III. RESEARCH METHOD

This chapter will explain about the method used in the research, points will be explained in this chapter are: the design of the research, population and sample will be taken by the researcher

3.1 Design

This research was aimed to know whether role play can increase speaking ability of the student or not. (Sugiyono, 2006) states that experimental design is a study which aimed at finding out the influence of particular treatment.

This research used quantitative research (quasi experimental) as the research design .Quantitative research is a kind of research in which the data used to tend to use statistic measurement in deciding the conclusion (Hatch and Farhady, 1982:22). It was conducted using one group pretest posttest design. The result was gotten from the comparison of the two tests (pre-test and post-test). According to (Setiyadi, 2006), the design is described as follows:

T1 X T2

T1   **:** Pre-test   **X**   **:** treatment   **T2**   **:** Post-test

A pretest is an activity before treatment given from the pre-test we can know how far the ability of the students. After that, the researcher gave two treatments to the students using role play as the teaching method. Finally, a posttest was aimed to see the result of the research after the treatment conducted.

3.2   Population and sample

The population of this research was the second grade of MAN 01 Bandar Lampung. The researcher used one experimental class to be treated. The population selected by using purposive sampling. The researcher chose the class that has moderate score in English subject. XI IPA 2 Was chosen as the sample of the research.

3.3   Instruments

This research used two instruments namely pre-test, post-test in order to answer the research questions. There would be one pre-test and one post-test in this research. (Sugiyono, 2006) stated that instrument is a media used to collect the data. The instruments are described as follows:

a.   Pre-Test (Speaking Test)

Pretest conducted to find out whether they have relatively the same ability in speaking before treatment. The pre-test given was speaking test using dialogue (oral production). The selection of theme for the dialogue was made by the researcher.

b. Post-Test (Speaking Test)

Post-test was given to the students who had been included in the pretest. It was conducted in the end of the research. It was done after giving treatments and exercises to the experimental group. The result of the post-test was used to compare the data of the pre-test and making conclusion weather role play can increase students' speaking ability. The procedure of post-test and the kind of test was the same as pre-test.

3.4 Research Procedure

1. Preparing the Lesson Plan

The lesson plan was designed to be implemented during treatment to the experimental group. The researcher designed the lesson plan for three meetings of treatments. The first and the last meeting were allocated to conduct the pretest and posttest (out of the treatments). The lesson plan was designed based on the National curriculum of English for second grade students of senior high school which consists of Competence Standard, Basic Competence, Indicator, Instructional Objective, and Lesson Materials. In addition, Method/ technique, Steps of the activity, Source Lesson, and the evaluation were also involved.

2. Preparing the Material

The material would be made by the teacher (researcher) based on the resources from some English book for the first grade students of senior high school. The situation for role play would be delivered instantly in the class and asking the students to do performances directly based on the situation given.

3. Administering Pre-Test

This test was aimed to obtain the data of the students' basic speaking skill and to ascertain that the students from the group has similar capability and the same English proficiency before they received the treatment. The procedure of test was exactly the same with tryout test.

4. Conducting Treatment

This research was conducted to see the effect of using role play in teaching speaking in order to improve speaking ability. The treatment was designed for three meetings to the experimental group. Time allocation for each meeting consists of two hours of instruction (one hour of instruction was forty minutes).

5. **Administering Post-Test**

The study employed the post test at the end of the research. It was used to measure the students' speaking skill after the treatments. The posttest had the same procedures as the pre-test.

3.5 Data Analysis

Data analysis needs careful thinking because data analysis is aimed at organizing the data. It makes the readers able to understand the result of the research. Data analysis is the process of organizing the data in order to gain the regularity of the pattern and form of the research. Data analysis is done to create understanding for the data after following certain procedure final of result of the students can be presented by the researcher to the readers (Setiyadi, 2006).

After collecting the data that was students' recording utterance in performing the activity, students' opinion about role play, the data were analyzed by referring the speaking score based on aspects of speaking.

Scoring for pretest – posttest was tabulating the result of the test and calculating the mean of the pretest and the posttest. Repeated Measure T – test used to draw the conclusion. The data computed through SPSS version 17. The hypothesis analyzed at the significance level of 0.05 in which hypothesis will approve if sig $<\alpha$.

