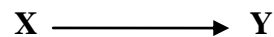


III. RESEARCH METHOD

This chapter concerns with the methodology of the research. It covers research design, participants, data collection and data analysis.

3.1 Research Design

This research is correlational study, the researcher investigated “The Frequency of Listening to English Song and vocabulary achievement”. Thus, two variable employed in this research; participants’ listening frequency and their vocabulary achievement. The design is visualized as follows:



(Hatch and Farhady, 1982)

X : Listening frequency as independent variable

Y : Vocabulary achievement as dependent variable

The design above apply to find the correlation between those variables.

3.2 Population and sample

The population of this research was the second grade of SMP N 3 Bandar Lampung and the researcher chose VIII D for sampling by simple random sampling where the students in the same level.

3.3 Research instruments

In this research, there are two kinds of the instruments will use; questionnaire and participants' vocabulary score.

3.3.1 Questionnaire

A questionnaire is needed to all participants to get information of their frequency of listening to English song and other information. It consists of three types of questions which have relation with this research; close question, open question and mixed-question. There are around thirty questions. To make the participants can understand the question which were written in Bahasa Indonesia.

The first type of question is close question, in this type proposed to identify participants' frequency of listening to English song in a day, the kind of English song which liked to listen, the factors that influenced the participants to achieve the vocabulary. According to Arikunto (2007, p.28) as cited in Angliawati (2011), the close questions arrange to offer the participants all available answers, so they only to choose on of the answers or even more. The second type is open question were aim to identify participants' opinion about the correlation between listening to English song and their vocabulary achievement. The questions are arranged to give the participants a bunch of alternative answers

Table 3.1
Spesification of Frequency Listening

No	Spesification	Item Numbers	Percentage of Items
1.	Listening to English song	1, 2, 3, 4, 5, 13, 14	23.33 %
2.	Type of music genre	6, 7, 8, 9, 10, 11, 12	23.33%
3.	Vocabulary	15, 16, 18, 19,24, 25, 26	23.33%
4.	Interpret the meaning	17, 20, 23, 27	13.34%
5.	Impression	21, 22, 28, 29, 30	16.67%
Total		30	100%

3.3.2 Vocabulary test

To get the real scores, the test in students' vocabulary test used in this research are thirty questions of multiple choice. The vocabulary test administered to find out the students' achievement in the subject to provide data for the Y variable, it is vocabulary achievement. The score from the test to know students' vocabulary achivement.

Table 3.2
The Vocabulary's Spesification of the Real Test

No	Parts of Vocabulary	Item numbers	Percentage of items
1.	Noun	7, 12, 13, 15, 17, 26, 27, 28, 29, 30	33.3%
2.	Verb	2, 4, 6, 11, 19, 20, 21, 25	26.7%
3.	Adjective	8, 9, 16, 22, 23, 24	20%
4.	Adverb	1, 3, 5, 10, 14, 18	20%
Total		30	100%

3.4 Try Out of the Instruments

3.4.1 Try Out of Questionnaire

In this research was not administered the try out of the questionnaire. The researcher just administered try out of vocabulary test.

3.4.2 Try Out of the Vocabulary test

The try out test was conducted on february 14th, 2013. In the try out test, there were 30 students of VII G class and there were 50 test items of vocabulary test. Based on the analysis, there were 20 items were not valid (appendix 5). These items 1, 2, 4, 6, 7, 9, 11, 15, 20, 21, 25, 29, 31, 33, 38, 41, 43, 44, 48, 50 were dropped. There were 30 questions that administered to measuring the students' vocabulary. the reliability analysis of the test was 0.66 (appendix 3), it means that the test was moderate.

3.5 Validity and Reliability

3.5.1 Validity of The Test

The validity of a test shows how far the test measures what supposed to be measured (setiyadi, 2006), in order to measure whether instruments have a good validity or not, the researcher analyze the instruments from content validity and construct validity.

- Content validity is the extent to which a test measures a representative sample of the content (Hatch and Farhady, 1982). In the content validity, the material of the test is appropriate with the curriculum of second grade students and the test has a purpose to measure students' achievement in vocabulary.
- In this research, construct validity use to measure the items of the test in students' vocabulary achievement. Setiyadi (2006), it concerns with the the test, whether the test is actually in line with the theory focuses that is used to measure the ability and it is used to the research which has many indicators ' vocabulary achievement.

3.5.2 Reliability

Reliability is the consistency of the test. In the other words, according to Hatch and Farhady (1982), realibility is the extent to which a test produces consistent results when administered under similar condition. In order to measure the reliability, the researcher will use the product moment correlation, with formula as follows:

$$r_{xy} = \frac{n(\sum xy) - (\sum x)(\sum y)}{\sqrt{\{\sum x^2 - (\sum x)^2\} \{\sum y^2 - (\sum y)^2\}}}$$

Where :

r_{xy} = coefficient reliability between X variables and Y variable (Product Moment Correlation Formula)

n = number of the students

x = total score of odd number

y = total score of even number

x^2 = square of X

y^2 = square of Y

(Arikunto, 2006)

According to Hatch and Farhady in 1982: 246, Spearman Brown's Prophecy

Formula is used to determine the reliability of the full test. The formula is:

$$r^k = \frac{2 \cdot r_{xy}}{1 + r_{xy}}$$

Where :

r^k = the coefficient of reliability of the whole test

x = coefficient of reliability of the test half test (odd number items)

y = coefficient of reliability of the test half test (even number items)

The result of the test can be interpreted based on the table of the criteria below (Ali,1987):

