III. RESEARCH METHODS

This chapter describes the design of the research, how to collect the data from the subject of the research and how to analyze the data. This chapter also describes research procedure, schedule of the research, validity and reliability of the test instrument, data treatment and hypothesis testing.

3.1 Research Design

This research was a quantitative study, using one group pre-test-post-test design. The writer used one experimental class. The writer was interested in investigating whether there was a significant increase of students listening ability after being taught using English song. The researcher conducted pre-test, treatments and post-test. The design was presented as follows:
Where:

T1 X T2

T1 = Pre-test

X = Treatments

T2 = Post-test

(Hatch and Farhady, 1982:20)

In this research, the writer administered a pre-test to investigate students' ability in listening ability before conducting the teaching. After that, the writer gave the students three times

treatments by using English song. Eventually, the writer conducted the pre-test and post-test to know the students listening ability after being taught using English song. Schedule of the research could be seen Appendix 1. The writer came to know that there was a significant increase of students listening ability after being taught English song or not, by comparing the average score of the pre-test with the average score of the post-test. If the average score of the pre-test as higher than the average score of the post-test, it means that there was no significant increase in students' listening ability after taught using English song. However, if the average score of the post-test was higher than the average score of the pre-test, it means that there was significant increase in students' listening ability after taught using English song.

3.2 Population and Sample

The population of this research was all classes at the eighth grade of SMP YBL Natar. The writer selected the sample by using normality technique. It was applied based on the consideration that every class in the population had the same chance to be chosen and in order to avoid the subjectivity in the research (Setiyadi, 2006:39). The writer used one class, one as try out class and the experimental class too.

3.3 Data

The writer aims to gain the data of:

The students listening ability score before the treatments (pre-test) and after the treatments (post-test) to see whether there was significant increase of students listening ability after being taught using English song.

3.4 Data Collecting Technique

In collecting the data, this research used test as the instrument. There are two

Kind of test that are pre-test and post-test:

3.4.1 Pre-test

Pre-test was used to know the students listening ability score before treatment.

3.4.2 Post-test

Post-test was used to know the improvement of students' listening ability after treatment. The test format was based on the 2006 of Junior High School Curriculum for The Eighth Grade student. Each test was objective test and the test was multiple choice and true-false tests.

3.5 Procedure in Collecting the Data

In order to collect the data, the researcher used the following steps:

3.5.1 Selecting Instruments Materials.

The instrument materials were taken from the students' books (Junior High School's English book) and internet. The selecting process considers materials that will be teach to the students and the students' interest.

3.5.2 Determining Research Instrument

Determining research is macro skill of listening and ability listening to obtain general idea of the song and specific information for lower level listening; therefore, the test would be listening comprehension test to measure the student's ability in listening. The test held was pre-test and post-test.

3.5.3 Determining the population and sample of the research

The population of the research is all students at the eighth grade of SMP YBL Natar. In addition, the sample is selecting by using normality technique. The writer used one class, VIII A that consists of 24 students, as try out class and experimental class.

3.5.4 Administering try out

The try out was used to know the quality of the test to take the data and to determine which item should omit for the pre-test and post-test. In this try out the researcher was administered the try out test in order to measure the level of difficulty (LD) and discrimination power

(DP), to find the reliability and the validity of the test. The test item was objective test. It was given in class out of the experimental. It was administered 40 items in 90 minutes.

3.5.5 Conducting the pre-test.

This test was aimed to know students' former ability in listening before they are being taught using English song. The test used by the research was an objective test in form of multiple choices of 5 items and True-False question 5 items,pronountion 5 items,vocabulary 5 items in 90 minutes time with four alternative answers for each (A, B, C, and D), one was the correct answer and the rest were the distracters. The scoring system was that the load of each correct answer was 1 points. Thus, if one participant answered all the items correctly, s/he got 100 points (20X 5).

3.5.6 Giving the treatments

There would be three times treatments in this research. Each treatment was held for 90 minutes.

3.5.7 Conducting the post-test.

The post-test was aimed to know the students increasing after being taught using English song. The test that used by the writer was an objective test in form of multiple choices of 5 items and True-False question 5 items,pronountion 5 items,vocabulary 5 items in 90 minutes time with four alternative answers for each (A, B, C, and D), one was the correct answer and the rest were the distracters. The scoring system was that the load of each correct answer was 1 points. Thus, if one participant answered all the items correctly, s/he got 100 points (20X 5).

3.5.8 Analyzing the Test Result(Pre-test and Post-test)

After conducting pre-test and post-test, the researcher analyzed the data. The data was analyzed by using T-Test. It was used to know whether song is able to improve students listening ability achievements significantly.

3.6 Treatment Procedure

a. Teaching Listening Trough Song

To create a successful teaching listening trough song, there were some steps that was used in teaching listening for the students. The steps of this activity were divided into three phases; include pre-Listening, while-listening and post-listening.

