

Research Article

Enhancing Reading Ability Through the Cooperative Integrated Reading and Composition (CIRC) Model: A Study with Fifth-Grade Elementary School Students

Zainuddin Notanubun*, Ribka Lemy Ririhena, and Erwin Notanubun

Primary Teacher Education Department, Faculty of Teacher Training and Education, Pattimura University Ambon – Indonesia

ORCID

Zainudin Notanubun: <https://orcid.org/0000-0001-7081-6775>

Abstract.

Reading comprehension is a vital aspect of language proficiency that elementary school students must master. Proficient reading skills enable students to actively acquire diverse information efficiently. The cooperative integrated reading and composition (CIRC), is a teaching model designed to enhance students' reading comprehension skills through collaborative learning activities. This research aims to investigate the impact of the CIRC model on the reading comprehension abilities of fifth-grade students at SD Negeri 1 Kairatu. Employing an experimental design with a one-group pretest and post-test setup, the study involved 41 students. The CIRC model served as an independent variable, while reading comprehension ability constituted the dependent variable. The research instrument utilized was a reading comprehension test. Data analysis was conducted via a paired sample t-test, revealing a significant difference in students' reading comprehension abilities before and after learning with the CIRC model ($p = 0.00, < 0.05$). These findings underscore the effectiveness of the CIRC model in improving students' reading proficiency. The study's results underscore the importance of prioritizing reading skills development to enhance elementary students' literacy levels. It recommends the widespread adoption and continuous practice of the CIRC model in elementary schools to cultivate students' interest and competence in reading. This research contributes to the ongoing efforts to enhance reading education methodologies and promote literacy among elementary school students.

Keywords: CIRC model, reading comprehension, reading literacy, elementary school students

Corresponding Author:

Zainuddin Notanubun; email:

z_notanubun@yahoo.co.id

Published: 11 November 2024

Publishing services provided by
Knowledge E

© Zainuddin Notanubun et al. This article is distributed under the terms of the [Creative Commons Attribution License](#), which permits unrestricted use and redistribution provided that the original author and source are credited.

Selection and Peer-review under the responsibility of the 8th Isedu Conference Committee.

1. INTRODUCTION

Indonesian language learning in primary school aims to improve students' ability to communicate effectively, both orally and in writing, as follows: (1) communicate effectively and efficiently following applicable ethics, both orally and in writing; (2) respect language and be proud to use Indonesian as a language of unity and state language, (3)



understand Indonesian and use it appropriately and creatively for various purposes, (4) use Indonesian to improve intellectual abilities, as well as emotional and social maturity, (5) enjoy and utilize literary works to broaden horizons, refine character, and improve knowledge and language skills, and (6) appreciate and be proud of Indonesian literature as a cultural and intellectual treasure of the Indonesian people [1].

Teachers must be able to apply learning models that can improve the quality and results of learning to develop language learning and achieve maximum results. Using a suitable learning model will increase the effectiveness and quality of learning. Indonesian language learning includes four aspects: listening, speaking, reading, and writing. The four aspects are interrelated and influence each other.

Reading is one of the receptive skills that requires understanding from the reader. Reading is a form of written communication about pronouncing letters or sound symbols and understanding and responding to what has been read. Reading is a link between physical and mental activities. Physically, reading requires the visual senses, and mentally, reading requires intensive memory.

Reading skills are always integrated into all learning themes [2]. It proves that mastering reading skills is one of the standards of Indonesian language and literature skills that must be achieved at all levels, including the elementary level. Through reading skills, students are expected to be able to understand reading texts with adequate accuracy. Reading ability is the primary basis not only for language teaching but also for teaching other subjects.

The ability to read is essential for a student because it is one of the foundations for understanding and increasing knowledge of other subjects. Therefore, children must learn to read so that they can read to learn [3]. The ability to read is essential in an educated society. Learning to read is a continuous effort, and children who see the high value of reading in their activities will study harder than children who do not find the benefits of reading [4].

