

# The Effect of Cooperative Integrated Reading and Composition (CIRC) Technique on the Students' Reading Skill at UTM Mataram

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## ABSTRACT

The study aimed to determine the effect of using the Cooperative Integrated Reading and Composition (CIRC) Method on the reading skills of students at UTM Mataram. The method used in this study was quasi-experimental research design in which the researcher placed two different groups and gave them different treatments. The sampling technique used random sampling with a total of 20 students. The research instrument used the pre test and post test. The data analysis technique used the t-test. And the research result is that there is a positive and significant effect. The experimental group of this study was taught using the Cooperative Integrated Reading and Composition (CIRC) Method, while the control group of the study was taught using the conventional reading method. The results of the pretest and posttest were found to be satisfactory with the level of achievement of the median homogeneity of  $0.449 > 0.05$ , the normality test of 0.715 greater than 0.05, and the results of the t-calculation to determine the effectiveness of the CIRC Method of  $0.449 > 0.05$ , which shows that this method was able to boost the effectiveness of student learning. At the end of this study, hopefully the results of this study can benefit all education stakeholders such as teachers, students, scholars, and even other researchers to support them in creating and analyzing creative and innovative language teaching methods. The researcher expects that the findings of this research can provide some evidence about cooperative language teaching, in this case, the CIRC Method to support the improvement of the teaching and language learning process at UTM Mataram in particular.

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## I. Introduction

Based on the results of a survey on the analysis of the need for learning materials that researchers have done, the results showed that the most dominant skill needed by students of UTM Mataram was reading skills. The first reason was that most of the computer program instructions and tutorials use English, so that they need the skills to understand instructions and tutorials well, both the latest books and references in the IT and computer fields are almost certainly using English and there is no translated version. Students need the skills to understand these books so that their knowledge is kept up to date. The survey results also found that the low motivation of students in reading English reading so it is very necessary to innovate in learning methods. The approach taken is to apply the Cooperative Integrated Reading and Composition (CIRC) method.

(Acek, 2019) stated that the application of the CIRC type of cooperative learning model usually creates a more pleasant learning atmosphere. This is because students learn and exchange ideas with their own friends. In addition, it is also hoped that students can think creatively through interactions with friends so that they can solve problems systematically.

(Niliawati, Hermawan, & Riyadi, 2017) in their research conclusions stated that reading is an activity to absorb various information and knowledge as well as new insights that can improve one's

intelligence so that it can answer the challenges of life in the future. Every aspect of life involves reading.

(Musa, 2016) stated that the development of reading interest and reading ability especially our students is indeed very alarming. This is due to the methods given to students in general that are less attractive or even unpleasant. Most existing methods are only result oriented, not process oriented. The low interest in reading students makes these students' low reading habits, and low reading habits make their cognitive abilities low as well.

The lack of reading ability of students at UTM Mataram then motivated researchers to find effective solutions to solve this problem. One solution that researchers will use to solve this problem was to use to select the method that focuses for their activities on developing students' reading skills. Therefore, in this study, researchers wanted to test the effect of the Cooperative Integrated Reading and Composition (CIRC) method on student reading skills. This research was expected later (1) can be used as a good recommendation for teachers who want to develop student reading skills. (2) Providing new learning experiences that are more fun and enjoyable for teachers and students (3) as a reference for further researchers.

Reading can be defined as active learning activities in which the human cognitive system works related to printed material to understand the meaning or message conveyed through text. In the text, the writer tries to activate the background of linguistic knowledge to create meaning, the task of the reader then activates the background and linguistic knowledge to re-create the meaning intended by the author. During the reading process, the reader must go beyond printed material to get the meaning intended by the author. In short, we can say that reading is an active process of rediscovering or re-creating meaning conveyed by the writer through writing texts, (McCarthy, 1999)

Brown proposes three types of general reading. The types of readings are as follows: 1. Academic reading is a type of reading that is usually done by students, scholars, teachers or lecturers related to their academic goals. Examples of academic reading are articles, technical reports, professional journal articles, reference materials, textbooks, theses, dictionaries, essays, papers, exam directives, editorials and opinion writing. Students must be very familiar with this type of reading because they do this reading in their daily activities. 2. Work-related reading is a type of reading that is usually done by employees, employers and job seekers. Examples of this reading include letters, emails, messages, memos, inter-office, project reports, announcements, schedules, applications, questioners, financial documents, manuals, directives, and directories. 3. Personal reading This type of reading is the reading that is usually done by individuals in their free time in daily activities. The examples of personal reading such as; newspapers, magazines, novels, short stories, travel comics, cartoons, medical reports, greeting cards, invitations, advertisements, and advertisements (Brown & Abeywickrama, 2010)

