Effect of Cooperative Integrated Reading Composition (CIRC) on Reading Comprehension of High School Students in OKU Timur

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Keywords: Reading Comprehension, and CIRC (Cooperative Integrated Reading Composition).

Abstract: The aim of this study to find out wheter there any significant or not difference between the students who are taught by using CIRC and the students who are taught by using conventional method. The method of this study use quasi experimental, because quasi experimental design refers to as compromise research, an appropriate description when applied to much educational research. The writer used two classes like experimental and control class. In experimental class, pre-test conducted to measure the students' ability in learning reading comprehension before treatment, and post-test conducted to know the progress of the students' achievement of reading comprehension mastery. The result of the analysis indicated of It could be seen from t-obt of the posttest score in the experimental and control group was 8,909 at the significance level $\alpha = 0.05$ in two tailed test with df (n-2) = (63-2) = 61, Whereas, it could be seen based on the statistical analysis the value of t_{obt} 8,909 was higher than critical value of t_{t} 2.000. From that analysis , concluded that CIRC method was effective in reading comprehension to high school studentsin OKU Timur.

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1 INTRODUCTION

English language is the first foreign language in our country and it is learned by all students not only in primary school but also in university level. The reason why someone wanted to learn foreign languages particularly English because they thought it offers a chance for progress in their life. By mastering English language, they would get a better job than they just knew their national language. Now days, since English has become one of the international languages of communication English has a special position in the global world.

Based on the statement above, it is a must for Indonesian students to master their English subject as well as possible, as stated in the curriculum 2006 which is "the aim of leaning English subject is to develop communicative competence in spoken and written form to achieve functional literacy." People need communicate in making interaction to other people around them and also in doing daily activities. With communicate, it can make people easy to use language to share their idea or something that they want to say. Therefore, the first thing that the students have to increase their English. And English has four basics English skill, such as: listening, reading, speaking, and writing.

One of the skills will be discussed in this study is reading. Reading is one of the skills that is learnt by the students. Reading is the skill that very important to get knowledge. It also helped the students to gain information from the print page. According to Grabe and Stoller (2002), reading is the ability to draw meaning from the print page and interpret this information appropriately. Reading involve not only supply English sounds to the written words but also understanding of what is written. It means that, reading comprehension is the ability to understand information which present in a written material.

The subject of study at high school students in OKU Timur especially the eleventh-grade students, the writer observed the situation in the class when the student's study was passive, and in the class were not enthusiastic, slept, bored, etc. So, the interaction in the class was low. Beside that many students can read the text but don't know to tell what they read extemporaneously, because they just read as they taught it acceptable.

The way to solve the student's difficulties in reading, the writer used the CIRC as the method. According to Slavin (2010), Cooperative Integrated

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Reading Comprehension (CIRC) was a comprehensive program to teach reading, writing and language arts at a higher grade at the elementary level. In CIRC, students are assigning teams composed of pairs of students from different reading group. While the teacher was work with one reading group, students in the others group were a work in the pairs on the series of this theory will be enjoyable activities, include reading to another group, making portends about how narrative stories will come out, writing responses to stories, summarizing stories to one another, decoding and vocabulary and practicing spelling.

Moreover, Rahvard (2010), CIRC is a comprehensive program to teach reading, writing and language arts at higher grade of elementary level. CIRC development that is simultaneously focus on curriculum and teaching methods in a trial to use cooperative learning as a means to introduce the latest technical training curriculum exercises derived mainly from primary research on the practical of reading lessons that emphasize group goals and individual responsibility.

Based on the explanation above, the writer interested in carrying out of study the used of Cooperative Integrated Reading Composition (CIRC) on reading comprehension to the students, So the writers entitle "Effect of Cooperative Integrated Reading Composition (CIRC) on Reading Comprehension of high school students in OKU Timur". And the objective of this study is to find out whether there any significant or not difference between the students who are taught by using CIRC and the students who are taught by using conventional method of high school students in OKU Timur.

2 RESEARCH METHOD

According to Arikunto (2006), study is the way that used by writer in collecting the data in the study. In this study, the writer used quantitative research. Quantitative research has two methods commonly used namely survey and experimental method. Cohen (2005) classified experimental method into three design; pre-experimental, quasi experimental, and true experimental. Here the writer chosen quasi experimental, because quasi experimental design refers to as compromise research, an appropriate description when applied to much educational research.

