

III. RESEARCH METHODS

This research is intended to find out whether Role Play Technique can be used to improve students' speaking ability. This chapter includes the research design, the population and sample, data collecting technique, research procedures, validity and reliability of test, and criteria for evaluating students' speaking ability, data analysis and hypothesis testing.

3.1. Design

The research was a quantitative research. The researcher used experimental design. In this research, the researcher used one class as experimental and it took randomly. So the researcher used the *One-group pretest-posttest design*, in which there was one group (Setiyadi: 2006) in order to find the problem of the students by using role play technique. The class got the treatments from the researcher and also got pretest and posttest. Pretest was given before the treatment was conducted and then post test gave after treatment was conducted. The research design can be presented as follow:

T1 X T2

NOTE : T1 : Pre Test

T2 : Post Test

X : Treatment by using components of Role Play Technique.

(Setiyadi,2006 :133)

In conducting this research, the researcher used inter-rater reliability and computed the average score the oral test of the pre test and post test.

3.2. Population and Sample

The population of this research was the Third Year students of SMAN 6 Bandar Lampung. The researcher used purposive sample in selecting subjects of this research. In purposive sampling the researcher choosed subject based on identification of the problem and justification (Setiyadi: 2006:44). The sample was selected by using random sampling and one class as subject which consists of 36 students in that class. In choosing subject, the researcher looks at the quality of the class so the researcher expected students can help the researcher answer the research questions.

3.3. Data Collecting Technique

In collecting data the researcher uses:

1.Pre Test

In this oral test, the students assigned to practice dialogue concerning topics of expressing admitting, blaming, or offering something. To do this, they might make group in pairs and then the conversation was taken based

on the situation available. Every group performed in front of the class and gave maximal time 5 minutes for each group. The researcher recorded their conversation.

2. Post Test

In this oral test, the students are assigned to practice dialogue concerning topics. To do this, the researcher made the lottery for their post test performance. The lottery was made about the role and situation. The lottery was taken randomly and then they might take the conversation based on the role and situation in the lottery. And then, the conversation recorded by the researcher.

3.4. Research Procedures

In collecting the data, the researcher will use the following steps :

1. Selecting speaking material

In selecting speaking material the researcher used the syllabus at Third Grade of SMAN 6 Bandar Lampung on KTSP which was the curriculum used by the school. The topics chosen were “*Promising something, Apologizing, Giving Opinion*” in the form of dialogue.

2. Determining the Instrument of the Research

The instrument of the research was speaking test. The researcher conducted the speaking test for pre test and post test. These tests aimed

at gaining the data that was the students' speaking achievement score before the treatment and after the treatment in performing short dialogue.

3. Determining the population and sample

The population of the research was the students of SMAN 6 Bandar Lampung. The samples would be the first grade students, there were around 30-40 students. They were multi-culture and different social economic status. The class was taken one class as sample randomly.

4. Conducting Pre Test

Pre test was given before the researcher applied the treatments. The test is speaking test in the form of dialogue. The material tested was in the form of dialogue and based on KTSP. Pretest was administered to find out how far the competence of the students in speaking skill before treatment.

5. Giving Treatment

The researcher presented the material for treatment through applying Role Play Technique. There were three times treatments in this research. Each treatment would be held for 80 minutes.

6. Conducting Post Test

The researcher administered the post test after treatment, which last 80 minutes. It aimed to know the progress of students' speaking achievement after being given the treatment by using the components of

Role Play Technique. In conducting the post test the researcher provided some topics and let them made a short dialogue in pair based on the topics provided. The test would be done orally and directly. The teacher called each pair one by one in front of the class to perform their dialogue. The researcher asked the students to speak clearly since their voice was recorded during the test.

3.5 Criteria of Good Test

The test can be said have a good quality if it has a good validity and reliability.

1. Validity

Validity refers to the extent to which the test measured what was intended to measure. This means that it related directly to the purpose of the test. According to the Hatch and Farhady (1982;281) there two basic types of validity; content validity and construct validity. The validity of the pretest and posttest in this research related to the content validity and construct validity of the test.

