

CHAPTER III

RESEARCH METHODOLOGY

A. The Research Design

In this research, the researcher conducted quantitative method, to know the correlation between students' self-confidence and their speaking achievement. Quantitative research can be interpreted as research methods that are based on the philosophy of positivism, used to examine certain populations or samples. Data collection using research instruments and analysis of statistical data to test predetermined hypotheses.

In addition, Quantitative research is an approach for testing objective theories by examining the relationship among variables.¹ These variables, in turn, can be measured, typically on instruments, so that numbered data can be analyzed using statistical procedures.² Therefore, the research design used by the researcher is correlational study. This study use test and questionnaire about the relationship between two variables. In quantitative research, the writer builds hypothesis to be proved. The writer analyzed the research by using *Pearson Correlation Product Moment* to know the result.

¹ Jhon W. Creswell, *Research Design: Qualitative, Quantitative, and Mixed Methode Approaches*, 2014.

² Jhon W. Creswell, *Research Design: Qualitative, Quantitative, and Mixed Methode Approaches*, 2014.

B. Research Variable

A variable refers to a characteristic or attribute of an individual or an organization that can be measured or observed and that varies among the people or organization being studied. This research has two variables. It is dependent variable and independent variable. Dependent variable is students' achievement and independent variable is self-confidence.

C. Research Site

The researcher will be conducted this research at senior high school students of Madrasah Aliyah Negeri (MAN) 4 Tangerang, Banten.

D. Research Respondent

1. Population

The population of the research is eleventh grade students at senior high school of Madrasah Aliyah Negeri (MAN) 4 Tangerang, Banten. It is XI MIPA 1 that consist of 25 students.

2. Sample

The researcher conducted this research on the 25 eleventh students on senior high school students of Madrasah Aliyah Negeri (MAN) 4 Tangerang, Banten. Based on the interview with English teacher in that school, the researcher knows that XI MIPA 1 can give the information accurately and the

class can be representative all the eleventh students on that school about the correlation between self-confidence and their speaking achievement.

E. Technique of Data Collecting

1. Test

The researcher made the test by himself. It's uses oral test as speaking test to obtain speaking achievement. The researcher provides some pictures for the students. Then, the researcher gives instructions to them for make expression of advice based on the pictures. The students' speaking test was analyzed by using the rubric for oral proficiency scoring categories from Brown.³ The researcher uses five categories to give assessment. Such as pronunciation, vocabulary, grammar, fluency, comprehension.

Table 3.1

Indicator of Speaking

Proficiency Description	Score (0 – 5)
Pronunciation	
Vocabulary	
Grammar	
Fluency	
Comprehension	
Total	

³ Brown, H. D, "*Language assessment: Principle and classroom practices*". (4th ed.). New York, NY: Pearson Education, Inc, 2004, 172-173.

Table 3.2
Interpretation of Speaking Score

No	Score Interval	Category
1	21 – 25	Very Good
2	16 – 20	Good
3	10 – 15	Average
4	5 – 9	Poor
5	0 – 4	Very Poor

2. Questionnaire

To obtain the information about students' self-confidence, self-confidence questionnaire developed by Mustafa in 2015 is use. The questionnaires are rate by using Likert-Scale with five options: (Always) rate 5, (Often) rate 4, (Sometimes) rate 3, (Rarely) rate 2, and (Never) rate 1. The self-confidence questionnaire is distributed before the speaking test is conduct.⁴

E. Technique of Data Analyzing

⁴ Mustafa, E, "Psychological factor affecting Sudanese EFL learners' oral performance", *A case study of Sudan University of Science and Technology*, Sudan University, 2015.

The following table shows the categories of Self-confidence level by Mustafa (2015):⁵

Table 3.3
Self-Confidence Interval

Score	Categories
61-80	high confidence
38-60	Average
16-37	Low confidence

1. Correlation Analysis

The writer uses the correlation formula by Pearson Product Moment Correlation Formula.

The formula that used is:

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

Note:

r_{xy} =Coefficient Correlation.

n =The Number of Respondents.

x =The Students' Score of Speaking.

y =The students' Score of Questionnaires.

$\sum x$ =The sum of X (result of speaking).

$\sum y$ =The sum of Y (result of questionnaires).

⁵ Mustafa, E, "Psychological factor affecting Sudanese EFL learners' oral performance, 2015.

Σx^2 =The Sum of Squares of speaking scores.

Σy^2 =The Sum of Squares of questionnaires scores.

$(\Sigma x)^2$ =The Squares of The Sum of speaking scores.

$(\Sigma y)^2$ = The Squares of The Sum of questionnaires

To know the correlation between two variables, self-confident and speaking achievement, the researcher used correlation level (r) as seen in the Table below:

Table 3.4

Interpretation of Product Moment Score

Coefficient of correlation "r"	Interpretation
0.00 – 0.20	The Correlation is Neglected
0.20 – 0.40	The Correlation is Weak
0.40 – 0.70	The Correlation Strong Enough
0.70 – 0.90	The Correlation Strong
0.90 – 1.00	The Correlation is Very strong