

CHAPTER III

METHOD OF RESEARCH

A. Research Design

The method of this research is quantitative, this research very relies on number about the selection of subject, result, and to estimate validity and reliabilities of instrument. Quantitative research is essentially collecting numerical data to explain a particular phenomenon (Muijis, 2004, p.2)

Furthermore, in conducting the research the researcher uses correlational research. Correlational research indicates an association between two or more variables (Creswell, 2008, p.358). In the research, the researcher uses test to score students' vocabulary mastery. Then, the researcher conducts listening test to measure their vocabulary mastery. After that, Pearson Product Moment formula is used to correlate two variables and to find out the significance correlation between students' vocabulary mastery and their listening ability. The independent variable of this research is the students' vocabulary mastery (variable X) and listening ability is the dependent variable (variable Y).

B. Research Setting

The writer conducts the research at Integrated Islamic Senior High School Qardhan Hasanah Banjarbaru, Street. Rahayu, Banjarbaru Desa Banjarbaru Utara Kec. Banjarbaru Kota Banjarbaru. This research conducted in September through November 2016.

C. Subject and Object of Research

1. Subject of the Research

The subject of this research is all the students of the eleventh grade at Integrated Islamic Senior High School Qardhan Hasanah Banjarbaru School Year 2016/2017, which consists of 75 students from two classes (class XI IPA 1, and XI IPA 2) as can be seen in the following table

Table 3.1. Distribution of the Subject of Research

Number	Class	Sexual status		Total
		Male	Female	
1.	XI IPA 1	14	24	38
2.	XI IPA 2	15	22	37
Total		29	46	75

2. Object of the Research

The object of the research is the correlation between students' vocabulary mastery and their listening ability of the eleventh grade at Integrated Islamic Senior High School Qardhan Hasanah Banjarbaru School Year 2016/2017.

D. Source of Data

1. Data

a. Primary Data

The primary data in this research includes data about the students' vocabulary mastery and their listening ability of the eleventh grade at Integrated Islamic Senior High School Qardhan Hasanah Banjarbaru School Year 2016/2017 which will be seen in their score from the written test.

b. Secondary Data

The secondary data are collected to complete the primary data such as:

- 1) Brief history of Integrated Islamic Senior High School Qardhan Hasanah Banjarbaru
- 2) Description about teacher, student, and administration staff.

2. Sources of Data

- a. Respondent : They are 75 students of the eleventh grade at Integrated Islamic Senior High School Qardhan Hasanah Banjarbaru.
- b. Informants : They are teachers and administration staff
- c. Document : All written reports that are needed in this research.

E. Data Collection Procedure

In collecting the data, the instruments of this research is the test to measure the students' vocabulary mastery (variable X) and listening test to measure the students' listening ability (variable Y).

1. Test

In this research, the students are tested to know their vocabulary mastery and listening skill. The test is in written form in multiple choice item. The test will be conducted in two classes of the eleventh grade. The test will be done in two times in each class, the first for vocabulary test and the second for listening test. The test spent about 25 minutes in each test.

To measure the students' vocabulary mastery and their listening ability of the eleventh grade at Integrated Islamic Senior High School Qardhan Hasanah Banjarbaru, the writer prepares English National Examination year 2015/2016 code 4. The objective test is used because the objective test is more objective and representative. The total number of test item is 20. The total Maximum Expected Score (MES) of question is 100 point. To determine the degree of students' vocabulary mastery and their listening skills, the writer used the following formula according to Murdan(2006,P.47):

$$M = \frac{\sum X}{N}$$

N

M = Mean

$\sum X$ = Total score

N = Total number of respondents

The highest score is 100 and the lowest is 0. Then students' scores are interpreted as their vocabulary mastery and listening skill.

2. Documentary

Documentary is a technique to collect data from written sources (Arikunto, 1992, pg. 131). Documentation is used to collect basic data obtained from research location, dean, administration staff, and total number of teachers, classes, and students.

