

III. RESEARCH METHOD

This research intended to find out whether Role Play technique can be used to improve students' speaking ability or not. This chapter includes the research design, the population and sample, data collecting technique step in collecting data, validity of the test, reliability of the test and hypotheses testing.

3.1 Research Design

This quantitative research which used one group pretest-posttest design (Hatch and Farhady, 1982:20). Hatch and Farhady stated that this design was an improvement over the one-shot case study because you have measured the gains that the subjects have made rather than just looking at how well everyone did at the end. The researcher chose this design to find out whether if there is the improvement of students' speaking ability after being taught through role play technique at the first grade of SMPN 9 Bandar Lampung. There was one class as the sample of the research. The research design is as follows:

TI X T2

Notes: T1 : Pre-test
T2 : Post-test
X : Treatment by using Role Play technique

(Hatch and Farhady, 1982: 24)

3.2 Population and Sample

The population of this research was the first grade of SMAN 9 Bandar Lampung. There were 10 classes of first grade in this school. Those classes were classified into MIA class and Social class. There were 6 MIA classes and 4 Sosial classes. Their ages range from 16-17 years old.

From the population above, there would be one class as the experimental class that would get treatments (teaching speaking through Role Play Technique) and it was MIA 3. This class consisted of 36 students. In determining that sample, the researcher used Random Sampling Technique.

3.3 Data Collecting Technique

In collecting the data, the researcher used:

1. Pre-test

The researcher administered pre-test before treatment. It was aimed at knowing the students' speaking ability before being given the treatment using Role Play Technique. In administering the pre-test, the researcher chose the topic for the students. Then, the students had a discussion group consisting of 2 students. They had to prepare a dialogue. There are five aspects that were scored, namely: pronunciation, grammar, vocabulary, fluency, and comprehension. Pre-test was similar to the posttest. The researcher recorded the oral test by using voice recording.

2. Treatment

This was done after pre-test to teach the students through Role Play Technique. There were three times of treatments.

3. Posttest

The researcher administered posttest after the treatments. It was aimed at seeing the difference of students' speaking skill after they have taught by using Role Play Technique in speaking class. Posttest was similar to pre-test. In administering posttest, the researcher chose one topic for the students. Then, the students had a discussion group consisting of 2 students. They had to prepare a dialogue before the researcher started scoring their performance. During the test, researcher recorded by using voice recording.

4. Recording

The researcher recorded the students' speaking ability during pre-test and posttest by using audio recorder as recording tool.

3.4 Validity of the Test

Validity helps to ensure that a test is in accordance with certain professional standards to measure what it is supposed to measure. In other words, it tells us how much a test measures what it is supposed to be measured. There are kinds of test validity: content validity, construct validity, and face validity.

Construct validity is the degree to which a test measures what it claims, or purports, to be measuring Brown, J. D. (1996).

Content validity is a non-statistical type of validity that involves "the systematic examination of the test content to determine whether it covers a representative sample of the behavior domain to be measured" (Anastasi & Urbina, 1997: 14).

Face validity is the extent to which a test is subjectively viewed as covering the concept it purports to measure. It refers to the transparency or relevance of a test as it appears to test participants (Holden, 2010: 637).

In this research the researcher used content validity and construct validity. Content validity was concerned with whether or not the content of the test was sufficiently representative and comprehensive for the test to be valid measure it was supposed to measure. In content validity, the materials gave by the curriculum used. In this case, the researcher gave role card that supposed to comprehend by the second year students of senior high school. To get the content validity of speaking test, the researcher tried to arrange the materials based on the objective of teaching in syllabus for second grade of senior high school. Construct validity focuses on the kind of the test that is used to measure the students' ability.

This research was valid, because it measure what it has to measure.

3.5 Reliability of the Test

Reliability of the test is consistency which a test yields the same result in measuring whatever it does measure. So, a test cannot measure anything well unless it measures consistently (Haris,1974: 14). Reliability of the speaking test is

examined by using statistical measurement proposed by Shohamy (1988: 213) in Hayanti (2010: 39)

The statistical formula is:

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

Notes:

R : Reliability

N : Number of the students

d : The difference of the rank correlation

1-6 : Constant number

After finding the coefficient between raters, researcher then analyzed the criteria.

