

Using Cooperative Integrated Reading and Composition (CIRC) To Improve Reading Comprehension Achievement

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Abstract

The objectives of this study were to see if there was a significant improvement before and after using the CIRC Method at SMP Nurul Amal Palembang, and if there was a significant difference in reading comprehension between students who were taught using CIRC and those who were not. This study used quantitative research with a quasi-experimental design. The sample of the study was taken from the population at eighth grade consisting of 56 students from two class. The data were obtained from pre-test and post-test. The instrument of the research are pre-test and post-test and the researcher used t-test formula for collecting data. To determine the improvement before and after implementing the CIRC method, a paired sample t-test was conducted. The result indicated that there was significant improvement in students' reading comprehension achievement through CIRC method with the value of sig. (2-tailed) 000 lower than 0.05. Therefore, the null hypothesis (Ho) was rejected and the alternative hypothesis (Ha) was accepted. It suggests that using CIRC to teach reading enhances students' reading comprehension. To determine the difference between those who were taught using CIRC and those who were not, an independent sample t-test was conducted, and the results showed that p-output (sig. (2-tailed)) was 0.000 less than 0.05. It indicates that the alternative theory was accepted. Additionally, the study found that using CIRC method to teach reading comprehension to students is very useful. Because of this, using CIRC method can help students' reading comprehension.

Keywords: CIRC, Reading Comprehension

A. Introduction

Reading refers to the ability to comprehend written material. Haerazi et al. (2019) defined reading as the cognitive process of comprehending written material. It is critical for students to have a thorough knowledge of the topic they are reading and to derive meaning from the textual material. Students can engage with written content to improve their understanding and knowledge in the setting of reading comprehension. Agustiani (2016) argues that the students' linguistics skill needs to improve in understanding English reading material. This is a challenge for junior high school students because, despite curriculum changes, reading has consistently been the primary ability assessed.

The reading comprehension of Indonesian students needs to be improved. According to PISA (2018) results, only 30% of Indonesian students meet the minimum reading ability competency. This study also discovered a significant disparity (distance) in each region's quality and educational outcomes. An appropriate teaching methodology is required because of the difficulties in learning to read. One suggested method for teaching reading is cooperative integrated reading and composition (CIRC).

According to Slavin (2012), the CIRC method for teaching reading emphasizes group learning activities, and the students engage in a conversation in small groups of no more than four students. CIRC is proposed due to some advantages. Slavin (2012), cited in Halimah (2015), claimed some of the advantages are: 1). The selected activities are by students' interest and needs, 2). Offers students worthwhile learning activities so that their learning outcomes can last longer; 3). Students' thinking abilities can expand and develop through integrated learning; 4). Presents integrated learning activities that are practical (helpful) in light of the issues frequently present in students' surroundings; 5). The motivation of students to learn can be increased through integrated learning; 6). Develop kids' social skills, including teamwork, tolerance, communication, and respect for other people's perspectives, and 7). Extend the perspectives, aspirations, and learning drive of instructors.

A preliminary study was conducted by interviewing one of the teachers of English at SMP Nurul Amal Palembang. Based on the interview, the researcher found that in the lesson plan used by the English teacher at SMP Nurul Amal Palembang. The actions used by the English teacher when instructing students to read texts include preparing the course materials. The students are quiet while waiting for the teacher to explain the literature they are studying. The teacher gives the class 10 minutes to read the material aloud. Then, the teacher gave the students a chance to present the information they had learned from the text, after which the teacher added or rephrased the information they had trouble understanding. This method needs a more profound understanding of the text because students only read for 10 minutes without using the proper method. SMP Nurul Amal Palembang students' reading ability is far from the curriculum standard because, for 1,5 years, students have studied online (DA, Personal Communicate, February 6th 2022).

