

## **CHAPTER IV**

### **RESEARCH FINDING**

#### **A. Data Description**

In order to collect the data needed, writer distributed the questionnaire to know students' motivation in learning speaking to the students at second grade at SMA Zaien. To collect students' speaking achievement, writer using secondary data of students Final Exam.

The students' motivation data measured by Likert' scale, and speaking achievement is measured by David' scale rating score. Moreover to see the correlation between students' motivation in learning speaking and their speaking achievement, the writer using Correlational Product Moment Formula by Pearson.

#### **B. Data Analysis**

##### **1. Students' Motivation Score**

The data of students' motivation in learning speaking was gathered by two techniques, which are questionnaires as primary data and Final Exam score as secondary data.

### a. Questionnaires

The questionnaires consist of 30 questions adopted from AMTB by Gardner, it validated by the expert and already used in several research. It means that the questionnaires was valid and straight to the point to measure what need to be measure.

The questionnaires were assessed by Likert scale rating. This scale rating has five options. They are: *Strongly Agree, Agree, and Undecided, Disagree* and *Strongly Disagree*. The result of questionnaires are described in a table (See appendix 2). The following in table describes the result of questionnaires about students' motivation in learning speaking after accumulated. (See Table 4.1)

**Table 4.1.**

Descriptive Statistics

Mean	91,90
Median	92,50
Mode	97
Std. Deviation	6,161
Range	27
Minimum	75
Maximum	102

From the data above, we can see the total score of 30 respondents is 2757. By applying SPSS program, it shows that the mean of students' motivation score is 91, the median is 92, the range is 27, the minimum score of students' motivation is 75 and the maximum score of students' motivation is 102.

Based on the result above, there are 2 categories of motivation score. The first is low motivation, student categorized by low motivation has score under 92, and the second is high motivation, students categorized by high motivation has score above 92. The mode data of students' motivation score is 97, it means that most of the students have high motivation in learning speaking.

## **2. Students' Speaking Score**

The student's speaking achievement is as dependent variable (Y). To get student's speaking achievement, the writer using Final Exam score, which consist of five components of speaking skill: pronunciation, grammar, vocabulary, fluency and comprehension (Harris, 1969)

**Table 4.4.**

*Descriptive Statistics*

Mean	75,00
Median	72,50
Mode	70
Std. Deviation	8,305
Range	25
Minimum	65
Maximum	90

From Table 4.4, we can see that the total score from 30 respondents of students' speaking score is 2250. By applying SPSS program, it shows that the mean of students' speaking score is 75, the median of students' speaking score is 72, the mode of students' speaking score 70, the standard deviation of students' speaking score is 8,30, the range of students speaking score is 25, the minimum score of students' speaking is 65 and the maximum score of students speaking is 90.

Based on Table 4.4 the result statistic above, the average speaking score is 75. It means that most of the student's achievement is in the medium level. The minimum speaking score is 65 and most students got score in 70 score.

## 2. Normality Test

To assessed whether the data has standard normal distribution or not, the writer used normality test. The normality test result shown that the sig. Value  $0.2 > \alpha$  (0.05). It mean that the distribution of the data is normal, and  $H_0$  was rejected and  $H_a$  was accepted.

**Table 4.5.**

*Kolmogorov-Sminor Test*

*One-Sample Kolmogorov-Smirnov Test*

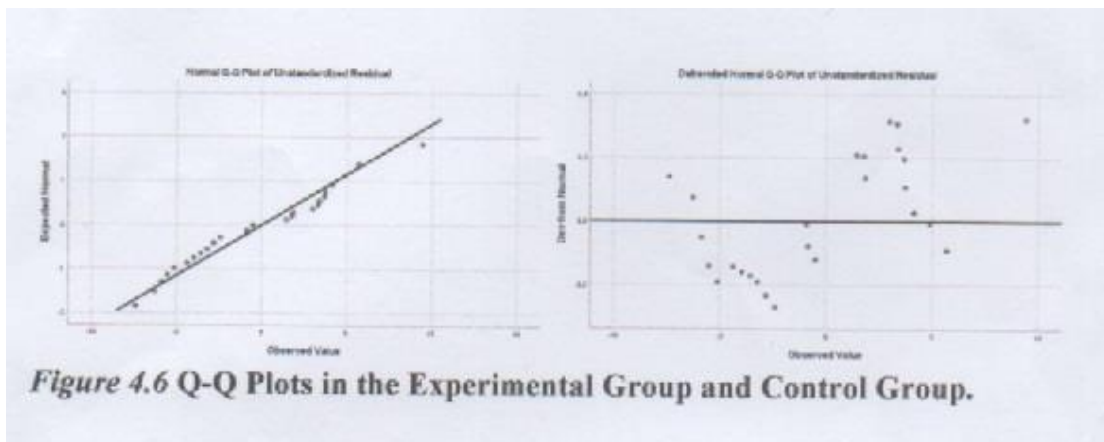
Unstandardized

Residual

N		30
Normal Parameters <sup>a,b</sup>	Mean	,0000000
	Std. Deviation	4,33977260
Most Extreme Differences	Absolute	,121
	Positive	,111
	Negative	-,121
Test Statistic		,121
Asymp. Sig. (2-tailed)		,200 <sup>c,d</sup>

a. Test distribution is Normal.  
b. Calculated from data.  
c. Lilliefors Significance Correction.  
d. This is a lower bound of the true significance.