There are five criteria according to Hatch and Farhady (1982: 247). They are:

A very low reliability ranges from 0.00 to 0.19

A low reliability ranges from 0.20 to 0.39

An average reliability ranges from 0.40 to 0.59

A high reliability ranges from 0.60 to 0.79

A very high reliability ranges from 0.80 to 1.00

(Slameto, 1998: 147)

Reliability of Pre-test

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

$$R = 1 - \frac{6 \cdot (2043)}{36 \cdot (1296 - 1)}$$

$$R = 1 - \frac{12258}{46.620}$$

$$R = 1 - 0.2629343$$

$$R = 0.74 \text{ (high reliability)}$$

Reliability of Posttest

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

$$R = 1 - \frac{6 \cdot (4230.5)}{36 \cdot (1296 - 1)}$$

$$R = 1 - \frac{25383}{46.620}$$

$$R = 1 - 0.5444658$$

$$R = 0.46 \text{ (average reliability)}$$

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, namely: pronunciation, fluency, grammar, vocabulary and comprehension.

Here is the sample of the Oral rating sheet:

Pronunciation

- 5 Easy to understand and has a native speaker accents
- 4 Easy to understand though with a certain accent
- 3 there are problems that make the listener must full attention and sometimes there is a misunderstanding
- 2 Difficult to understand because there is a problem in pronunciation, often asked to repeat
- 1 having serious pronunciation problems that cannot be understood

Grammar

- 5 making few (if any) noticeable errors of grammar or word order
- 4 occasionally makes grammatical and word order errors which do not, however, obscure meaning.
- 3 making 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 the uses of vocabulary and idioms are virtually that of a native speaker.
- 4 sometimes use inappropriate terms and or/ must rephrase ideas because of lexical inadequacies.

- 3 frequently use the wrong word: conversation somewhat limited because of inadequate vocabulary.
- 2 misuses of word and very limited vocabulary make comprehension quite difficult.
- 1 vocabulary limitation so extreme as to make conversation virtually impossible.

Fluency

- 5 speeches 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 appear to understand everything without difficulty.
- 4 understand nearly everything at normal speed although occasional repetition may be necessary.
- 3 understand most of what they said at lower than normal speed with repetitions.
- 2 having a great difficulty following what they said. Only comprehend “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. Each score was multiplied by four, so the total score is 100. Here is the identification score of students' speaking ability:

If a student gets 5, so $5 \times 4 = 20$

If a student gets 4, so $4 \times 4 = 16$

If a student gets 3, so $3 \times 4 = 12$

If a student gets 2, so $2 \times 4 = 8$

If a student gets 1, so $1 \times 4 = 4$

For example: A student got 4 in grammar, 4 in vocabulary, 3 in fluency, 2 in comprehension and 2 in pronunciation.

Grammar $4 \times 4 = 16$

Vocabulary $4 \times 4 = 16$

Fluency $3 \times 4 = 12$

Comprehension $2 \times 4 = 8$

Pronunciation $2 \times 4 = 8$

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%

4.								
5.								

3.8 Hypothesis Testing

The hypothesis testing was used to prove whether the hypothesis proposed in this research was accepted or not. The hypothesis was analyzed by using Repeated Measures T-test of Statistical Package for Social Sciences (SPSS) windows version 15. The writer used the level of significance 0.05 in which the hypothesis is approved if $\text{sign} < p$. It means that the probability of error in the hypothesis is only 5%.

H_0 : There is no improvement in students' speaking ability after being taught through Role Play Technique.

H_1 : There is an improvement in students' speaking ability after being taught through Role Play Technique.

The criteria for accepting the hypothesis are as follows:

If $P < 0,05$ H_1 is accepted

If $P > 0,05$ H_0 is accepted

The researcher used SPSS to calculate the result whether it was significant or not based on the hypothesis.