences an outcome or dependent variable. The design of this research was a pre experimental design (single group experiment), in which the researcher used one group pretest-posttest design. According to Gay and Airasian, "one group pretest – posttest is a design that involves a single group in which it is pretested, exposed to treatment and posttest. Thus, before applying the treatment, the researcher administered pretest, and then post tested the students' speaking ability. In order to know the effect of using rotating roles technique on the students' speaking ability, the researcher compared the students' speaking score before and after getting the treatment. The description of this design can be seen as follows (Cohen: 286).

The one group pretest-post-test design can be represented as:

Experimental    $O_1$    X    $O_2$

The variables involved in this research were two, the first was the use of rotating roles techniques as independent variable (X variable), and the second was students' speaking ability as dependent variable (y variable).

**B. THE TIME AND LOCATION OF THE RESEARCH**

This research was conducted on Augustus 2016 in academic year 2016/2017 at Az-Zuhra Islamic Junior High School Pekanbaru.

**C. THE SUBJECT AND THE OBJECT OF THE RESEARCH**

The subject of this research was the students of class VIII Az-Zuhra Islamic Junior High School Pekanbaru. The object of the research was the use of rotating roles technique and students' speaking ability.

**D. THE POPULATION AND SAMPLE OF THE RESEARCH**

The population of this research was the second year students at Az-Zuhra Islamic Junior High School Pekanbaru and the sample of the research was the students of VIII A class. The specification of population can be seen as follows:

**Table III.1**

**Total Population of the Second Year Students of The research**

| NO | CLASS | POPULATION | |
|----|-------|------------|--------|
| 1 | VIII A | 25 | SAMPLE |
| 2 | VIII B | 25 | |
| 3 | VIII C | 22 | |

The researcher took one class as a sample by using cluster sampling. According to Gay (2002:129), cluster sampling selects based on group not individually, all the members of selected group have similar characteristic.

**E. THE TECHNIQUE OF COLLECTING DATA**

In this research, to collect the data the researcher used an oral test technique, done twice. They were pre-test and post-test. The researcher

compared pre- and post-test score. In collecting the data, the researcher used a camera recorder to record the students' voice and their performance. The researcher called the student one by one to oral test in front of the class, like presentation, related to their lesson, and then recorded the students' voice and their performance. Therefore, the researcher with the help of two raters assessed their speaking. According to Hughes (2003: 131), there are some components that have to be considered in assessing students' speaking ability. They are: accent, grammar, vocabulary, fluency and comprehension. So, this research used this technique in assessing the students' ability. They have typical scale where each component has a set of qualities (level) to be rated and a series of possible rating. Hughes describes the rating as follows:

**Table III.2**

**Components to Assess Students' Speaking Ability**

A. Pronunciation

| Score | Requirement |
|-------|-------------|
| 1. | Pronunciation frequently unintelligible. |
| 2. | Frequent gross error and a very heavy accent make understanding difficult, require frequently repetition. |
| 3 | "Foreign accent" requires concentrated listening, and mispronunciations lead to occasional misunderstanding and apparent errors in grammar of vocabulary. |
| 4 | Marked "Foreign accent" and occasional mispronunciations which do not interfere with understanding. |
| 5 | No conspicuous, mispronunciations, but would not be taken for a native speaker. |
| 6 | Native pronunciation, with no trace of "foreign accent" |

B. Grammar

| Score | Requirement |
|-------|-------------|
| 1 | Grammar almost entirely inaccurate except in stock phrase. |
| 2 | Constant errors showing control of view major patterns and frequently preventing communication. |
| 3 | Frequent errors showing some major patterns uncontrolled and causing occasional irritation and misunderstanding. |
| 4 | Occasional errors showing imperfect control of some pattern but no weakness that causes misunderstanding. |
| 5 | Few errors, with no patterns of failure. |
| 6 | No more than two errors during the interview. |

C. Vocabulary

| Score | Requirement |
|-------|-------------|
| 1 | Vocabulary inadequate for even the simple conversation. |
| 2 | Vocabulary limited to basic personal and survival areas (time, food, transportation, family, etc.). |
| 3 | Choice of words sometimes inaccurate, limitations of vocabulary prevent discussion of some common professional and social topics. |
| 4 | Professional vocabulary adequate to discuss special interest; general vocabulary permits discussion of any non-technical subject with some circumlocutions. |
| 5 | Professional vocabulary broad and precise; general vocabulary adequate to cope with complex practical problems and varied social situations. |
| 6 | Vocabulary apparently as accurate and extensive as that of an educated native speaker. |

