CHAPTER III
RESEARCH METHODOLOGY

This chapter describes data collection techniques using an approach that is carried out as research. This chapter covers research methods, population and samples, validity and reliability instruments, research instruments, data collection techniques, and data analysis techniques.

A. Research Method

1. Types of Research

This type of research is quasi-experimental research. According to "Sugiyono, quasi-experimental research is research that approaches real experiments. This study aims to directly test the effect of a variable on other variables and test the hypothesis of a causal relationship.[29] "Muri Yusuf, also argues that quasi-experimentation is a type of experimental research where researchers do not randomize the subjects of the research group, but the results of quasi-experimental research are quite accurate both in terms of internal and external validity."[30] This study allows researchers to evaluate the causation of research variables.

This experimental research is used to minimize the effect of other components such as the influence of the environment around the respondent who is suspected of influencing the research results. In this study, two variables were involved, namely the independent variable and the dependent variable. The researcher used English Islamic songs as the independent variable, and motivations in listening comprehension as the dependent variable. The researcher focused on observing students' motivation in listening comprehension skills in the experimental class using the English Islamic song method. After that, the researcher analyzed student development.

This study aims to determine the effectiveness of using English Islamic songs on listening comprehension at MTS NU Assalam Kudus.

2. Types of Approaches

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[29] Sugiyono, *Statistika Untuk Penelitian*, (Bandung : Alfabeta), 2015, 114

[30] Muri Yusuf, *Metode Penetian: Kuantitatif, dan Penelitian Gabungan*, (Kencana:Jakarta), 2017, 78

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The type of approach in this study is a quantitative approach. Quantitative research provides a numerical summary. According to "Sugiyono, quantitative research is defined as a research method that has a philosophical foundation of positivism, which is used to examine populations and samples as a medium for collecting data using research instruments".[31] The quantitative method is referred to as the positivistic method because it is based on philosophy positivism.

B. Population and Sample

1. Population

The population is all individuals or respondents that include all objects of study which have certain characteristics.[32] The population in this study was all students of class VII MTS NU Assalam Kudus which consisted of 8 classes or about 240 students.

2. Sample

A sample is a process of selecting a group of people who have the same characteristics and are taken from the population.[33] The samples from this study were students of class VII A and students of class VII B, both classes had the same English scores, the researcher obtained this data based on the achievement of daily test scores, there'are two classes that had the same scores, apart from having the same scores, the two classes also had the same level of activity.[34]

Researchers used class VII A consisting of 32 students as an experimental class, and class VII B consisting of 33 students as a control class. The number of samples in this study was 65 respondents.

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[31] Sugiyono, *Statistika Untuk Penelitian*, (Bandung : Alfabeta), 2019, 17

[32] Sugiyono, *Statistika Untuk Penelitian*, (Bandung : Alfabeta), 2015, 61

[33] Nurul Zuriah, *Metodologi Penelitian Sosial dan Pendidikan,* (Jakarta: Bumi Aksara), 2007, P.119

[34] Ni'mah, *Interview With Author,* 5 maret 2023

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C. Validity and Reliability of Instrument

1. Instrument Validity

Validity is a valid instrument as a measuring tool to obtain valid data.[35] Researchers conducted a test to measure the development of students' listening comprehension, with this the test results became valid and reliable. Validity is used to measure the validity or not of the questionnaire, it can be said to be valid if the question can reveal something that researchers use to determine research targets or measure the validity of learning motivation, namely the increase in listening comprehension in English language learning.

2. Instrument Reliability

Reliability is the instrument that is used to measure several times the same object and produce the same data.[36] Reliability tests are carried out to measure the constraints of numbers that are consistent in measurements. It can also be used to measure the test repeatedly with the same results. In order words, reliability shows the consistency of a measuring instrument in measuring the same symptoms.[37]

Before applying the instrument to the experimental class and control class, the researcher first examines the reliability of the instrument. Researchers need to conduct trials first to conduct instrument reliability tests. After conducting trials, researchers can calculate reliability using the SPSS program.

The reliability criterion is measured using a comparison of the Alpha Cronbach statistical test, if the Alpha Cronbach statistical test result is 0.60, it means that the research instrument is reliable, while if a coefficient number smaller than 0.60 is found, it can be concluded that the instrument is non-reliable.[38] There are 5 categories of reliability, namely:

a) If Cronbach's Alpha score is 0.00–0.20 it means low reliability

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[35] Sugiyono, *Statistika Untuk Penelitian*, (Bandung : Alfabeta), 2015, 173

[36] Sugiyono, *Statistika Untuk Penelitian*, (Bandung : Alfabeta), 2015, 173

[37] Nurul Zuriah, *Metodologi Penelitian Sosial dan Pendidikan,* (Jakarta: Bumi Aksara), 2007, P.192

[38] Maskurin, "*Statistik Inferensial"*, (Kudus Media: Ilmu Press), 2008, 15

b) If Cronbach's Alpha score is 0.21-0.40 it means it is somewhat reliable

c) If Cronbach's Alpha score is 0.41-0.60 it means it is quite reliable

d) If Cronbach's Alpha score is 0.61-0.80 it means reliable

e) If Cronbach's Alpha score is 0.81-1.00 it means that it is very reliable.

