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Enhancing Reading Comprehension in Fourth Graders: Evaluating the Impact of the Cooperative Integrated Reading Composition (CIRC) Model

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ABSTRACT

This study investigates the effect of the Cooperative Integrated Reading and Composition (CIRC) learning model on the reading comprehension skills of elementary school students. A quantitative, pre-experimental research design was employed, specifically the One-Group Pretest–Posttest Design. A group of fourth-grade students was administered a pretest to assess their baseline reading comprehension. Following this, they received instruction using the CIRC model. After the intervention, a posttest was conducted to measure any changes in performance. The data were analyzed using paired sample t-tests and normalized gain (N-Gain) scores to determine both statistical significance and instructional effectiveness. The t-test yielded a significance value of 0.000 ($p < 0.05$), indicating a statistically significant improvement in reading comprehension after the application of the CIRC model. The students' average score increased markedly from 45.63 on the pretest to 76.68 on the posttest. Additionally, the N-Gain score was 74.34%, placing the model in the "effective" category for improving comprehension. The findings demonstrate that the CIRC model significantly enhances the reading comprehension skills of fourth-grade elementary students. The increase in test scores and high N-Gain percentage support the use of CIRC as an effective instructional strategy in primary education.

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1. INTRODUCTION

The competency standards for Indonesian language subjects are the minimum ability standards that enable students to understand and master reading as part of educational subject matter. Language learning is very important for the intellectual, social, and emotional development of students and is an important component of the success of all subjects. The scope of Indonesian language subjects includes several aspects such as listening, reading, speaking, presenting, and writing. The purpose of learning Indonesian itself is to improve skills and help students become better at communicating with the language

both orally and in writing. Understanding and mastering the contents of the reading is one of the keys to success in the learning process (Isfihanati, 2016).

According to the BSKAP Decree 008/H/KR/2022, the expected learning outcomes for the reading components of the Indonesian language curriculum emphasize that, by the end of Stage B, students should be able to comprehend messages and information related to everyday life, narrative texts, and children's poetry, both in print and digital formats. Students are expected to explain the challenges faced by characters in narrative texts and interpret new vocabulary or initial impressions in accordance with the topic. This highlights that reading comprehension is a core skill in the Indonesian language curriculum. It is a complex cognitive process where readers integrate information from the text with their prior knowledge. Hutagalung et al. (2024) and Sulikah (2020) assert that a student demonstrates reading comprehension ability when they can identify the main ideas in each paragraph, rewrite the content based on their understanding, retell the material using their own interpretation and experiences, and respond accurately to questions related to the reading text. These abilities reflect a deep engagement with the material and are critical indicators of successful comprehension.

However, in reality, the reading-learning process is still found to have failed. Students can only read without understanding the meaning or obtaining information from the reading material. This is caused by the teacher's teaching style, which is not in accordance with the student's learning style, such as the teacher still asking students to read individually so that students who cannot read cannot find the essence of reading. The lack of student comprehension skills can also be seen from the results of PISA 2022 Indonesia in the reading ability category. When compared to the previous year, students' reading ability scores decreased by 12 points, with an average Indonesian reading ability result of 359, which is classified as low. Included in the low category (Hutagalung et al. al., 2024; Kemendikbudristek, 2023).

Interviews conducted with teachers at SD 014 Buluh Kasap revealed ongoing challenges in selecting appropriate learning models, leading to a heavy reliance on the traditional lecture method. This approach has contributed to student disengagement and even dropout, particularly among those struggling with reading. In response to this issue, the Cooperative Integrated Reading and Composition (CIRC) model is proposed as an alternative instructional strategy. This model supports teachers in delivering content more effectively while addressing the diverse abilities of students. By organizing students into heterogeneous groups, engaging them in collaborative problem-solving, and encouraging them to present their ideas, CIRC creates a dynamic learning environment that stimulates reading interest and comprehension (Shoimin, 2014).