According to prior research, the CIRC method has shown to be effective in improving reading comprehension. On the same topic has been explored by other scholars. The initial study conducted by a researcher hailing from Mubarok (2017) revealed that the reading mastery of students of the experimental group performed better than the control group,

indicating that CIRC increases students' reading ability better than the teaching strategy. Used by the Teacher. Thus, in the teaching step using CIRC, this method can also cover the shortcomings of the method used by the teacher. Namely, this method will make students understand the reading in detail through the text and the students are actively improved and more motivated to read and learn English lessons, and it easier to comprehend the text. Pransiska (2016) revealed that the CIRC method gain the students'.interest in learning English, especially for reading material. In terms of students' motivation and activeness, the students' are actively improved and more motivated to read and learn English lessons, and easier to comprehend the text. Thus, in the teaching step using CIRC, this method can also cover the shortcomings of the method used by the teacher.

Based on the aforementioned research, the writers have concluded that discrepancies exist in comparison to prior studies, which can be attributed to variations in research methodology and the nature of the textual material employed. The aforementioned research endeavours employed a combination of qualitative and quantitative methodologies, and the literary materials utilized were of a narrative nature. The present study employed an experimental research design and utilized descriptive and recount texts as reading materials. Based on the previous explanations, the writers were interested in conducting the study, which aimed to determine 1)Whether or not there is a significant difference between the eighth-grade students reading comprehension achievement at SMP Nurul Amal Palembang who are taught by using CIRC and those who are not, 2)Whether or not there is a significant improvement on the eighth-grade students' reading comprehension achievement at SMP Nurul Amal Palembang who are taught by using CIRC before and after the treatment.

B. Research Methodology

In this study, the researcher used a quantitative research design based on an experimental method. According to Creswell (2018), experimental research tests the independent variables to determine whether it influences dependent variables. The researcher will apply a quasi-experimental research design, specifically a nonequivalent group design. According to Fraenkel (2019), random assignment is not used in the quasi-experimental design. A quasi-experimental research design, also known as a design, manipulates independent variables to determine the effect those variables have on the dependent variable. The specific type of design that the researcher will implement is a pretest-posttest nonequivalent group design.

Population and Sample

Fraenkel et al.(2019) said the population was the group of interest to the researcher, the group to whom the researcher would like to generalize the study result. In this study, the population of this research were all eighth-grade students of SMP Nurul Amal Palembang. There are 158 students. Overall, 93 of whom are male and 65 of whom are female.

Table 1. The Population of the Study

No	Class	Students		Total
		Male	Female	
1	VII 1	17	10	27
2	VII 2	14	13	27
3	VIII 1	18	10	28
4	VIII 2	17	11	28
5	IX 1	13	13	26
6	IX 2	14	8	22
TOTAL OF STUDENTS				158

(Source : SMP Nurul Amal Palembang, academic year 2022-2023)

The sampling method that will be used in this study is the convenience sampling technique. Convenience sampling is a group of individuals who (conveniently) are available for study (Fraenkle et al., 2019). Thus, the writer is suggested to choose two classes of the eighth grade, class VIII.1 (experimental group) and VIII.2 (control group) as the sample.

Table 2. The Sampling Method

No	Class	Number of Students
1	VIII 1 (experimental group using CIRC method)	28
2	VIII 2 (control group)	28
Total		56

(Source : SMP Nurul Amal Palembang, academic year 2022-2023)

Instrument

The reading test serves as the primary tool for the investigation. The utilization of reading test materials is based on the grade 8 English Curriculum in order to ensure that the test adheres to content validity. The reading test format is Multiple Choice Items. There are six reading texts in the test. The objective of the test is to determine students' reading comprehension achievement. The students are required to answer all items of the reading test.

A good test as the research instrument must be valid and reliable. There are two kinds of validity checks involved in the study. First is content validity. Fraenkel et al. (2019) said that content validity pertains to the instrument's content and format. To determine the suitability of the test items provided for the students. The questions were deemed appropriate for students in all respects. Moreover, it is imperative that the test exhibits construct validity. The term "construct validity" pertains to the inherent qualities or attributes of the psychological construct, as assessed by the measuring tool. This concept has been discussed by various scholars, including Fraenkel et al. (2019) and Rao et al. (2016). Following the compilation of test items, two validators were consulted to provide expert judgment on the application of the instrument components in the research activity. Additionally, the researchers administered the test items to students in diverse settings yet possessing comparable attributes to the sample region. Consequently, the researchers carried out a trial in a different educational institution from the one where the study was originally conducted. Upon completion of the tryout, the researcher conducted an analysis to determine the validity of the questions. This involved utilizing established formulas for testing purposes to calculate the validity of the items through item data analysis.

