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THE EFFECT OF THE RADEC LEARNING MODEL WITH RECIPROCAL TEACHING ON PARAGRAPH MAIN IDEA COMPREHENSION IN ELEMENTARY SCHOOLS

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Abstract
The ability to understand the main idea of a paragraph is an important skill in reading comprehension, but many elementary school students still have difficulty in identifying the main idea correctly. This study aimed to examine the effect of the RADEC (Read, Answer, Discuss, Explain, and Create) instructional model integrated with the Reciprocal Teaching strategy on students' ability to identify the main ideas of paragraphs, as well as to describe students' learning activities during the implementation of this instructional model. This study employed a quasi-experimental research method with a Nonequivalent Control Group Design. The population and sample consisted of 58 fourth-grade students from SDN 3 Kedungsuren and SDN Jerukgiling. Data were collected using tests and observation sheets. Data were analyzed using t-test and N-gain analysis. The results indicated that the RADEC model combined with Reciprocal Teaching had a significant effect on students' ability to comprehend paragraph main ideas (sig. = 0.000 < 0.05). Furthermore, students' learning activities in the experimental group were classified as active, whereas those in the control group were only moderately active. In conclusion, this study confirms that the RADEC model integrated with Reciprocal Teaching is effective in improving students' understanding of paragraph main ideas and in fostering active student engagement during the learning process.
Keywords: *comprehension ability; main idea of a paragraph; RADEC learning model; reciprocal teaching strategy*

Abstrak
Kemampuan memahami ide pokok suatu paragraf merupakan keterampilan penting dalam membaca pemahaman, namun masih banyak siswa sekolah dasar yang mengalami kesulitan dalam mengidentifikasi ide pokok secara tepat. Penelitian ini bertujuan untuk mengkaji pengaruh model pembelajaran RADEC (*Read, Answer, Discuss, Explain, and Create*) yang diintegrasikan dengan strategi *Reciprocal Teaching* terhadap kemampuan siswa dalam mengidentifikasi ide pokok paragraf, serta untuk mendeskripsikan aktivitas belajar siswa selama penerapan model pembelajaran tersebut. Penelitian ini menggunakan metode kuasi eksperimen dengan desain *Nonequivalent Control Group Design*. Populasi dan sampel penelitian terdiri dari 58 siswa kelas IV dari SDN 3 Kedungsuren dan SDN Jerukgiling. Data dikumpulkan melalui tes dan lembar observasi. Analisis data dilakukan menggunakan uji *t* dan analisis *N-gain*. Hasil penelitian menunjukkan bahwa model RADEC yang dipadukan dengan *Reciprocal Teaching* memberikan pengaruh yang signifikan terhadap kemampuan siswa dalam memahami ide pokok paragraf (sig. = 0,000 < 0,05). Selain itu, aktivitas belajar siswa pada kelompok eksperimen tergolong aktif, sedangkan pada kelompok kontrol hanya tergolong cukup aktif. Dengan demikian, penelitian ini menyimpulkan bahwa model RADEC yang diintegrasikan dengan *Reciprocal Teaching* efektif dalam meningkatkan pemahaman siswa terhadap ide pokok paragraf serta dalam mendorong keterlibatan aktif siswa selama proses pembelajaran.
Kata Kunci: kemampuan pemahaman; ide pokok paragraf; model pembelajaran *RADEC;* strategi reciprocal teaching

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Introduction

Education plays a strategic role in fostering individual potential and shaping the character of a nation (Fariha et al., 2024). As a fundamental human right, education must be provided equitably and with high quality, as mandated in Article 31, paragraph (1) of the 1945 Constitution of the Republic of Indonesia. This constitutional mandate is further reinforced by Law No. 20 of 2003 concerning the National Education System, which stipulates that education aims to develop students' potential to become individuals who are faithful, possess noble character, knowledgeable, creative, independent, and responsible citizens. Accordingly, education is not solely oriented toward academic achievement but also toward the holistic development of students' cognitive abilities, higher-order thinking skills, and character formation.

