CHAPTER IV

RESULT AND DISCUSSION

This chapter presents results of the research to reveal the effect of CSR strategy compared to the conventional teaching strategy on students' reading comprehension across extroversion and introversion learner personalities. The descriptive data of the students' reading comprehension scores are displayed and the result of hypothesis testing are reported.

A. Result

The result present of the description of data, result of homogeneity and normality testing, data analysis and hypothesis testing.

1. The Description of Data

The descriptive data are display of the students' reading comprehension score both experimental and control groups and reading comprehension of students across learner personalities.

a. Students Reading Comprehension of Experimental and control groups

The primary instrument of this research used to investigate the difference on reading comprehension of students in the experimental and the control groups was reading comprehension test as posttest. It was administered after the treatment was completed for 8 meetings. The posttest in the experimental was done on 27 April 2019 on the 5th-6th period (9.50-11.10) and the posttest in the control group was administered on Tuesday, 23 April 2019. The students did the test for 80 minutes.

The result of the posttest from the experimental and the control groups analyzed using descriptive statistics to organize and describe the students' reading comprehension scores. The brief descriptive data of the posttest scores reported in Table 4.1

 Table 4.1 Descriptive statistic Data of posttest Scores in the Experimental and the

 Control Groups

Group	Ν	Range	Min	Max	Mean	Std. Deviation
Experimental group	33	36	56	92	71,15	9.026
Control Group	33	32	48	80	57,21	9.082

Based on Table 4.1, the scores of students in the experimental group ranged from 56 to 92 with standard deviation (SD) of 9.026 while the scores of students in the control group ranged from 48 to 80 with standard deviation of 9.082. Moreover, the mean scores from the experimental and control groups were 71,15 and 57,21 respectively. The mean difference between the groups displayed in Figure 4.1



Figure 4.1 The mean difference of posttest between the experimental and the control groups

The difference of the mean score from the experimental and the control groups was 19,82 points. It was concluded that the mean score of the experimental group was higher than the score of the control group. The detail of the students' posttest in each group is available in appendix 9.

b. Reading Comprehension of Students across Learner personalities

The analysis of the students' reading comprehension across different learner personalities was started by classifying the students; based on extroversion and introversion learner personalities(see appendix 11). Based on this classification, the students' reading comprehension scores were summarized based the following data.

c. The Result of Students' Learner personalities.

The students' learner personalities in the experimental and the control groups investigated by administering the learner personality questionnaire in both groups on 29th 2019. Based on the analysis of the data from the questionnaire, 19 students in the experimental group had introversion learner personalities and 14 students had extroversion learner personalities. In the control group, there were 18 students with extraversion learner personality and 15 students with introversion learning style. It can be concluded that the number of students with extraversion introversion and learner personalities was nearly equal in each group. The classification of students based on the learner personalities summarized in table 4.2. (see appendix 11).

Group	N	style			
	-	Extroversion	Introversion		
Experimental Group	33	19	14		
Control Group	33	18	15		
Total	66	37	29		

 Table 4.2 The classification of students based on the learning style

d. The result of Posttest of students across different learner personalities

In this research, extroversion and introversion learner personalities were attribute variable and teaching strategies as the independent variable. The students' reading comprehension scores across the learner personalities in the experimental and the control groups were analyzed. The descriptive data of the posttest scores across the learner personalities are shown in Table 4.3

 Table 4.3 Descriptive Data of Posttest Scores in the experimental and the control group across learner personalities.

Group	Learner	Ν	Range	Min	Max	Mean	Std
	personalities						Deviation
Experimental	Extroversion	19	36	56	92	69,05	9.318
	Introversion	14	24	68	92	74.00	8.337
Control	Extroversion	18	32	48	80	59,56	10.072
	Introversion	15	24	48	72	54.40	7.059
Both Group	Extroversion	31	44	48	92	79.76	3.588
	Introversion	35	44	48	92	78.88	4.091

The results of descriptive statistics shown that the mean score of students with extraversion learner personality taught using CSR strategy was 69,05 with SD of 9.318, while the mean score for students with introversion learner personality taught using CSR was 74.00 with SD of 8.337. Moreover, the mean score for students with extraversion learner personality taught using conventional teaching strategy was 59,56 with SD of 10.072 whereas the mean score balance for their the same group was 79,76 with SD of 3.588. Based on the results of the main scores,

it could be concluded that the main score for students with extraversion learner personality was higher than the mean score for students with introversion learner personality in each group. However, the difference between the mean score between extroversion students and introversion students in each group was only a few points, 4,95 point in the experimental group and 5,16 point in the control group. Figure 4.2 clearly shown the mean difference points between the two groups across the learner personalities.





