

The following histograms, scatterplot, and boxplot show the data after the identified outlier had been eliminated.

Figure 5.6
Histogram of Prior Reading Comprehension Achievement Scores for Experimental and Control Groups without an Outlier

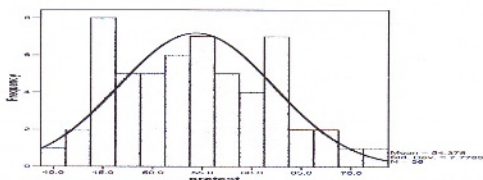


Figure 5.7
Histogram of Post Reading Comprehension Achievement Scores for Experimental and Control Groups without an Outlier

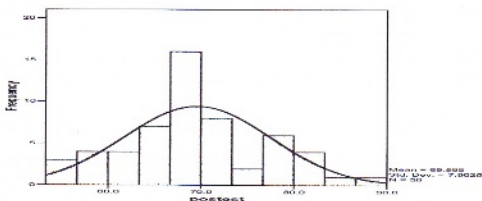


Figure 5.8
Boxplot of Post Reading Comprehension Scores by Gender of Students for
Experimental and Control Groups without an Outlier

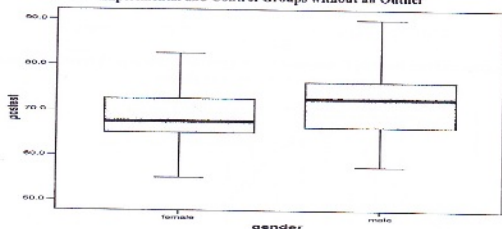


Figure 5.9
Boxplot of Post Reading Comprehension Scores by Group of Students for Experimental
and Control Groups without an Outlier

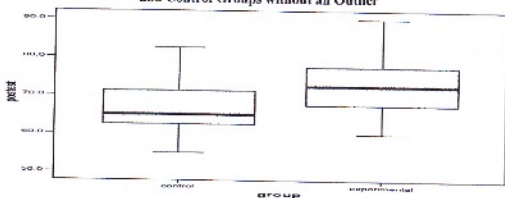
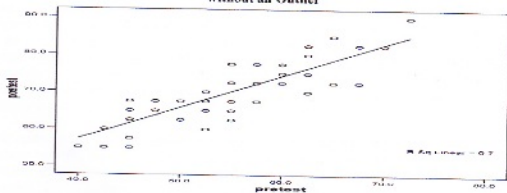


Figure 5.10
Scatterplot of Post Reading Comprehension Scores by Prior Reading Comprehension
Scores of Experimental and Control Groups
without an Outlier



The contribution to post reading comprehension scores of pre-reading comprehension achievement scores, experimental/control group, and gender were explored by using the multiple regression analysis. Table 9 presents the results of the statistical analysis.

Table 12
Multiple Regression Analysis of Students' Reading Comprehension Achievement on Pre-Test, Groups, and Gender

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	20.825	2.794		7.455	.000
pretest	.829	.051	.816	16.263	.000
group ¹	6.469	.780	.413	8.289	.000
gender ²	1.248	.889	0.71	1.404	.166
df=3			R ² = 0.872		F=117.818

Notes: N (Pre-test and Post-test) = 55

¹ Control Group= 0, Experimental Group=1

² Female=0, Male=1

The written pre-test variable is a significant predictor of students' post-test scores ($P=0.000$) or $P<0.05$. This means that if students' pre-test scores increase 1 point, the post-test will increase 0.829 as long as other variables are constant.

The group variable is a highly significant predictor of pre-test score ($P=0.000$) or $P<0.05$. It means that the students in the experimental group have scores 6.468 higher than students in the control group.

The gender variable is not a significant predictor toward the post-test scores ($P=0.166$) or $P>0.05$. However it shows that male students have scores 1.248 higher than female students.

Taking together pre-reading achievement scores, experimental/control group, and gender explain about 87.2% toward the post-reading achievement scores ($R^2 = 0.872$)

History: there was no particular and significant events happened during the period of experiment that might influence the results of the study. **Maturation:** all the students in this study were more or less at the same age. **Testing:** the students were used to taking the test because of the fact that the current evaluation system required the lecturers to carry out Mid Test I, Mid Test II, and Final Semester Test. **Instrumentation:** the way of scoring the students' papers was done exactly the same for the pre-test and post-test and by the writer himself. **Regression:** the way of selecting students for experimental and control groups of this study was done on the bases of a selection of their homogeneity. **Selection:** the students were learning under the same condition. **Mortality:** there was no single student dismissed from State Polytechnic of Sriwijaya in the study. **Interaction of selection and maturation:** the samples started their first year of State Polytechnic of Sriwijaya on the basis of their age (± 17 years old); therefore the interaction of selection and maturation was the same for the students in the experimental and control groups.

In terms of threats of external validity of the design, the following explanations can be described. The interaction of testing: the students were used to taking tests as part of their schooling requirements. The interaction of selection: criteria for students to enter the State Polytechnic of Sriwijaya were that they had graduated from high schools, therefore the interaction of selection could always be established in State Polytechnic of Sriwijaya. The reactive arrangements: the experiment was carried out on the basis of the students' homogeneity, the same pre-test and post-test, the same teacher, the same reading materials, the same teaching time as well as the same physical condition.

Under the condition of the research instrument, the results of the study were reliable on account of the fact that the reliability of the research instrument was 0.841. The results of the study were valid since the judgments of professionals were used. Under such these conditions, it was assumed that the results of the study were both reliable and valid.

6. CONCLUSION

The experimental group was able to obtain higher scores than the control one. Although the two groups had progress, but the progress of the control group was not so high as the progress of the experimental one. Based on the results of multiple regression, there was a significant difference of reading comprehension achievement between the students who were taught by using PQRS^T and the students who were taught by using the conventional method.

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