

## THE EFFECTIVENESS OF COOPERATIVE INTEGRATED READING AND COMPOSITION ON VOCATIONAL HIGH SCHOOL STUDENTS' READING COMPREHENSION

Ardhiana Puspita Lukmana

Universitas Negeri Surabaya

[ardhianapuspita27@gmail.com](mailto:ardhianapuspita27@gmail.com)

### Abstrak

Penelitian ini bertujuan untuk mengetahui: (1) keefektifan metode *Cooperative Integrated Reading and Composition* untuk meningkatkan pemahaman membaca siswa; (2) bagaimana persepsi siswa tentang penggunaan metode *Cooperative Integrated Reading and Composition* untuk meningkatkan pemahaman bacaan siswa. Metode yang digunakan adalah penelitian kuantitatif: pre-experimental, dengan tes dan angket untuk mengumpulkan data. Subjeknya adalah siswa kelas X di salah satu SMK di Surabaya yang diambil menggunakan metode convenience sampling. Hasilnya dianalisis dengan menggunakan: (1) Wilcoxon dan (2) Statistik Deskriptif. Hasil penelitian menunjukkan bahwa: (1) ada perbedaan yang signifikan antara pretest dan posttest,  $p = 0,000$  kurang dari  $0,05$ ; (2) siswa percaya bahwa CIRC lebih mengembangkan keterampilan pemrosesan kelompok daripada keterampilan interpersonal. Hal ini menunjukkan bahwa perlakuan dengan menggunakan metode CIRC dapat secara efektif meningkatkan pemahaman membaca siswa dan memberikan dampak positif bagi siswa dalam mengembangkan keterampilan interpersonal dan keterampilan pemrosesan kelompok.

**Kata Kunci:** *cooperative integrated reading and composition*, metode CIRC, pemahaman bacaan

### Abstract

The aims of this study are to investigate: (1) the effectiveness of the Cooperative Integrated Reading and Composition method to improve students' reading comprehension; (2) how students' perception of using the Cooperative Integrated Reading and Composition method to improve students' reading comprehension. The method used is quantitative research: pre experimental, with tests and questionnaires to collect the data. The subject is tenth-grade students in one of the vocational high schools in Surabaya who are taken by convenience sampling. The result is analyzed by using: (1) Wilcoxon and (2) Descriptive Statistics. The result showed that: (1) there are significant differences between the pretest and posttest,  $p = .000$  less than  $0.05$ ; (2) students believe that CIRC develops their group processing skills more than interpersonal skills. It is indicating that the treatment using the CIRC method could effectively improve students' reading comprehension and gave a positive impact on students in developing their interpersonal skills and group processing skill.

**Keywords:** cooperative integrated reading and composition, CIRC method, reading comprehension

## INTRODUCTION

Reading is included in receptive skills because people only need to understand the content of the text. Receptive skills are skills that are based on people's understanding of what they see, hear, or receive (Harmer, 2015). Reading is an important skill for learning a language at all levels of students (Wahyuningsih & Citraningrum, 2019). It is because reading can help them to get various information and learn different kinds of vocabulary from the text. Wahyuningsih and Citraningrum also explained that students who gain information from some literacy can compete in the global era. Thus, it can be concluded that reading is important to master because this skill can also be used for supporting students in the communication process (Mustafa & Samad, 2015).

In the academic area, the reading skill that is emphasized for students is reading comprehension. Reading comprehension is the way people get important information from a written text effectively which aims to develop a semantic representation (Roch et al., 2019). The process of gaining the information is done by students to find out the content of each material. The way people find the necessary information in the text should be quick and accurate. There are four skills that students should master to understand the written text namely, word recognition, word integration, understanding semantic properties, and working memory (Grabe, 2009). All of those skills collaborate in reading comprehension. Students will find difficulties when they can not do one of those activities. For example, when students do not understand various

kinds of vocabulary in English they will be difficult to understand what the writer means in the text.