A fundamental aspect in achieving national education goals is language proficiency. Language serves as a critical medium for thinking, communication, and constructing understanding across various knowledge domains (Afifah et al., 2024; Zakiyyah & SB, 2025). In the Indonesian context, language instruction is designed to cultivate integrated language skills, including listening, reading and viewing, writing, as well as speaking and presenting (BSKAP, 2024). Among these language competencies, reading is particularly essential for primary school learners (Purba et al., 2023; Aditiyarini & SB, 2025). Reading should not merely be understood as the act of recognizing written symbols; rather, it constitutes a cognitive process involving observation, comprehension, interpretation, and critical evaluation to extract meaning embedded within texts (Nurfahada & SB, 2025). Reading comprehension refers to the ability to understand texts holistically, including the comprehension of word meanings, sentence meanings, and the main idea of paragraphs (Rifai & Hidayat, 2025). The level of comprehension required is progressively aligned with grade level: the higher the grade, the greater the complexity of comprehension demands. Consequently, reading comprehension constitutes a considerable challenge and may present learning difficulties for students (Nashikhah & Sb, 2025).

International large-scale assessment results also indicate that reading literacy among Indonesian students remains comparatively low. According to the 2016 Progress in International Reading Literacy Study (PIRLS), Indonesia obtained a reading score of 397 and ranked 45th out of 50 participating countries, which is far below the international average score of 500 (IEA, 2017). Similarly, the 2022 Programme for International Student Assessment (PISA) reported that Indonesia achieved a reading score of 359 and ranked 71st out of 81 participating countries, trailing the OECD average score of 476 (OECD, 2023). These findings suggest that Indonesian students struggle to comprehend texts at a deeper level, including identifying the main idea of a paragraph. The main idea refers to a general statement formulated by the author as the central point of the topic discussed (Umi, 2020). Consistent with these international assessments, Windiasari et al., (2021) and Wijayanti et al., (2025) further revealed that elementary school students frequently encounter difficulties in understanding reading texts, particularly in identifying paragraph main ideas.

Preliminary observations of fourth-grade students at SDN 3 Kedungsuren indicated that students experienced difficulties in identifying the main idea of a paragraph, primarily due to their inability to comprehend the overall content of a passage. One major contributing factor was the students' limited skill in extracting meaning from the text they read. Students tended to read mechanically, without attempting to interpret or synthesize the information conveyed by the author. Consequently, they struggled to grasp the central message of the text. This finding was reinforced by interview data, in which students acknowledged their inability

to distinguish between different types of paragraphs (i.e., deductive, inductive, ineratif, and mixed paragraphs) and to differentiate between main and supporting sentences. Interviews also revealed that low reading interest further contributed to weak reading comprehension performance.

Results of the routine assessment on the topic of identifying the main idea demonstrated that among 32 students, 17 students (53%) scored below the minimum mastery criterion (KKTP), while 15 students (47%) achieved the standard. The low learning outcomes may be influenced by both internal factors (related to the learners themselves) and external factors (arising from the environment) (Marlina & Sholehun, 2021). One external factor contributing to low achievement was the use of inappropriate instructional methods Reksamunandar et al. (2020). Classroom observations revealed that the teacher predominantly employed a conventional lecture-based approach, resulting in limited student engagement during learning activities. This approach led to passive learning behaviors, wherein students were less attentive, easily disengaged, and showed minimal enthusiasm for the lesson. Moreover, during group discussions or collaborative tasks, student participation was uneven. Only approximately 40% of students actively engaged in completing group assignments, while the remaining students were dependent on their peers and demonstrated limited responsibility for their assigned tasks. Such imbalances in group participation ultimately affected overall learning outcomes.

The aforementioned condition indicates the need for instructional innovations that can enhance students' active participation, foster learning motivation, and strengthen reading comprehension skills. One relevant pedagogical alternative is the implementation of the RADEC learning model. RADEC is an active and higher-order thinking instructional model that consists of five sequential stages: Read, Answer, Discuss, Explain, and Create (Tulljanah & Amini, 2021). Empirical studies have demonstrated that the RADEC model is effective in improving reading skills, critical thinking, independent learning, active problem-solving, collaborative learning, reading interest, comprehension of learning content, and learning motivation (Januaripin, 2024; Sopandi & Handayani, 2019). To reinforce the effectiveness of RADEC, Reciprocal Teaching can be integrated as a complementary strategy for reading comprehension instruction. Reciprocal Teaching is a cooperative learning strategy that involves four core activities—predicting, questioning, clarifying, and summarizing—designed to enhance reading comprehension and students' metacognitive skills (Niswa et al., 2025). This strategy encourages learners to actively construct meaning from texts through collaborative discussion and reflective engagement. Furthermore, existing research indicates that Reciprocal Teaching promotes communication skills, learning motivation, as well as cognitive and academic achievement (Vioreza et al., 2020).

