

# Cooperative Integrated Reading and Composition (CIRC) Learning Method and Word Mapping in Teaching Reading Comprehension

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## Abstract

This study aimed to investigate the impact of the CIRC Method and Word Mapping on students' reading comprehension in the tenth accounting class at SMK Modellink Sorong. A pre-experimental design was used, with a sample of 12 students. Data was collected through a 20 multiple choice test and analyzed using a paired sample T-test in SPSS version 26. The result show, in the pre-test, the significant score is 0.781, and in the post-test, the significant score is 0.708. So, in both the pre-test and post-test, the data is distributed normally because the significant score is higher than 0.05, because  $H_0$  is accepted if  $\text{Sig. P}(\text{value}) > \alpha = 0.05$ . while  $H_a$  is accepted if  $\text{Sig. P}(\text{value}) < \alpha = 0.05$ . while the result of paired sample T-test, according to hypothesis testing criteria that t-value (-16.912) < t-table (1.796) and P-value (0.000) <  $\alpha = 0.05$ . It can be concluded that CIRC and Word Mapping impact the students reading comprehension. The study concluded that CIRC and Word Mapping significantly improved students' reading comprehension skills, increased classroom engagement, enhanced vocabulary acquisition, and improved comprehension in descriptive text. The findings suggest that these methods can enhance students' reading comprehension skills

Keywords: CIRC, Word Mapping, Reading Comprehension.

Reading comprehension is the process of someone understanding the content of a reading text and getting information from the reading, according to Lestari (2018), reading is one of the four basic abilities that students must master when studying English. In addition, based on Melsandi (2018), the ultimate goal of all reading education is to help readers understand the material. Understanding what you are reading is the primary goal of reading

because it allows you to draw conclusions from the material. Without this ability, it is difficult to understand texts, textbooks, scientific journals or other learning materials. The ability to read well helps one to acquire the knowledge and information needed in the teaching-learning process.

## **Cooperative Learning**

Cooperative learning is a learning

model or method designed to make students active and work together in learning or in the classroom. This new approach to learning emphasizes more effective student participation so that in the implementation of learning, teacher techniques and the use of cooperative learning models are needed to achieve learning objectives. According to Slavin, cited in Tiodora & Ahmad (2020), provides the following definition of cooperative learning models: "Cooperative learning methods share the notion that students work collaboratively to learn and are accountable for both their learning and the learning of their teammates." According to this definition, cooperative learning involves students working together to learn, sharing ideas, and taking ownership of both their individual and group learning objectives.

### ***Types Cooperative Learning Model***

According to Slavin cited in Tiodora & Ahmad (2020), there are seven types of cooperative learning models, namely:

1. Students Teams-Achievement Division (STAD) Model
2. Model Teams Games Tournaments (TGT)
3. Team Assisted Individualization (TAI) Model
4. Cooperative Integrated Reading and Composition (CIRC) Model
5. Model Group Investigation (GI)
6. JIGSAW Model
7. CO-OPCO-OP Model

### ***CIRC Method***

The CIRC (Cooperative Integrated Reading and Composition) method is a method used to improve students' understanding and writing and reading skills through cooperation and collaboration between group members. According to Oktafiani et al. (2018), the CIRC learning model is a learning approach that emphasizes teamwork in developing the ability to interpret reading. Students collaborate to learn and are responsible for

the learning of their peers and their own learning. The CIRC method focuses on student interaction within groups to help each other, increase understanding, and encourage active participation. This method involves reading, comprehension sharing, and writing activities and aims to effectively improve students' comprehension and writing skills. According to Durukan (2011), the CIRC technique is one of the cooperative learning techniques that is aimed at promoting reading, writing, and other language abilities.

### ***Word Mapping***

Word mapping is a technique of visualization and mapping relationships between words in specific texts or concepts. This process uses diagrams or concept maps to show keywords or important words in the text, making understanding the relationship between words easier. Students use the word mapping technique to determine the meaning and elements needed by referring to the context, past knowledge, and the dictionary. According to Graves (2008), one of the most effective methods for teaching vocabulary is the word mapping technique because it encourages students to consider the relationships between words. Using word mapping techniques can help students improve their vocabulary and is often taught as one of the most effective ways to integrate language skills into the language classroom.

According to Harris et al. (2008), specifically, the word map strategy helps students who have not learned the meaning of a large number of words, do not know how to recognize meaningful word parts, do not know the meaning of word parts, and do not know how to use each meaning. Part of the word to predict the meaning of the whole word. In addition, based on Harmer (2007), word mapping is a very engaging method of increasing vocabulary knowledge and motivating students to recall and apply what they already know.