A study was carried out by (Calderon, 1997). The results of Slavin's research in the Ysleta Private School District found that students in the transitional bilingual program gained better Spanish and English reading scores with higher standard deviations than comparative students (ESs) = + 0.87). This research has several correlations with the related studies mentioned above. One such correlation is that this study and related studies examine the same teaching method, namely the effectiveness of the CIRC Method. The differences include; (1) Durukan and Slavin's research aims to analyze the effects of CIRC on students' reading and writing. Meanwhile, this research is more concentrated on the effectiveness of CIRC Method students' reading skills. (2) Most research subjects in related studies are elementary school students. But in this study, researchers felt curious to test the effectiveness of this method at the University level. (3) Slavin's study examined the effects of CIRC on Spanish and English reading, while this study concentrated on English reading skills.

Similar previous research conducted by (Safitri & Ngaisah, 2018), that learning activities, especially reading comprehension, by applying the CIRC (Cooperative Integrated Reading and Composition) method is very helpful in the learning process and has a positive impact on students and teachers. This is evidenced by the increased learning process of reading comprehension of grade V students at SD Sumuranja, such as increased student enthusiasm during the learning process, increased student cohesiveness and tolerance when arguing with each group in working together to answer any questions raised by the teacher, and increasing student activity and concentration students in the learning process. In the CIRC method, students are divided into small groups so

students are able to interact with friends in one group, and also practice cohesiveness and tolerance when there is one of the group's friends giving an opinion. The ability to read students' understanding before being given treatment or before using the CIRC method in the Indonesian learning process is still lacking. This is seen from the pre-test results of students whose grades are still below average. The use of the CIRC method in learning Indonesian, especially in reading comprehension, is used to facilitate students' ability to read comprehension in understanding story reading by exchanging ideas or opinions with group friends. Based on statistical tests using the t-test at the post-test after treatment with a significance level of 5% showing  $0.007 < 0.05$ , which means  $p\text{-value} < \text{significance value}$ , then  $H_0$  is rejected and  $H_a$  is accepted. Means there is an influence in the application of the CIRC method to the ability to read students' understanding of subjects in the narrative story material. Then the final results of the posttest after treatment also obtained an average of 75.53 for the experimental class and 70 for the control class then  $75.53 > 70$ . Thus, the average Indonesian learning outcomes by applying the CIRC method is greater than applying conventional learning, this shows that learning by applying the CIRC method can improve the results of students' reading comprehension ability, or it can be said the CIRC method influences the students' reading comprehension ability.

In this study, researchers tried to use the CIRC method in UTM students majoring in technology. From the results of observations made by researchers, students have great difficulty reading. The teacher in this case is the researcher who has tried several teaching techniques to help students. Yet, the students are not able to achieve the desired results. Therefore, the researcher wants to try the CIRC method in teaching to find out the benefits of this method. Moreover, the researcher also tries to find out whether this method can be effective in teaching reading.

## II. Method

This type of research was experimental research in which the researcher planned to apply the Integrated Cooperative Reading and Composition method to the experiment and find out whether this method is effective or not in improving students' reading skills compared to the use of other conventional methods. (Creswell, 2008) states that experimental design is a traditional approach to conducting quantitative research. In experimental research, researchers test ideas (practice or procedure) to determine whether the independent variable (CIRC Method) influences the outcome or the dependent variable (Student reading skills).

### 2.1 Participants

The sampling technique was taken by random sampling method, taken from 2 classes randomly totaling 20 people, taken randomly from 2 classes. Researchers divided the research subjects into two groups, the Experimental Group and the Control Group. The experimental group was taught using the Cooperative Integrated Reading and Composition (CIRC) Method, while the control group was taught using the direct instruction method.