The following are the visual description of the data normality in the Q plot figure. It exposed the data distribution in the experimental and control group. The distribution of the data are categorized if the points are close to the imaginary diagonal lines. Based on the figure 4.2, the data distribution of the data in the experimented control group were normal.



**Figure 4.6 Q-Q Plots in the Experimental Group and Control Group.**

### **3. The Correlation between Students' Motivation in Learning Speaking and Their Speaking Achievement.**

In this case, the correlation of students' motivation and students' speaking achievement would be test by using Pearson's Product Moment formula. The data are described in Table 4.5

To Measure the validity of the data in this study, the writer used correlation product moment or known also by correlation Pearson, as the following:

$$r_{xy} = \frac{N\sum XY - (\sum X)(\sum Y)}{\sqrt{\{N\sum X^2 - (\sum X)^2\} \{N\sum Y^2 - (\sum Y)^2\}}}$$

$r_{xy}$  = Correlation coefficient

$N$  = Number of sample

$X$  = Score of variable X

$Y$  = Score of variable Y

$$r_{xy} = \frac{30 \times 208.040 - 2.757 \times 2.250}{\sqrt{\{30 \times 254.469 - (2.757)^2\} \{30 \times 170.750 - (2.250)^2\}}}$$

$$r_{xy} = \frac{6.241.200 - 6.203.250}{\sqrt{\{7.634.070 - 7.601.049\} \{5.122.500 - 5.062.500\}}}$$

$$r_{xy} = \frac{37.950}{\sqrt{\{33.021\} \{60.000\}}}$$

$$r_{xy} = \frac{37.950}{44.511,35}$$

$$r_{xy} = \mathbf{0,853}$$

From the calculation above, it is found that  $r_{xy}$  is 0.853. The next step is to find the significance of variable by calculating  $r_{xy}$  is tasted by significance test formula ( Ridwan, 2011, p.81 ):

$$t_{\text{count}} = \frac{r \sqrt{n-2}}{\sqrt{1-r^2}}$$

In which:  $t_{\text{count}}$  = Value  
 $R$  = Value of correlation coefficient  
 $N$  = Number of sample

Therefore, it is calculated that :

$$\begin{aligned} t_{\text{count}} &= \frac{r \sqrt{n-2}}{\sqrt{1-r^2}} = \frac{0.853 \sqrt{30-2}}{\sqrt{1-0.853^2}} \\ &= \frac{0.853 \sqrt{28}}{\sqrt{0.273}} \\ &= \frac{0.853 \times 5.292}{\sqrt{0.273}} \\ &= \frac{4.511}{0.523} \\ t_{\text{count}} &= \mathbf{8,633} \end{aligned}$$



Before tested by  $t_{\text{count}}$ , the writer made two hypotheses of significance: an alternative hypothesis (  $H_a$  )and a null hypothesis (  $H_o$  ).

$H_a$  = There is significant correlation between two variables.

$H_o$  = There is no significant correlation between two variables

The formulation of test:

1. If  $t_{\text{count}} > t_{\text{table}}$  it means that the null hypothesis is rejected and there is significant correlation.
2. If  $t_{\text{count}} < t_{\text{table}}$  the null hypothesis is accepted and there is no significant correlation.

Based on the calculation above, the result is compared by  $t_{\text{table}}$  in the significant 0.05 and  $n = 30$ . The writer found out the Degree of Freedom ( $DF$ ) with the formula:

$$\begin{aligned} DF &= N - nr \\ &= 30 - 2 \\ &= 28 \end{aligned}$$

From  $DF = 28$ , it is obtained  $t_{\text{table}} = 2.048$ . It means that  $t_{\text{count}}$  is bigger than  $t_{\text{table}}$  or  $8,633 > 2.048$ . Therefore the alternative hypothesis is accepted. In other words, there is significant correlation between students' motivation in learning speaking and their speaking achievement.

### C. The Interpretation of Data

After the writer calculated the data by applying the correlation of Product Moment formula and finding the result of  $r_{xy}$ , the next level is to give interpretation of the  $r_{xy}$ .