### Conceptual Framework

The conceptual framework underlying this research is given in Figure 1:

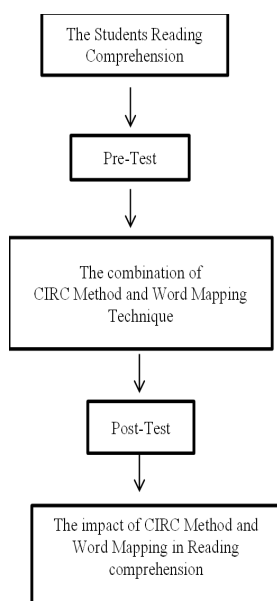


Figure 1: Research Conceptual Framework

This research focuses on teaching reading comprehension to students in tenth-grade accounting because students have difficulty in understanding the reading text. Lack of vocabulary is also a basic problem in this study, so students still have difficulty understanding English lessons. Therefore, the researcher intends to combine the CIRC method with Word Mapping. The researcher used Pre-test and Post-test as data collection techniques. The researcher conducted teaching using the CIRC and Word Mapping methods to find out whether this technique had an impact or not, if this technique has an impact, then this technique is a good technique for teachers and students to learn reading comprehension.

### Method

This method used Pre-Experimental Design (nondesigns), which is the quantitative design which is used to decide probable cause and effect. According to Martin (2008), Effectively, we can argued that one of the pre-experimental research modalities is the pilot study, which is a valuable tool in the real

or pure experimental research development and serves as a previous study which develops with the idea of exploring a new or original idea which must become a hypothesis later. The step is doing a pretest, followed by give treatment (stimulus) into the experimental class, and the last measure dependent variable after giving a post-test (stimulus). The purpose of a pre-experimental study is to determine cause and effect relationship. The researcher gave a pretest to the students to find out how their comprehension of reading was. The treatment was then carried out by the students using the CIRC and Word Mapping teaching methods. The researcher used the post-test to see if it had an impact on their reading comprehension. This research has been conducted in four meetings which consist of first meeting for pre-test and treatment 1, second meeting for treatment 2, third meeting for treatment 3, the last meeting for treatment 4 and post-test.

Instruments are needed to collect data. Research instruments play an essential role in a study. According to Sugiyono (2017), research instruments are used as data collection tools, and the instruments commonly used in research studies are a list of questions asked and given to each respondent who becomes the research sample during observation. The researcher used questions about the text that had been read, which consisted of 20 multiple-choice question items. To reach 20 questions, the researcher chose five description texts, and each text would be given four multiple-choice questions. The topics in the descriptive texts are describing places, things, animals, people, and food.

### Result

This analysis describes detail explanation of the rate percentage of pre-test and post-test, mean score and standard deviation, and inferential analysis in pretest and posttest.

Table 1 shows the percentage of students reading comprehension levels in

the pretest and posttest. In the pretest, there were 4 (33%) students who scored poorly, 6 (50%) students who scored fairly, and 2 (17%) students who scored good. In the posttest, there were 2 (17%) students who scored fair, 8 (67%) who scored good, and 2 (17%) who scored very good. With this analysis, after being given treatment by researchers, there was a change and increase in student scores from before.

Table 1, The Rate Percentage Students Reading Comprehension of Pre-Test and Post-Test

No	Classification	Range	Pre-Test		Post-Test	
			Frequency	Percentage	Frequency	Percentage
1	Very Good	90-100	0	0%	2	17%
2	Good	70-89	2	17%	8	67%
3	Fair	50-69	6	50%	2	17%
4	Poor	30-49	4	33%	0	0%
5	Very Poor	10-29	0	0%	0	0%
Total			12	100%	12	100%

Table 2, Mean Score and Standard Deviation Paired Samples Statistics

	Paired Samples Statistics			
	Mean	N	Std. Deviation	Std. Error Mean
Pre-Test	55.42	12	13.728	3.963
Post-Test	77.08	12	9.643	2.784

Table 2 shows that the average student score in the pretest was 55.42, with a standard deviation of 13.728. At the same time, the post-test was 77.08, with a standard deviation of 9.643. This shows that the average value of students in the post-test is higher than the pretest.

Table 3, Normality test

	Tests of Normality					
	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Pre-Test	.155	12	.200*	.960	12	.781
Post-Test	.127	12	.200*	.955	12	.708

\*. This is a lower bound of the true significance.  
a. Lilliefors Significance Correction

Table 3 above is used to know whether the data is distributed normally or not. In this research, the kind of normality test used is Shapiro-Wilk because the total of the sample is less than 50. In the pre-test, the significant score is 0.781, and in the post-test, the significant score is 0.708. So, in both the pre-test and post-test, the data is distributed normally because the significant score is higher than 0.05.

Table 4, T-Test Result

Paired Samples Test							
Paired Differences							
95% confidence interval of the difference							
	mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df
Pair 1 Pre-Test - Post-Test	-21.667	4.438	1.281	-24.487	-18.847	-16.912	11

The data analysis in the Table 4 above was used to determine whether there is a significant different score between the pretest and posttest. Statistically, there is a different score if the P-value is smaller than 0.05, and there is no different score if the P-value is higher than 0.05.