Previous studies have demonstrated the pedagogical potential of RADEC and Reciprocal Teaching independently. For instance, Nursyamsyiah et al. (2023) found that the RADEC model improved student learning outcomes in science instruction, while Suroso et al. (2025) and Fatimah et al. (2023) reported that Reciprocal Teaching enhanced reading comprehension and critical thinking skills. However, research on the integration of RADEC with Reciprocal Teaching to improve students' comprehension of paragraph main ideas, particularly at the fourth-grade elementary level in Bahasa Indonesia, remains scarce. Addressing this gap is crucial because combining these approaches may provide a more effective and engaging strategy for literacy instruction, which has not been systematically investigated. Accordingly, the present study aims to examine the effect of integrating the RADEC learning model with Reciprocal Teaching on fourth-grade students' ability to

understand paragraph main ideas and to describe students' learning activities during the implementation of the integrated approach.

Research Methods

This his study employed a quasi-experimental method using a Nonequivalent Control Group Design. Experimental research aims to determine the effect of a treatment on the variables being studied (Sugiyono, 2020). In this design, the experimental and control groups were not assigned through a randomization process (non-random), but rather used pre-existing classes. This study was conducted at SDN 3 Kedungsuren and SDN Jerukgiling, located in Kaliwungu Selatan District, Kendal Regency, Central Java, in the 2025/2026 academic year. The population of this study consisted of all fourth-grade students, totaling 58 students, comprising 32 students from SDN 3 Kedungsuren and 26 students from SDN Jerukgiling. Meanwhile, the sampling technique used in this study was cluster sampling, which involves selecting samples based on predetermined population groups (Sugiyono, 2020).

This research utilized two instruments: a test instrument and an observation instrument. The test instrument was designed to measure students' ability to identify main ideas in paragraphs. The test was administered twice, namely before and after the treatment. The pretest was conducted to identify students' initial reading comprehension abilities regarding main ideas prior to instructional intervention. Meanwhile, the posttest was administered to assess students' improvement after the instructional treatment was implemented. The test consisted of 30 multiple-choice items with four answer options. The development of test indicators referred to Bloom's taxonomy of comprehension (Nurhasanah et al., 2025), which includes the aspects of translation, interpretation, and extrapolation. The test specification table is presented in Table 1.

Table 1. Test Instrument Blueprint

Aspect	Indicator
Translation	1. Students are able to restate the main idea of a paragraph in their own words.
	2. Students can express the main idea of a paragraph using their own sentences.
Interpretation	1. Students can accurately identify and distinguish between the topic sentence and supporting sentences in a paragraph.
	2. Students can determine the main idea of a paragraph accurately.
	3. Students can explain the central message of a paragraph correctly.
Extrapolation	1. Students are able to logically conclude the content of a paragraph.

Assessment on the test instrument was conducted by assigning a score of 1 for each correctly answered item. The scores obtained by each student were accumulated to calculate a total score. The total score was subsequently analyzed using the following formula to determine the level of learning achievement:

$$Final\ score = \frac{Total\ score\ obtained}{Maximum\ score\ (30)}\ x\ 100$$

Before the test was administered to students, the items were first consulted with an expert lecturer to obtain content validity. After the validation process, the test was then piloted in a try-out class to ensure its validity and reliability. The items that were proven to be valid and reliable were subsequently used as instruments in the implementation of the pretest and posttest. Based on the results of the instrument validity test, 21 items were declared valid and appropriate for use as research instruments, while 9 items were found to be invalid and unsuitable. The invalidity of these items was caused by their level of difficulty being too high,

resulting in most students being unable to answer them correctly. Meanwhile, based on the reliability test results, the Cronbach's Alpha value obtained was 0.736 with a total of 30 items, indicating that the instrument was reliable with a high level of reliability.

