#### **CHAPTER III**

#### RESEARCH METHOD

In this research the researcher presented some points related to this research method, variable of the research, population, sample, sampling, techniques of collecting data, validity of the test, and data analysis technique.

# A. Research Design

The research design employed in this research was correlational research. According to Hallonen and Santrock, (1999: 20) states that correlation method whose goal is to describe the relation between two or more events or characteristics. The reason of choosing this method is the researcher wants to know the strength of the relation of two or more variables based on correlation coefficient.

Fraenkel and Wallen (1993: 328) correlational research is the relationship among two or more variables are studied without any attempt to influence them. Correlational research is also sometimes referred to as from of descriptive research because it describes an existing relationship between two variables. In other words, correlational research is also descriptive research. They also state that correlational research is also sometimes referred to as from of descriptive research because it describes an existing relationship between two variables. According to Kathori (2004:130) correlations research combines the variation of two or more variables. Therefore, the research only focused on whether or not there is correlation between student's habit in English song and their vocabulary mastery.

There are three possible result of a correlation study: a positive correlation, a negative correlation, and no correlation. The correlation coefficient is a measure of correlation strength and can range from -1.00 to +1.00. Perfect positive correlation would result in a score of +1. Perfect negative correlation would result in -1 (Nunen, 1992: 39).

- 1. Negative Correlations: Indicates that as the amount of one variable improves, the other decreases. A correlation coefficient close to -1.00 indicates a strong negative correlation.
- 2. Positive Correlation: Both variables improve or decrease at the same time. A correlation coefficient close to +1.00 indicates a strong positive correlation.
- 3. No Correlation: Indicates that is no relationship between the two variables. A correlation coefficient of 0 indicates no correlation.

#### **B.** Variables of the Research

In this research, the researcher examined the correlation of variable X and variable Y. These two variables were: students listening to English song habit (X) and their vocabulary mastery (Y).

### C. The Setting of the Research

#### a. Place of the Research

This research was conducted at MTs Darissulaimaniyah, which is located on Durenan, Trenggalek in the academic year of 2019/2020.

MTs Darissulaimaniyah Durenan Trenggalek is one of the favorite schools in Durenan Trenggalek. This school consists of three grades in which each grade consists of six classes. There are 25 classrooms, teacher office, headmaster office, administration room, multimedia room, library, laboratories, mosque, canteens, and also parking area. Each classroom is completed with some facilities which are set to support teaching learning process, such as whiteboard, blackboard, LCD, tables and chairs which are fit with the number of the students, a teacher's desk and chair, a clock, good air circulation and lighting.

#### b. The Time of the Research

The researcher conducted this research on February 2020.

## D. Population, Sample, and Sampling

#### 1. Population

Alison et al (1998: 24) define population as a defined group within a stated class. According to Fraenkel and Wallen (1993: 90) population is the large groups to which one hopes to apply the result. In this study, the researcher takes all of the eighth grade students at MTs Darissulaimaniyah Durenan Trenggalek, there are two classes with 50 students in the academic year 2019/2020.

#### 2. Sample

The sample is a sub-group of a population selected according to particular criteria and taken to represent the whole group (Alison et al, 1998:24). According (Kenneth and Bruce, 2011:163) state that sample is a small sub group chosen from the large population. So, it can be concluded that sample is small group as part of population and it also chosen as

representative data of whole population. This samples of this research were the students of VIII-A and VIII-B in MTs Darissulaimaniyah Durenan Trenggalek in which total 25 students; they are 13 female and 12 male students, the researcher used cluster random sampling technique to the total population.

Cluster sampling is the sampling method where different groups within a population are used as a sample. This is different from stratified sampling in that you will use the entire group, or cluster, as a sample rather than a randomly selected member of all groups.

### 3. Sampling

According to Fraenkel and Wallen (1993: 96) Cluster random sampling is similar to simple random sampling except that groups rather than individuals are randomly selected (that is, the sampling unit is a group rather than an individual). The researcher uses random sampling to obtain her sample this is method that gives every member of the population an equal chance of being selected in the study (Hallonen and Santrock, 1999: 18). The cluster sampling in which the cluster are selected and sample is drawn from the cluster members by simple random sampling (Fink, 1995: 15).