The CIRC model integrates reading with contextual understanding, promotes content-based learning, and cultivates critical thinking, speaking, writing, and social skills (Hasriyanti, 2019; Sartica, Musyifah, & Syarifuddin, 2022; Wijaya et al., 2023). Rooted in social learning theory, it leverages peer interaction to enhance student motivation, confidence, and comprehension (Piliadini, 2022). Moreover, it encourages active engagement through discussions, which deepens understanding and corrects misconceptions. Writing activities within the model reinforce comprehension by requiring students to process and express their thoughts.

Although several studies have investigated the use of CIRC in improving reading skills, most have focused on secondary-level students (e.g., Kurniawan, 2017). However, limited research exists on its application at the elementary level, particularly with story text materials. This gap highlights the need to explore the effectiveness of the CIRC model in enhancing reading comprehension among younger learners.

The novelty of this study lies in its focus on applying the CIRC model to Grade IV elementary students, a group often overlooked in cooperative reading studies. Additionally, it emphasizes the use of story texts, which are central to children's literacy development but underexplored in this context.

The research aims to determine whether the CIRC model significantly influences the reading comprehension ability of fourth-grade elementary students when applied to narrative texts.

Research questions guiding this study are:

1. Does the CIRC model improve the reading comprehension skills of Grade IV students?
2. How effective is the CIRC model in helping students identify main ideas and understand narrative texts?

The significance of this research lies in its potential to offer a practical, evidence-based instructional model for elementary school teachers. By implementing CIRC, educators may better support diverse learners, foster reading motivation, and cultivate higher-order thinking skills—all of which are essential for academic success.

2. METHOD

This study employs a quantitative approach using an experimental research method, specifically a pre-experimental one-group pretest–posttest design. This design was chosen because the study did not involve a comparison or control group; instead, it focused solely on one class that received the treatment across two instructional sessions. The design involved administering a pretest prior to the intervention, followed by a posttest after the implementation of the treatment. This setup allows the researcher to assess the effectiveness of the intervention by comparing students' performance before and after the treatment (Sugiyono, 2018).

The research was conducted at SDN 014 Buluh Kasap during the even semester of the 2023/2024 academic year. The study population consisted of all 22 fourth-grade students at the school, and the entire population was included as research participants. The material used for instruction and assessment focused on narrative texts, aligning with the curriculum for that semester.

The primary research instrument was a 30-item multiple-choice test designed to measure reading comprehension. Initially, the researcher developed 40 questions, which were piloted on fifth-grade students at the same school. The item selection was based on an analysis of difficulty level, discrimination index, validity, and reliability. Only questions that met the statistical criteria were included in the final instrument.

Prior to implementation, the researcher secured school approval and prepared the necessary documentation, including letters, teaching modules, and validated test items. After initial data collection (pretest), the treatment was conducted over two sessions using the Cooperative Integrated Reading and Composition (CIRC) model, followed by a posttest. To analyze the data, the researcher conducted normality and homogeneity tests as prerequisites, and then applied paired sample t-tests and N-gain analysis to determine the statistical significance and effectiveness of the intervention on students' reading comprehension skills.

2.1 Test the level of difficulty of the questions

To find out the criteria for the level of difficulty of essay questions, the formula is = Average / Maximum Score. The criteria for essay questions are the level of difficulty of the questions as follows:

Table 1. Criteria for the Level of Difficulty of Questions

Difficulty Index	Category
$0.00 < IK \leq 0.30$	Difficult
$0.30 < IK \leq 0.70$	Keep
$0.70 < IK \leq 1.00$	Easy

(Arikunto, 2010)

The results of the test difficulty level calculation are as follows:

Table 2. Results of the Question Difficulty Level Test

Question Number	Criteria
12, 13, 17, 18, 33	Difficult
2, 3, 4, 5, 9, 16, 19, 20, 21, 22, 25, 29, 30, 31, 32, 34	Keep
1, 6, 7, 8, 10, 11, 14, 15, 23, 24, 26, 27, 28, 40	Easy

From the results of the calculation of the level of difficulty, it is known that there are 14 questions in the easy category, namely questions number 1, 6, 7, 8, 10, 11, 14, 15, 23, 24, 26, 27, 28 and 40. Meanwhile, the medium category is questions number 2, 3, 4, 5, 9, 16, 19, 20, 21, 22, 25, 29, 30, 31, 32 and 34. Questions that are included in the difficult category are questions number 12, 13, 17, 18 and 33.