### 2.2 Data Collection

#### 2.2.1 Instrument of Collecting the Data

The instruments here are all tools that assist researchers in gathering data. In this study, researchers used the test as an instrument. The test is provided in the form of a reading test where the test will later serve as an indicator and measurement tool to determine the success of students in reading English reading. The indicator is the ability to read, namely; find the main idea of (implied information), and find detailed information from the text (explicit information), find the type of text, and analyze text features.

#### 2.2.2 Technique of Collecting the Data

Data collection techniques are how researchers extract information (data) from the intended sample that has been determined. In this study researchers used tests to collect data. Firstly, the pre-test was given to both experimental and control group in the first meeting. The pre-test was given by the researcher in order to determine or measure the intelligence level of students' reading mastery. The material of pre-test was in the written form, which contains some questions that need students' mastery to answer the questions. Then, the result of pre test can show up after calculating the students' score to identify their reading mastery. Secondly, In order to make the students understand

well as much as possible, the researcher gave the treatment only to the students of experimental group after the pre test was given. The treatment used in experimental group was reading text. Thirdly, After all of the materials have been taught, the researcher gave the post-test in the last meeting in order to know whether the CIRC enhanced students' reading mastery. The post-test was given to both experimental group and control group. Moreover, the test was given in a written form. The students had to be able to answer the questions. After the post-test was given, the scores from two groups were compared to determine they differ significantly

### 2.3 Data Analysis

The gathered data used in order to figure out whether or not the experimental group achieved a good result than the control group. To deal with it, the researcher used statistic calculation through *t-test* formula in manual calculation and SPSS (Statistic Product and Statistic Solution). According to (Ary, Jacobs, Sorensen, & Razavieh, 2010) "the *t-test* for independent sample is a straightforward ratio that divides the observed difference between the means by the difference expected through chance alone.

## III. Finding

The data obtained in this study were the data of the reading ability test using the CIRC method and using the conventional method, the researcher processed the data with several stages of analysis as follows: 1). Test for normality, 2). Test, homogeneity and 3). T-test to determine the effectiveness of the CIRC method.

### 1.1 Normality Test

Control class and experiment class normality tests are performed to determine whether the data obtained are normally distributed or not. Normality test of the two classes was carried out by the Kolmogorov-Smirnov Test using the SPSS 16 for Windows program with a significance level of 0.05. After processing the data, the output display can be seen in Table 1

Table 1. One-Sample Kolmogorov-Smirnov Test

	Unstandardized Residual
N	20
Asymp. Sig. (2-tailed)	.715
a. Test distribution is Normal.	

Based on the SPSS output table, it is known that the significance value of *asymp.sig* (2-tailed) of 0.715 is greater than 0.05. Then in accordance with the basis of decision making in the Kolmogorov-Smirnov normality test above, it can be concluded that the data are normally distributed. Thus, the assumptions or normality requirements in the regression model have been fulfilled.

### 1.2 Homogeneity Test

Based on the posttest data distribution normality test, the posttest score scores of the two classes were normally distributed so the analysis continued by testing the homogeneity between the posttest data of the experimental class and the control class using the SPSS 16 program for Windows with a significance level of 0.05 after processing the data.

The guidelines for decision making in this homogeneity test are as follows:

1. If the significance value (sig) is based on  $\text{mean} > 0.05$  then the data variance is homogeneous.
2. If the significance value (sig) is based on  $\text{mean} < 0.05$  then the data variance is not homogeneous.

The conclusion of the homogeneity test is as follows in table 2:

Table 2. Test of Homogeneity of Variance

		<b>Levene Statistic</b>	<b>df1</b>	<b>df2</b>	<b>Sig.</b>
Result	Based on Mean	.584	1	38	.449

Based on the above output, the significance value (sig) based on mean is  $0.449 > 0.05$ , so it can be concluded that the variance of the experimental class post-test group and the post-test control class is the same or homogeneous. Thus, one of the conditions (not absolute) of the independent sample t test can be fulfilled.