In understanding a text, students face some difficulties, namely lack of interest, poor prior knowledge, and lack of English vocabulary knowledge (Nanda & Azmy, 2020). Students are lacking motivation because they rarely do the activity related to reading in their daily life. This can make students have low prior knowledge because of their poor habits. Therefore, poor prior knowledge is also considered as the cause of reading difficulties because they are not usual with the written text that should be read. Students will always get problems if they do not have enough prior knowledge. Other than two difficulties, students also have difficulties in terms of vocabulary. Indonesian students have a common issue related to vocabulary knowledge (García-Castro, 2020). Whereas, vocabulary is one of the important aspects of reading so students should master vocabulary before they comprehend the written text. For that reason, all of those factors can affect students' ability to understand sentences, read letters accurately and quickly, and make conclusions from a passage.

The researcher also has done an observation when doing a teaching practicum in one of the vocational high schools in Surabaya. The researcher found that students who are not interested in reading are influenced by some factors, namely the limitation of vocabulary, lack of motivation to read a long text, and do not know how to start. In addition to the factors that exist in students, a conventional teaching method that is used by teachers is also one of the reasons students are less interested in reading. The current teacher usually used a conventional method where students are required to read long texts by themselves, but sometimes the teacher also asks some students to read aloud in front of the class. After that, the teacher ask students to take turns to answer the multiple questions related to the text. If the students who were asked could not answer the question, the teacher asked other students to answer the question. Those activities could make the students bored during the learning process and these activities are less interactive. The teacher should consider the way to teach students. The way to teach students is related to the method or technique that can make students improve their ability to comprehend the text (Zainuddin, 2015).

Therefore, teaching how to read text effectively by using an interactive method is a solution that can be used to enhance students' reading comprehension. Teaching is educating and facilitating study, allowing the students to study, preparing the conditions for the learning process, and giving help to someone about how to do something (Brown & Lee, 2015). It means that teachers as an educator have to understand the material that will give and prepare the best method for the learning process. The reason why teachers have to prepare everything that will be done in the classroom is that the success of improving students' reading comprehension depends on the media and method that will be used by a teacher. Using the appropriate method can develop students' interest and help students' difficulty in learning reading.

The Cooperative Integrated Reading and Composition (CIRC) method can be one of the methods that help

teachers teach reading comprehension skills. CIRC is a teaching method for reading and writing skills by grouping students into several heterogeneous reading groups (Sadovnik et al., 2014). In the group, students will work together to master comprehension skills. For improving students' reading comprehension, there are some stages of the CIRC method that were mentioned by Slavin R cited by Ristanton et al., (2018) namely, forming a heterogeneous group, introducing the main concepts, reading the written text, discussing several comprehension questions, presenting the work, and evaluating. From those stages, CIRC can develop students' critical thinking in comprehending the main purpose of the text (Mariana et al., 2020). Other than that, the CIRC method has other benefits for students besides being able to improve their reading comprehension skills. The CIRC method can help students develop their social skills (Yanda & Ramadhanti, 2021). It is because students with a high interest in reading can help and respect students who have low interest, while students with low interest can learn to accept criticism and suggestions from students with high interest.

Related to this present study, there are many researchers who focus on the use of the CIRC method. The previous study by Yanda & Ramadhanti (2021) investigated the uniqueness of STAD and CIRC models in learning poetry. The researchers focus on the use of the CIRC technique in learning poetry. The other previous study by Jahanbakhsh et al., (2021) compared and explored the students' perception toward Student Teams-Achievement Division (STAD) and Cooperative Integrated Reading and Composition (CIRC) based on five elements in Cooperative Learning. The study found that the CIRC gives the chance for cooperative learning in class and at home. The previous study by Mubarak & Sofiana (2017) analyzed the effect of CIRC and reading motivation on students' reading ability. The study showed that the CIRC and reading motivation increase students' reading ability. The other study by Artawan (2020) also showed that the CIRC learning model is effective in improving students' reading skills. Yet, those experimental studies many focus on elementary school and junior high school students, and also the studies used different kinds of text. Therefore, the researcher of this study wants to test the effectiveness of CIRC on vocational high school students and will take recount text as the focus of the material.

Based on 2013 curriculum, there are certain types of texts that should be learned by tenth-grade students. Those are descriptive text, recount text, biography, and narrative text. In this study, the researcher will focus on the recount text. Recount text is a written text that retells the process of ordering people's events in the past (Cakrawati, 2018). The researcher chooses recount text because this text is one of the basic competencies in 2013 curriculum for tenth graders.