Descriptive data for all students with extroversion learner personality from both the experimental and the control groups and for those with introversion learner personality were also summarized in table 4.3. As a whole, extraversion students from both groups gained the mean score of 79.76with SD of 10.072 whereas introversion students from both groups obtained the mean score of 78.88 with SD of 4.091. Figure 4.3 presented the mean difference of the students based on their learner personalities.



Figure 4.3 The mean difference of Posttest between extraversion and introversion.

Such as the difference in each group across learner personalities, the mean difference between students with introversion and those with extraversion learner personality as a whole also relatively small. It is apparent from the mean scores of the extroversion students and the introversion students, which were 79.76 and 78.88 respectively. Regardless the small mean difference, the extraversion students had higher mean score than the introversion did (see appendix 12).

2. The result of Homogeneity, Normality and Linearity

The quantitative analysis of the data in this research involved the investigation on the fulfillment of the statistical assumptions after descriptive statistical employed. Homogeneity, normality and linearity tests using SPSS 25.0 were performed to investigate whether or not the data fulfilled the statistical assumptions. The result becomes the prerequisite basis in selecting parametric or non-parametric statistics for hypotheses testing.

a. The result of homogeneity

Homogeneity test is used to examine whether or not the data reflect the students reading comprehension in the experimental and the control groups were equal and homogenous. This testing also employed to reading comprehension scores of students according to their learner personalities. Levine's statistic in SPSS 25,0 was performed to test homogeneity. The data were considered equal and homogenous if the observed significance value or p value was greater than 0.05 significance level (p value > sig .05). The brief results of the homogeneity test was reported in Table 4.4

Tab	le 4.	.4]	The	Result	of	The	Homog	geneity	Test
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Group	Levine Statistic	Sig	Interpretation
Experimental group and control group	1.482	0.228	Homogenous
Introversion and Extroversion in both group	0.482	0.490	Homogenous

Based on the p values in Table 4.4 the reading comprehension scores of students in the experimental group and the control groups were homogeneous. Similarly, the reading comprehension scores of students based on their learner personalities in both groups were also homogeneous.

b. The Result of Normality Testing

Normality testing is purposed to examined whether the data of students' reading comprehension scores were normally distributed. The normality test was computed in SPSS 25.0 using *Shapiro Wilk* The data were stated normally distributed if the p value was greater than 0.05 significance level (p value > sig.05). The result of the normality test briefly presented in following table.

Tests of Normality Kolmogorov-Smirnov^a Shapiro-Wilk Statistic df Sig. Statistic df Group Sig. .011 33 .070 Score Experimental .176 33 .905 Control .142 33 .088 .918 33 .060 a. Lilliefors Significance Correction

 Table 4.5 The Result of the Normality Test of both groups

 Table 4.6 The Result of the Normality Test in posttest of extraversion

and introversion both group

Tests of Normality								
		Kolmog	jorov-Sm	nirnov ^a	Shap	oiro-Wilk		
	Group	Statistic	df	Sig.	Statistic	df	Sig.	
Score	Extraversion	.138	38	.066	.928	38	.170	
	Introversion	.147	28	.127	.946	28	.156	
a. Lilliefors Significance Correction								

The normality of the students' reading comprehension scores tested on the basis of the groups the students belonged to and the classification of their learner personalities. The result of the normality test shown in table 4.5 revealed that the data distributed normally as all the p values were greater than 0.5 level of significance.

c. The result of linearity

Linearity testing was required to show the relationship between the students' reading comprehension scores and their scores in the learner personality questionnaire. Similar to the previous tests, linearity test was also computed is SPSS 25.0 program. The relationship of the data was linier if the p value was greater than 0.05 significance level (p value > sig. 05), while the relationship of the data was not linear if the p value was lower than 0.05 significance level (p value > sig. 05), while the relationship of the data was not linear if the p value was lower than 0.05 significance level (p value < sig.05). The result of the linearity test is displayed in Table 4.6

		AN	OVA Table)			
			Sum of Squares	df	Mean Square	F	Sig.
RC * LS Betweer Groups	Between	(Combined)	1662.177	7	237.454	1.365	.238
	Groups	Linearity	156.486	1	156.486	.899	.347
		Deviation from Linearity	1505.691	6	250.949	1.442	.214
	Within Grou	Within Groups		58	173.996		
	Total		11753.939	65			

Table 4.7 The Result of The Linearity Test

The result of the linearity test displayed in Table 4.6 shown that the p value was 0,214 which was greater than 0.05 level of significance. It can be concluded that there is a linear relationship between the students' reading comprehension and their learner personalities.