The design incriminates experimental and control class. The experimental class that has given a treatment and control class used conventional method. The population of this study was all of the eleventh grade of high school students in OKU Timur. So, the numbers of populations were 130 students. It could be seen in table 1

Table 1: Population of study.

No	Class	Number
1.	XI. IPA 2	32
2.	XI. IPS 1	31
3.	XI. IPA 1	33
4.	XI. IPS 2	34
	Total	130

The technique used purposive sampling. Reasons for using purposive sampling : Often many restrictions prevent writer from taking samples randomly. So if using random sampling, will make it difficult for writer. By using purposive sampling, it is expected that the sample criteria obtained really fit with the study that will be done.The sample of this study consist of 63 students. Could be seen in the following table 2.

Table 2: Sample of the Study.

No.	Class	Group	Number of Sample
1.	XI. IPA2	Experimental	32
2.	XI. IPS1	Control	31
	Total		63

3 RESULT AND DISCUSSION

There has related previous study was written by Madhu Gupta and Jyoti Ahuja Entitles "cooperative integrated reading composition (CIRC): Impact on Reading Comprehension Achievment in English between Seventh Graders". The aim of their study was to establish the effect of the Cooperative Learning Approach-Cooperative Integrated Reading Composition (CIRC) on the Reading Comprehension Achievement in English. Then, they explained that acquisition Reading Comprehension achievement value in English of experimental group and control group different from value of experimental group. This study conclude that students who are taught English through co-operative learning strategy CIRC was more benefit in their Reading Comprehension achievement than the students who were through by using conventional method of teaching.

In this faction, the writer explains the findings of the study that was already done. In this findings section, the writer explained the result of the study.

3.1 The Result of Pre-Test and Post Test in the Experimental Group

Pretest was given to the students in experimental group to know the students achievement before the students were taught by using CIRC strategy. After The writer gave 6 times for treatment to the students in teaching reading comprehension by using CIRC strategy, the writer gave the students posttest which was intended to know how far the students' progress in their reading comprehension. In the pretest and posttest the sample of the students were 32 students. The data of the frequency of the students' score for pretest and posttest of experimental group could be seen in table 3 to 4.

Based on the Table 3, mode of the pre-test score in experimental group was 5.20, median was 5.20, the lowest score of was 2.80 and the highest score was 6.40, and mean of the score was 4.92, with standard deviation was .858.

Meanwhile, based on table 3 on posttest in Experimental group and chart 2, mode of the posttest score in experimental group was 7.20, median was 7.20, the lowest score of was 5.60, and the highest score was 8.80, and mean of the score was 7.15 with standard deviation was .69. Next, the writer interpreted the students' score into distribution table as presented in Table 4.

Based on the Table 4 above of pre-test in the experimental group, it was obtained that there was nobody (0%) student who got excellent, very good level of competency, good level of competency and students who got moderate level of competency, 17 (53,125%) students who got enough level of competency, 9 (18,75%) students who got low level of competency and the last 6 (18,75%) student who got poor level of competency.

Table 3: Frequency of the pre-test and post-test score in the experimental group.

Pretest of Experimental group						Posttest of Experimental group				
		Freq	Perc	VP	CP		Freq	Perc	VP	CP
Valid	2.8	1	3.1	3.1	3.1	5.6	2	6.2	6.2	6.2
	3.2	1	3.1	3.1	6.2	6	1	3.1	3.1	9.4
	3.6	1	3.1	3.1	9.4	6.4	3	9.4	9.4	18.8
	4	3	9.4	9.4	18.8	6.8	4	12.5	12.5	31.2
	4.4	5	15.6	15.6	34.4	7.2	12	37.5	37.5	68.8
	4.8	4	12.5	12.5	46.9	7.6	5	15.6	15.6	84.4
	5.2	7	21.9	21.9	68.8	8	4	12.5	12.5	96.9
	5.6	5	15.6	15.6	84.4	8.8	1	3.1	3.1	100.0
	Total	32	100,0	100,0		Total	32	100.0	100.0	

Table 4: The distribution score of pre-test and post-test in the experimental group.