D. Research Instruments

A research instrument is a tool in the process of collecting data. The quality of the instrument determines the quality of the data obtained.[39] The instrument carried out in this study was a test. The test includes pre-test and post-test. Researchers conducted tests in experimental classes and control classes. The material given in the experimental class according to the syllabus of the curriculum used at MTS NU Assalam Kudus is related to listening comprehension.

This listening test contains English Islamic song lyrics whose arrangement is not intact or some words are omitted. The student's task is to complete the missing word by listening to the Islamic song which is played 2 times.

E. Data Collection Techniques

The data collection technique in this study is to obtain data on the motivation of English learning in the field of listening comprehension, namely, through a written test using the English Islamic song audio method, testing is a method used to measure a person's ability, knowledge, and performance in a certain field.[40] The order of data collection in this study is:

1. Pre Test

Researchers use pre-tests in experimental classes and control classes as the first step in data retrieval. Pre-tests were conducted to measure the equivalence of the experimental class and the control class. The procedures for conducting pre-tests for students are: 1) the teacher gives an explanation of the assignments given. 2)

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[39] Nurul Zuriah, *Metodologi Penelitian Sosial dan Pendidikan,* (Jakarta: Bumi Aksara), 2007, P.168

[40] H. Douglas Brown, *Teaching by Principles an Interactive Approach to Language Pedagogy*, Longman.

Teachers distribute question sheets to experimental classes and control classes. 3) the teacher plays the English Islamic song twice, and the students listen carefully to fill out the question sheet. 4) the teacher gives an evaluation.

2. Post Test

After giving the pre-test, the researchers also used post-tests both in the experiment class and in the control class. The post-test was given in the experimental class after the researcher gave the students a clear explanation of the listening comprehension material. This is done to find out whether or not Islamic song media is effective in listening comprehension learning.

F. Data Analysis Techniques

The data analysis technique in this study aims to determine a significant difference in listening comprehension scores between students who use the Islamic song method as a learning medium and other students who do not use the Islamic song as a learning medium.

Data analysis techniques are carried out after collecting data from respondents. In this study, researchers used quantitative data obtained from students' pre-test and post-test results, then researchers evaluated the results of the pre-test and post-test using statistical procedures (SPSS). Based on statistical analysis produces evidence that supports or does not support the research hypothesis in this quantitative research data. The results of data analysis techniques can be used to produce that Islamic songs can increase students' motivation in listening comprehension.

1. Normality Test

The normality test is a normal data distribution test. The normality test is a test that has a very wide scope to be carried out with parametric analysis because distributed normal data is a prerequisite for parametric testing.[41]

Before researchers decide on parametric or nonparametric statistics to be calculated, it is necessary to have a normality check that is useful for knowing whether the data is normally distributed. If the normality test result exceeds the significance level (0.05), then the score will be

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[41] Sugiyono, *Statistik Untuk Penelitian*, (Bandung : Alfabeta), 2015, P.79

normally distributed, so the data is normal. However, if the normality test is below the significance level (0.05), then the data is far from the normal or abnormal distribution. The following hypothesis criteria are:

a) Ho: A Significant Score of > 0.05 means that normal data is distributed.

b) Ha: A Significant Score of < 0.005 means that the data is abnormally distributed.

2. Homogeneity Test

The homogeneity test is a test used to measure the difference between two or more populations. Population characteristics can differ from one population to another. In this study, researchers used a variance homogeneity test using (SPSS) to measure the homogeneity of the population. The homogeneity test aims to find out whether the population variance of the experimental class and the control class have similarities or are different. The test yielded a significance value (a) of -0.05. Examples:

a) If the significance value > 0.05 means that the data distribution is homogeneous

b) If the significance value < 0.05 means that the data is not homogeneously distributed.

3. Test Hypothesis

After the researcher analyzes the normality and homogeneity of the data, the next step is for the researcher to start calculating the data to test the hypothesis. In this study hypothesis testing was used to measure whether there was a significant difference between students' listening comprehension in the experimental class and the control class.[42] Hypothesis testing aims to find out whether the hypothesis is rejected or not. Researchers can analyze and calculate the data by using the t-test (significance level 0.05) on the SPSS.

a) Nul Hypothesis (Ho)

There was no significant difference in listening comprehension between students who were taught and those who were not taught using the Islamic song method in listening comprehension.

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[42] Sugiyono, *Statistik Untuk Penelitian*, (Bandung : Alfabeta), 2015, P.69

b) Alternative Hypothesis (Ha)

There was a significant difference in listening comprehension scores between students who were taught and those who were not taught using the Islamic song method in listening comprehension.