Reading learning has a strategic position in education and teaching. Although the ultimate goal of reading is to understand the content of the reading, not all students can achieve this goal. Many children can read fluently but need help understanding the content of the reading [5]. Reading comprehension is one aspect of language skills that fifth-grade students must master. Through this activity, students obtain various information in an active, receptive manner. Students can receive multiple information relatively quickly by having high reading comprehension skills. In grade V, students' reading comprehension ability is characterized by their ability to answer questions based on the text and retell the content of the reading.

The low ability of students to read comprehension is caused by several factors, both from the teacher and the students themselves. One of the factors causing the low level of reading comprehension is that the method used by the teacher still needs to be revised. In learning reading comprehension, students are usually given readings and then asked to read silently, followed by answering questions related to the reading given, so it is not uncommon for students to become bored and pay less attention.

When one student is asked to read, other students do not pay attention and make noise, so they do not listen to what their classmates read. The teacher only tells students to read on their own without any supervision from the teacher, and the teacher sometimes does not participate in reading. As a result, students are less severe when told to read independently; some only read briefly.

One type of learning model that can be used in reading comprehension is the Cooperative Integrated Reading Composition (CIRC) learning model. The CIRC-type learning model is specifically designed for learning reading, writing, and language arts [6]. CIRC's primary purpose, especially in cooperative teams, is to help students learn broad reading comprehension for upper elementary grades. This CIRC-type learning model integrates reading and writing learning simultaneously, so it is appropriate for integrated Indonesian language learning characteristics. In addition, this CIRC-type learning model is cooperative. It can increase student cooperation so that all students are directed to work, and learning time becomes more effective [7].

The CIRC learning model consists of three essential elements: basic related activities, direct teaching of reading comprehension lessons, and integrated writing language arts. In the CIRC learning model, students work in groups to find the main idea, main thoughts, and things related to the reading text. In this CIRC learning model, one of the students reads the story to the group, then works on group assignments together and presents the results to the front of the class. The research results on story structure learning identified that CIRC can improve low student learning outcomes and summarize the elements of the story where both of these activities can improve students' reading comprehension skills [4]. Therefore, the CIRC learning model is suitable for reading comprehension learning.

Reading comprehension is an activity that aims to obtain in-depth information and understanding of what is read. Reading comprehension is understanding the meaning or intent of a reading through writing. This definition strongly emphasizes the two main things in reading, namely the language itself and the graphic symbols of writing that present information in the form of reading [8]. Therefore, someone who does reading

comprehension activities must master the language or writing used in the reading he reads and can capture the information or content of the reading.

Good reading comprehension skills are needed to help students understand the content of reading material well. Comprehension is one of the critical aspects of reading activities because understanding a reading material can improve reading skills and allow specific goals to be achieved. Therefore, reading ability can be defined as understanding reading material. The purpose of reading is understanding, not speed [9]. Reading comprehension is also described as one type of reading that aims to understand reading content. Reading ability is very complex, not just the ability to read techniques but also the ability to understand and interpret reading content [10]. Based on the various definitions above, it can be concluded that reading comprehension is a reading activity that helps one understand the content of reading, both implied and explicit in the reading material.

Indonesian language learning in elementary school has a vital role in students' intellectual, social, and emotional development. It supports success in learning all fields of study. Indonesian language learning includes listening, speaking, reading, and writing. Therefore, the ability to read is essential. This study aims to analyze the effect of the CIRC model on the reading comprehension ability of fifth-grade elementary school students of Public Elementary School 1 Kairatu, West Seram Regency. This study hypothesized that using the *Cooperative Integrated Reading and Composition (CIRC)* learning model affected the reading comprehension skills of fifth-grade students of Public Elementary School 1 Kairatu.