3. The result of Data Analysis

Based on the result from the data analysis on chapter 3, the research hypothesis were tested in this part. The hypothesis use two way ANOVA.

a. Hypothesis Testing 1

Hypothesis testing was done for the next step of the data analysis. The results of the hypothesis testing were employed to make decisions about the findings of this research so that the research problems related to the effect of CSR on reading comprehension of students across different learner personalities could be answered.

Test of statistical significance was performed using SPSS 25.00 in this step. If the observed significance value or p value from the test was higher than significance level of .05, the decision was to reject the established null hypothesis. Otherwise, if the p value was greater than the .05 level of significance, the null hypothesis was accepted.

The first research problem of this research was addressed on whether students taught by using CSR had better reading comprehension than those taught by using conventional teaching strategy. The first hypothesis tested related to the problem, the difference between students' reading comprehension scores in the experimental group and those in control group. It was analyzed using parametric statistics since the data satisfied in homogeneity and normality. Two way ANOVA was chosen to test of statistical significance for parametric statistics employed in this research. The result of the data analysis was reported in Table 4.8

 Table 4.8 The result Two Way ANOVA analysis on the difference of students' reading comprehension Scores in the Experimental and Control Group

Tests of Between-Subjects Effects									
Dependent Variable: Score									
Source	Type III Sum of Squares	df	Mean Square	F	Sig.				
Corrected Model	4400.419 ^a	7	628.631	7.076	.000				
Intercept	261584.668	1	261584.668	2944.509	.000				
TS	506.291	2	253.146	2.850	.000				
LS	275.161	2	137.580	1.549	.221				
TS * LS	112.568	2	56.284	.634	.534				
Error	5152.611	58	88.838						
Total	278100.000	66							
Corrected Total	9553.030	65							

a. R Squared = .461 (Adjusted R Squared = .396)

Based on the result of two way ANOVA analysis shown in Table 4.7, the obtained F value of 2944.509 with df = 1, resulted in a p value of 0.000.The p value was lower than .05 level of significance (p value < sig.05), which

indicated that the p value of 0.00 was statistically significance. Consequently, the null hypothesis, which stated that there was no significance difference in reading comprehension between students taught by using CSR and those taught by using conventional teaching strategy, was rejected. It concluded that the students taught by using CSR had better reading comprehension than those taught by using conventional teaching strategy (see appendix 13).

4.2 Hypothesis testing 2

The second research problem of this research was investigate the effect of CSR strategy compared to the conventional teaching strategy on reading comprehension of students as observed from students learner personalities. The second hypothesis tested related to the research problem, the posttest scores of extraversion students from both groups were compared of those introversion students using parametric statistics as the data fulfilled the statistical assumptions on homogeneity, normality, and linearity. The differences of the posttest scores among the students with extroversion and those with introversion learner personality in both the experimental and the control groups were compared using one way ANOVA. The result of the statistical comparison is displayed in Table 4.8

Levene's Test of Equality of Error Variance									
		Levene							
		Statistic	df1	df2	Sig.				
Score	Based on Mean	1.275	7	58	.278				
	Based on Median	.815	7	58	.579				
	Based on Median and with	.815	7	49.22	.580				
	adjusted df			5					
	Based on trimmed mean	1.232	7	58	.300				

Table 4.9 The result of Two way ANOVA analysis on the difference of Students' reading with different learner personalities.

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

a. Dependent variable: Score

b. Design: Intercept + TS + LS + TS * LS

The result of analysis on the comparison of the posttest scores between the extroversion and introversion students in both the experimental and the control group showed that the effect of learner personality was 0.278. The result shows that the obtained significant value was higher than the accepted significant level (sig.278>sig0,05) its means that so there was no enough evidence to reject the predetermined null hypothesis. This result also explained that although there was difference in the mean scores between the experimental and the control group as observed from the students' learning style, the difference was proven not statistically significant. In conclusion, there was no significant difference on students achievement in reading recount text across students' learner personalities. In other words, the extroversion students did not have better achievement in reading recount texts than the introversion students.