Score interval	Level of competency	Pre-test in the experimental group		Post-test in the experimental group	
		Score		Score	
		Frequency	Percentage (%)	Frequency	Percentage (%)
91-100	Excellent	0	0 %	0	0 %
81-90	Very Good	0	0 %	2	6,25%
71-80	Good	0	0%	16	50%
61-70	Moderate	0	0 %	19	59,37%
51-60	Enough	17	53,125%	3	9,37%
41-50	Low	9	28,125%	0	0 %
0-40	Poor	6	18,75%	0	0 %
Total (N)	32	100 %	32	100%	

Meanwhile, based on Table 7 of post-test in the experimental group it was found that there were 2 (6,25%) students who got very good level of competency, there were 16 (50%) students who got good level of competency, there were 19 (59,37%) students who got moderate level of competency. For

the level of competency of excellent, enough, low, and poor were nobody got it.

In addition, the following table is the descriptive statistics of pre-test and post-test in the experimental group that used to get information about number of samples, range, minimum score, maximum score, sum, mean, standard deviation (SD), variance, skewness and kurtosis. It could be seen in Table 5.

Table 5: Descriptive statistics of pretest and posttest in the experimental group.

	N	Range	Minimum	Maximum	Sum	Mean		Std. Deviation	Variance	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Pre-test score experimental group	32	3,60	2,80	6,40	157,60	4,9250	,15180	,85873	,737	-,560	,414	,003	,809
Post-tests experimental group	32	3,20	5,60	8,80	228,80	7,15	,12280	,69468	,483	-,308	,414	,723	,809
Valid N (listwise)	**32**												

Table 6: Frequency of the pre-test and post-test score in the control group.

Pre-test of control group						Post-test of control group				
		Freq	Perc	VP	CP		Freq	Perc	VP	CP
Valid	3.2	1	3.1	3.2	3.2	3.2	1	3.2	3.2	3.2
	3.6	1	3.1	3.2	6.5	4	1	3.2	3.2	6.5
	3.8	1	3.1	3.2	9.7	4.4	1	3.2	3.2	9.7
	4	1	3.1	3.2	12.9	4.8	5	16.1	16.1	25.8
	4.4	3	9.4	9.7	22.6	5.2	6	19.4	19.4	45.2
	4.8	9	28.1	29.0	51.6	5.6	4	12.9	12.9	58.1
	5.2	6	18.8	19.4	71.0	6	9	29.0	29.0	87.1
	5.6	8	25.0	25.8	96.8	6.4	3	9.7	9.7	96.8
	6	1	3.1	3.2	100.0	6.8	1	3.2	3.2	100.0
	Total	31	96.9	100.0		Total	31	100.0	100.0	

Table 7: The distribution score of pretest and posttest in the control group.

Score interval	Level of competency	Pre-test in the control group		Post-test in the control group	
		Score		Score	
		Frequency	Percentage (%)	Frequency	Percentage (%)
91-100	Excellent	0	0%	0	0 %
81-90	Very Good	0	0%	0	0%
71-80	Good	0	0%	0	0%
61-70	Moderate	0	0%	4	12,90%
51-60	Enough	15	48,38%	19	61,29%
41-50	Low	9	29,03%	6	19,35%
0-40	Poor	4	12,90%	2	6,45 %
Total(N)	31	100 %	31	100%	

Table 8: Descriptive statistics of pre-test and post-test in the control group.

	N	Range	Minimum	Maximum	Sum	Mean		Std. Deviation	Variance	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Pre-test group control	31	2,80	3,20	6,0	153,00	4,9355	,11855	,66007	,436	-,831	,421	494	,821
Post-test group control	31	3,60	3,20	6,80	169,20	5.4581	,13949	,77665	,603	-834	,421	1.053	,821
Valid N (listwise)	31												

3.2 The Result of Pre-test and Post-test Score in the Control Group

Before the writer conducted the research in the control group, the writer gave a pretest to the student to know the students' reading comprehension. And after the writer gave treatment by using conventional strategy, the writer gave a posttest to know how far the students' mastery in reading comprehension. In the pretest and posttest of control group sample of the students were 31 students. The data of the frequency of the students' score for pretest and posttest of control group could be seen in Table 6.

From the Table 6 of pretest in the control group and Chart 3, mode of the pre-test score in control group was 4,80, median was 4,80, the lowest score was 3,20 and the highest score was 6,00. Meanwhile, mean of the score was 4,93 with standard deviation was .66.

