CHAPTER III
RESEARCH METHOD

A. Research Design

Research design played an important role in a research because the quality of research greatly depended on the design. This research will focus on students' listening to English song toward their vocabulary power. The method of this research is quantitative. In this term, quantitative data refers to the use of product moment. The analysis research will be expressed in the language of mathematics, and must be consequently and also interpreted by means of appropriate statistical procedures.

B. Research Setting

The writer conducted the research at SMA Unggulan Nurul Islami Mijen Semarang. SMA Unggulan Nurul Islami Mijen Semarang is located at Jl. Honggowoso number 09 Mijen Semarang.

C. Population

Population is generally an area which consist of object/subject which has certain qualification and characteristic and the researcher decide it to investigate and then collect the summary.[1] In this research,

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[1]Suharsimi Arikunto, *Prosedur Penelitian: Suatu Pendekatan Praktek,* (Jakarta: Rineka Cipta, 2006), p.130.

the researcher takes population of the eleventh grade students of SMA Unggulan Nurul Islami Mijen Semarang in the academic year of 2012/2013 which consist of 36 students.

D.   Variable and Indicator

Variable is a defined characteristic that varies.[2] According to Sugiyono, research variables are things that shape what is defined by the researches to be studied in order to obtain information about it, and the conclusion drawn on next.[3]There are two kinds of variable:

1.   The Independent Variable (X)

Independent variables are the conditions or characteristics that are manipulated by the researcher in order to explain the relation with the observed phenomena. Independent variable is a variable which influences other variable. The independent variable of this research is students' listening intensity to English song.

The indicators are as follows:

a.   Motivation

Motivation can encourage the students to do useful something to get optimal result in learning and good achievement with truly effort. By using song, it can motivate the students to listen intensity to get new voacabulary.

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[2] Arikunto, *Prosedur Penelitian Suatu Pendekatan Praktik*, P. 12

[3] Sugiyono, *Statistika Untuk Penelitian* (Bandung: CV. Alfa beta, 2007) p.2.

b. Frequency

Frequency is how often the activity wil be held in certain time. The students who often listen intensity to English song, they can improve their vocabulary power.

c. Interest

Curiosity is attention, wish of somebody to be active in activity to reach their destiny. They want to complete their psychological and physical need. So they can get benefit from what they want.

d. Activity

Basically activity as a medium in learning, has a best quality in teaching learning process. So. It can gives good influence in learning and improve the students' potential. The students must be active with kinds of activity there, because without activity, teaching learning process can not happened.

2. The Dependent Variable (Y)

Dependent variables are varible that the conditions are influenced by independent variables.[4] Referring to the definition, the dependent variable of the research is students' vocabulary power. The indicators are as follows:

a. Students are able to identify part of speech of the vocabulary

b. Students are able to use the vocabulary to express their thoughts in active and passive sentences.

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[4] Arikunto, *Prosedur Penelitian Suatu Pendekatan Praktik*, p.119.

E. Data Collection Technique

1. Questionnaire

Questionnaire is a number of written questions, which is used to gain information from respondents themselves.[5] There are two type of Questionnaire. They are open question and closed question.

a. Open Question

Open question is that enables the respondent to answer the question freely according to his interpretation and opinion.

b. Closed Question

Closed question is that enables the respondent not given any probability to give long answer in his way of explanation, because the researcher has determined the answer of the question and the respondent only has to choose the available options.[6] There are some scales of questionnaire. The writer uses closed question likert scale that consisted of five scales. To score the scale, the alternative responses are credited 5,4,3,2 or 1 respectively. It consists of 40 questions and the content of questionnaire is as follows:

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[5] Arikunto, *Prosedur Penelitian Suatu Pendekatan Praktik*, p. 338.

[6] Arikunto, *Prosedur Penelitian Suatu Pendekatan Praktik*, p. 152.