2.2 Differentiation Power Test

The discrimination power test is used to evaluate how effectively a test item distinguishes between high-performing and low-performing students. This measure reflects an item's ability to differentiate students based on their level of understanding. The formula used to calculate the discrimination index is:

D = (Average score of the upper group – Average score of the lower group) / Maximum possible score of the item**.**

The resulting value indicates how well an item separates stronger students from weaker ones. The criteria for interpreting the discrimination index are presented in the following table:

Table 3. Criteria for the Discriminatory Power Index

Differentiating strengths	Interpretation
0,00 < DP ≤ 0,20	Not good
0,20 < DP ≤ 0,40	Quite good
0,40 < DP ≤ 0,70	Good
0,70 < DP ≤ 1,00	Very good

The discriminatory power test was carried out with the help of the IBM SPSS 23 application. The results of the discriminatory power calculation are as follows:

Table 4. Results of Differentiation Power Calculation

Question Number	Criteria
12, 18, 32	Very bad
17, 29, 31	Bad
13, 20	Enough
1, 2, 5, 6, 7, 10, 11, 14, 15, 16, 19, 20, 21, 22,23, 24, 26, 27, 33, 34, 35, 38	Good
3, 4, 9, 28, 30, 36, 37, 39, and 40	Very good

So the difference in questions number 3, 4, 9, 28, 30, 36, 37, 39, and 40 with very good criteria, questions number 1, 2, 5, 6, 7, 10, 11, 14, 15, 16, 19, 21, 22, 23, 24, 26, 27, 33, 34, 35, and 38 with good criteria. Questions numbers 13 and 20 have sufficient criteria, questions number 17, 29, and 31 have fewer criteria, and questions number 12, 18, and 32 have no criteria.

2.3 Validity Test

Validity testing was carried out using the Pearson *Product Correlation test. Moment* . Validity test is conducted with IBM SPSS Statistics 23. The calculated value is compared with the table price and it is assumed that SPSS will use a significance level of 5%. The decision-making policy is as follows:

1) If the sum r < table r, then it is an invalid question
2) If the calculation > rtable , then the question is valid.

The results of the test question validity test can be seen in the following table:

Table 5. Test Result Validity Test

Information	Question Number	Amount
Legitimate	1, 2, 3, 5, 7, 8, 9, 10, 11, 14, 15, 16, 19, 21, 22, 23, 24, 25, 26, 27, 28, 30, 33, 34, 35, 36, 37, 38, 39, 40	32
Invalid	4, 6, 12, 13, 17, 18, 20, 21, 29, 31, 32	8

2.4 Reliability test

Reliability refers to the extent to which a measurement instrument produces consistent results when administered multiple times to the same subjects. The degree of reliability of an instrument can be assessed based on specific evaluation criteria, as outlined below:

Table 6. Level of instrument reliability

Mark	Information
r11 < 0.20	Very low
0.20 ≤ r 0.20 ≤ 0.40	Low
0.40 ≤ r 0.40 ≤ 0.70	Keep
0.70 ≤ r 0.70 ≤ 0.90	Tall
0.90 ≤ r 0.90 ≤ R1.00	Very high

In this study, Cronbach's Alpha is calculated using IBM SPSS Statistics 23. The instrument is said to be reliable if Cronbach's Alpha > 0.6. The results of Cronbach's alpha calculation are as follows:

Table 7. Reliability Calculation Results

Reliability Statistics	
Alpha Cronbach	Item N
.943	5

Based on the reliability of the test above, it shows that Cronbach's Alpha value is 0.943. Where the value is 0.943 > 0.6, the test is reliable with a very high level of reliability. From the calculation of the difficulty of the questions, discriminatory power, validity, and reliability above, the test instrument used is question number 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 14, 15, 16, 19, 21, 22, 23, 24, 25, 26, 27, 28, 30, 33, 34, 35, 36, 37, 40.