Furthermore, from the Table 9 of posttest in the control group and Chart 4, mode of the post-test score in control group was 6, median was 5.6, the minimum score was 3.20 and the maximum score was 6.80. Meanwhile, mean of the score was 5.45 with standard deviation was .77. Then, the writer interpreted the students' score into distribution table as presented in Table 7

Based on the distribution score on table 7 above, it was found that criteria of pre-test in the control group, there was nobody (0%) in an excellent and very good level of competency, good level of competency, in a moderate level of competency, 15 students (48,38%) were in an enough level of competency, 9 students (29,03%) were in a low level of competency and there were 4 students (12,90%) in a poor level of competency.

Besides, Table 7 of post-test in the control group it was found that there were 4 students (12,90%) who got moderate level of competency, and the last there were 19 students (61,29%) who got enough level of competency. 6 (19,35%) who got low level, 2 (6,45%) who got poor level. For the level of competency of excellent, and very good were not students got it.

Moreover, the following table is the descriptive statistics of pre-test and post-test in the experimental group that used to get information about number of samples, range, minimum score, maximum score, sum, mean, standard deviation (SD), variance, skewness and kurtosis. It could be seen in Table 8.

Table 9: Independent t-test.

		Levene's test for equality of variances		t-test for Equality of Means						
		F	Sig.	T	Df	Sig. (2tailed)	Mean Differenc e	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
post test scores in the control and Experimental Group	Equal variances assumed	,796	,376	8,990	61	,000	1.71694	1,9099	1.33503	2.09884
	Equal variances not assumed			8,983	60,597	,000	1,71694	1,9114	1,33468	2.09919

According to the Table 8, the calculation of Levene Statistic by using SPSS 16, it was found that the value of sig was 0.376. it was higher than value of sig (0.05). So, it meant that the sample taken from experimental and control group were homogeneous.

The Independent t-test is the most commonly used method to evaluate the differences in mean between the two groups, to find out whether or not there was any significant difference in reading ability, the writer compared the result of the posttest in control group and experimental group by using Independent t-test. The result of the SPSS 16 calculation was described as follows:

Therefore, based on Table 9 of Independent ttest the value of t-obt = 8,909 is higher than t-t = 2.000. And the value of sig (2-tailed) = 0.001 less than the value significance level (0.05). Finally, the writer concluded that alternative hypothesis (Ha) of this study was accepted and null hypothesis (H0) of this study was rejected.

4 CONCLUSIONS

Based on the findings above, it could be interpreted that reading comprehension by using CIRC was effect. It could be seen from t-obt of the posttest score in the experimental and control group was 8,909 at the significance level $\alpha = 0.05$ in two tailed test with df (n-2) = (63-2) = 61, Whereas, it could be seen based on the statistical analysis the value of t_{obt} 8,909 was higher than critical value of t_{t} 2.000. Therefore, Null Hypothesis was rejected and Alternative Hypothesis (Ha) was accepted. It meant that there was the influence between students who were taught by using CIRC and students who were not taught by using CIRC.

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REFERENCES

Arikunto, Suharsimi.2006.*Prosedur Penilitian Suatu Pendekatan Praktik.* Jakarta: Rineka Cipta.

Cohen, Louis, Lawrence Manion, & Keith Morrison. 2005. *Research Methods In Education.* New York: Routledge Falmer.

Frankel, R. J & Wallen, E.N.2011. *How to Design and Evaluate Research In Education.*san Fransisco State University: McGrow Hil.

Grabe, William & Fredericka L Stoller. 2002. *Teaching and Researching Reading.*Person

Education: Longman. Gupta, Madhu, & Jyoti Ahuja. 2014. Cooperative integrated reading composition (CIRC): Impact on reading comprehention achievement in english among seventh graders: *International Journal of Research in Humanities, Arts and Literature. 2(5), 37-46.* Nurgiantoro, Burhan. 2010. *Penilaian Pembelajaran Bahasa.* Jogjakarta: BPFE.

Rahvard, Z. J. 2010. *Teaching Cooperative Integrated Reading Comprehansion (CIRC).*

Education: Longman. Slavin, E. Robert. 2010. *Cooperative Learning.*

Bandung: Nusa Indah. Sudijono, A. 2006. *Pengantar Statistik Pendidikan.* Jakarta: Grafindo Persada.