Therefore, the study aims to know whether the CIRC is effective to improve vocational high school students' reading comprehension or not. Besides that, the researcher also hopes that the result of the study can give new knowledge to the readers.

## METHOD

In this study, the researcher used a pre-experimental design, which was the one-group of pretest-posttest design, with the use of objective test and close-ended questionnaire for measuring the variable. The researcher determined to take the sample from the population of tenth-grade students in one of the vocational high schools in Surabaya because the recount text as the material for the treatment was covered in the tenth-grade as one of the basic competencies. Then, the researcher used convenience sampling to take the sample. One class of tenth-grade students is taken as a sample of research, which consists of 31 students in the class. The objective test consisted of 2 historical recount texts, with 10 questions for each text. Thus, there were 20 comprehension questions in total which must be done in an hour. For the questionnaire, the researcher is adapted from the study conducted by Mengduo & Xiaoling in 2010. There are two aspects to be evaluated, namely interpersonal skills (7 items), group processing (6 items).

To collect the data, the researcher conducted some stages, namely pre-test, treatments, post-test, and questionnaires. The stages were conducted around five meetings in the class. The researcher conducted a pre-test for the experiment in the first meeting.

The second stage is giving treatments. The treatments were given in three meetings in the class. The English teacher taught students reading comprehension by using the Cooperative Integrated Reading Composition method. In the first meeting of the treatments, the teacher explained the learning objectives of the CIRC method and the outputs to be achieved by students. After that, the teacher formed heterogeneous groups consisting of 4 to 5 students in each group. The learning process in the class followed CIRC learning steps, namely orientation, organization, concept introduction, publication, and reflection.

Then, the data is analyzed using Wilcoxon and Descriptive Statistic. Wilcoxon is used to find whether there is a significant difference in students' reading comprehension by using the CIRC method. While, Descriptive Statistic is used to find the mean scores of each statement in the questionnaire.

## RESULTS AND DISCUSSION

This research was conducted to answer two research questions related to the effectiveness of Cooperative Integrated Reading and Composition in improving students' reading comprehension and their perception of using the CIRC method. In order to arrange and calculate the data systematically, the researcher analyzed the data using the statistic analysts' program. Moreover, the explanation of the results of the research is presented in the following section.

### 1. The Effectiveness of CIRC method in Reading Comprehension

**Table 1. Descriptive Statistic Pretest and Posttest**

Descriptive Statistics					
	N	Mean	Std. Deviation	Minimum	Maximum
Pretest	31	68.55	9.146	45	85
Posttest	31	80.00	7.071	60	90

Based on the table, it shows that the mean score of students' pretest is 68.55. The mean score of the posttest is 80.00. It indicates that there is an improvement between the pretest and the posttest. From those data, the researcher used Wilcoxon on the statistic analysts program to know whether there is a significant difference between the pretest and the posttest.

**Table 2. The Ranks between Pretest and Posttest**

Ranks				
		N	Mean Rank	Sum of Ranks
Posttest - Pretest	Negative Ranks	0 <sup>a</sup>	.00	.00
	Positive Ranks	31 <sup>b</sup>	16.00	496.00
	Ties	0 <sup>c</sup>		
	Total	31		

a. Posttest < Pretest

b. Posttest > Pretest

c. Posttest = Pretest

The Table above showed the Ranks between pretest and posttest. The score of negative ranks showed 0.00. It means that there was no impairment from pretest to posttest. While, the score positive ranks were 16.00 from 31 sample. It means that there was improvement in students' score from pretest to posttest and the improvement was 16.00 point.

**Table 3. The results of Wilcoxon: comparing pretest and posttest**

Test Statistics <sup>a</sup>	
	Posttest - Pretest
Z	-4.909 <sup>b</sup>
Asymp. Sig. (2-tailed)	.000
a. Wilcoxon Signed Ranks Test	
b. Based on negative ranks.	

The table shows a significant difference between pretest and posttest. It shows the value in column sig. (tailed) is 0.000, less than 0.05. Based on the testing criteria, the null hypothesis is rejected and the alternative hypothesis is accepted; there was a significant difference in students' reading comprehension by using CIRC method. It was proved that the treatment that had been given using the CIRC method could effectively improve students' reading comprehension. Next, the researcher calculated the effect size by using Cohen's d. The result showed that the magnitude of effect size was large because the eta square= 1.4 which means higher than 0.80.