The representative sample was used in cluster random sampling of this research. First, the researcher took one study program randomly. After getting one study program, the researcher took one class among the classes randomly. The step of selecting the class are as follows:

- 1. Listing the codes off all classes.
- 2. Writing down the code of each class on a small paper and rolling the papers.
- 3. Putting all rolled papers into a box.
- 4. Shaking the box.
- 5. Taking one of the rolled papers from the box randomly and the result will be the sample of the sample of the research.

#### E. Techniques of Collecting Data

The researcher used questionaires and test as the techniques to collect the data for the research. The questionaires are used to obtain the data of the student's habit of listening to English songs, while the test is used to collect the data of vocabulary mastery.

# 1. The Instruments of Collecting the Data

### a. Questionnaire

Questionnaire is used to get the data of the student's habit of listening to English songs. More (1999; 24) says that questionnaire is a mean of collecting the data in which the researcher call on students to examine themselves and react to series of statement about their attitudes, feeling and opinions. A questionnaire is a self-report data-collection instrument that each research participant fills out as part of a research study (Johnson & Larry, 2000). Researchers used questionnaires so that they could obtain information about the thoughts, feelings, attitudes, beliefs, values, perceptions, personality, and behavioral intentions of research participants. In other words, the researcher attempted to measure many different kinds of characteristics using questionnaires. Hence, in this study, to obtain the data of the students, habit in listening English songs, the questionnaire was used.

Questionnaire items can be relatively closed or open-ended question (Nunan, 1992). The researcher used the Likert scale and mostly the options are in the form of "Sangat Setuju (SS)", "Setuju (S)", "Kurang Setuju (KS)", and "Tidak Setuju (TS)". In doing questionnaire, the respondents are expected to choose one of those choices that they think and feel nearly matched with their condition at the time and their actual experience. In this research, the questionnaire is given to the students to find numerical data of students" habit in English song. The questionnaire consists of 25 items and each item has four options (SS, S, KS, TS) with the scale of scoring from 1 to 4. Likert scale is used to measure attitude, opinion, peoples or groups perception about social phenomenon. The questionnaire used this scale because this scale is appropriate to measure attitude or people's perception, especially in this research was habit.

### For the positive items

Selalu/ Sangat Setuju (S/SS) is scored 4 Kadang-kadang/ Setuju (KD/S) is scored 3.

Jarang/ Kurang Setuju (J/KS) is scored 2 Tidak Pernah/ Tidak Setuju (TP) is scored 1.

#### For the negative items

Selalu/ Sangat Setuju (S/SS) is scored 1 Kadang-kadang/ Setuju (KD/S) is scored 2.

Jarang/ Kurang Setuju (J/KS) is scored 3 Tidak Pernah/ Tidak Setuju (TP) is scored 4.

#### b. Test

A test can be defined as systematic procedure for observing one's behavior and describing it with the aid of numerical devices or category system (Cronbach in Syakur, 1995: 5). A test is useful to help the teacher to measure the students' achievement, to know the students' progress, to motivate and direct student learning and also to evaluate the

teaching process, whether it good or not. The test used objective test is a test that has right or wrong answers and so can be marked objectively. Objective tests are popular because they are easy to prepare and take, quick to mark, and provide a quantifable and concrete result (British Council, 2015). To collect the data of students' vocabulary mastery the researcher uses an objective test. The vocabulary test is a test to measure the students' ability in identifying the words, which is limited on finding the meaning of words, synonyms, antonyms, and words in context. In this study, the researcher uses an objective test in the form of multiple choices test with five options, which consists of 25 questions. The researcher marks 4 for each item if the students answer correctly, and the researcher marks 0 if the students answer incorrectly.

## F. Validity of the Test

Fraenkel and Wallen (2005:113) states that a valid instrument is measures what it supposed to measure. Validity is the most important idea to consider when preparing or selecting an instrument for use. An instrument or a test can be called valid if it at least consists of the content and construct validity. Therefore, in this study, the researcher used face validity, content validity, and construct validity to know the validity of the test.