Content validity was the extent to which a test measures a representative sample of the subject meter content, the focus of content validity was adequacy of the sample and simply on the appearance of the test (Hatch and Farhady, 1982).

Construct validity was concerned on whether the test was actually in line with the theory of what it means to the language. It means that the test measured certain based on the indicator.

The researcher combined both of those validities above to find out the valid test. The researcher processed the speaking test based on the KTSP curriculum. She checked the standard competence and also the indicator to achieve the valid test which was qualify. Then the researcher adapted those kinds of validity and used the indicator to created the speaking test. We could see that by applying the curriculum, standard competence and also the indicators, the researcher proved the test can be measured and it was valid.

2. Reliability

Reliability is another essential characteristic of a good test. Reliability of a test can be defined as the extent to which a test produces consistent result when administered under similar conditions (Hatch and Farhady, 1982;243). And the reliability of language test was concerned with the degree to which it can be trusted to produce the same result upon repeated administration to the same value of a learning variable being measured.

Reliability of the pre and post test were examined by using statistical measurement proposed by Shohamy (1985;213).

The statistical formula is:

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

Notes:

R : Reliability

N : Number of the students

d : The difference of the rank correlation

1-6 : Constant number

The Standard of Reliability

A. a very low reliability ranges from 0.00 to 0.19

B. a low reliability ranges from 0.20 to 0.39

C. an average reliability ranges from 0.40 to 0.59

D. a high reliability ranges from 0.60 to 0.79

E. a very high reliability ranges from 0.80 to 1.00

Slameto (1998: 147)

The researcher used inter-rater reliability in this research as purpose to ensure the realibility of scores and to attend the subjectivity of the research. According to

Ercan (2008), Inter-rater reliability was designed to observe the consistency in locating landmarks of the same or different rater replication on two three dimensional forms. Based on the Stemler (2007), Inter-rater reliability that was uniformly agreed upon in the statistical literature, there were generally two meanings associated with the term. It used when scores of their test are independently estimated by two or more judges or raters. It means there was another person who gave score besides the writer herself.

After calculating the data, the result of the reliability can be seen as the following table :

3.1. Table of Reliability Result

	Pre-Test	Post-Test	Criteria
Reliability	0.90	0.99	Very High Reliability

From calculating and see the result of computation by using Shohamy's formula showed that reliability of Pretest was 0.90 (see **appendix 17**) and the reliability of Posttest was 0.99 (see **appendix 18**). After seeing the reliability of Posttest, it showed the reliability was 0.99 and it means that the criteria of reliability belongs to very high level. After seeing the result of reliability pretest and posttest, it indicated that the data collecting instrument was reliable.

In this research, components of speaking that were observed while using role play in the teaching speaking process were pronunciation, fluency, and comprehension. According to Heaton (1978:99), there are some criteria for analyzing oral ability as follow :

3.1. Table of Speaking Rating Scale

Score	Pronunciation	Fluency	Comprehensibility
80-89	Pronunciation is only very slightly influenced by the mother tongue. Two or three minor grammatical and lexical errors.	Speaks without too great an effort with a fairly wide range of expression . Searches for words occasionally but only one or two unnatural pauses.	Easy for the listener to understand the speaker intention and general meaning. Very few interruption or classification required.
70-79	Pronunciation is slightly influenced by the mother tongue. A few minor grammatical and lexical errors but most utterances are correct.	Has to make an effort at times to search for words. Nevertheless, smooth delivery on the whole and only a few unnatural.	The speaker's intention and general meaning are fairly clear. A few interruption by the listener for the sake of.
60-69	Pronunciation is still moderately influenced by the mother tongue but no serious phonological errors. A few grammatical and lexical errors but only one or two major errors causing confusion.	Although he has no make an effort and search for the words, there are not too many unnatural pauses. Fairly smooth delivery mostly. Occasionally fragmentary but succeeds in conveying the general meaning. Fair range of expression.	Most of what the speakers says is easy to follow. His intention is always clear but several interruption are necessary to help him to convey the message or to seek clarification.
50-59	Pronunciation is influenced by the mother tongue but only a few serious phonological errors. Several grammatical and lexical errors, some of which cause confusion.	Has to make an effort for much of the time. Often has to search for the desired meaning. Rather halting delivery and fragmentary. Range of expression often limited.	The listener can understand a lot of what is said, but he must constantly seek clarification. Cannot understand many of the speaker's more complex or longer sentences.
40-49	Pronunciation seriously influenced by the mother tongue which errors causing a breakdown in communication. Many 'basic' grammatical and lexical errors.	Long pauses while he searches for the desired meaning. Frequently fragmentary and halting deliver. Almost gives up making the effort at times. Limited range of expression.	Only small bits (usually short sentences and phrases) can be understood and then with considerable effort by someone who is used to listening to the speaker.