The observation instrument was employed to collect data regarding students' learning activities during the instructional process in both the experimental and control groups. This instrument was in the form of an observation sheet using a four-point Likert scale, ranging from very active (score: 80–100), active (score: 60–80), moderately active (score: 50–59), to less active (score: < 50). The learning activity indicators were adapted from Paul B. Diedrich's learning activity theory (as cited in Ermita, 2024) and included Visual Activities, Oral Activities, Listening Activities, Writing Activities, Mental Activities, and Emotional Activities. The observation instrument blueprint is presented in Table 2.

Table 2. Observation Instrument Blueprint

Aspect		Indicator
Visual Activities and Listening Activities	1.	Students pay attention to instructional explanations with focus.
	2.	Students attentively observe peers presenting without engaging in unrelated activities.
	3.	Students follow teacher instructions accurately.
	4.	Students listen attentively to feedback provided by the teacher.
Oral Activities and Emotional Activities	1.	Students present their work in a clear and audible voice.
	2.	Students express questions or opinions with clear intonation.
	3.	Students demonstrate confidence and courage during presentations.
	4.	Students show enthusiasm in participating in learning activities.
Writing Activities and Mental Activities	1.	Students write answers neatly and legibly.
	2.	Students complete written tasks according to teacher instructions.
	3.	Students are able to recall and summarize the material.
	4.	Students answer questions correctly.

Scoring for the observation instrument was based on the number of indicators met within each observed aspect. Each aspect consisted of four operational indicators. If all four indicators were met, a score of 4 was assigned; if three indicators were met, a score of 3 was given, and so forth, with a score of 1 if none were met. The scores for each aspect were summed to obtain a total score representing the student's engagement during the learning process. The total score was then converted into a percentage using the formula proposed by Trianto (dalam Rifai & Hidayat, 2025).

$$Percentage\ (\%) = \frac{Total\ score\ obtained}{Maximum\ score\ (12)} x\ 100$$

Data analysis in this study included the normality test, homogeneity test, t-test, and N-Gain test, conducted using SPSS (Statistical Product and Service Solutions) version 26. The normality test was conducted using the Shapiro–Wilk method at a 0.05 significance level to ensure that the data were derived from a normally distributed population, with the criterion of Sig. > 0.05. Homogeneity of variance was subsequently tested using Levene's Test at a 0.05 significance level to confirm the equality of variances between groups, with the criterion of Sig. ≥ 0.05. Once the statistical assumptions were satisfied, hypothesis testing was performed using an Independent Sample t-Test at a 0.05 significance level to examine differences in mean scores between the groups. Additionally, the improvement in student learning outcomes was analyzed using the N-Gain test to assess the effectiveness of the treatment. N-Gain values were classified into three categories: high (n-gain > 0.7), medium (0.3 < n-gain ≤ 0.7), and low

(n-gain ≤ 0.3), to interpret the extent of improvement in students' paragraph main idea comprehension.

In addition to the test score analysis, the study conducted supplementary analyses of students' learning activity observations. The observational data were processed by calculating the class average for each session. Subsequently, the average activity scores across four sessions were accumulated and converted into final percentages. These percentages were then classified into learning activity categories based on the criteria formulated by Trianto (Rifai & Hidayat, 2025), as presented in Table 3.

Table 3. Category and Percentage of Learning Activity Scores

Category	Interval %
Very Active	80 – 100
Active	60 – 79
Moderately Active	50 – 59
Less Active	< 50

Results and Discussion

The data obtained in this study consisted of pretest and posttest scores measuring students' ability to comprehend the main idea of paragraphs. These data were used to compare the initial and final abilities of students in the experimental and control groups following the implementation of the treatment. The mean pretest and posttest scores for both groups are presented in Table 4.

Table 4. Pretest and posttest Scores of Experimental and Control Classes

Class	Number of Students	Average Score	
		Pretest	***Posttest***
Experimental	32	48,53	85,03
Control	26	49,62	68,30

Based on Table 4, the experimental group had an average pretest score of 48.53, which increased to 85.03 on the posttest. In contrast, the control group obtained an average pretest score of 49.62, which increased to 68.30 on the posttest. These results indicate that the experimental group experienced a greater improvement in main idea comprehension compared to the control group.