#### a. Face Validity

Face validity becomes one of the validity types that can establish. Validity was measurement that showed the validity level of the instrument the instrument Arikunto (1998: 160) Face validity was hardly a scientific concept that every important. Test takers, teacher, education, authorities or employers may not accept a test, which does not have face validity. In this test, some aspects should consider from this test to make a good test based on the advisor lecturer and the teacher of the second grade at MTs Darissulaimaniyah Durenan Trenggalek.

#### **b.** Content Validity

Content validity means there was correspondence between curriculum objectives and the objectives being tested. It means that test said to have content validity if its objectives are same with the curriculum objectives. The researcher developed the test by referring to the syllabus that contained standard competence and basic competence. In this case, the researcher also checked the curriculum set to know what students must be able to do

in certain level, especially in second grade at MTs Darissulaimaniyah Durenan Trenggalek.

## c. Construct Validity

According to Brown (2004: 45) mentioned that a construct is any theory, hypothesis, or model that attempts to explain observed phenomena in our universe of perception. Based on the theory above, the researcher gives the task abaout English songs and their vocabulary mastery in form of multiple choices to fulfill the construct of vocabulary test and therefore valid in term of construct validity.

# G. Data Analysis Technique

After collecting the data, the next step is to analyze them to know whether there is any correlation between habit of listening to english song and vocabulary mastery. While Khotari (2004:18) explains after the data have been collected, the researcher turns to the task of analyzing the data.

The step in analyzing data are:

# 1. Analyzing pre-requirement testing

Before doing the analysis to know the correlation between vocabulary mastery and habit of listening english song, it is needed to do an analysis pre-requirement test consisted of normality test and linearity test.

## a. Normality Testing

The normality tests are supplementary to the graphical assessment of normality (Elliott, 2007). The main tests for the assessment of normality are Kolmogorov-Smirnov (K-S) test (Oztuna, 2006; 363) and Shapiro-Wilk tests can be conducted in the SPSS Explore procedure (Analyze - Descriptive Statistics – Explore - Plots - Normality plots with tests). The Shapiro-Wilk test is based on the correlation between the data and the corresponding normal scores (Peat J, 2005) and provides better power than the K-S test even after the Lilliefors correction. Power is the most frequent measure of the value of a test for normality - the ability to detect whether a sample comes from a non-normal distribution (Thode, 2002). Some researchers recommend the Shapiro-Wilk test as the best choice for testing the normality of data. Normality testing is conducted to determine wheter the data are normal distribution or not. The researcher used SPSS 26.00 (64-bit) on Windows 10 one sample Kolmogrov - Smirnov.

Test by the value of significance ( $\alpha$ ) = 0.050. Basic decisions making in normality testing are as follows:

- 1. If the significance value > 0.050, then the data has normal distribution.
- 2. If the significance value < 0.050, then the data does not have normal distribution.

## b. Linearity Testing

Linearity testing is purposed to know whether two variables (independent variables (X) with the dependent variable (Y) which will be done by statistical analysis correlation show the linear relationship or not. Two variables are considered linear if F-obtained is lower than F-table or if significance of F-obtained is higher than 0.05. If the data is not linear, the regression analysis cannot be used. To compute the linearity testing, the researcher used T test through used SPSS 26.00 (64-bit) on Windows 10.

Test by the value of significance ( $\alpha$ ) = 0.050. Basic decisions making in linearity testing are as follows:

- 1. If the significance value > 0.050, then the data has linear distribution.
- 2. If the significance value < 0.050, then the data does not have linear distribution.

#### c. Hypothesis Testing

The tests of the hypotheses are used to know the correlation between student's habit in listening to English song and vocabulary mastery. The test used is as follow:

### 1) Simple correlation

The simple correlation used the Pearson Product Moment Formula through SPSS 26.00 (64-bit) for windows to test the hypothesis correlation between two variables if the data of those two variables in the interval or ratio form and the source of the data are same.

2) The significance of the simple correlation coefficient

The significance of the simple correlation coefficient is if the significance of coefficient correlation is lower than significant level  $\alpha = 0.05$ , so the correlation is significant. The statistical formulations of the first hypothesis are as follow:

- a) Ho:  $sig > \alpha$ . It means that there is no significant correlation between X and Y.
- b) Ho:  $sig < \alpha$ . It means that there is significant correlation between X and Y.