This finding is in line with the previous research done by Arwen & Haq (2021), Artawan (2020), Mariana et al. (2020), Mubarak & Sofiana (2017) that showed CIRC method is effective in improving students' reading skill and give positive impact to students. The effectiveness can be caused by some factors. The first factor is CIRC method can make students more interactive and help them to learn reading skills from the common parts into the important part of reading. In the CIRC method, students work collaboratively in small group, which encourages interaction and active participation in the learning process.

The second factor is CIRC can give students freedom to work with their own group in some stages. This made the learning process to be a student-centered and it can make students easier to understand the reading skill. This is in line with the finding of Artawan (2020) about the positive impact of CIRC, namely building students' ability in reading by letting them to work independently with the group.

The third factor is the stages of CIRC that can help students to develop their critical thinking. According to Mariana et al. (2020), the stages of CIRC can indeed develop students' critical thinking. The stages provide students with opportunities to engage in critical thinking, such as analyzing the information, evaluating the information, synthesizing ideas, and applying their understanding to create a response. Because of the improvement of students' critical thinking, it makes them easier to get or absorb new information from the passage.

The last factor is students can read the text with the other member which means they become easier to remember the important information rather than they read the text individually. This is in line with the statement of Mubarak & Sofiana (2017) who said that sharing information through CIRC group help students to memorize the information in their mind.

### Students' Perceptions towards CIRC Method

**Table 4. Descriptive Statistics of Interpersonal Skill**

	N	Minimum	Maximum	Mean	Std. Deviation
I learned to read well and feel better in groups	31	1	5	3.45	.888
I enjoy the discussion in tutorial	31	1	5	3.32	1.107
I can understand the working process	31	2	5	3.61	.715
I get new information easily with CIRC method	31	3	5	4.26	.773
I feel more encouraged and confident while challenging	31	1	5	3.23	1.087

others or being challenged					
I know I am able to be a leader of 3 or 4	31	1	5	3.03	1.197
I have made some new friends in the CIRC class	31	2	5	3.71	.938
Valid N (listwise)	31			3.51	

Based on the questionnaire analysis result, it seems that the students generally had positive experiences with the CIRC method. They gave the highest mean score for "I get new information easily with CIRC method" (M= 4.26, SD= 0.773). It indicates that the method was effective in facilitating learning and providing new information.

On the other hand, students gave the lowest mean score for "I know I am able to be a leader of 3 or 4" (M= 3.03, SD= 1.197). It indicates that students may low confidence to lead in the group.

**Table 5. Descriptive Statistics of Group Processing**

	N	Minimum	Maximum	Mean	Std. Deviation
I think properly grouping CIRC is important	31	2	5	3.58	.848
I like to share what I read and the knowledge gained in CIRC	31	3	5	4.00	.775
I would prefer to present what I have learned	31	2	5	4.03	.795
I need other people's opinions about my work	31	2	5	4.16	.969
It is necessary to share ideas about what to do and	31	1	5	3.84	1.068

how to do it in CIRC					
It is necessary to share ideas about how to achieve learning goals and maintain effective working relationships	31	1	5	4.06	1.063
Valid N (listwise)	31			3.93	

Based on the table, it seems that the participants generally had positive attitudes towards the CIRC method related to group processing aspect. Students gave the highest mean score for "I need other people's opinions about my work" ( $M = 4.16$ ,  $SD = 0.969$ ). It indicates that they value feedback and input from others in order to improve their work. They also gave high mean score for "it is necessary to share ideas about how to achieve learning goals and maintain effective working relationship" ( $M = 4.06$ ,  $SD = 1.063$ ). It suggests that they see the benefits of collaboration and communication in achieving learning goals and sharing knowledge. Besides that, students gave a lower mean score for "I think properly grouping CIRC is important" ( $M = 3.58$ ,  $SD = 0.848$ ). It indicates that few of them less concerned about the specific structure or organization of the CIRC group.

From the explanation, it is concluded that the students believe that CIRC develop their group processing skill ( $M = 3.93$ ) compared to the interpersonal skill ( $M = 3.51$ ). The findings of group processing aspect showed that students believe working in group offers opportunities for students to engage in discussions, share idea, and work together towards a common goal which is finding a new information from the text. The study of Djamarah et al., (2018) also found that students got positive improvement in their communication and collaborative skill when they learn in the group.