2.5 Normality of Test

After getting the results of *the pre-test* and *post-test* of both classes, the results were tested for normality , to see whether the data is normally distributed or not. This test was carried out with the *Shapiro-Wilk test* with the help of IBM SPSS Statistics 23 Application. Basic Normality Test of decision making using Shapiro-Wilk is as follows:

1. If the Sig . value < 0.05 then the data is usually not distributed.
2. If the Sig . value > 0.05 then the data is normally distributed.

2.6 Homogeneity Test

After the data of both classes are declared normal, the research results are continued with a homogeneity test, to see whether the abilities of the two classes are homogeneous or heterogeneous. The basis for decision making in the homogeneity test is as follows:

1. If the significant value based on the mean > 0.05, then the data is homogeneous.
2. If the significant value based on the mean < 0.05, then the data is not homogeneous

2.7 Independent Sample T Test

After *the preliminary test* and *post-test scores* have been tested and declared to meet the prerequisite test, the researcher conducted an *Independent Sample t- test.* to see whether there is an influence of the RME learning model on geometry material for grades IV and IVE. The degrees of freedom (db) in the entire distribution studied are Db = N-2 with N being the sum of all individuals studied. The level of significance used is 5%. The Criteria Test is:

1. H_0 is accepted if tcount > ttable and Ha is rejected.
2. Ha is accepted if t count < t table. and H0 is rejected.

2.8 N-gain test

The N-gain score test is a process of assessing the effectiveness of the treatment given in quantitative research, using the N-gain score formula which consists of: which is divided into several categories:

Table 8. N-Gain score categories

N-Gain Value (%)	Category
< 40	Ineffective
40-55	Less Effective
56-75	Quite Effective
> 76	Effective

3. FINDINGS AND DISCUSSION

3.1 Research Results

After the researcher collected the data, it was tabulated and tested for normality and homogeneity before the t-test. The Shapiro-Wilk test was used to ensure that the data used in the pre-experimental study met the normality assumptions required for further statistical analysis.

Table 9. Results of Pretest and Posttest Normality Tests

	Class	**English: Shapiro-Wilk**		
Reading Comprehension Ability Results		Statistics	Df	signature
	Prates	0.953	22	0.362
	Posts	0.917	22	0.067

As shown in Table 9, the results of the pretest and posttest normality tests yield significance values greater than 0.05, indicating that the data are normally distributed. Since the data meet the assumption of normality, the next step is to perform a homogeneity test. The results of the pretest and posttest homogeneity analysis are presented below.

In quantitative research, the Levene's test plays a key role in assessing the homogeneity of variance across groups. It determines whether the variance among groups is statistically equivalent. When the assumption of homogeneity is met, it allows for more accurate and reliable results in subsequent statistical analyses.

Table 10. Results of the preliminary test and post-test homogeneity test

	Increase Statistics	df1	df2	Say.
Based on average	1.629	1	42	.209
Based on the median	1.190	1	42	.282
Based on media and adjusted df	1.190	1	37.305	.282
Based on trimmed average	1,668	1	42	.204

In Table 10, the results are obtained based on mean > 0.05, so it can be concluded that the class studied is homogeneous. After the data meets the prerequisites, a t-test can be carried out. The following are the results of the t-test.

Table 11. Paired sample t-test

	Difference Between Couples					T	df	Signature (2 pieces)
	Means	Standard Deviation	Standard . Error Means	95% Confidence Interval of Difference				
				Lower	On			
Lending Office	-26.59	13.15	2.80	-32.42	20.76	-9.48	21	0.000

Based on the results of the Independent Sample t- test in Table 11, the significance result (2-tailed) was 0.000. Therefore, 0.000 < 0.05, then Ha is accepted, and H_0 is rejected.

Table 12. N-Gain Test

Experimental Class	N-Gain Value (%)	Category
	74.34	Quite Effective

Based on the N-Gain test, the average N-Gain score was 74.34% with a fairly effective category, meaning that the CIRC model greatly influences students' reading comprehension skills.