Data from the posttest were subsequently subjected to hypothesis testing. The hypothesis testing aimed to examine the effect of the RADEC learning model combined with the Reciprocal Teaching strategy on fourth-grade students' ability to comprehend paragraph main ideas. The hypothesis was tested using an Independent Samples t-test with the assistance of SPSS version 26. The results of the Independent Samples t-test are presented in Table 5 as follows.

Table 5. Independent Samples t-Test Results

Independent Samples Test						
		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
Posttest	Equal variances assumed	.168	.683	5,398	56	.000

Based on the SPSS 26 output of the independent samples t-test at a significance level of 0.05, the significance value in the "Equal variances assumed" row under Sig. (2-tailed) was

0.000 (Sig. = 0.000 < 0.05). Therefore, the alternative hypothesis (H_1) is accepted, and the null hypothesis (H_0) is rejected, indicating that the RADEC learning model combined with the Reciprocal Teaching strategy has a significant effect on students' ability to identify the main idea of a paragraph.

Subsequently, an N-Gain test was conducted. The N-Gain test was conducted to assess the effectiveness of the learning intervention by measuring the magnitude of score improvement from pretest to posttest for each student. The N-Gain analysis was performed using SPSS version 26. The results of the N-Gain test are presented as follows.

Table 6. N-Gain Test Results

Class	*Pretest*	*Posttest*	*N-Gain*	Criteria
Experimental	48,53	85,03	0,7110	Tinggi
Control	49,62	68,3	0,3678	Sedang

Based on the calculations, the average N-Gain for the experimental class was 0.7110 > 0.7, which is higher than the average N-Gain of the control class at 0.3678 < 0.7. These results indicate that the improvement in students' abilities, measured by the difference between pretest and posttest scores, was greater in the experimental class than in the control class. Accordingly, it can be concluded that students in the experimental class experienced a more significant enhancement in their ability to comprehend the main ideas of paragraphs after receiving the treatment compared to students in the control class. According to the classification criteria, the improvement in the experimental class falls into the high category, whereas the improvement in the control class is categorized as low. This finding confirms that the implementation of the RADEC learning model (Read, Answer, Discuss, Explain, and Create) integrated with the Reciprocal Teaching strategy has a more effective positive impact on enhancing students' comprehension of paragraph main ideas.

Subsequent analysis involved examining student learning activities. This analysis was conducted to obtain an overview of student engagement during the learning process, both in the experimental class, which implemented the RADEC learning model integrated with the Reciprocal Teaching strategy, and in the control class, which followed conventional teaching methods. Based on the calculations, the results of the assessment of student learning activities are presented in Table 7.

Table 7. Analysis of Student Learning Activities

Class	Student Learning Activity (%)				Average
	Session				
	Ke-1	Ke-2	Ke-3	Ke-4	
Experimental	70%	77%	79%	82%	77%
Control	55%	53%	61%	64%	58%

Based on the data in Table 7, the average learning activity of students in the experimental class reached 77%, which falls into the "active" category. In contrast, the control class recorded an average of 58%, categorized as "moderately active." These results indicate that student engagement in the class implementing the RADEC model (Read, Answer, Discuss, Explain, and Create) combined with the Reciprocal Teaching strategy was higher than that in the class following conventional teaching methods. Therefore, it can be concluded that the application of the RADEC model integrated with the Reciprocal Teaching strategy has a positive effect on enhancing students' learning activities in mastering the main ideas of paragraphs.

Based on the series of analyses that have been conducted, it was found that the t-test results indicated a significance value of 0.000 < 0.05, which implies that H_1 was accepted and H_0 was rejected. These findings confirm a significant effect of the RADEC (Read, Answer, Discuss, Explain, and Create) learning model combined with the Reciprocal Teaching strategy on students' ability to comprehend the main ideas of paragraphs. The N-Gain data further support this result, with the mean N-Gain score of the experimental class reaching 0.7110 (high category), whereas the control class obtained 0.3678 (moderate category). This discrepancy demonstrates that the integration of the RADEC model with Reciprocal Teaching not only yielded a statistically significant improvement in academic performance but also effectively enhanced meaningful paragraph main idea comprehension compared to conventional instruction. This may be attributed to the RADEC model's emphasis on active student engagement, while the Reciprocal Teaching strategy promotes cooperative interaction through questioning, clarifying, predicting, and summarizing. The combination of both approaches enables students to collaboratively construct meaning from texts, strengthen metacognitive skills, and improve focus and learning motivation.