2. METHOD

The type of research used was experimental research. The experimental research method can be interpreted as seeking the effect of specific treatments on others under controlled conditions [11]. Experimental research was conducted to find the impact of the O1 X O2 CIRC learning model on the reading ability of fifth-grade students of Public Elementary School 1 Kairatu. Researchers used a type of pre-experimental research design with a one-group pre-test-post-test design. This design measures students' abilities by applying the CIRC learning model for Public Elementary School 1 Kairatu grade V students. The first measurement (Pre-test) was carried out to see the condition of the sample before being given treatment, namely to determine student learning outcomes before using the CIRC learning model in grade VI students. The researcher conducted the second measurement (post-test) to assess student learning outcomes

after using the CIRC learning model for fifth-grade Public Elementary School 1 Kairatu students. This research design can be described as follows:

O1 X O2

Description:

O1 = Pre-test to determine student learning outcomes before using the CIRC learning model

X = implementation of learning using the CIRC learning model

O2 = post-test to assess student learning outcomes after using the CIRC learning model

Figure ?? . Research Design one group pre-test-post test design

This study's population was all fifth-grade Public Elementary School 1 Kairatu students consisting of 21 male and 20 female students. In this study, all members of the population constituted the research sample.

The independent variable in this study is applying the Cooperative Integrated Reading and Composition (CIRC) model. In contrast, the dependent variable in this study is the reading comprehension ability of grade V students of Public Elementary School 1 Kairatu.

The influence between the variables in this study can be described as follows:

Where:

X = Application of *Cooperative Reading and Composition (CIRC)* model.

Y = Reading comprehension ability of fifth-grade Public Elementary School 1 Kairatu students.

Figure ?? . The effect between X and Y variables

Based on Figure ??,2, it can be described that the influence between variable X, the application of the Cooperative Integrated Reading and Composition (CIRC) model, affects variable Y, namely the reading comprehension ability of fifth-grade students of Public Elementary School 1 Kairatu.

The research instrument used in this study was an Indonesian test, which used multiple choice questions in Indonesia to picture students' reading comprehension results after the CIRC model was applied. The data collection techniques used by researchers in this study are the initial test (Pre-test) and the final test (post-test). The steps (procedures) for data collection were carried out as follows:

The Pre-test was conducted before the treatment. The Pre-test was conducted to determine students' ability before applying the CIRC learning model to the reading comprehension learning of grade V students.

The Treatment Application. Researchers applied the CIRC learning model to the reading comprehension learning of grade V students.

The post-test after the treatment was used to determine the learning outcomes of reading comprehension of grade V students by applying the CIRC learning model.

The data analysis technique was carried out to determine whether there was a difference in the scores obtained between the Pre-test and post-test scores. Testing the difference in value is only done on the average of the two values, and a technique called the T-test was used for this purpose.

The analysis of improvement of reading comprehension skills after applying the CIRC approach was analyzed using the normalized *N-gain* with the formula:

$$N_gain = \frac{\text{posttest score} - \text{pretest score}}{\text{maximum possible score} - \text{pretest score}}$$

This research aimed to analyze the effect of the *Cooperative Integrated Reading and Composition* (CIRC) model on the reading comprehension skills of fifth-grade students. The data in this study were obtained from the reading comprehension ability test scores through *pre-test* and *post-test*.

Data was analyzed using the *Paired sample t-test* to see the effect of using the CIRC model, while to investigate the improvement of reading comprehension ability, N-gain <g> was used individually and as a whole class. The following describes the research results on these variables, beginning with describing reading comprehension skills.

3. Results

3.1. Description of Reading Comprehension Ability

Students' reading comprehension skills are characterized by students answering questions based on the text and retelling the content of the reading. Reading comprehension is one aspect of language skills that must be mastered by fifth-grade students of Public Elementary School 1 Kairatu. By reading comprehension, students obtain various information in an active, receptive manner. High reading comprehension skills can help students obtain multiple information relatively quickly.

The CIRC learning model was applied to improve reading comprehension skills. The first step taken was to conduct a *pre-test*. After the Pre-test, the CIRC model was used and, followed by the *post-test*. Table 1 presents the results of the description of students' reading comprehension.

TABLE 1: Description of Reading Comprehension Ability.

