CHAPTER III
RESEARCH METHOLOGY

In this chapter the researcher will describe the research method and procedures done by the researcher. It includes research design, research instrument, population and sample, the technique of collecting data, and the technique of analyzing data.

3.1 Research Method

This study used a quantitative approach with a correlational method. A research that uses a quantitative approach emphasizes objectivity principles. The researcher also has to ensure that the research will not be biased because a biased quantitative analysis is not a scientific research (Danim, 2002). Moreover, a quantitative research aims to get a generalization after the research has been conducted. Generalization means an evidence about some topics that appears in a specific population.

This study used correlational study as the research design, which is one of the quantitative studies that is commonly used in the educational field. The correlational study aims to explicate/examine the power of the correlation between two or more variables (Haltonen & Santrock, 1999). Here, the researcher attempted to observe the correlation between independent variables (X1 and X2) and a dependent variable (Y). speaking skill (X1) and vocabulary mastery (X2) are categorized as the independent variables, while self esteem is categorized as the dependent variable. The instruments used in the research were test, and questionnaire. The intelligence test was an oral test that systematically done by guidance rubric of speaking according to Brown (2001).

3.2 Population and Sample of the Research

The population of the research

The research population came from students in MTS Nurul Islam Pongangan.

The sample of the research

The sample was the students of eight graders at MTS Nurul Islam Pongangan. Use total sampling with the total sample 83 students (all students).

Table 3.1 Sample of the Research

No	Class	Number Of the students
1.	A	6 students
2.	B	25 students
3.	C	25 students
4.	D	27 students
Total		83 students

Earl Babbie, (2010) Total Sampling is a method in which all members of the relevant population are included in the research. There were no threatened population elements from the sample. The resulting data is very accurate and reflects the true situation of the population.

3.3 Technique of Collecting Data

3.3.1 Questionnaire

Questionnaire is some written questions which use in obtaining information from the respondents such as report about their personal, or anything which they know. The researcher administered the questionnaire to know the students perception about their self. The kind of the questionnaire open ended questionnaire. The questionnaire was adopted combain from Rosenberg Self Esteem Scale (RSE) (1965) and Coopersmith Scale Riska Ananda (2017) use a 4-point Likert-response with the total item 26. scale ranging from Agree to Strongly Disagree. Validity from the Questionnaire can be designed by the researcher or they can be taken based on some ready made index including the fact of these have been validated and tested for reliability, Also be normative data available as a baseline to compare the results (Mathers, Hunn, & Fox, 2007, p. 9). To assess the validity and reability of the questionnaire, the researcher used the SPSS 25.0 tool to analyze the

data. The R count of each item must be higher than the R of the table for the investigation to be considered authentic (sugiono, 2015). If r in the analysis is smaller than R in the table, we can conclude that these elements are not significantly related to the total score (invalid) and must be removed or corrected.

The validity of the questionare was administered to a random 32 students with the 26 items of questionare. After validity test, 20 questions are accepted, while the remaining 6 are rejected or invalid. 20 questions are valid, while the remaining 6 are cancelled. Statements 2,6,14,15,23 and 24 were crossed out. These items were removed because their scores fell below 0,1 Researcher will use the questionare for to see the level of student self-esteem. More explanation of the validity of the items of the questionare is attached in the table 3.2 Validity of self esteem questionare. From the 20 statements in the questionnaire that had been prepared, there were 11 statements including positive statements and 9 statements including negative statements.

The scoring system was as follow:

The positive worded statements were scored:

Strongly Agree (SA) : Score = 4
Agree (A) : Score = 3
Disagree (D) : Score = 2
Strongly Disagree (SD) : Score = 1

While the negative worded statements, with an asterisk (*) was scored as follows:

Strongly Agree (SA) : Score = 1
Agree (A) : Score = 2
Disagree (D) : Score = 3
Strongly Disagree (SD) : Score = 4

(Rosenberg, 1965)

The reability is to measuring of instrument from the questionare. Johnson and Christensen (2012, p. 340) stated that when used to check reliability of scores, the coefficient should be at least 0.70, preferably higher. Therefore, the questionnaire was reliable if the coefficient is 0.70 or higher.

Table 3.2 The Coefficient of Reliability by Using Cronbach Alpha

Cronbach alfa	Internal consistency
>90	Very Highly Reliable
0.80 – 0.90	Highly Reliable
0.70 – 0.79	Reliable
0.60 – 0.69	Minimally Reliable
<0.60	Unacceptably Low Reability

Ryden (1978) used Test-retest reliability technique which was brought out by using SPSS to find out the internal consistency reliability of the questionnaire. Cronbach alpha of .80 was obtained.

After conducting the validity test, there were 20 valid questions. The question was tested again with a reliability test. The R count of each item must be higher than the R of the table for the investigation to be considered authentic (sugiono, 2015). If r in the analysis is smaller than R in the table, we can conclude that these elements are not significantly related to the total score (invalid) and must be removed or corrected. The R count was compared to the R table at a 0.05 significance level, 0.349 (df = N-2 = 30).