Additionally, the researcher employed the SPSS 26 program to assist in identifying the number of valid items that could be utilized for research purposes. According to the results of the item analysis, it was determined that there are a total of 20 items that are deemed invalid. The instrument deemed valid comprises 40 items pertaining to the reading test.

Ultimately, it is imperative to assess the reliability of the test. The reliability test is an indicator that measures the degree to which a measuring instrument can be deemed trustworthy or reliable, as stated by Fraenkel et al. (2019). The researchers employed Cronbach's Alpha coefficient using the statistical software SPSS version 26. A measure or factor is considered reliable if it yields a Cronbach's alpha coefficient greater than 0.70. The findings indicate that the reading comprehension test utilized in this study was a reliable research instrument, as evidenced by a Cronbach's Alpha value of 0.935, exceeding the acceptable threshold of 0.70.

Procedures

The data collection method employed by the researcher solely involved the administration of tests. The assessment administered was disseminated to evaluate the reading comprehension of the students. Consequently, if the students could accurately respond to all the questions, the aggregate score would be 100. The researchers employed a quantitative experimental research method to gather data. The study employed the pretest-posttest design, wherein data was collected in two stages: the preliminary test (pretest) and the final test (posttest). The data collection procedure was conducted in the following stages.

Pretest

A pretest administrator will determine students' basic reading comprehension achievement before administering the CIRC method to experimental and control classes. Creswell (2018) added a pretest is a test performed on the research sample prior to administering the treatment.

Treatment

Following the pretest, the researcher uses the CIRC method to teach the treatment. The researcher administers the treatment to the students over the course of twelve meetings. Each meeting will last for eighty minutes. During the treatment, the researcher acts as a teacher. The teaching materials were obtained from the English textbooks "When English Rings A Bell" for Grade VIII and "English in Focus" for Grade VIII Junior High School, as well as other teaching sources. The researcher will administer the treatment and then administer the posttest. The researcher repeats the same activities in class with different texts at each meeting to encourage students to understand the text and provides different exercise instructions. The researcher explains to the students in class the definition, purpose, generic structures, language features, examples of recount text, and the use of the CIRC method in the teaching and learning process, as well as some exercises. The purpose of this activity is to learn about the student's prior knowledge of recount and descriptive texts, as well as to demonstrate how to use the CIRC method in text comprehension.

Posttest

A posttest will be given to the students after they have completed their treatment. After all of the treatments have been administered, the test will be given to both samples, the control group and the experimental group. The posttest questions are the same as the pretest questions. The goal of this test is to determine the students' average reading comprehension

score after treatment. The test may include 40 multiple-choice questions to which students must respond to passage-based questions.

Data Analysis.

The data gathered is analyzed to see if the experimental group outperformed the control group in terms of eighth-grade students' reading comprehension achievement at SMP Nurul Amal Palembang. To address it, the researcher used statistical analysis, specifically the t-test formula in manual computation and SPSS 26 (Statistic Product and Statistic Solution). To describe the data, the researcher will use descriptive analysis and pre-requisite analysis.

C. Results and Discussion

1. Results

a. Students' pretest and posttest score in experimental group

The result analysis of descriptive statistics of students' pretest and posttest in experimental group was described in table 3:

Table 3. Descriptive Statistics of Students' Pre-Test Scores in Experimental Group

	Descriptive Statistics				
	N	Minimum	Maximum	Mean	Std.Deviation
Pretest Experimental Group	28	35	72.5	57.5	10.650
Valid N (listwise)	28				

The pretest in the experimental group was done before the CIRC Method was applied. Based on the table 4.1, it was found that, the minimum score was 35, the maximum score was 72.5 and the mean score was 57.5 with a standard deviation of 10.650.

b. The normality test of students' pretest and posttest score in experimental group

The computations of normality were used in SPSS 22. The result of analysis was described in table 4.