These results align with previous studies indicating that the RADEC learning model positively influences students' learning outcomes (Yulianti et al., 2023) and specifically enhances reading comprehension skills (Fiyani & Fanani, 2025. Likewise, the Reciprocal Teaching strategy has been shown to exert a positive effect on learning outcomes (Maskura & Irviana, 2023; Surbakti et al., 2024) and reading comprehension abilities (Tantowie et al., 2022; Permana et al., 2024; Kamala et al., 2024).Taken together, the evidence suggests that both RADEC and Reciprocal Teaching possess substantial potential to improve the quality of reading instruction in elementacry schools.

The present findings further reinforce the established notion that the selection of an appropriate instructional model supports teachers in conducting learning activities more systematically, efficiently, and effectively (Hendracipta, 2021). Research also highlights that well-chosen instructional models play a pivotal role in influencing students' success in mastering academic content (Reksamunandar et al. 2020). In addition, the effectiveness of instructional strategies does not rely on a single method; rather, it benefits from the combination of several techniques to accommodate diverse learning approaches (Cahyani et al., 2024; Ekasafitri et al., 2024). The RADEC model positions students as active agents in the learning process (student-centered learning) (Maspiroh & Sartono, 2022). At the Read stage, students engage in close reading to understand textual content; the Answer stage develops critical thinking as students respond to text-based questions; the Discuss stage facilitates peer interaction and collective meaning-making; the Explain stage requires students to rearticulate ideas in their own words; and finally, the Create stage encourages the production of ideas or artifacts derived from acquired comprehension (Tulljanah & Amini, 2021).

The implementation of RADEC in the context of teaching main idea comprehension in reading promotes active student engagement and enhances higher-order thinking skills. Students were observed to effectively comprehend the main ideas of texts through activities involving reading, discussion, explanation, and idea creation, which aligns with constructivist principles emphasizing the importance of active student participation in knowledge construction (Pohan et al., 2020). Furthermore, this study supports the theoretical perspective that RADEC not only improves learning outcomes but also develops students' cognitive skills, including comprehension, analysis, and synthesis of textual information, as well as critical thinking, collaboration, problem-solving, and creativity (Sopandi et al., 2021; Yanti & Suriani, 2024; Ilma et al., 2024). Furthermore, the Reciprocal Teaching strategy has been shown to

positively influence reading comprehension skills. Palinscar and Brown (Kusumawati & Maruti, 2019) assert that this strategy assists students in overcoming difficulties in understanding texts through activities such as Question Generating, Clarifying, Predicting, and Summarizing. This finding aligns with Sele (2023), who reports that Reciprocal Teaching promotes active student engagement in constructing comprehension of instructional material, making it an effective supportive strategy for reading comprehension instruction.

Regarding the second research objective, learning through the integration of the RADEC model and Reciprocal Teaching strategy enhances students' learning activities. This study demonstrates that the implementation of RADEC combined with Reciprocal Teaching not only impacts cognitive skills but also positively affects students' learning engagement. During the learning process, students exhibited high enthusiasm, maintained focus on teacher explanations, actively posed questions, and engaged in interactions with peers and the teacher. Group discussions were productive, and during the presentation stage, students demonstrated confidence, speaking with clear volume and intonation. These patterns of engagement indicate a behavioral shift from passive to active learning, suggesting that learning activity serves as a key determinant of instructional success. The findings of this research are consistent with previous studies reporting that both the RADEC model and the Reciprocal Teaching strategy are positively associated with improved learning motivation and student participation in classroom activities (Pradja & Firmansyah, 2020; Fariha et al., 2024).