30-39	Serious pronunciation errors as well as many 'basic' grammatical and lexical errors. No evidence of having mastered any of the language skills and areas practiced in the course.	Full of long and unnatural pauses. Very halting and fragmentary delivery. At times gives up making the effort. Very limited range of expression.	Hardly anything of what is said can be understood. Even when the listener makes a great effort or interrupts, the speaker is unable to clarify anything he seems to have said.

After finding and also doing the speaking test, the researcher analyzed and found that the speaking test was reliable. It seem from the consistently and the similarity of the result between two raters. The first rater is the researcher and the second rater is the English teacher of XII IPA 2. Both of them found that there was the speaking improvement by using role play as the technique. There was a little differences score between two raters. It can be seen from the total score of Pretest from Rater 1 was 2514 and Rater 2 was 2590. After Pretest, the researcher administered Posttest and the total score from Rater 1 was 2683 and Rater 2 was 2700. In the end the researcher found there were the increasing of reliability coefficient pretest and posttest. It was from 0.90 to 0.99. It was a very high reliability. Those proved that the speaking test was reliable.

3.6. Analyzing the Data

To analysis the data, the researcher comparing the average score (mean) of the pretest and posttest to know whether there is an improvement teaching speaking English through Role Play.

$$\bar{x} = \frac{\sum x}{N}$$

Where:

\bar{x} : mean

$\sum x$: total score

N: number of students

In getting the data, the researcher used the instrument. The instrument was speaking test.

- **Speaking Test**

The researcher used speaking test for collecting data. The instrument will be used for pretest and posttest. Pretest will be administered before the treatment in order to identify how far the students' achievement in speaking. And posttest will be administered after presenting the treatment in order to identify the improvement of students' speaking achievement. The items of pretest and posttest are different.

3.7. Data Analysis

In order to know whether there was an improvement of role play technique, the researcher examined the students' score using these following steps:

1. Scoring the pretest and posttest.
2. After getting the raw score, the researcher tabulated the results of the test and the score of the pretest and posttest were calculated. Then the researcher used SPSS to calculate mean of pretest and posttest to see

whether there was an influence or not after the students are taught using Role Play Technique.

3. The tabulated result of the pretest and posttest were known by drawing the conclusion. Researcher used statistical computerization in example repeated measures T-test of Statistical Package for Social Sciences (SPSS) for windows version 15 to test whether there is an influence or not.

3.8. Hypothesis Test

The hypothesis testing was used to prove whether the hypothesis proposes in this research is accepted or not. The hypotheses were analyzed by using repeated measures T-test of Statistical Package for Social Sciences (SPSS) for windows. The hypothesis was formulated as follows:

H_0 : There's no significant improvement of students' speaking ability after being taught using Role Play at SMAN 6 Bandar Lampung.

H_1 : There's the significant improvement of students' speaking ability after being taught using Role Play at SMAN 6 Bandar Lampung.

H_0 : The most increasing aspect of students' speaking ability through Role Play technique is vocabulary.

H_2 : The most increasing aspect of students' speaking ability through Role Play technique is fluency.

This chapter has discussed about the method of the research which consist of research design, subject of the research, research procedure, criteria of good test, instrument, analyzing the data, data analysis, and hypothesis test.