

CHAPTER IV

RESEARCH FINDING

This chapter focuses on the presentation of the result of data analysis. This chapter discusses the description of the data, normality and homogeneity test, and hypothesis test.

The research finding of this study were speaking test and motivation questionnaire score. The null hypothesis of the study is: “The use of jigsaw technique is not effective on the students’ speaking skill and students’ motivation”. Meanwhile, the alternative hypothesis is conversely formulated as follows: “The use of jigsaw technique is effective on the students’ speaking skill and students’ motivation”.

A. The Description of the Data

Descriptive statistics is used to present the number of data, minimum score, maximum score, mean, and standard deviation. After computing the data collected, it was found that the mean score of speaking test from experimental group was 13.75, while the control group was 11.63. The highest score of speaking test from experimental group was 18 and the lowest score was 11. Then, the highest score of speaking test from control group was 14 and the lowest score was 9. Meanwhile, the mean score of motivation from experimental group was 155.31 and the control group was 147.49. Then, the highest score of motivation from experimental group was 194 and the lowest score was 101. Meanwhile, the

highest score of motivation from control group was 192 and the lowest was 87. The following table is descriptive statistic of the result of vocabulary test and motivation between experimental and control groups:

Table 4.1 Descriptive Statistics of the Mean Score

Descriptives						
		N	Mean	Std. Deviation	Minimum	Maximum
Speaking	experimental	35	22.26	2.780	18	29
	control	35	18.66	2.114	14	22
	Total	70	20.46	3.049	32	51
Motivation	experimental	35	155.31	18.557	101	194
	control	35	147.49	17.089	87	192
	Total	70	151.40	18.142	188	386

B. Data Analysis Result

This study used Manova to analyze the research data, since it would like to investigate the effect of independent variable, that is the application of jigsaw technique on two dependent variables; they are speaking skill and motivation which are normally distributed. Normality test was attached by the researcher in the appendix. The researcher used SPSS Statistics 20.0 to analyze the research data. The following table is the result of multivariate test:

Table 4.2 Result of Multivariate Test

Multivariate Tests ^a						
Effect		Value	F	Hypothesis df	Error df	Sig.
Intercept	Pillai's Trace	.993	4652.537 ^b	2.000	67.000	.000
	Wilks' Lambda	.007	4652.537 ^b	2.000	67.000	.000
	Hotelling's Trace	138.882	4652.537 ^b	2.000	67.000	.000
	Roy's Largest Root	138.882	4652.537 ^b	2.000	67.000	.000
Group	Pillai's Trace	.369	19.552 ^b	2.000	67.000	.000
	Wilks' Lambda	.631	19.552 ^b	2.000	67.000	.000
	Hotelling's Trace	.584	19.552 ^b	2.000	67.000	.000
	Roy's Largest Root	.584	19.552 ^b	2.000	67.000	.000

a. Design: Intercept + Group

b. Exact statistic

From the table above, it can be determined whether jigsaw affect the results of speaking ability and students' motivation simultaneously. To find out whether jigsaw affect both variables, it can be seen the significant value of Pillai's Trace, Wilks' Lambda, Hotelling's Trace, and Roy's Largest Root to a significant level of 0.05. Because the significant value obtained is 0.000, smaller than 0.05, it can be concluded that the use of jigsaw technique is effective toward students' speaking abilities and student motivation.

Table 4.3 Homogeneity Result

Levene's Test of Equality of Error Variances ^a				
	F	df1	df2	Sig.
Speaking	2.114	1	68	.151
Motivation	.090	1	68	.765

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + Group

The obtained Levene's test of equality of error variance, the significant value of speaking is 0.151. Because the significant value is higher than 0.05, the assumption of the similarity of the speaking population variant based on the jigsaw technique is fulfilled. The significant value of motivation is 0.765. Because the significant value is higher than 0.05, then the assumption of similarity in the population motivational variant based on the jigsaw technique is fulfilled.

Table 4.4 Tests of Between-Subjects Effects

Tests of Between-Subjects Effects						
Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	Speaking	226.800 ^a	1	226.800	37.201	.000
	Motivation	1072.514 ^b	1	1072.514	3.370	.071
Intercept	Speaking	29294.629	1	29294.629	4805.046	.000
	Motivation	1604537.200	1	1604537.200	5042.383	.000
Group	Speaking	226.800	1	226.800	37.201	.000
	Motivation	1072.514	1	1072.514	3.370	.071
Error	Speaking	414.571	68	6.097		
	Motivation	21638.286	68	318.210		
Total	Speaking	29936.000	70			
	Motivation	1627248.000	70			
Corrected Total	Speaking	641.371	69			
	Motivation	22710.800	69			

a. R Squared = .354 (Adjusted R Squared = .344)

b. R Squared = .047 (Adjusted R Squared = .033)

Based on the table above, in the row the significant value of the dependent variable speaking ability is 0.000. Because the significant value is lower than 0.05, it can be concluded that the application of the jigsaw method has a significant influence on student learning outcomes or H_0 is rejected.

Meanwhile on the method line the significant value of the dependent variable is 0.071 motivation. Because the significant value is higher than 0.05, it can be concluded that the application of the jigsaw method does not affect student motivation or H_a is accepted.

The hypothesis testing above indicated that the Null Hypothesis (H_0) from two dependent variables (speaking skill and motivation) was rejected. So, this study accepted the alternatives hypothesis that stated “jigsaw technique is effective on the students’ speaking skill and students’ motivation”. It means that jigsaw technique can increase the students speaking skill and can give the positive motivation to the students.