Evaluating the Students' Speaking

The researcher used inter-rater to give score of students' performance. The rater gave the students' score by listening to the record. The raters were the researcher himself and the English teacher in school. The record helped the rater to evaluate more objectively. The test of speaking was measured based on two principles: reliability and validity.

1. **Reliability**

Inter-Rater Reliability

Nitko (1983: 395) states that a reliable measure in one that provides consistent and stable indication of the characteristic being investigated.

The researcher assumed that reliability referred to extend the test is consistent in score and gave us an indication of how accurate the test score.

The statistical formula for counting the reliability was as follow:

$$\mathbf{R = 1 - \frac{6.(\sum d^2)}{N.(N^2 - 1)}}$$

R = Reliability

N = Number of students

D = Different of tank correlation (mean score from rater1/R1-rater2/R2)

1-6 = Constant number

After find the coefficient between rates, researcher then analyzed the coefficient of reliability with the standard of reliability below:

    a. A very low reliability   range from 0.00 to 0.19

    b. A low reliability   range from 0.20 to 0.39

    c. An average reliability   range from 0.40 to 0.59

    d. A high reliability   range from 0.60 to 0.79

    e. A very high reliability   range from 0.80 to 1.00

The reliability value of this research can be seen as what explained below:

1. a. Reliability of Pretest

$$R = 1 - \frac{6.\sum d^2}{N(N^2 - 1)}$$

$$R = 1 - \frac{6\,(397.8)}{32.\,(1024 - 1)}$$

$$R = 1 - \frac{2386.8}{32736}$$

$$R = 1 - 0.0729105$$

$$R = 0.93 \text{ (Very high reliability)}$$

<u>Note:</u>

    R   = Reliability

    N   = Number of students *(can be seen in appendix 17)

    D   = Different of tank correlation *(can be seen in appendix 17)

    1-6 = Constant number

2. a. Reliability of Posttest

$$R = 1 - \frac{6.\sum d^2}{N(N^2 - 1)}$$

$$R = 1 - \frac{6\,(2101.75)}{32.\,(1024 - 1)}$$

$$R = 1 - \frac{12610.5}{32736}$$

$$R = 1 - 0.38522$$

$$R = 0.62 \text{ (High Reliability)}$$

Note:

      R   = Reliability

      N   = Number of students *(can be seen in appendix 18)*

      D   = Different of tank correlation *(can be seen in appendix 18)*

      1-6 = Constant number

2. Validity

Hatch and Farhady (1982:250) defined validity as "the extent to which the result of the procedure serves the uses for which they were intended".

Content validity, the test is a good reflection of what is thinking and the knowledge which the students to know. Based on that quotation, validity refers to the extent

which the test measures what it is intend to measure. This means that relates to the purpose of the test. The test measured based on the indicator.

3.6   Scores

In evaluating the students' speaking scores, the researcher, used the Oral English Rating sheet proposed by Harris (1974: 84). Based on the Oral English Rating sheet, there are five components that were going to be tested to the students, namely: pronunciation, fluency, grammar, vocabulary and comprehension.

Here is the sample of the Oral rating sheet:

Pronunciation

- 5 Has few traces of foreign accent
- 4 Always intelligible though one is conscious of a definite accent
- 3 Pronunciation problems necessitate concentrated listening and occasionally lead to misunderstanding
- 2 Very hard to understand because of pronunciation problems. Student Must frequently asked to repeat.
- 1 Pronunciation problems so severe as to make speech virtually unintelligible
-

Grammar

- 5 Makes few (if any) noticeable errors of grammar or word order.
- 4 Occasionally makes grammatical and /or word order errors which do not, however, obscure meaning.
- 3 Makes frequent errors of grammar and word order which obscure meaning.
- 2 Grammar and word orders make comprehension difficult. Must often rephrase sentences and / or restrict him basic pattern.
- 1 Errors in grammar and word order so severe as to make speech virtually unintelligible.
-

Vocabulary

- 5 Uses of vocabulary and idioms are virtually that of a native speaker.
- 4 Sometimes uses inappropriate terms and/or must rephrase ideas because of lexical inadequacies.
- 3 Frequently use the wrong words: conversation somewhat limited because of inadequate vocabulary.
- 2 Misuses of words and very limited vocabulary make comprehension quite difficult.
- 1 Vocabulary limitation so extreme as to make conversation virtually impossible.