Test	Min Value	Max Value	Mean	Std. Deviation
Pre-test	53	68	60,9	3,96
Post-test	70	82	75,87	3,36

Table 1 shows that the minimum *pre-test* score was 53 and the maximum score was 68, with an average pre-test reading comprehension score of 60.9 and a standard deviation of 3.69. After applying the CIRC model, the minimum post-test score was 70, and the maximum was 82, with an average of 75.87 and a standard deviation of 3.36. Based on the average analysis, it was found that there was an increase in students' reading comprehension ability from 60.9 to 75.87. The standard deviation of the *post-test* was also smaller than the Pre-test. This result indicates that after implementing CIRC, students' reading comprehension ability is relatively similar.

3.2. Differences in Students' Reading Comprehension Ability

Paired Sample T-test analysis was used to see whether there was a difference in students' reading comprehension ability before and after the CIRC approach was applied. Before the analysis, the first step was conducting a prerequisite normality and homogeneity test. Based on the test results using the Kolmogorov-Smirnov Test, it was found that the significance value for pre-tests and post-tests was 0.200. This result shows that the signification value is > 0.05 , which means that the hypothesis is accepted and that the pre-test and post-test data are typically distributed. Because both test requirements were met, parametric tests were carried out to see the differences in students' reading comprehension skills before and after applying the CIRC learning model.

The paired sample t-test was conducted to determine the difference in reading comprehension ability after applying the CIRC model. Table 2 presents the test results.

Table 2 shows that based on the results of the Paired Sample t-test, the significance value is $0.000 < 0.05$, so the decision H_1 is accepted and H_0 is rejected, which means there is a difference in reading comprehension ability after the CIRC model is applied.

TABLE 2: 2 Paired Sample t-Test.

	Mean	Std. Deviation	Sig. (2-tailed)
Pair 1: <i>Pretest-Posttest</i>	14,92	0,76	0,000

This difference shows the CIRC learning model affects students' reading comprehension skills.

3.3. Analysis of Improvement in Students' Reading Comprehension Ability

In analyzing the improvement of students' reading comprehension ability, the normalized gain (N-gain) was used. The N-gain test was used to analyze the improvement of students' reading comprehension skills individually and in study groups. Table 3 presents the results of the N-gain test.

TABLE 3: Test Results of Improvement (N-gain) of Reading Comprehension Ability.

Mean			Percentage Improved	Category Improved
Pre-test	Post-test	N-gain		
60,95	75,88	0,38	38%	Medium

Table 3 presents the test results of improving students' reading comprehension skills, where the mean *pre-test* was 60.95, the mean *post-test* was 75.88 with an N-gain value of 0.38, and it increased in the moderate category by 38%. These results show that the CIRC approach effectively improves the reading comprehension skills of grade V students.

4. DISCUSSION

The results showed an effect of the CIRC learning approach on students' reading comprehension skills. Based on the test results, a significance value of $0.000 < 0.05$. Another aspect that was analyzed was the increase in students' reading comprehension ability. Based on the test using the normalized N-gain, it was found that there was an increase in students' reading comprehension ability after the CIRC approach was applied and increased in the moderate category by 38%. This increase is due to the effectiveness of the CIRC learning model [12]. CIRC learning is a form of cooperative learning used in language learning, namely high-level reading and writing skills.

The CIRC learning model effectively improves reading comprehension skills because it has various advantages [13]. These advantages include: 1) students' learning experiences and activities will always be relevant to the level of child development; 2) the activities chosen are appropriate and depart from the interests and needs of students; 3) all learning activities are more meaningful to students so that student learning outcomes will last longer; 4) it can develop students' thinking skills; 5) activities are pragmatic (practical) by problems that are often encountered in the student environment; 6) it can develop student learning motivation towards dynamic, optimal and appropriate learning; 7) it fosters student social interactions, such as cooperation, tolerance, communication, and respect for other people's ideas; and 8) it broadens the teacher's horizons and aspirations in teaching. The improvement of students' reading comprehension skills is also because students in groups can work together and interact as a structure in solving the given reading problems. The attitude of working together between students and sharing ideas can trigger students to improve their reading comprehension skills.