Table 13. Reading Comprehension Test Results Table

NO.	Indicator	Patrick	Posts
1.	Find the main idea of each paragraph	36.36	62.5
2.	Finding the meaning of difficult words	51.51	71.21
3.	Make a prediction of the ending of the story	32.95	46.59
4.	Answer questions related to the content of the reading	34.94	62.5
5.	Summarizing reading material	43.93	81.82

3.2 Discussion

Based on the results of the data analysis, notable differences were observed in students' minimum, maximum, and average scores before and after the implementation of the CIRC (Cooperative Integrated Reading and Composition) learning model. As shown in Table 13, the pretest scores ranged from 30.00 to 67.00, with an average of 45.63, while the posttest scores improved significantly, ranging from 60.00 to 87.00, with a mean of 76.68 (Sartika, Musyifah, & Syarifuddin, 2022; Wahyuni, 2022).

Despite the overall improvement, not all indicators reached the expected Minimum Completeness Criteria (KKM). Specifically, indicators related to interpreting difficult vocabulary (Indicator 2) and comprehending overall reading materials (Indicator 5) surpassed the KKM. However, students still

struggled with identifying the main idea of each paragraph (Indicator 1), predicting story outcomes (Indicator 3), and answering comprehension questions based on the text (Indicator 4). These findings contrast with those of Asyuni (2023), who found that the CIRC model successfully improved fifth-grade students' ability to identify main ideas. The difference may stem from varying student readiness—Grade IV students in this study had limited prior exposure to structured reading comprehension instruction compared to the more experienced Grade V students.

This aligns with Putranto's (2010) assertion that while peer-based teaching in the CIRC model promotes collaborative learning, students may sometimes disregard peer explanations, resulting in lower engagement for some group members. Nevertheless, the hypothesis test using the paired sample t-test produced a significance value of 0.000 ($p < 0.05$), indicating that the null hypothesis (H_0) was rejected and the alternative hypothesis (H_1) accepted. This confirms that the CIRC model had a statistically significant effect on students' reading comprehension. Additionally, the N-gain score of 74.34% categorizes the model's effectiveness as "quite effective."

The CIRC model was implemented by dividing students into heterogeneous groups, where they collaboratively worked on tasks related to reading texts. The teacher functioned as a facilitator, guiding students to discuss content, identify main ideas, and engage in group presentations. Each session lasted 45 minutes over the course of two meetings. Although a multiple-choice test was used to measure students' understanding before and after the treatment, this study did not incorporate qualitative methods such as classroom observations or group interaction analysis, which could have provided deeper insight into student engagement.

Furthermore, the study adopted a one-shot case study approach, using pretest-posttest comparisons conducted within a limited time frame. While the findings showed immediate gains in reading comprehension, they do not indicate whether such improvements are sustainable over time. Longitudinal assessments—such as follow-up tests conducted several months after the intervention—are needed to evaluate the durability of these results.

Another limitation lies in the exclusive use of multiple-choice instruments to assess comprehension. Future research could benefit from incorporating triangulated data collection methods, such as observation checklists and interviews. For example, Piliandini (2022) employed observation sheets to assess student behavior during CIRC activities, while Hasibuan and Rambe (2021) used interviews to explore students' deeper understanding and reflections on reading tasks. The combination of quantitative and qualitative data would offer a more comprehensive view of students' cognitive and behavioral development in reading comprehension.

In conclusion, the findings suggest that the CIRC learning model can effectively improve reading comprehension among fourth-grade elementary school students. However, successful implementation requires active monitoring by teachers to ensure equitable participation within groups. As Rufaidah and Ekayanti (2021) emphasize, while CIRC fosters collaborative reading and writing skills and enhances motivation, the teacher's role in managing group dynamics is crucial to achieving the intended learning outcomes for all students.

4. CONCLUSION

Based on the results of the hypothesis testing, this study found that the Cooperative Integrated Reading and Composition (CIRC) learning model had a significant positive effect on the reading comprehension abilities of fourth-grade elementary school students. The posttest significance value was 0.000 ($p < 0.05$), leading to the acceptance of the alternative hypothesis (Ha) and the rejection of the null hypothesis (H_0). These findings are further supported by improvements in student performance, with minimum scores increasing from 30.00 to 63.00, maximum scores from 67.00 to 87.00, and average scores rising from 45.63 to 76.68 after the intervention. Despite these promising results, the study had certain limitations, including a short research duration, reliance solely on quantitative instruments, and

the absence of qualitative data to capture deeper student engagement or long-term retention. To address these limitations, future research should consider using mixed methods, incorporating tools such as observations, interviews, or delayed posttests to assess the sustainability and depth of students' comprehension. Longitudinal studies would also be valuable in determining whether the improvements observed are maintained over time and exploring how different student backgrounds influence the effectiveness of the CIRC model.