D. Fluency

| Score | Requirement |
|---|---|
| 1 | Speech is so halting and fragmentary that conversation is virtually impossible. |
| 2 | Speech is very slow and uneven except for short or routine sentences. |
| 3 | Speech is frequently hesitant and jerky; sentences may be left uncompleted. |
| 4 | Speech is occasionally hesitant, with some unevenness caused by rephrasing and grouping for words. |
| 5 | Speech is effortless and smooth, but perceptively non-native and speed and evenness. |
| 6 | Speech on all professional and general topics as effortless and smooth as a native speaker's. |

E. Comprehension

| score | Requirement |
|---|---|
| 1 | Understands too title for the simplest types of conversation. |
| 2 | Understands only show, very simple speech on common social and touristic topics; requires constant repetition and rephrasing. |
| 3 | Understands careful, somewhat simplified speech when engaged in a dialogue, but may require considerable repetition and rephrasing. |
| 4 | Understands quite well normal educated speech when engaged in a dialogue, but requires occasional repetition or rephrasing. |
| 5 | Understands everything in normal educated conversation except for very colloquial or low-frequency items, or exceptionally rapid or slurred speech. |
| 6 | Understand everything in both formal and colloquial speech to be expected of an educated native speaker. |

Note: for non-native speaker, 5 is the highest score.

The speaking results were evaluated by concerning five components and each component had score or level. Each component had 20 the highest score and the total of all components is 100. The specification of the test is as follows:

**Table III.3**

**Specification of the Test**

| No | Speaking skill | The highest score |
|----|---------------|-------------------|
| 1 | Accent | 20 |
| 2 | Grammatical | 20 |
| 3 | Vocabulary | 20 |
| 4 | Fluency | 20 |
| 5 | Comprehension | 20 |
| | Total | 100 |

## F. THE VALIDITY AND RELIABILITY

### 1. Validity

In this research, oral test was given to students in order to find out their speaking ability. Content validity was used in constructing the instrument of the test. According to Henning (1987:94), "content validity is concerned with whether or not the content of the test is sufficiently representative and comprehensive for the test to be valid measure of what it is supposed to measure .From the statement above, it is clear that there were two considerations made in this test. The first was the content of the test that should be representative for the test itself, the second it should measure what it was supposed to measure. The purpose of conducting the test was to find out students' speaking ability, thus the students had been asked to speak in English within1-2 minutes, based on topic related to their

materials (content of the test). The material of the test was taken from the textbook used by students of Az-Zuhra Islamic junior high school. The textbook and syllabus of the school were the guidance in determining the materials in pretest, posttest and also the treatment done in eight meetings.

## 2. Reliability

According to Brown (2003:19), reliability has to be done with accuracy of measurement. This kind of accuracy was reflected in obtaining the similar results when measurement was repeated on different occasions, or with different instruments, or with different persons. The characteristic of reliability was sometimes termed consistency. It means that the test was reliable when an examiner's results were consistent on repeated measurement. The researcher used inter-rater reliability to find out reliability of the test. The inter-rater reliability is a measure of reliability used to assess the degree to which different judges or raters agree in their assessment decisions (www.uni.edu/chfasoa/reliabilityandvalidity). The researcher then describe the scale of the reliability of test by comparing the score of the student's test of both raters with Cronbach alpha, Cronbach alpha is a measure of internal consistency, that is, how closely related a set of items are as a group (http://www.ats.ucla.edu/stat/spss/faq/alpha.html). After calculating in SPSS with the Cronbach alpha the researcher finds out the reliability scale of the test, as in the following result:

The criteria of reliability is if the score of Cronbach alpha > 0.6 means that the test is reliable. The following is the result of the SPSS analysis of Cronbach Alpha.

1. The Cronbach alpha result of pretest score assessed by rater 1 and rater 2

| Reliability Statistics | |
|---|---|
| Cronbach's Alpha | N of Items |
| .645 | 2 |

2. The Cronbach alpha result of posttest score assessed by rater 1 and rater 2

| Reliability Statistics | |
|---|---|
| Cronbach's Alpha | N of Items |
| .459 | 2 |

Both of the tables above show that the test was reliable, and the reliability was high. The reliability category can be classified as follows (Heaton, 1988:164):

1. $0.0 - 0.20$ = reliability is low

2. $0.21 - 0.40$ = reliability is sufficient

3. $0.41 - 0.70$ = reliability is high

4. $0.71 - 1.0$ = reliability is very high

## G. THE NORMALITY OF THE TEST

The researcher used Shapiro Wilk Formula to find out the normality scale of the test which was done by using SPSS, the result of the calculation

must be higher than 0.05 to reach the normal criteria as explained in statistics.laerd.com, If the **Sig.** value of the Shapiro Wilk test is greater than 0.05 the data are normal (statistics.laerd.com) The following is the result of the pretest and post test data calculation through SPSS:

**Tests of Normality**

|  | Shapiro-Wilk | | |
| --- | --- | --- | --- |
|  | Statistic | df | Sig. |
| Pre Test | .944 | 25 | .184 |
| Post Test | .955 | 25 | .318 |