### 1.3 t-test

Both classes are normally distributed and have a homogeneous variance, then a similarity test of two means is conducted using the t-test through the SPSS 16 for Windows program using Independent Sample t-test with the assumption that both variances are homogeneous (equal variance assumed) with a significance level of 0.05. The hypothesis is formulated in the form of a statistical hypothesis (right hand test) according to Sugiyono (2010: 121) as follows.

$$H_0 : \mu_1 \leq \mu_2$$

$$H_a : \mu_1 > \mu_2$$

After processing the data, the display of the results of the final t-test (posttest) can be seen in Table 3

Table 3. Group Statistics

	<b>Group</b>	<b>N</b>	<b>Mean</b>
Result	Experimtal group	20	85.350
	Control group	20	77.150

Based on the statistics table above the amount of learning outcomes data for the experimental group with an average value of student learning outcomes is 85,350, while for the average value of student learning outcomes or the mean for control class students is 77,150, this indicates that the use of CIRC learning methods is sufficient effective compared to conventional methods. Furthermore, to prove whether the difference is significant (real) or not, we need to interpret the output of the "independent sample test" below :

Based on the output spss, the sig value is known. Leven's test for equality of variances is equal to  $0.449 > 0.05$  so it can be interpreted that the data variance between the experimental group and the control group is homogeneous or the same (V. Wiratna Sujarweni, 2014: 99). So the interpretation of the independent samples test output table above is based on the values contained in the "equal variances assumed" table. Based on the "independent sample test" output table in the "equal variances assumed" section, the sig value is known. (2-tailed) of  $0.000 < 0.05$ , so as a basis for decision making in the independent sample t-test it can be concluded that  $H_0$  is rejected and  $H_a$  is accepted. Thus it can be concluded that there is a significant (real) difference between the average reading results of students in the experimental group and the control group. Furthermore, the output table above shows the mean difference value is 8.2000. This value shows the difference between the average student learning outcomes in the experimental group with the average student learning outcomes in the control group or  $85,350 - 77,150 = 8,200$  and the difference is 5,3388 to 11.0612 (confidence interval of the difference lower upper).

## IV. Discussion

The study aimed to determine the effect of using the Cooperative Integrated Reading and Composition (CIRC) Method on the reading skills of students at UTM Mataram. Based on the result above, it can be said that CIRC method was successful to improve students' reading comprehension achievement. Researcher proved that CIRC method was effective to increase students' reading comprehension at UTM Mataram. CIRC method can make the students more active to read the text

and find out the answer. The researcher's data showed the significant improved in reading comprehension through CIRC method. CIRC is good applied to increase students' reading comprehension. It may affect the efficiency of the strategy if the teachers also should control the students. Because not all of the students contribute well when they are working in their groups. Some students only follow the smart students not contribute in their groups. (Puspitasari, 2018) concluded that, the application of the cooperative integrated reading and composition (CIRC) model to concept understanding has a very significant effectiveness compared to using conventional learning methods. This is evidenced by the difference in the learning outcomes of students whose learning uses the CIRC method with students whose learning uses conventional methods. In solving the problem, the experimental class is bigger than the control class.

Several studies that support this research as done by (Syamsul, Syahrilfuddin, & Lazim, n.d.) The results showed that this learning model can increase the activity of teachers and students and students' skills of writing poetry.

So this research was successfully carried out, so this method is feasible to be applied on campus, and is feasible to be developed. Based on the results of the research, there are indicators of the suitability of the expected expectations. The implication of this research is that it can be used as a reference for teachers and lecturers, and can be used as a reference for students. For further researchers, it is desirable to make studies with different variables that are more complex by assigning several bound variables.

## V. Conclusion

(1). In accordance with the results of the SPSS, a normality test of 0.715 was found greater than 0.05, explaining that the data were normally distributed. Thus, the assumptions or normality requirements in the regression model have been fulfilled. (2). Based on the output of the above spss calculations known significance values of  $0.449 > 0.05$ , so it can be concluded that the variance of the experimental class post-test group and the post-test control class is the same or homogeneous. (3). Based on the "independent sample test" output table in the "equal variances assumed" section, the sig value is known. (2-tailed) of  $0.000 < 0.05$ , so as a basis for decision making in the independent sample t-test it can be concluded that  $H_0$  is rejected and  $H_a$  is accepted. Thus it can be concluded that there is a significant (real) difference between the average reading results of students in the experimental group and the control group. (4). From the whole series of tests conducted it can be concluded that the CIRC method is very effective in improving the reading skills of students of UTM Mataram. And clearly, learning with the help of the CIRC model is more effective than learning using the conventional method

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