Table 3.1
The Content of Questionnaire

Indicator	Number of	Sum of item
Motivation	1,2,3,4,5,6,7,8,9,10,11,12	12
Frequency	13,14,15,16,17	5
Interest	18,19,20,21,22,23,24,25,26,27,28,29,30,31,32	15
Activity	33,34,35,36,37,38,39,40	8

In this case, the writer distributes the sheets of paper as questionnaire to get data on students' listening intensity to English song at SMA Nurul Islami Mijen Semarang. The questionnaire is in Indonesian language. The list of questionnaire is attached. Looking for the correlation between predictor and criterion by using technique of correlation product moment. The formula is as follow:

$$rxy = \frac{n\sum xy - \left(\sum y\right) - \left(\sum y\right)}{\sqrt{\left\{N\sum x^2 - \left(\sum x\right)^2\right\}\left\{N\sum x^2 - \left(\sum y\right)^2\right\}}}$$

Where:

Rxy = Validity of questions

N = the number of respondents

X = the score number of the odd number

Y = the score number of the even number.[7]

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[7] Arikunto, *Prosedur Penelitian Suatu Pendekatan Praktik*, p. 170

2. Test

Test is an examination of a person's knowledge or ability.[8]Test was done to measure students' vocabulary power. In this research, the writer uses questions asked in vocabulary understanding (part of speech, subject-verb agreement and passive voice) that is include in 20 multiple choice items. The choice of multiple choice tests because it was easier for the researcher related with computing difficulty and discriminating and it would not make the examiner have different interpretation of the students' test paper because there was only one correct answer. The content of vocabulary test is as follows:

Table 3.2
The Content of Vocabulary Test

Type of questions	Number of	Sum of item
Part of speech	1,2,3,4,5	5
Subject-verb agreement	6,7,8,9,10,11,12,13,14,15,16	10
Passive voice	17,18,19,20	5

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[8] Oxford Learner's Pocket Dictionary,(New York: Oxford University Press,2004), p. 446

F. Data Analysis Technique

The writer did some preparation to analyze the data, they were:

1. Scoring the questionnaire

    At the first the writer will analyze data from questionnaire to find out inputs of the students. The questionnaire is in Indonesian language. The students have to answer by choosing five responses, there are *strongly agree* has 5 points, *agree* has 4 points, *doubtful* has 3 points, *disagree* has 2 points and *strongly disagree* has 1 point.

    The data analysis started by summing up the item credits of questionnaire, which had been answered by the respondents. Their individual total scores were graded into three categories:

Very high	: 85-100
High	: 70-85
Fair	: 55-70
Low	: 40-55
Very low	: 25-40

2. Using normality test to know the normality distribution of the students' listening intensity to English song and students' vocabulary power

3. Using homogeneity test to know the data has homogeneity variance

4. Scoring the student's vocabulary power[9]

        Excellent   : 80-100

        Good   : 66-79

        Fair   : 56-65

        Poor   : 40-55

        Fail   : 30-39

5. Hypothesis analysis

        To know the influence of students' listening intensity English song toward their vocabulary power, the writer uses regression one predictor analysis while the formula as follows:

a. Looking for the regression similarity:

    $Y = aX + K$

      Where:

      Y = Criterion

      X = Predictor

      a = the numeral of predictor coefficient

      K = the numeral of constant

        To look for the value of a and K, the writer uses deviation score method. The formula is as follows:

    $y = ax$ or $Y - Y = a (X - Y)$

    Where $y = Y - Y$, $x = X - Y$ and $a = \dfrac{\sum xy}{\sum x^2}$

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[9] Suharsimi Arikunto. *Dasar-Dasar Evaluasi Pendidikan*. (Jakarta: Bumi Aksara, 2006), p. 245

b. Variant analysis of regression line:

$$F_{reg} = \frac{RK_{reg}}{RK_{reg}}$$

$$RK_{reg} = \frac{JK_{reg}}{db_{reg}}$$

$$RK_{res} = \frac{JK_{res}}{db_{res}}$$

$$RK_{res} = \frac{\left(\sum xy\right)^2}{\sum x^2}$$

$$JK_{reg} = \sum y^2 - \frac{\left(\sum xy\right)^2}{\sum x^2}$$

Where:

F_{reg} = price of F numeral for regression line

RK_{reg} = mean of regression line quadrate

RK_{res} = mean of residu quadrate

db_{reg} = degree of residue freedom[10]

6. Final Analysis

After getting F_{reg}, the next step is comparing the price of F_{reg} with the F value on table value. The table value is 1% or 5%.

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[10] Sugiono, *Metode Penelitian Kuantitative Kualitative dan R & D*, (Bandung: Alfa Beta, 2008), p. 257

a. It is significant if $F_{reg} >$ Ft 1% or 5%. There is positive impact of listening intensity to English song toward their vocabulary power.

b. It is not significant if $F_{reg} <$ Ft 1% or 5%. There is no positive impact of listening intensity to English song toward their vocabulary power.