Fluency

- 5 Speech as fluent and effortless as that of a native speaker.
- 4 Speed of speech seems to be slightly affected by language problems.
- 3 Speed and fluency are rather strongly affected by language problems.
- 2 Usually hesitant, often forced into silence by language problems.
- 1 Speech as so halting and fragmentary as to make conversation virtually impossible.

Comprehensible

- 5 Appears to understand everything without difficulty
- 4 Understands nearly everything at normal speed although occasional repetition may be necessary.
- 3 Understand most of what is said at lower than normal speed with repetitions.
- 2 Has great difficulty following what is said. Can comprehend only "social conversation" spoken with frequent repetition.
- 1 Cannot be said to understand even simple conversation of English.

In this case, the researcher made an equation of making students' oral tests. The score if each was multiplied by four, so, the highest score would be 100. For example, the score of students' grammar is four. The researcher multiplies four by four, so, the score of students' grammar is 16.

Here is the identification of the scores:

If a student gets 5, so 5 X 4 = 20

If a student gets 4, so 4 X 4 = 16

If a student gets 3, so 3 X 4 = 12

If a student gets 2, so 2 X 4 = 8

If a student gets 1, so 1 X 4 = 4

For example: A student gets 4 in grammar, 4 in vocabulary, 3 in fluency , 2 in comprehension and 2 in pronunciation. So, the student's total score will be:

Grammar	4 X 4 = 16
Vocabulary	4 X 4 = 16
Fluency	3 X 4 = 12
Comprehension	2 X 4 = 8
Pronunciation	2 X 4 = 8
	Total = 60

It means he/she gets 60 in speaking.

The score of speaking based on the five components can be compared in the percentage as follows:

Grammar	20%
Vocabulary	20%
Fluency	20%
Comprehension	20%
Pronunciation	20%
	Total = 100

Table 3.1 Table of Rating Sheet Score

S's Codes	Pron. (1-20)	Fluen. (1-20)	Gram. (1-20)	Voc. (1-20)	Compr. (1-20)	Total (1-100)
1.						
2.						
3.						
4.						
5.						

3.7 Hypothesis Testing

After collecting the data, the researcher recorded and analyzed them in order to

Find out whether there was an increasing in students' ability in writing or not after

the treatment. The researcher also testing the second hypothesis by comparing the

increase of the five elements of speaking that were tested in order to find out whether

fluency was the most affected aspect in rising point. The researcher used ***paired T-***

test as the statistical formulae for the first hypothesis.

The formulation is as follows:

$$t = \frac{Md}{\sqrt{\frac{\sum x^2 d}{N(N-1)}}}$$

And

$$\sum x^2 d = \sum d^2 - \frac{(\sum d)^2}{N}$$

Md = mean from the differences pretest and posttest (posttest-pretest)

Xd = deviation of each subject (d – md)

$\sum x^2 d$ = total of quadratic deviation

N = subjects on sample

(Arikunto, 2010: 349-350)

The hypothesis criteria are:

H^0 : 1. Role play cannot improve students' speaking ability in significant improvement.

    2. Fluency is not the most affected aspect in rising point (there is another aspect that has most increase compared the other aspects).

H^0 is accepted if alpha level is higher than 0.05 ($\alpha > 0.05$) and Fluency is not the most affected aspect in rising point (there is another aspect that has most increase compared to fluency and the other aspects).

H^1 : 1. Role play can improve students' speaking ability in significant improvement.

    2. Fluency is the most affected aspect in rising point.

H^1 is accepted if alpha level is lower than 0.05 ($\alpha < 0.05$) and Fluency is the most affected aspect in rising point.

H^2 : 1. Role Play cannot improve students' speaking ability in significant improvement.

2. Fluency is the most affected aspect in rising point

H^2 is accepted if alpha level is higher than 0.05 (α >0.05) and Fluency is the most affected aspect in rising point.

H^3 : 1. Role Play can improve students' speaking ability in significant improvement.

2. Fluency is not the most affected aspect in rising point (there is another aspect that has more increase compared to fluency)

H^3 is accepted if alpha level is lower than 0.05 (α> 0.05) and Fluency is not the most affected aspect in rising point (there is another aspect that has most increase compared to fluency and the other aspects).