The CIRC model is beneficial in the learning process and has a positive impact on students and teachers. The implementation of CIRC in learning, especially in reading comprehension, is used to facilitate students' reading comprehension skills in understanding reading by exchanging thoughts or opinions with their groupmates [14]. Students' reading comprehension after applying the CIRC model increases because students in the group can interpret the reading content, design the reading problems well, and solve problems about reading in order. The main activities in CIRC for reading include a series of specific joint activities, namely (1) one member or several groups read, (2) make predictions or interpret the contents of the reading, including writing what is known, what is asked, and memorizing the question with a variable, (3) make an overview/problem-solving plan in the reading material among the peers, (4) write down the problem-solving in order, and (5) revise and edit each other's work or completion [15, 16].

In the discussion process, students exchange ideas to find the discourse's main idea, central thought, and theme. Collaboratively, high-ability students can help low-ability students so that the problems of the discourse given can be solved and they can understand the reading given collectively. *Cooperative Integrated Reading and Composition (CIRC)* model is an integrated composition of reading and writing in groups. This model is a unique model of language subjects that allows readers to read and find the main idea or theme in a discourse [17, 18].

In addition to using creative learning models, one of which is CIRC, teachers must improve the reading comprehension skills of elementary school students through

various reading methods. Students must also be given intensive and integrated exercises to improve their reading comprehension skills. Students' comprehension level achievement is not maximized because reading comprehension learning is not carried out intensely. Students still need guidance in reading comprehension and are not accustomed to reading regularly, so their reading power has yet to indicate a maximum increase [19]. Motivation is the main factor that teachers need to provide to students to improve reading comprehension skills. Motivated students will read more often so that their reading comprehension and understanding of the material the teacher provides will develop more and more [20]. Students with reading comprehension skills can solve various problems with information found in multiple media. High student reading comprehension skills certainly facilitate mastery of other learning materials because reading comprehension is one of the academic success factors.

5. CONCLUSIONS

Based on the results of research and discussion, the following conclusions are obtained: 1) there is an effect of the *Cooperative Integrated Reading and Composition* (CIRC) model on the reading comprehension ability of fifth-grade students of Public Elementary School 1 Kairatu, West Seram Regency, 2) there is an increase in students' reading ability after the CIRC model was applied. Students' reading ability increased by 38% and is in the medium category. 3) Students with good reading comprehension skills can find the main idea, understand the content of the reading well, and respond to the reading. This has an impact on improving learning outcomes.

References

- [1] Depdiknas, "Peraturan Menteri Pendidikan Nasional Republik Indonesia Nomor 20 Tahun 2007 Tentang Standar Penilaian Pendidikan," [Regulation of the Minister of National Education of the Republic of Indonesia Number 20 Year 2007 on Educational Assessment Standards] Pravoslavie.ru, 2007.
- [2] Hairuddin L. Puspita, S. Mirizon, and Z. A, "Pendekatan Pembelajaran Bahasa Indonesia Sekolah Dasar," [Approaches to Indonesian Language Learning in Elementary Schools] Salatiga Univ. Kristen Satya Wacana, vol. 44, no. 1, pp. i–Vi, 2010.
- [3] Abdurrahman M. Pendidikan Anak Bagi Berkesulitan Belajar [[Education for Children with Learning Difficulties]] Jakarta: Rineka Cipta; 2003.