Table 4. Normality Test of Students Pretest & Posttest Scores In Experimental Group Using Kolmogorov Smirnov

No	Experimental Group	N	Kolmogorov Smirnov	Result
1	Pretest Experimental	28	.200	Normal
2	Posttest Experimental	28	.159	Normal

After the normality analysis, the results show that the p-output were for the pre- test experimental group 0.200 and post-test experimental group 0.159. Therefore, it can be stated that the students' score of pretest and posttest in the experimental group was normal since it higher than the significance level at 0.05.

c. Homogeneity test of students' pretest and posttest scores in experimental group

The result of homogeneity test of students' pretest and posttest scores was described in table 5.

Table 5. Homogeneity Test on Students' Pre-test and Post-test Score in Experimental Group

No	Students Scores	N	Sig.	Result
1	Pretest and Posttest Experimental	56	.066	Homogenous

The homogeneity test was designed to determine whether the variance samples were homogeneous or not, as well as whether there were any significant differences between the samples. The Levene's statistics test was used with IBM SPSS Statistics 26 to determine this. The results of the students' pre-test and post-test in the experimental group were assessed in the homogeneity test. As a result, the homogeneity test is considered homogeneous when the result exceeds the significance level of 0.05. Students pretest and post test score in experimental group measure using levne's statistics, it showed that p-output .066, the students post test score in experimnetal group can be said to be homogenous because it was higher than the significance level at 0.05.

d. Results analysis of paired sample t-test in experimental group

The analysis result of paired sample t-test was figured out in table 6.

In this result of hypothesis testing, paired sample t-test was used to measure the significant improvement on the Eighth grade students' reading comprehension achievement who are taught by using CIRC the result of students' pretest and posttest score. The result analysis of paired sample t-test describe in table below;

Table 6. Result Analysis of Paired Sample T-Test from Students' Pretest to Posttest Scores in Experimental Groups

Before and after taught Using Cooperative Integrated reading and Composition (CIRC) at SMP Nurul Amal Palembang.	Paired Sampele t-Test			Ha
	T	Df	Sig (2-tailed)	
	-20.425	27	.000	Accepted

From the table analysis,if the value of sig. (2-tailed) lower than 0.05, then Ha was accepted, the result table above showed that p-output was $0.000 < 0.05$, it can be said that there was an improvement in average pre-test and post-test learning outcome of students by using CIRC method. It can be concluded that there is an improvement in students reading comprehension achievment after they were taught CIRC method in experimental class.

e. Independent sample t-test on students' posttest scores

The analysis result of independent sample t-test was figured out in table 7

Table 7. Research finding of measuring a significance difference between CIRC and teacher Method

CIRC method and Teacher's method at SMP Nurul Amal Palembang.	Independent Sample t-Test			Ha
	T	Df	Sig (2-tailed)	
	6.773	54	0.000	Accepted

From the table analysis, it was found that the p-output was 0.000 and the t-value was 6.773. It can be stated that there was significant difference on students' reading comprehension scores taught by using CIRC method since the p-

output was lower than 0.05. Therefore, it can be concluded that the null hypothesis (Ho) was rejected, and the alternative hypothesis (Ha) was accepted.

2. Discussion

Reading is comprehension, comprehension is all about reading. According to HS and Yuliah (2021), reading comprehension refers to the cognitive processes involved in constructing an understanding of written text. These processes necessitate the coordination of multiple talents, including the integration of prior knowledge and experiences with the information offered in the discourse. Reading comprehension is the cognitive process by which readers integrate their past information and understanding to comprehend the writer's intended meaning. Therefore, reading comprehension is the capacity to analyze text and relate it to prior knowledge. It is also a process in which the students try to understand the meaning of their reading text. As a result, the material the readers have read is accurate. When reading, readers combine information from a text with their own prior knowledge to create meaning. The meaning is created by combining the text and the reader's prior knowledge. Therefore, it can be said that reading comprehension is a challenging process that calls on a number of skills. Readers use the information in the text in conjunction with their prior knowledge to understand the text.