REFERENCES

Arikunto, S. (2010). *Procedure research: something that is practically approaching* . Jakarta: Rineka Cipta.

Asyuni, I. (2023). The Influence of the *Cooperative Learning Model Integrated Reading And Composition (Circ) on the Ability to Find the Main Idea of Paragraphs of Grade V Students of Sdn 001 Mambi Tengah Mamasa Regency.* Bosowa University.

Hasibuan, AN & Rambe , RN (202i). Efforts to Improve Ability Read Understanding With Using the CIRC (*Coorporative Integrated Reading and Composition*) Model in Class IV of SD Negeri 112331 Aek Kota Batu. *Eunoia: Journal of Indonesian Language Education, 1* (1), 19-37.

Hasriyanti, H. (2019). The Influence of the Integrated Cooperative Reading and Composition Learning Model (CIRC) on English Learning Outcomes of Senior High School Students. *LaGeografia , 18* (1), 36. https://doi.org/10.35580/lga.v18i1.10974

Hutagalung, T., Manik, R., Harahap, A., Hadriana , S., (2024). *The Importance of Good Indonesian Language Skills in Mathematics Lessons About Assembly Materials in Junior High Schools at School Level . 8* , 14146–14154.

Ministry of Education and Culture . (2023). Pisa Report from the Ministry of Education and Culture . *Learning Indonesian Recovery* , 1–25.

Kurniawan, H. (2017). *The effect of the Circ (Cooperative Integrated Reading and Composition) Type of Cooperative Learning Model of English Critical Reading Ability from Text Explanation.* UIN Syarif Hidayatullah Jakarta.

Piliandini , Yuli. (2022). Improvement Skills Read Understanding Through the CIRC Model in Learning Thematic Elementary School . *Journal Basicedu , 6* (5).

Rufaidah, Eka Karunia., & Ekayanti, Arta. (2021). The Relationship of Integrated Cooperative Learning Model for Reading and Composition (CIRC) to Learning Motivation & Problem Solving Ability. Education. 5(2).

Sartika, D., Musyifah , S., & Syarifuddin, S. (2022). The Effect of the Integrated Reading and Composition Learning Model (CIRC) on Students' English Learning Outcomes in Class VIII MTsN 4 Bima. *DIKSI: Journal of Education and Social Studies , 3* (1), 38–50. https://doi.org/10.53299/diksi.v3i1.139

Sartika, D., Musyifah , S., & Syarifuddin, S. (2022). The Effect of the Integrated Reading and Composition Learning Model (CIRC) on Students' English Learning Outcomes in Class VIII MTsN 4 Bima. *DIKSI: Journal of Education and Social Studies , 3* (1), 38–50. https://doi.org/10.53299/diksi.v3i1.139

Sugiyono, D. (2018). *Strong, qualitative and R&D/ Sugiyono's research methods* (Vol.15). Bandung: Alfabeta .

Wahyuni, FN (2022). The Effectiveness of the Integrated Cooperative Reading and Composition Learning Model (CIRC) on Students' English Reading Comprehension Ability in Indonesian Subjects in Elementary Schools. *National Seminar on Paedagoria , 3* (20), 234–243.

Wijaya, A., Irma Suriani, A., Salenda, P., Basic Study of Teacher Education School, Faculty of Teacher Training and Education, Muhammadiyah University of Makassar Address, P., Sultan Alauddin

No. , J., Sari, G., ... South, S. (2023). The Effect of Circle and Fast in Attracting Collaborative Learning Models on Social Studies Learning Outcomes of Fourth Grade Students of SD Inpres Pangalloang, Mamuju Regency. *Journal of Innovation in Education (INOVED), 1* (3), 232–241. Retrieved from https://doi.org/10.59841/inoved.v1i3.281