The procedures of teaching Listening Trough Song were as follows:

Pre Activities:

- Preparing the class. The teacher asks some questions about song to the students. It is the way to stimulate students' background of knowledge about song.
- Teacher then ask about a kind of song they like to hear, and why they like to hear the song, and also ask their comment about one of their favorite song and why it is meaning full for them.

While Activities:

- The researcher issues some specific questions and asked them to find the answer from the song.
- The teacher plays a song and asks them to listen carefully.
- The teacher plays the song twice from a tape and asks them to listen again.
- The teacher asks the students opinion about the song, and to find out whether the students have understood or get the specific information of the song they heard or not. By asking them to answer the issues.
- The teacher then distributes the song lyric, and replays the song to know the right answer from the issues.
- The teacher then distributes the song lyrics, and replays the song to know the right answer from the issue.
- The teacher plays the song again and asks the students to sing the song together.

- The teacher asks again the students about their opinion of the song. It is to find out how far the students understand about the song and the message of the song.
- After that the teacher ask the student to tell the message and the story which is happen in the song. To know their comprehension of the song.

Post Activity:

- The teacher ask the students to do some exercise by giving the students 5 multiple choice items and True or False item related to the song.
- After that the teachers check their answer together with them.
- The teacher give them exercise to do at home in order to make them understand and aware about song technique.

3.7 Try out

The try out test used to know the quality of the test in order to take the data. The try out was conducted in the first meeting. This test was administered to know the quality of the test as the instrument of the research. The class that was used for the try out test is the class which is not includes in the experimental class. In order to know the quality of the test this research analyzed four terms, they are, validity, reliability, level of difficulty and the discrimination power of the test.

1. The Validity

Validity of the instrument was considered in this research. The researcher was used content and constructs validity for this research. It was considered that instrument should be valid and in line with listening theory and the material. The validity of the instrument was presented as follows:

a) Content validity refers to the extent to which a test measures a representative sample the subject matter contents, the focus of the content validity is adequacy of the sample and simply on the appearance of the test (Hatch & Farhady, 1982:251). Content validity is

intends to know whether the test items are good reflection of what will be cover. The test items are good reflection of what will be over. The test items adapt from the materials that had been taught to the students.

b) The test should be so construct as to contain a representative sample of the course (Heaton, 1975:160). This research will apply two materials for the treatments. That material is song lyrics. To know whether the test has a good content validity, the items of the test will discuss with the experts (lectures and advisors). Therefore to know the content validity of test, then the researcher used table of specification to judge the validity of the test in order to know whether the test represent the materials that had been discussed. As Greenland (1981: 101) states that table of specification is to illustrate how such a table is used to check on content validity. In selecting the treatment, a table of specification could help us to determine which test was almost relevant to our particular situation and was also necessary to check whether test items had good content validity.

c) Regarding the construct validity, it measures whether the construction has already refers to the theory, meaning that the test construction has already in line with the objective of the learning (Hatch & Farhady, 1982:251). To find the construct validity of the pre-test and post-test, the theory of listening ability in identifying the specific information, determining the main idea, references, inference and vocabulary are formulate the test items.

Table 3.7.1 Table of Specification of Try Out-test

No.	Factor	Item number	Total number	Percentage
1	Grammar	1.,2.,3.,4.,5.,6.,7.,8.,9.,10.	10	20%
2	Prounounciation	11.,12.,13.,14.,15.,16.,17.,18., 19.,20.	10	10%
3	vocabulary	21.,22.,23.,24.,25.,26.,27.,28., 29.,30.	10	30%%
4	Main idea	31.,32.,33.,34.,35.,36.,37.,38., 39.,40.	10	20%
Total			40	100%

2. The reliability

A test is reliable if it is consistent. It means the test is called reliable if the score gained by the examiner is constant whenever and by whomever the test is conducted.

When thinking about the reliability of any test or assessment process, keep the following three points in mind:

1. Reliability refers to the stability or consistency of assessment information, not the appropriateness of the assessment information collected.
2. Reliability is a matter of degree; it does not exist on an all-none basis. It is expressed in terms of degree: high, moderate, or low reliability.
3. Reliability is a necessary, but not sufficient, condition for validity. An assessment that provides inconsistent, atypical results cannot be relied on to provide information useful for decision making.

The spilt-half method was used to find the reliability of listening test by dividing the number of test items into two groups, odd and even (X and Y). Split half reliability is one variety of internal consistency. By using split half method, the researcher could get reliability measurement from once giving form of test. A formula of split half method to measure the reliability coefficient all items of reading test is described as follows:

In which:

$$r_n = \frac{2\, r_{xy}}{1 + r_{x}}$$

r_n = Reliability all items

r_{xy} = Coefficient of reliability between odd and even number

The criteria of coefficient correlation are:

- 0.80 – 1.00 = Very high reliability
- 0.60 – 0.79 = High reliability
- 0.40 – 0.59 = Average reliability

- 0.20 – 0.39 = Low reliability
- 0.00 – 0.19 = Very low reliability

(Hatch and Farhady, 1982:268)

3.8 Level of Difficulty

Level of difficulty is used to look for the level of test that is given to the students.