- [4] Rahim F. *Pengajaran Membaca di Sekolah Dasar [Teaching Reading in Primary Schools]* Jakarta: Bumi Aksara; 2008.
- [5] Abdurrahman M. *Anak berkesulitan belajar [Children with learning difficulties]*. PT Rineka Cipta, 2003. Accessed: Apr. 25, 2024. [Online]. Available: <https://ecampus-fip.umj.ac.id/repo/handle/123456789/7276>
- [6] F. Rahim, "Pengajaran Membaca di Sekolah Dasar," [Teaching reading in elementary schools] *J. Kaji. Inf. dan Perpust.*, vol. 3, no. 2, pp. 271–282, 2015.
- [7] Slavin RE. *Cooperative Learning Teori, Riset dan Praktik*. Bandung: Nusa Media; 2010.
- [8] Nurhadi, *Bagaimana Meningkatkan Kemampuan Membaca? [How to Improve Reading Skills]* Bandung: Sinar Baru Algesindo; 2010.
- [9] Tarigan, *Membaca Sebagai Suatu Keterampilan Berbahasa [Reading as a Language Skill]* Bandung: Angkasa; 2008.
- [10] Suyatmi, *Membaca I [Reading I]* Surakarta: UNS Press; 2000.
- [11] Sugiyono, "Metode_Penelitian_Pendidikan_Sugiyono_20.pdf." [Educational Research Methods_Sugiyono_20.pdf.] pp. 47–281, 2015.
- [12] Suyatno, *Menjelajah Pembelajaran Inovatif [Exploring Innovative Learning]*. Sidoarjo: Masmadia Buana Pustaka, 2009.
- [13] Huda M. *Model-model Pengajaran dan Pembelajaran: Isu-isu Metodis dan Pengajaran [Models of Teaching and Learning: Methodical and Teaching Issues]* Yogyakarta: Pustaka Pelajar; 2014.
- [14] Aprilentina F, Anwar M. "Penggunaan Metode CIRC pada Kemampuan Membaca Pemahaman Siswa (Study Literatur)," [The Use of CIRC Method on Students' Reading Comprehension Ability (Literature Study)] *Pros. Semin. dan Disk. Nas. Pendidik. Dasar*, vol. 16, no. 30, pp. 173–182, 2020, [Online]. Available: https://jurnal.unipasby.ac.id/index.php/jurnal_buana_pendidikan/article/view/2715
- [15] [15] A. Suyitno, "Mengadopsi pembelajaran CIRC dalam meningkatkan keterampilan siswa menyelesaikan soal cerita," [Adopting CIRC learning in improving students' skills in solving story problems] 2005.
- [16] Rahmi Y, Marnola I. *Peningkatan Kemampuan Membaca Pemahaman Siswa Melalui Model Pembelajaran Cooperative Integrated Reading and Compotion (Circ) [Improving Students' Reading Comprehension Ability Through Cooperative Integrated Reading and Compotion (Circ) Learning Model]*. *J. Basicedu*. 2020;4(3):662–72.
- [17] Shoimin A. *68 Model Pembelajaran Inovatif dalam Kurikulum 2013 [Innovative Learning Models in the 2013 Curriculum]* Jakarta: Ar-Ruzz Media; 2014.

- [18] Fitriani L, Aksara B, Masalah LB. Efektivitas Model Cooperative Integrated Reading and Composition (Circ) Untuk Meningkatkan Kemampuan Membaca Pemahaman Cerita Fiksi [The Effectiveness of the Cooperative Integrated Reading and Composition (Circ) Model to Improve Reading Comprehension of Fiction Stories]. *Bale Aksara*. 2020;1(1):31–42.
- [19] Ariawan VA, Utami NT, Rahman R. “Peningkatan Keterampilan Membaca Pemahaman Siswa Sekolah Dasar Melalui Implementasi Model CIRC Berbantuan Media Cetak,” [Improving Reading Comprehension Skills of Elementary School Students through the Implementation of CIRC Model Assisted by Print Media] *al-Aulad J. Islam. Prim. Educ.* 2018;1(2):95–104.
- [20] N. Logan, S., Medford, E., Hughes, “The importance of intrinsic motivation for high and low ability readers’ reading comprehension performance,” *Learn. Individ. Differ.*, vol. 21(1), 124, 2011, [Online]. Available: <https://doi.org/10.1016/j.lindif.2010.09.011>.