The above table shows Sig value of the pretest is greater than 0.05, It is 0.184>0.05. It means the data of students' speaking pretest ability is normal. The post test data are normal too since the sig value of the data is 0.31>0.05. So it can be concluded that the data of the test are normal.
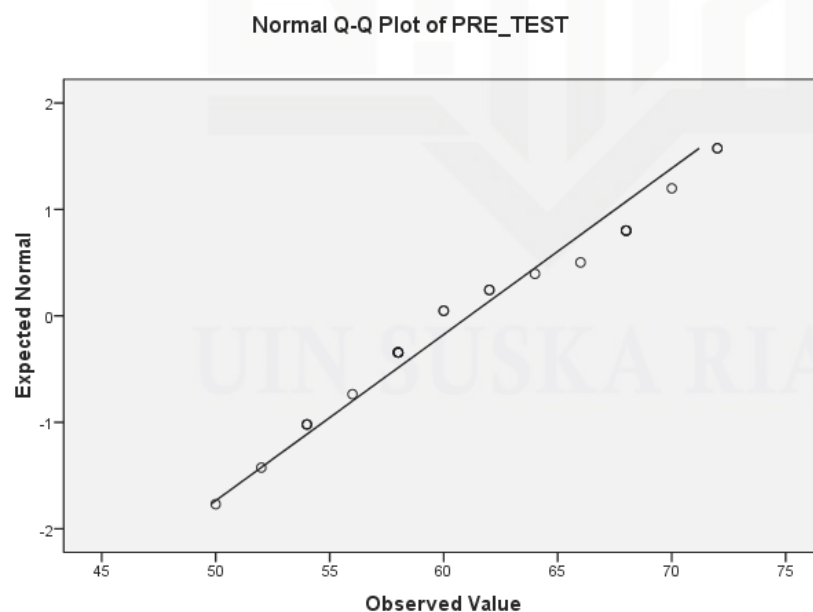
Normal Q-Q Plot of PRE_TEST

The above Q-Q plot chart shows the data points spread around the diagonal line and spreading follow the diagonal line. It means pretest data are normal.

**Normal Q-Q Plot of POST_TEST**
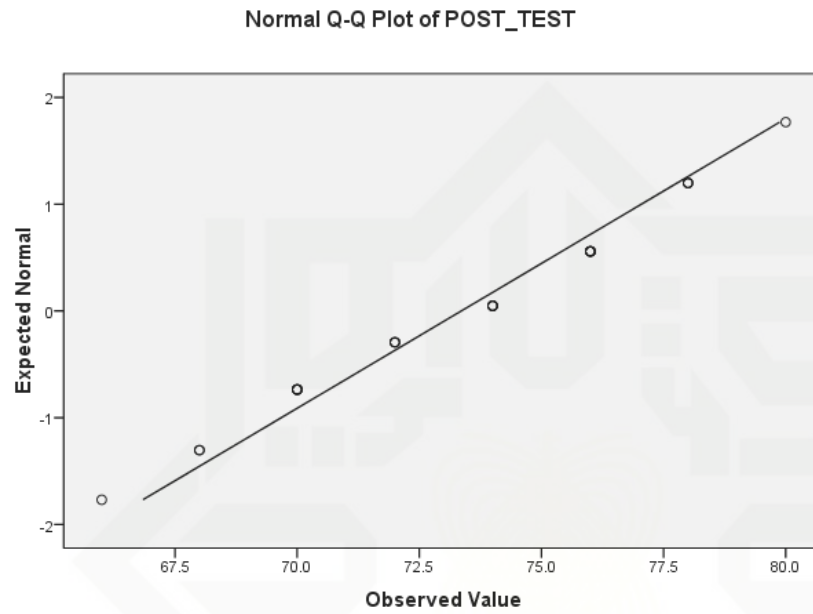


The above Q-Q plot chart of the posttest shows the data points spread around the diagonal line and spreading follow the diagonal line. It means post test data are normal.

## H. THE TECHNIQUE OF ANALYZING DATA

In order to find out whether there is a significant effect of using rotating Roles technique, the data were analyzed by using paired sample T-test on SPSS version 19. In analyzing the data, the researcher used score of pretest and posttest, in both was obtained from the experimental design, "single group pretest and posttest design". Before the pretest and posttest scores of both were obtained from experimental design.

1. **H$_o$** is Accepted if  t$_o$ <t $_{table}$ or there is no significant effect of using rotating roles technique on students' speaking ability at second year of Az-Zuhra Islamic Junior High School.

2. **H$_a$** is Accepted if to>t $_{table}$ or there is a significant effect of using rotating roles technique on students' speaking ability at second year of Az-Zuhra Islamic Junior High School.