For seeing the level of difficulty, the researcher used the following formula:

$$LD = \frac{U + L}{N}$$

In which:

LD : Level of Difficulty

U : The proportion of the upper group students

L : The proportion of the lower students

N : The total number of students who following the test

The criteria are:

< 0.30 : difficult

0.30-0.70 : average

> 0.70 : easy

(Shohamy, 1985:79)

3.9 Discrimination Power

Discrimination power is the extent to which the items discriminate between the testers, separating the more able testers from the less able.

For determining discrimination power, the researcher used the following formula:

$$DP = \frac{U - L}{{}^{1}/_{2}\ N}$$

In which:

DP : Discrimination power

U : The proportion of the upper group students

L : The proportion of the lower students

N : The total number of students

The criteria are:

DP: 0.70-1.00 : Excellent

DP: 0.40-0.69 = Good

DP: 0.20-0.39 = Satisfactory

DP: 0.00-0.19 = Poor

DP: - (Negative) = Bad item, should be omitted

(Heaton, 1975:182)

3.10 Instrument of the Research

The instrument of this research was a set of listening ability test that would be used for pre-test and post-test. This pre-test was aimed to know the students' former ability in listening before they are being taught using English song. Then the post-test was aimed to know the students ability in listening after they were taught English song. According to Mikado and Matsumoto in Danahar (1994:4), to improve the reliability of listening ability tests, they suggests to increase the number of question and introducing more multiple-choice items. In line with the statement above, the test that used by the writer was an objective test in form of 1 multiple choices of 10 items and True-False question 10 items,pronountion 10

items,vocabulary 10 items in 90 minutes time with four alternative answers for each (A, B, C, and D), one was the correct answer and the rest were the distracters. The scoring system was that the load of each correct answer was 1 points. Thus, if one participant answered all the items correctly, s/he got 100 points (20X 5).

3.11 Scoring System

The scoring system that was used in this research was driving the right answer by total items times 100. In scoring the students' result of the pre-test and post-test, the formula by Arikunto (1993, 240) was employed:

$$s = \frac{R}{N} \times 100$$

Notes:

S : score of the best

R : the right answers

N : the total item

3.12 Data Analysis

In order to see whether there was a significant increase of the students' mastery of past simple tense, the researcher analyzed the data by:

1. Scoring the pre-test and post-test.
2. Tabulating the results of the tests and calculating the mean of the pre-test and the post-test.
3. Drawing conclusion from the tabulated results of the pre-test and post-test administered, that is by statistically analyzing the data using statistical computerization i. e. repeated measures T-test of SPSS (Statistical Package for Social Science) version 17.0 for windows to see whether or not the difference between pre-

test and post-test was significant, in which the significance was determined by $p < 0.05$. It was used as the data come from the same sample or known as paired data (Hatch and Farhady, 1982:114).

3.13 Data Treatment

According to Setiyadi (2006:168-169), using t-test for hypothesis testing has 3 basic assumption, namely;

- The data is interval or ratio
- The data is taken from random sample in a population
- The data is distributed normally

Therefore, the writer used the following procedures:

1. Random Test

   This was to make sure that the data is random. The writer used SPSS version 17 to help her. The writer used mean as the cut point. The hypothesis is formulated as follows:

   H_0 : The data is random

   H_1 : The data is not random

   In this script, the criterion for the hypothesis is that:

   H is accepted if sign > a. in this case, the writer uses the level of significance 0.05. From the result (see appendix 9), we can see that $p > 0.05$ in all test (pre-test and post-test). It proves that the Ho was accepted and all the data were random.

2. Normality Test

   The writer used normality test to know whether the data is distributed normally or not. The hypothesis is formulated as follows:

   H_o : The data is distributed normally

   H_1 : The data is not distributed normally

In this script, the criterion for the hypothesis is that:

H is accepted if sign > a. in this case, the writer uses the level of significance 0.05. It proves that the Ho was accepted and all the data were distributed normally.

3.14 Hypothesis Testing

The hypothesis that was previously put forward:

Ha : There is significant increase of students listening ability after being taught utilizing English song.

Ho : There is no significant increase of students listening ability after being taught utilizing English song.

Statistical Testing

Repeated measures T- test of SPSS version 17.0

The hypothesis was analyzed by using statistical computerization I. e. repeated measures T-Test of SPSS 17, in which the significance was determined by $p < 0.05$. In other words, H was approved if Sig. < p. S