

3. METHOD

This chapter discusses the methods used in this study, those are: design, population and sample, procedures, data collecting technique, validity, reliability, scoring system, data analysis, and hypothesis testing.

3.1. Design

This research was a quantitative study which used *one group pretest-posttest design*. The researcher used one experimental class. The researcher has interest to investigate whether there is improvement of micro skill components of listening achievement after being taught through song technique or not. The researcher conducted the pre-test, the treatments, and the post-test. The research design can be represented as follows:

T1 X T2

T1 : pre-test

T2 : post-test

X : Treatment

(Hatch and Farhady, 1982:20)

The researcher used one class as the experimental group which was selected by using simple probability sampling.

3.2. Population and Sample

Population was the whole subject of the research (Arikunto, 2002). The population in this research was all the first grade students of SMP Muhammadiyah 5 Bandar Lampung. By considering that each class has similar characteristics, the researcher selected the sample by using normality technique. It was applied based on the consideration that every student in population has same chance to be chosen in order to avoid the subjectivity in the research (Setiyadi,2006:39). Two classes are used, one as the try out class and the other as the experimental class.

3.3. Procedures

In collecting the data, the researcher used the following procedures to get the result of the research:

1. Administering the try out test

The try out test was given to the students in order to know the quality of the test which was used as the instrument of the research. It was administered to find out the test before it was used, whether the items were good or not in validity, reliability, level of difficulty, and the discrimination power.

2. Administering pretest

Pretest was given to know how far the competence of the students in listening skills before the treatment. There were 28 items of multiple choice. It was conducted for 90 minutes.

3. Conducting the treatment

After the pretest, the researcher conducted the treatment for three meetings, which took 90 minutes for every meeting. The researcher taught listening

skills that focused on micro skills by using song as the technique to the students' in experimental class.

4. Administering the posttest

The posttest was given to evaluate the students' listening skills achievement after the treatments.

5. Administering the questionnaire

The questionnaire was given to know the students' perception towards the use of song in teaching micro skills of listening in teaching learning process.

6. Analyzing the data

Both pretest and posttest result were analyzed by using *Repeated Measures t-test* to compare the data of two means of score (Hatch and Farhady, 1982:108). The researcher analyzed the improvement by comparing the scores of pretest and posttest from the experimental class.

7. Concluding and reporting the result of the data analysis

After analyzing the result of both pretest and posttest, the researcher drew the conclusion and reported in the script including suggestion from the researcher.

3.4. Data Collecting Technique

3.4.1. Try out

The instrument in this research was listening test. The researcher conducted the listening test for the pretest and posttest, this test was aimed to gain the data. The data was students' listening skills score before and after the treatment. To know whether the test is good or not, some criteria should be considered. The criteria of

good test are: validity (content and construct), reliability, level of difficulty and discrimination power.

3.4.2. Pretest

The pretest was given before the treatment. The purpose of this test is to know the students' ability in mastering micro skills of listening before the treatment.

3.4.3. Posttest

The posttest was given after the treatment. The purpose of this test is to know the students' improvement in mastering micro skills of listening after the treatment.

3.4.4. Questionnaire

Questionnaires are a list of statements or questions that must be answered by the learners based on their feeling and thought. The researcher gave the questionnaire to the students in order to find out the students' perception towards the use of songs in teaching micro skills of listening in teaching learning process. The researcher distributed the questionnaire to all of the students in the class that researcher used as the samples. The questions were concerned with the students' perception of the use of song to teach micro skills of listening. The researcher used *Cronbachs alpha* to examine the reliability of the questionnaire.

3.5. Validity

The test can be considered valid when it measures the object to be measured (Setiyadi, 2006). In the research of teaching foreign language there are five types of validity; face validity, content validity, predictive validity, construct validity, and concurrent validity. However, the researcher used content validity and

construct validity in this research because the researcher assumed that these validity was enough to examine the test.

3.5.1. Content Validity

Content validity concerns with whether the test score is actually in line with the theory of what it means language that is being measured, it would be examined whether questions in the test actually reflect what it means to know a language. In this research, the researcher focused on micro skills of listening in the form of listening test. In other words, the researcher wrote and made the test based on the material in the English curriculum for Junior High School.

3.5.2 Construct Validity

Construct validity measures whether the construction has referred to the theory. It means that the test construction has already in line with the objective of the learning (Hatch and Farhady, 1982:251) cited in Novianti (2012). The listening test was implemented based on the theories of micro skills of listening by Richard (1983).