The detail of Two Way Anova analysis on the difference of students learner personalities are avaluable in Appendix 14.

4.3 Hypothesis testing 3

The third research problem was concerned with the interaction between teaching strategies and the students' learner personalities toward the students' reading comprehension. Similar to the previous analysis, parametric statistics was performed to analyze the data due to adequate fulfillment of statistical assumptions to test the third hypothesis related to the research problem. The interaction effect among the variables were analyzed using the feature of factor interaction in two way ANOVA and result is presented in Table 4.10

4.10 Table of Interaction between teaching strategy and learner personalities

	Type III Sum of				
Source	Squares	df	Mean Square	F	Sig.
Corrected Model	5280.882 ^a	3	1760.294	16.860	.000
Intercept	326486.183	1	326486.183	3127.138	.000
Teaching strategies	5034.956	1	5034.956	48.226	.000
Learner personalities	38.074	1	38.074	.365	.548
TS * LS	3.976	1	3.976	.038	.846
Error	6473.058	62	104.404		
Total	351024.000	66			
Corrected Total	11753.939	65			

a. R Squared = .449 (Adjusted R Squared = .423)

Based on the table 4.10 the same finding as has been revealed in testing the first and second hypothesis was found in which teaching strategies had significant effect on students' reading comprehension, indicated by p value of 0.548 which was greater than .05 significance level. It was also confirmed that no significance effect of learner personality was found toward students' reading comprehension as indicated by p value of 548 which was greater than 0,05 significance level. It was also reported in the result of the interaction analysis that p value of the interaction between teaching strategies and learner personalities toward students reading comprehension was 0.864 which was greater than .05 level of significance. Thus, there was no interaction between teaching strategies and learner personalities toward students reading strategies and learner personalities toward students personalities toward students reaching strategies and learner personalities toward students 'comprehension. In addition, the interaction among teaching strategies and learner personalities toward students' reading comprehension is described in Figure 4.4

Figure 4.4 The Interaction between teaching strategy and learner personalities



The absent interaction between teaching strategies and learner personalities was supported by the lines of the interaction, as shown in figure 4.4, which did not cross each other and this indicated that no disordinal interaction occurred. The lines are also almost parallel, which that the ordinal interaction was not significant. All in all, the main effect of teaching strategy in this research did not depend of the factor of learner personality as the attribute variable.

4. Discussion

The discussion of the findings presents about interpretation of research findings. The interpretation of the findings is made by relating the findings to the existing and relevant theories.

a. CSR, the conventional teaching strategy and reading comprehension.

This research was to investigate the effect of CSR compared to the conventional teaching strategy on reading comprehension of students as observed from extroversion and introversion learner personalities. As regards the first formulated research problem, this research stated that the students taught using CSR out performed those taught using the conventional teaching strategy. This is evident from the result of the first hypothesis testing which indicated that the mean difference in posttest between the students taught using CSR and those taught using the conventional strategy was statistically significant of the class receiving SCR treatment. This evidence is also supported by the difference of

17,82 point on the mean scores of reading comprehension posttest between experimental and the control group in which the mean score from the experimental group was higher (80.61) than the mean score from the control group (62,79). Thus it is proved that CSR is confirmed by this research more effective strategy than the conventional teaching strategy in enhancing students' reading comprehension in EFL context. As noted by Morreilon (2007:10) that CSR effective in reading comprehension in L2 context.

This finding of this research is pertinent to the theory of CSR (Klinger et all., 2007) which states that the goal of this strategy is to improve students' reading comprehension. The teaching and learning process for the treatment in this strategy was designed carefully on the basis of CSR procedure proposed by the scholars (Klingner et all.,2007) to fulfill the important components of CSR and to achieve its goal. The students' reading comprehension was facilitated by the application of the major strategies of CSR. CSR implemented by the student's opportunity to activated their background knowledge and make prediction about texts given. Previewing self-monitoring in the text was understood and which during click and clunk stategy the students could solve their comprehension background. Fix-up strategies used to get of main idea in the paragraph of the text and during get the gist strategy the students conveyed the most important idea and excluding the unnecessary details, and to make questions related to the texts as well as to summarize the key idea for the while given text during wrap-up strategy in order to enhance their understanding and memory of what they have read. Good implementation of CSR believed as notable contribution to the significant effect of CSR on students' reading comprehension as the quality of CSR implementation influences the students' reading comprehension gains (Klinger et all.,2004)

Moreover, the comprehension strategies of CSR is made principles to scaffolding students in learning and collaborative approach in CSR are advantageous to help the students comprehend the given texts. Treatment was practicing of this research made the students able to be independent practices in groups.