From the data above, we can see that there is a different score between the pretest and posttest because the P-value (0.000) is smaller than the alpha (0.05). From the data above, we can see that the T is -16.912, df 11. It means that the alternative hypothesis (Ha) states that using the CIRC and Word mapping methods in teaching reading comprehension has an impact and is acceptable, while null hypothesis (H0) is rejected, as seen from the results of the pretest and post-test scores. In other words, it can be stated that after treatment, there is a significant difference between pre-test and post-test.

### Discussion

There are several factors influence the impact of the CIRC and Word Mapping

methods in the classroom, including:

First, the CIRC method combined with Word mapping creates a different classroom atmosphere. Thereby increasing students' interest in learning and making them feel happy and enthusiastic during learning activities. This is in accordance with the statement of A Hasyim et al. (2020), students more enjoy and active learning when they are in groups.

Second, the implementation of the CIRC and Word Mapping methods improves students' reading comprehension. This is in accordance with the opinion of Zarei (2012), he said this method can improve students' reading abilities because some of them have found new motivation and because using the CIRC method is more fun than using the conventional approach.

Third, the use of CIRC Method and Word Mapping produced lots of new vocabulary. This is in accordance with the statement based on Harmer (2007), word mapping is a very interesting method for increasing vocabulary knowledge and motivating students to remember the vocabulary. It is answered the problem of students, that is in low vocabulary. The use of word mapping can make students read, write and finding the meaning of each word contained in the reading text.

Fourth, researchers use descriptive text with themes such as describing tourist attractions, historical places, pets, hobbies, favorite foods, and also describing objects. Researchers chose descriptive text because it is more familiar and easy for students to understand. It is balanced because students' abilities are still weak in reading comprehension.

Fifth, at the end of combining the CIRC and Word mapping methods, students dare present their group work results in front of the class. It also impacts the courage to speak in front of the class, training their self-confidence because they have to explain what they have done.

Researchers obtained several strengths and weaknesses after implementing CIRC and

Word Mapping in this research. The strength of this method is that it can improve students' reading comprehension, make students more active in class, and this method can make students enjoy learning in groups. In addition, students can get a lot of new vocabulary from the texts they read. The weakness found was that sometimes some students in the group were less active and relied on other friends to do their work. This makes students less than optimal in learning.

Applying the CIRC and Word Mapping In this study, the researcher wanted to combine the CIRC Method with Word Mapping as an effort to improve students' reading comprehension skills. The following are the steps developed by the researcher:

#### 1. Orientation

The researcher give an initial explanation of the material to be taught first and what the students would do during the lesson hours. The researcher also distributed the prepared descriptive text. In this step, the researcher also divided the students into groups of 3-4 students.

#### 2. Reading

After the researcher distributed descriptive text to each group, students were given time to read and understand the content of the reading text.

#### 3. Word Mapping

After students read the text, at this stage, the researcher also directs students to use the word mapping technique, where students write down the new vocabulary they find along with its meaning, and then they draw in the form of lines, diagrams, or certain patterns according to their imagination.

#### 4. Discussion

After reading, students discuss with their group mates and exchange ideas about the meaning, message and information contained in the descriptive text.

#### 5. Composition

Each group wrote a conclusion of the result of their discussion and collaboration. This is also expected to improve students'

writing skills.

#### 6. Reflection

At this final stage, each group can present or show the results of their work in front of the class. As evaluation material as well, researchers provide advice and input to each group. Researchers also provide time for question and answer sessions if there is material that is not yet understood.

The CIRC method has steps such as orientation carried out first by the teacher, forming groups, reading the text, discussing, and writing a summary or information in the text. After that, each group presented the results of their work in front of the class. However, in this research, the researcher developed the CIRC Method with Word Mapping, which the researcher will insert into the CIRC teaching steps, which will be carried out after students have read the reading text. After that, students continue according to the teaching steps. Then, the results of the CIRC and Word Mapping methods will be presented simultaneously in front of the class and will be evaluated by the researcher.

#### Conclusion

Based on the findings and discussion above, it can be described the impact of used the CIRC method and the Word Mapping technique in teaching reading comprehension in tenth accounting class of SMK Modellink Sorong, with the following:

1. First, the paired sample T-test results were classified to be quite impactful. Thus, an alternative hypothesis ( $H_a$ ) stating that the CIRC and Word Mapping methods have an impact in teaching reading comprehension is accepted.
2. Second, the combination of CIRC and Word Mapping methods has a positive impact on the learning process. Namely, students feel happy in learning, students can improve reading comprehension and also acquire a lot of vocabulary.
3. Third, the CIRC and Word Mapping methods provided a new atmosphere

for teaching and learning English. It can make students more active in class.

4. Fourth, used the CIRC and Word Mapping method in learning and teaching reading comprehension increased students' scores in the text descriptive test.
5. Fifth, used the Word Mapping technique makes students enthusiastic about finding the meaning of each vocabulary word from the text and happy because they can draw it according to their imagination.
6. Sixth, because the last step of the CIRC method is presenting the results of their work in front of the class, this also trains students to be more confident and speak in front of the class.

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