In order to fulfill the criteria of construct validity, the table of specification of listening aspect which was modified from the theory proposed by Richard (1983), the test instrument can be seen below:

Table 1. Specification of Micro Skill in each Pre-test and Post-test

No	Objective	Total Question	Percentage
1.	Discrimination among sounds	9	32%
2.	Recognition of vocabularies	5	18%
3.	Detecting keywords	5	18%
4.	Recognition of grammatical structure	9	32%
	Total	28	100%

3.6. Reliability

Reliability of test can be defined as the extent to which a test produces consistent result when administrated under similar conditions (Hatch and Farhady, 1982:243). In order to estimate the reliability of the test, this research used split-half technique. In measuring the reliability of this test, the researcher used the coefficient of the reliability between odd and even number of the test. Thus, the researcher used the *Spearman Brown Formula* which was formulated below:

$$R_x = \frac{N \Sigma XY - (\Sigma X)(\Sigma Y)}{\sqrt{(N \Sigma X^2 - (\Sigma X)^2)(N \Sigma Y^2 - (\Sigma Y)^2)}}$$

Note:

R: coefficient of reliability between odd and even numbers

N: number of the students

X: square of x

Y: square of y

ΣX : total score of odd number

ΣY : total score of even number

The criteria of reliability are:

0.80-1.00= very high

0.60-0.79= high

0.40-0.59= average

0.20-0.39= low

0.00-0.19= very low

(Hatch and Farhady, 1982:198)

Then, the research used *Spearman Brown's Prophecy Formula* to know the coefficient correlation of whole time.

3.7. Scoring System

The researcher scored the students' result of the test in order to get the data. The researcher used listening test and the students should answer the questions related

to the song that teacher gave to them. The researcher used the following formula in scoring the tests:

$$S = \frac{R}{N} \times 100\%$$

Notes:

S: score of the test

R: right answer

N: number of the text

(Arikunto, 1993:240)

3.8. Data Analysis

After collecting data from the pretest and the posttest, the researcher analyzed the data to know whether there is improvement of the students' micro skills of listening achievement after being taught through song technique. The researcher used three steps to examine the data:

- a. Scoring the pre-test and post-test.
- b. Tabulating the result of the pretest and posttest and finding the mean of the pre-test and post-test. It is calculated by applying:

$$M = \frac{\sum X}{N}$$

Notes:

M = mean (average of score)

X = students score

N = total number of students

(Arikunto, 1997:68)

- c. Drawing conclusion from tabulated results of the pre-test and post-test that were analyzed by using SPSS (Statistical Program for Social Sciences) in order to test the aspects that improve the highest.

d. Analyzing the data using the t-test.

The researcher analyzed the result of the pretest and posttest using *Repeated Measures t-test* to compare the data (Hatch and Farhady, 1982:108). The researcher analyzed the improvement by comparing the scores of the pretest and posttest from the experimental class.

3.9. Hypothesis Testing

The researcher used SPSS 16.00. Then, the t-test was chosen to prove whether the hypothesis proposed by the researcher was accepted or not. The researcher used *Paired Sample T-test* to know the significant influence of the treatments by comparing the mean of the pretest and the posttest in which the significance was determined by $p < 0.05$. Therefore, the hypothesis which can be cited are as follows:

The criteria are:

- H_0 (null hypothesis) is accepted if the t-ratio is lower than the t-table ($t\text{-ratio} < t\text{-table}$). It means that there is no significant improvement of students' micro skills of listening in discrimination among sounds aspect after being taught through songs.
- H_1 (alternative hypothesis) is accepted if the t-ratio is higher than the t-table ($t\text{-ratio} > t\text{-table}$). It means that there is a significant improvement of students' micro skills of listening in discrimination among sounds aspect after being taught through songs.
- H_0 (null hypothesis) is accepted if the t-ratio is lower than the t-table ($t\text{-ratio} < t\text{-table}$). It means that there is no significant improvement of students'

micro skills of listening in recognition of grammatical structure aspect after being taught through songs.

- H_{12} (alternative hypothesis) is accepted if the t-ratio is higher than the t-table ($t\text{-ratio} > t\text{-table}$). It means that there is a significant improvement of students' micro skills of listening in recognition of grammatical structure aspect after being taught through songs.
- H_{03} (null hypothesis) is accepted if the t-ratio is lower than the t-table ($t\text{-ratio} < t\text{-table}$). It means that there is no significant improvement of students' micro skills of listening in recognition of vocabularies aspect after being taught through songs.
- H_{13} (alternative hypothesis) is accepted if the t-ratio is higher than the t-table ($t\text{-ratio} > t\text{-table}$). It means that there is a significant improvement of students' micro skills of listening in recognition of vocabularies aspect after being taught through songs.
- H_{04} (null hypothesis) is accepted if the t-ratio is lower than the t-table ($t\text{-ratio} < t\text{-table}$). It means that there is no significant improvement of students' micro skills of listening in detecting keywords aspect after being taught through songs.
- H_{14} (alternative hypothesis) is accepted if the t-ratio is higher than the t-table ($t\text{-ratio} > t\text{-table}$). It means that there is significant improvement of students' micro skills of listening in detecting keywords aspect after being taught through songs.