The important skills are important for building and maintaining relationships. Interpersonal skills include a wide range of abilities, such as leadership, decision-making, teamwork, communication, conflict resolution. The result shows that students in this current research believed that they got a new information easily when they discuss with CIRC method. It is supported by the statement of Zainuddin (2015) who said that CIRC is designed to help students comprehend reading material more easily by promoting active participation and interaction among group members. However, some of students may experience low confident to be a leader of the group. This can happen because there are dominant and weaker students in the class so that students who were

talkative became dominant to be chosen as a leader of the group by teacher.

The second aspect is about group processing. Group processing refers to the practice of reflecting on and analyzing the functioning of a group in order to improve its effectiveness. Group processing is usually used to create a safe and supportive environment where members of the group can openly share their thoughts and feeling in a group (Mengduo & Xiaoling, 2010). The analysis result of this aspect showed that students need other people's opinions about their work. This result is in line with the statement of Yanda & Ramdhanti (2021) who said that CIRC can help students to learn how to accept criticism and suggestions from the others. The other higher score is in the statement "it is necessary to share ideas about how to achieve learning goals and maintain effective working relationship". This finding is in line with the statement of Mengduo & Xiaoling (2010) that said students like to work together and share different idea to complete the task. While, the lower score in this aspect is about the important of grouping in CIRC class. It may indicate that they have not fully understood the benefits of group work in a CIRC setting. In address this, the teacher should tell students more about the benefit through the instruction or guidance.

## CONCLUSION

The research was conducted to find out the effectiveness of Cooperative Integrated Reading and Composition method to improve students' reading comprehension and students' perception of using Cooperative Integrated Reading and Composition method to improve students' reading comprehension.

The score of both test (pretest and posttest) was analyzed by using Wilcoxon. The result showed that there was a significant difference between students' pretest and students' posttest score. It can be proved with the result of p-value ( $p = 0.000$ ) less than 0.05. It means that CIRC method was effective to improve tenth-grade students' reading comprehension.

From the second research question, the analysis of the questionnaire showed that students' perceived that CIRC method gave positive impact on students' learning experience in both interpersonal skills and group processing skills.

Regarding interpersonal skills, the students felt that they were able to easily acquire new information when discussing with the CIRC method, as supported by Zainuddin's statement (2015). However, some students may experience a lack of confidence in assuming leadership roles within the group due to dominant or talkative students being chosen as leaders. To address this, it is suggested that teachers ensure equal opportunities for all students to volunteer as group leaders, as mentioned by Mengduo & Xiaoling (2010).

Moving on to group processing skills, the findings indicate that students valued the opinions and feedback of others regarding their work. This aligns with Yanda &

Ramdhanti's statement (2021) that CIRC helps students learn how to accept criticism and suggestions from others. Students also showed a preference for sharing ideas and working together to achieve learning goals, which is in line with Mengduo & Xiaoling's statement (2010) that students enjoy collaborating and sharing different ideas to complete tasks.

Overall, the students in the research believed that CIRC had a greater impact on their group processing skills compared to their interpersonal skills. They found value in working collaboratively, sharing ideas, and receiving feedback from others.

### Suggestions

The researcher would like to give suggestion for English teachers and future researchers who wants to continue this study. Teacher should use an interactive method to make students become active in the learning process. Thus, students will improve their ability in reading comprehension easily. The teacher can use CIRC method to make students become active in the learning process. Since CIRC method is an effective method to improve students' reading comprehension, it is recommended to the English teachers to use this method. Then, the future researcher can use this technique to carry out further studies with different language skill such as writing or using different type of text such as biography text. The next researchers can also use different level of sample such as senior high school or college's students.