F. Data Analysis Procedure

After processing the data, the next step is data analyzing. There are four steps of analyzing data. The first step is to find out the degree of students' vocabulary mastery. The second is to find out the students' listening ability. The third is to see the correlation degree of them. The last step is to test hypothesis.

1. To find out the degree of students' part of vocabulary mastery and their listening skill and the relation degree of them:

- a. Make students' score table based on the kind of test and find out the sum of their score: students' score of vocabulary mastery test will be symbolized as X variable and students' score in listening ability test will be symbolized as Y variable.
- b. Classifying students' score using the following criteria as the standard score of the tests, in classifying the score, the researcher uses the categories which is taken from David p. Harris (1969, p. 134), as follows:

Table 3.2 Categories of Vocabulary Mastery and Listening Ability

Score	Category
80 – 100	Excellent
70 – 79	Good
60 – 69	Fair
50 – 59	Low
0 – 49	Poor

2. Making Diagram

- a. Determining the mean (M) of the respondents score

Mean is the average of all respondents' score. By dividing all scores by number of respondents (Murdan, 2006). In this case, the mean will be determined by using the formula as follow:

$$M_x = \frac{\sum X}{N} \qquad M_y = \frac{\sum Y}{N}$$

Where :

$\sum X$: the sum of students' vocabulary mastery

$\sum Y$: the sum of students' listening skill

N : Number of respondents

b. Making working table as follow:

Subject	X	Y	x	y	Xy	X ²	Y ²
N = 75					$\sum xy$	$\sum x^2$	$\sum y^2$

Where : X: The score of students' vocabulary mastery

Y: The score of students' listening skill

x: $X - M_x$

y: $Y - M_y$

c. Determining the degree of rxy

In order to determine the degree of correlation between students' vocabulary mastery and their listening ability the eleventh grade at Integrated Islamic Senior High School Qardhan Hasanah Banjarbaru School Year 2016/2017. The writer uses a pearson product moment formula because both of data are interval data, Murdan (2006) says that if the correlation has two

kinds of variables that are interval data, the writer should use the coefficient pearson product moment formula.

Product moment formula is usually used to correlate two variables based on its correlation coefficient value, it is useful to describe and find out the significance of the relation between those two variables, variable X and variable Y. It is usually symbolized by r or r_{xy} .

Pearson product moment formula as follows:

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

Where:

r_{xy} = The correlation coefficient between correlated variable X and Y

$\sum xy$ = The sum of the multiplication between variable X score and variable Y score

$\sum x^2$ = The sum of standard deviation from variable X

$\sum y^2$ = The sum of standard deviation from variable Y

d. To test hypothesis

- 1) Consulting the degree of correlation (r_{xy}) and the degree of coefficient correlation product moment table to determine whether there is a correlation between students' vocabulary mastery and listening skill or not.

in this research, the number of the respondents is 75. By looking at the table of coefficient correlation degree of pearson product moment, the table degree of correlation of 75 in 5% fault significant is 0.227 and its degree of correlation in 1% fault is 0.296

2) Interpreting the result and making conclusion. There are possibilities

conclusion:

- If $r_{xy} < 0.227$ or $r_{xy} < 0.296$, the hypothesis null (Ho) is accepted and the hypothesis alternative (Ha) is denied. It means there is no significant correlation between students' vocabulary mastery and their listening ability.
- If $r_{xy} > 0.227$ or $r_{xy} > 0.296$, the null hypothesis (Ho) is denied and hypothesis alternative (Ha) is accepted. It means there is a significant correlation between students' vocabulary mastery and their listening ability.

- 3) Interpreting the result by referring to rough standard. The standard that used in this research is as follow suggested by Murdan (2005, p.135).

Coefficient correlation	Category
0.8 – 100	Very high
0.60 - <0.80	High
0.40 -<0.60	Fair
0.20-<0.40	Low
0.00 - <0.20	Very low