CIRC is one of the Cooperative Learning method which integrates reading and composition (Steven & Slavin, 1995). CIRC is one of Cooperative Learning method which combined two skills, reading and writing. The students uncover significant parts of the tale in the reading activity, such as the character, characteristic, plot problem, and so on, and they also do the writing process in the writing activity, such as producing a draft, revising, editing, and submitting it to the teacher. In addition, The upper elementary and middle school levels receive reading and writing instruction through the comprehensive CIRC program (Slavin, 1995). It means that CIRC can be used in a particular subject to assist kids in reading and writing so that they will be more motivated to do it. When using the CIRC method, the teacher instructs the pupils to work in groups while performing exercises that include reading and writing abilities.

Based on the information above, it was possible to concluded that both the teacher method and the CIRC method have significant improvement after being taught in class. Many factors influence students score variations in both control and experimental groups, including classroom material, student motivation, student engagement, teaching approach, and teacher experience teaching English. One of the goals of adopting a variety of teaching method is to

make learning more fascinating, inspirational, and enjoyable for students. Teachers can assist and motivate students in learning, particularly in reading, by employing the appropriate strategies. Eventually, this study discovered that students' reading comprehension improved significantly after being taught utilizing the CIRC method. The reason for this was that the students benefited from the implementation of the CIRC method.

There was a significant improvement in students' pretest and posttest results in both the experimental and control groups. Students in the experimental group were taught utilizing the CIRC method, while students in the control group were not. Meanwhile, students' reading comprehension improved in the control group, albeit not as significantly as in the experimental group. Because the experimental group's reading comprehension improved after they were taught utilizing the CIRC approach. The results of the paired sample t-test in the experimental and control groups demonstrate this. Meanwhile, there was a significant difference in the posttest scores of students in the control group who were taught by the teacher method and the experimental group who were taught by the researcher using the CIRC method.

D. Conclusion and Suggestion

The findings and analysis in the preceding chapter lead to the conclusion. First, there was a significant difference in posttest scores between the experimental and control groups that received information using the CIRC method and the control groups that received information using the teacher's method. The results show that when CIRC is used in class, student reading comprehension improves. Although pupils in the control class improved, the experimental class group outperformed the control class. Second, there was a significant difference in students' reading comprehension proficiency between SMP Nurul Amal Palembang eighth-grade pupils taught using the CIRC Method and those not. Despite the fact that there was a significant difference in student results between the two groups, those in the experimental group outperformed those in the control group. It is possible that CIRC has a favourable influence on the eighth-grade students of SMP Nurul Amal Palembang's reading comprehension. Students in the experimental group improved their reading achievement, such as reading can be more actively and the spirit of study reading comprehension in the text, and having higher memory recall after learning. As a result, the CIRC method could be utilized as an alternate method of teaching reading, particularly to improve students' reading comprehension achievement.

Based on the findings of the study, as well as the conclusions stated above. The results of the reading assessment on the experimental group after using the CIRC method show an improvement. The author would like to make the following suggestions: First, the students recommended by the researcher can use this method to build on prior knowledge and develop their understanding of the text. Students should also read more often. They should read a variety of genres, especially English-language ones. Second, in order to improve and sustain the teaching and learning process, particularly in the area of reading, the writer would like to collaborate with the teacher on contributions to both learning and teaching. The researcher used the CIRC method to make preparations before teaching the class. The researcher had texts and questions prepared for the students. When teaching and learning activities are in progress, the teacher minimizes the possibility of experiencing problems in delivering material using the CIRC method by first understanding the text. The use of CIRC is a new method for teachers who want to capture their students' attention. This method motivates students while also improving their reading comprehension. Third, the researcher hopes that other researchers will find this method useful in order to improve students' reading comprehension. It might also be a reference to work done by other researchers who are interested in reading instruction. The researcher anticipates that related research will lead to some innovation and improvement in instruction, and the author hopes that the reader and the educational department will benefit from the findings of this research. The reader will hopefully have more knowledge and insightful suggestions about the application of the CIRC method to the teaching of reading.

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