The finding was in line with previous studies that were conducted by Alamin and Admed (2014). Their research found that CSR had better reading strategies to increase Taif Univercity students in understanding reading comprehension. CSR proved enhance students in getting the main idea and finding supporting details. This strategy suggest to implementing for better comprehension strategy instruction for the learners to adopt some degree of strategic reading behaviors, and effort to fully develop their strategic reading abilities.

This research also obtain the similar result to the previous research conducted by Mandieata at all (2015) which carried out five public educational institutions by a group of English researcher and teachers in Colombia. The empirical evidence confirming the effect of CSR could foster reading comprehension on learners and help them become self-directed learners. Result indicate that the CSR use impacted participants' learning attitudes and habit positively.

To conclude, the significant effect of CSR compared to conventional teaching strategy on students' reading comprehension of this research is consistent with the majority of the previous research. CSR can facilitate students to cover the problems face in reading comprehension and reinforce collaboration as well as communication.

b. The effect of CSR on students reading comprehension as observed from different learner personalities.

The second research problem related to the effect of learner personalities on students' reading comprehension was answered by the second hypothesis testing. The result show dissimilar result to the first hypothesis testing. The statistical analysis shown that there was no significant difference on reading comprehension between students with extraversion learner personality and those with introversion learner personality in spite of the difference on the mean scores between the students with extroversion learner personality(72,65) and those with introversion learner personality(70,48). Further statistical comparison of the mean scores between the extroversion students and introversion students in each group also obtain insignificant difference. It can be understand that both students with extroversion and introversion learner personalities demonstrated equal gain. Throughout analysis was conducted on the basis of the characteristics of each learner personalities by Eyesenck (1975) and learning activities practiced in each teaching strategy to provide logical explanations for the insignificant difference. CSR and conventional teaching strategy primarily emphasized reading activity which give more benefit to extroversion students theoretically react in reading. While reading activity is beneficial for extroversion students in brainstorming during previewing strategy in CSR and teacher question in prereading stage in conventional teaching strategy give more benefit to introversion students who like generating lots of ideas. Thus, mutual features of both teaching strategies might explain why extroversion and introversion students obtain equal benefit from both teaching strategies.

The reason underlying the insignificant difference between extroversion and introversion students are further viewed from the procedure and the component of CSR. Extroversion students get more positive learning experience in the explicit instruction and modeling of CSR since these activities enable them to learn by observing and listening. Learning log as the component of gives extroversion students chance to reflect what they have learned from reading activity to enhance their knowledge construction. In addition, the procedural activities in CSR match the characteristic of extroversion students who are methodological and like structured procedure. The finding of this research is in line with the findings of Nosratania (2017) research which employed with the mind mapping concept that there was no significance different in reading comprehension two groups of students with different learner personalities, extroversion and introversion learner personalities. In the same way, Nosratania (2017) stated that the extroversion student more get benefit in self- regulation of learning reading than the introvert students.

c. The Interaction between Teaching Strategy and Learner personalities

In relation to the third research problem concerning on the interaction between teaching strategy and learning style, this research clarify that there was no interaction between teaching strategy and learner personality on reading comprehension.

The effect interaction between learner personality and reading comprehension was not found. The interaction effect found on the teaching strategy and reading comprehension that CSR was proven able to help the students performed better than those taught using conventional teaching strategy on reading comprehension posttest.

There was no interaction between teaching strategy and students' learner personalityin the form of extraversion and introversion learning style, it was not suggested that CSR strategy is implemented without optimizing its particular elements which are supposed influential to comprehension gain the students with one of the two learner personalities. In spite of the absent two factor interaction, CSR should be applied by optimizing each of its elements and components so that the students, regardless their learner personalities, can benefit from CSR due to the fact that this study showed considerable percent contribution of teaching strategy, in support of CSR in reading comprehension.