From the analyzing data of student's motivation in learning speaking (X) and students' speaking score (Y), it appeared that the correlation index between X variable and Y variable is 0,853. It means that between both variables has high correlation. It can be seen at simple interpretation toward the correlation index "r" Product Moment ( $r_{xy}$ ) on the following table (Ibi, p.193).

**Table 4.6**

*The Simple Interpretation Of  $r_{xy}$*

<b>"r" Product Moment (<math>r_{xy}</math>)</b>	<b>Interpretation</b>
0.00 - 0.20	Very low / week
0.20 – 0.40	Weak
0.40 – 0.70	Medium
0.70 – 0.90	High
0.90 – 1.00	Very high

Therefore, from the calculation of both variables above and indicated to the table of interpretation of  $r_{xy}$  above, it interprets that in both of variables has correlation. By calculation above, it indicated that between X variable and Y variables has no negative correlation. It means that both of variables have positive correlation (one way correlation). It is considered that the higher motivation of students in learning speaking, the better speaking ability of student will get. In other words, students with high motivation in learning speaking will get better speaking achievement.

By looking at the result of  $r_{xy} = 0.853$ , It shows in the internal 0.70 – 0.90. It indicates the gravity of correlation in this study is in the high level. It concluded that there is high correlation between students' motivation in learning speaking and students' speaking achievement hypothesis of the study is accepted.

Then, in order to complete the result of the study, the interpretation of  $r_{table}$  is also used in the study. Firstly, the writer found out the Degree of Freedom ( $Df$ ) with the formula:

$$\begin{aligned} Df &= N - nr \\ &= 30 - 2 \\ &= 28 \end{aligned}$$

Secondly, by checking the “ $r$ ” table ( $r_t$ ) in  $Df = 28$ , it is found that at the degree of significance 5% is 0.361 and at degree of significant 1% is 0.463.

$$5\% = r_o : r_t = 0.853 > 0.361$$

$$1\% = r_o : r_t = 0.853 > 0.463$$

To know the correlation between  $r_o (r_{xy}) = 0.853$  and  $r_t$  with the *Df* (28) in the significance 5% and 1% , it can be concluded as follows:

The significance  $5\% = r_o : r_t = 0.853 > 0.349$ , it means that in the significance 5%  $r_o (r_{xy})$  is bigger than  $r_t$  . So, the null hypothesis ( $H_o$ ) is rejected and the alternative hypothesis ( $H_a$ ) which states there is correlation between student's motivation in learning speaking and their speaking achievement is accepted.

Beside, in the significance  $1\% = r_o : r_t = 0.853 > 0.463$ , it means that in the significance 1%  $r_o (r_{xy})$  is bigger than  $r_t$ . It is considered that the null hypothesis ( $H_o$ ) which state there is no correlation between students' motivation in learning speaking achievement is rejected and the alternative hypothesis ( $H_a$ ) is accepted. In other words, the alternative hypothesis ( $H_a$ ) is accepted both in significance 5% and 1%.

Furthermore, from the result above, it is considered that the higher motivation in learning speaking, the better speaking achievement will be achieved by the students. The students who have high motivation will make an effort to follow the learning process intensively, and they learn the lesson as well as possible not only in the school but also out of the school. They are motivated to enrich their vocabulary and to practice their speaking achievement. Moreover, motivated students usually feel

enjoyable in their learning. It makes them easier to speak up confidently wherever they are although English is a foreign language.

#### **D. The Test of Hypothesis**

To prove the result of hypotheses in this study, the writer calculated the obtained data by Pearson's coefficient correlation of Product of Moment in the previous term. Below are the formulation of hypothesis of this study:

1. The null hypothesis ( $H_0$ ) = There is no significant correlation between X variable and Y variable.
2. The alternative hypothesis ( $H_a$ ) = There is significant correlation between X variable and Y variable.

From the formulation above, the writer follows some assumptions as follow:

1. If the result of calculation  $r_o$  is lower than  $r_t$  ( $r_{table}$ )  $r_o < r_t$ , the null hypothesis is ( $H_0$ ) is accepted, and the alternative hypothesis ( $H_a$ ) is rejected.
2. If the result of calculation  $r_o$  is bigger than  $r_t$  ( $r_{table}$ )  $r_o > r_t$ , the null hypothesis is rejected and the alternative hypothesis ( $H_a$ ) is accepted.

The result of  $r_{count}$  value (0.853) is bigger than  $r_{table}$  value with significant value 0.05 and 0.01. So, the conclusion is:

- a.  $H_0$  is rejected.

- b.  $H_a$  is accepted.
- c. There is positive correlation between students' motivation in learning speaking and their speaking achievement at Second Grade of SMA Zaien Tebet.