### REFERENCES

- Artawan, G. (2020). Narrating in Cooperative Learning Integrated Reading and Composition (CIRC) Learning in Elementary School to Improve Reading Skills. *Jurnal Pendidikan Indonesia*, 9. 10.23887/jpi-undiksha.v9i2.25270
- Arwen, D., & Haq, S. (2021). The Effect of Cooperative Integrated Reading and Composition Learning Method Towards Fable Writing Skills. *ENGLISH REVIEW: Journal of English Education*, 10(1).
- Brown, H. D., & Lee, H. (2015). *Teaching by Principles: An Interactive Approach to Language Pedagogy*. Pearson Education.
- Djamahar, R., Ristanto, R. H., Sartono, N., Ichsan, I. Z., & Muhlisin, A. (2018). CIRSA: Designing Instructional Kits to Empower 21st Century Skill. *Educational Process: International Journal*, 7(3), 200–208. <https://doi.org/10.22521/edupij.2018.73.4>
- García-Castro, V. (2020). The effects of vocabulary knowledge in L2 semantic lexical engagement: The case of adult learners of English as a second language. *INDONESIAN JOURNAL OF APPLIED LINGUISTICS*, 10(1), 261-270. <https://doi.org/10.17509/ijal.v10i1.25068>
- Grabe, W. (2009). *Reading in a Second Language: Moving from Theory to Practice*. Cambridge University Press.
- Harmer, J. (2015). *The Practice of English Language Teaching*. Pearson Education Limited.
- Jahanbakhsh, A., AliAsgariZamani, M., & Garman, Z. (2019). CIRC and STAD in Iranian context: Through the five elements to cooperative learning of lexical collocations. *Cogen Arts & Humanities*, 6(1). <https://doi.org/10.1080/23311983.2019.1692469>
- Mariana, E., Sutisna, E., & Wahyuni, A. (2020). The Use of Cooperative Integrated Reading and Composition (CIRC) Technique on Students' Reading Comprehension. *Journal of English Language Studies*, 1(2).
- Mengduo, Q., & Xiaoling, J. (2010). Jigsaw Strategy as a Cooperative Learning Technique: Focusing on the Language Learners. *Chinese Journal of Applied Linguistics (Bimonthly)*, 33.
- Mubarok, H., & Sofiana, N. (2017). COOPERATIVE INTEGRATED READING AND COMPOSITION (CIRC) AND READING MOTIVATION: EXAMINING THE EFFECT ON STUDENTS' READING ABILITY. *Lingua Cultura*, 11(2), 121 - 126.
- Mustafa, F., & Samad, N. M. A. (2015). Cooperative Integrated Reading and Composition Technique for Improving Content and Organization in Writing. *STUDIES IN ENGLISH LANGUAGE AND EDUCATION*, 2(1). <https://doi.org/10.24815/siele.v2i1.2236>
- Nanda, D. W., & Azmy, K. (2020). Poor reading comprehension issue in EFL classroom among Indonesian secondary school students: Scrutinizing the causes, impacts and possible solutions. *Englisia: Journal of Language, Education, and Humanities*, 8, 12-24.
- Ristanto, R. H., Zubaidah, S., Amin, M., & Rohman, F. (2018). From a reader to a scientist: developing cirgi learning to empower scientific literacy and mastery of biology concept. *Biosfer: Jurnal Pendidikan Biologi*, 11(2), 89 - 99.
- Roch, M., Mattera, L., & Simion, E. (2019). Reading for comprehension: the contribution of decoding, linguistic and cognitive skills. *International Review of Research in Developmental Disabilities*, 56, 213 - 255.
- Sadovnik, A., Levinson, D., & Cookson, P. (Eds.). (2014). *Education and Sociology: An Encyclopedia*. Taylor & Francis.
- Wahyuningsih, A., & Cltraningrum, N. M. (2019). The Effectiveness of The Cooperative Integrated Reading



and Composition (CIRC) and Preview Question Read Reflect Recite Review (PQ4R) on Reading Comprehension Skill. *Indonesian Journal on Learning and Advanced Education*, 1(1), 26-36. 10.23917/ijolae.v1i1.7383

Yanda, D. P., & Ramadhanti, D. (2021). The Uniqueness of STAD and CIRC Models in Poetry Learning (Keunikan Model STAD dan CIRC dalam Pembelajaran Puisi). *Indonesian Language Education and Literature*, 6(2), 189 - 201.

Zainuddin. (2015). The effect of cooperative integrated reading and composition technique on students' reading descriptive text achievement. *English Language Teaching*, 8(5), 11–21. <https://doi.org/10.5539/elt.v8n5p11>