Score	Indication
0.00 – 0.49	Low
0.50 – 0.89	Moderate (satisfactory)
0.90 – 1.00	High

3.5.3 Scoring System

To guide in the scoring of students' vocabulary, the researcher used objective test scoring by Arikunto's formula (1997):

$$S = \frac{r}{n} \times 100$$

S = The score of the test

r = The total of the right answer

n = The total items

3.5.4 Level of Difficulty

According to Shohamy in 1985: 79, level of difficulty relates to know “ how easy or difficult the item is from

level of difficulty is calculated by using the following formula:

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

LD : level of difficulty

U : the number of upper group who answer correctly

L : the number of lower group who answer correctly

N : total number of student

The criteria of level of difficulty are:

Score	Criteria
<0.30	Difficult
0.30 – 0.70	Average
>0.70	Easy

(Shohamy,1985: 79)

3.5.5 Discrimination Power

Discriminative power refers to the extent to which the item differentiates between high and low level students on the test. A good item according to the criteria, Shohamy, 1985: 8 state that “one in which good students did well, and bad students failed”. To know the discriminative power of the test, the researcher used the following formula:

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

DP : discriminative power

U : the number of upper group who answer correctly

L : the number of lower group who answer correctly

N : total number of student

The criteria of the discriminative power are:

Score	Criteria
(-) negative	Bad
0.00 – 0.19	Poor
0.20 – 0.39	Satisfactory
0.40 – 0.69	Good
0.70 – 1.00	Excellent

3.6 Research Procedure

The research procedure includes determining of the research problem, finding the population and sample of the research, administering try out test, administering questionnaire, administering vocabulary test, analyzing the data and concluding the data

3.6.1 Determining Research Problem

The research problem in this research is the student' frequency in listening of English song, the student' vocabulary achievement the student' vocabulary achievement whether is there any correlation between the frequency of listening to English song and vocabulary achievement.

3.6.2 Finding Population and Sample

The population in this research was the second grade of SMP N 3 Bandar Lampung and the researcher chose VIII D as the sample of the research.

3.6.3 Administering Try Out Test

The try-out was administered to find out whether the vocabulary test items used in the research were good or not.

3.6.4 Administering Questionnaire

The researcher conducted the questionnaire to get information of their frequency of listening to English song and other information. There were around thirty questions.

3.6.5 Administering Vocabulary Test

The researcher gave vocabulary test after choosing the subjects to know the quality of the test which used as instruments of the research. The items of the test were around 30 items in 45 minutes.

3.6.6 Analyzing the Data

Both of the questionnaire and the test of the class treat by using ex-post facto design. By using SPSS, the data analyzed to find out whether there is any correlation or not between the frequency of listening to English song and vocabulary achievement of the students.

3.6.7 Concluding the Data

After analyzing the data, the conclusion explained about the result of the data.

3.7 Data Analysis

In this research, depending on the students' frequency of listening in a day, it will be classified into the criteria of listening frequency; high, average and low. The students have difference time to spend in their listening to English song, thus the researcher applying the analysis their frequency of listening to know the students' frequency in listening to English song in a day.

The researcher show and describe the aim of listening to English songs, kinds of songs, etc. to supporting data and information. In additional information, the researcher presented and discussed a main data of this research; the participants' frequency of listening to English songs and participants' vocabulary achievements.

Through SPSS, using the Pearson Product Moment Correlation Coefficient, the students' frequency of listening to English songs calculated along with their vocabulary score, to find out whether there is the correlation between the frequency of listening to English songs and vocabulary achievement.

The Formula of the Pearson Moment Correlation Coefficient is as follow:

$$r_{xy} = \frac{n \sum x_i y_i - (\sum x_i)(\sum y_i)}{\sqrt{n \sum x_i^2 - (\sum x_i)^2} \sqrt{n \sum y_i^2 - (\sum y_i)^2}}$$

r = Pearson Product Moment Correlation Coefficient

X = The variable of participants' frequency of listening to English songs

Y = The variable of participants' vocabulary score

N = Number of participants in the research

Σ = The sum of variables (X or Y) or the product of variables (XY)

The result of correlation can be interpreted based on the table below (setiyadi, 2006: 167)

Table 3.3
Correlation Coefficient Interpretation

Coefficient Interval	Correlation
Between 0.000 - 0.200	Very low
Between 0.200 – 0.400	Low
Between 0.400 – 0.600	Enough
Between 0.600 – 0.800	High
Between 0.800 – 1.000	Very high

If the result of data has a perfect positive correlation, so ratio is equal to one. But if two variables is imperfect $r < 1$ and negative correlation if the range of ratio is between -1 until 0. Beside that, we can look p to know the value of the result. If the result is significant $p < 0.05$, but if the result not significant $p > 0.05$.

In summarize, this chapter explain the research method, which consists of research design, population and sample, how to collect the data, and data analysis. The next chapter of this study discussed the result of the correlation between students' frequency of listening to English songs and vocabulary achievement based on the theoritical overview above.

3.8 Hypothesis Testing

After finding the coefficient correlation between the students' frequency of listening to English song and their vocabulary achievement, the researcher should find out the criterion of the hypothesis acceptance. The writer proposes the hypothesis as follows :

$$H_0 = r_{\text{value}} < r_{\text{table}}$$

- There is no correlation between students "frequency listening to English song and their vocabulary achievement. We could accepted this hypothesis if r_{value} is lower than r_{table} "

$$H_1 : r_{\text{value}} > r_{\text{table}}$$

- There is a correlation between students "frequency listening to English song and their vocabulary achievement. We could accepted this hypothesis if r_{value} higher than r_{table} "