Reability of the item questionare

Reliability Statistics

Cronbach's Alpha	N of Items
.846	26

3.3.2 Test

There are two kind test, speaking test and vocabulary test. Type of speaking test that will be given by the researcher is an oral test, whether the theme is about Animals. The procedure for this test is that the researcher asks students to talk in front of their friends about their favorite animals. Oral presentation were conducted to examine students' speaking ability. In the speaking test assessment, the researcher used oral proficiency scoring categories by Brown HD (Brown, 2004).

Maximum score is 25 (5 criteria x 5 points)

Final Score = (Maximum Score : Total Score)×100

There are five aspects of determining the speaking test (Pronounciation, Grammar, Vocabulary, Fluency, and comprehension) with the score 1 until 5. The validators scored some of items (instructions, topic, time allocation, content, and rubric) for speaking test. While, to determine the students' vocabulary mastery, the writer gave the students a written test. The total question for vocabulary test is 25 question was prepare by the researcher. To find out the validity of vocabulary test by having expert judgment. There were three validators evaluating the test whether it was appropriate or not. The validity of the vocabulary test were administered to a random 30 students with the 25 items of question. After validity test, 20 questions are accepted, while the remaining 5 are rejected or invalid. 20 questions are valid, while the remaining 5 are cancelled. Statements 4,6,12,14, and 22 were crossed out. These items were removed because their scores fell below 0,1 Researcher will use 20 question to see the student's vocabulary. More explanation of the validity of the items is attached in the table 3.3 Table Validity Of Items Test Vocabulary.

Reability of item Test Vocabulary Statistic

Reliability Statistics

Cronbach's Alpha	N of Items
.856	25

Cronbach alpha of 0.856 was obtained. It can be concluded the internal consistency of Cronbach alpha was .80 (highly reliable). The test can be concluded to be dependable, with a high level of reliability. The way of scoring the vocabulary test as a follows:

$$\mathrm{N} = \frac{Number\ of\ correct\ answer}{Number\ of\ items}\ x\ 100$$

Where: N = score

3.3.3 Technique of Analyzing the Data

For the data analysis, there are three step : Firstly, students are given an oral test to get a speaking score from all classes. And the assessment is carried out in accordance with the assessment rubric used oral proficiency scoring categories by Brown HD (Brown, 2004) more detail of the rubric explain in Table 3.8 Scoring Rubric for speaking test. And the result were classified using descriptive statistic.

Table 3.3 Classification for Vocabulary Score and Speaking Score

NO	SCORE	CRITERIA
1.	90-100	Very good
2.	80-89	Good
3.	70-79	Fairly good
4.	60-69	Poor
5.	≤ 59	Very poor

(Adopted from Rusdi, 2015)

Secondly, after all speaking test from all classes are finish, the next day questionnaire were analyzed to determine the students' self-esteem by observing the mostly checked item in the column. The researcher will give students a questionnaire who was valid and reliable.

Classification of self esteem score using suggestion from Boone, 2012. Boone and Boone said that the classification of values is based on equal intervals for the Likert scale. The following

classification will be used to measure the level of self-esteem of students at MTS Nurul Islam Pongangan.

Table 3.4 Classification Students' Self-Esteem Score

NO	SCORE	CRITERIA
1.	61 – 80	Very High
2.	41 – 60	High
3.	21 – 40	Low
4.	0 – 20	Very Low

After fill the questioner the students will do the vocabulary test that have been prepare by the researcher and categorize the results of students' self-esteem and vocabulary scores according to the table. After that, the researcher also analyzing the result from self esteem and the result of vocabulary test using descriptive statistic.

The last step, to analyze the data obtained from the questionnaire, and student's speaking test and vocabulary test in order to see the correlation and influence between one variable and another variable, the Statistical Package for Social and Science (SPSS) 25 version computer program was employed. To find out the correlation between students' self-esteem, vocabulary mastery and speaking skill, spearmen correlation coefficient was used. After that, the result will explain in correlation analysis from three variable.

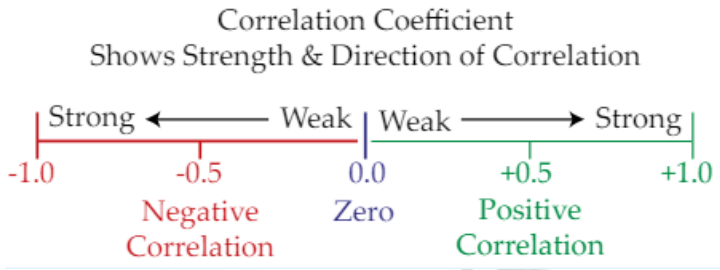
The interpretation of the value or level correlation according to Riska Ananda in Arikunto (2013).

Table 3.5 Clasification of Level Correlation

r values	Interpretation
0.800 – 1.00	High
0.600 – 0.800	Quite high
0.400 – 0.600	Fairly low
0.200 - 0.400	Low
0.000 – 0.200	Very low (there is no correlation)

This correlation coefficient to know the result correlation among self esteem vocabulary mastery and speaking skill in MTS Nurul Islam Pongangan.

3.1 Figure of Correlation Coefficient



Values range from -1 to +1. A correlation coefficient of +1 indicates that the variables are perfectly related in a positive [linear] manner, a correlation coefficient of -1 indicates that the variables are perfectly related in a negative [linear] manner, while a correlation coefficient of zero indicates that there is no linear relationship between self esteem, vocabulary mastery, and speaking skill in MTS Nurul Islam Pongangan.