Overall, the findings provide empirical evidence that the application of the RADEC learning model integrated with Reciprocal Teaching is effective in enhancing students' foundational literacy competencies, particularly in understanding paragraph main ideas. These results further support the practice of collaborative, higher-order thinking-based learning in elementary schools and underscore the importance of implementing innovative instructional models to improve literacy quality in Indonesia.

Conclusion

The RADEC learning model integrated with the Reciprocal Teaching strategy was found to have a positive effect on improving the ability of fourth-grade students to comprehend the main ideas of paragraphs. The results indicated a significance value of 0.000 (< 0.05), with H1 accepted and H0 rejected, suggesting that the RADEC learning model combined with Reciprocal Teaching has a statistically significant impact. Furthermore, the N-Gain analysis revealed that the average N-Gain of the experimental class was 0.7110, higher than that of the control class, which was 0.3678. These findings indicate that students in the experimental class experienced a more substantial improvement in understanding the main ideas of paragraphs after receiving the treatment compared to those in the control class. In addition to cognitive gains, the implementation of this model also enhanced student learning activities, as evidenced by observations conducted over four sessions. The experimental class achieved an average activity level of 77% (categorized as active), while the control class reached an average of 58% (categorized as moderately active). These results demonstrate that the RADEC model integrated with the Reciprocal Teaching strategy positively influences student participation and engagement in the process of learning to comprehend the main ideas of paragraphs. Therefore, the application of RADEC (Read, Answer, Discuss, Explain, and Create) in combination with Reciprocal Teaching not only improves students' comprehension of main ideas but also promotes greater participation and engagement in the learning process.

References

Aditiyarini, M., & SB, N. S. (2025). Development of Interactive Media Articulate Storyline Loaded with Local Wisdom to Enhance Understanding of Main Ideas in Elementary Schools. *Jurnal Kependidikan: Jurnal Hasil Penelitian Dan Kajian Kepustakaan Di Bidang Pendidikan, Pengajaran Dan Pembelajaran*, *11*(1), 445. https://doi.org/10.33394/jk.v11i1.14881

Afifah, N. U., Purwati, P. D., & SB, N. S. (2024). Jati Denok: Big Book Media as an Effort to Improve Poetry Reading Skills of Second Grade Students in Elementary School. *MIMBAR PGSD Undiksha*, *12*(2), 370–380. https://doi.org/10.23887/jjpgsd.v12i2.74925

Badan Standar, Kurikulum, Dan Asesmen Pendidikan. (2024). Keputusan Kepala Badan Standar, Kurikulum, Dan Asesmen Pendidikan Nomor 032 Tahun 2024 Tentang Capaian Pembelajaran Pada Pendidikan Anak Usia Dini, Jenjang Pendidikan Dasar, Dan Menengah.

Cahyani, W. E. P., SB, N. S., & Purwati, P. D. (2024). Telegram Chatbot-Based Interactive Media in Fourth Grade Elementary School Indonesian Language Subjects. *Journal of Education Research and Evaluation*, *8*(2), 350–361. https://doi.org/10.23887/jere.v8i2.77063

Ekasafitri, M., SB, N. S., & Purwati, P. D. (2024). Augmented Reality Flipbook as a Guide to Determining the Main Idea of Paragraphs in Indonesian Language Learning. *International Journal of Elementary Education*, *8*(2), 218–228. https://doi.org/10.23887/ijee.v8i2.77338

Ermita. (2024). *Upaya Meningkatkan Aktivitas Belajar Bahasa Inggris Siswa Melalui Model Pembelajaran Cooperatif Tipe Number Heads Together*. Ahsyara Media Indonesia.

Fariha, E., Sismulyasih, N., & Purwati, P. D. (2024). Development of a Linktree-Based E-Module for Enhancing Fifth Graders' Reading Skills in Narrative Texts. *Tadris: Jurnal Keguruan Dan Ilmu Tarbiyah*, *9*(1), 77–87. https://doi.org/10.24042/tadris.v9i1.21928

Fariha, N. F., Marlina, M., & Ayuningtyas, V. (2024). Pengaruh Model Pembelajaran RADEC Terhadap Kemampuan Literasi Matematis dan Keaktifan Siswa. *JURNAL INDOPEDIA (Inovasi Pembelajaran Dan Pendidikan)*, *2*(2), 388–399.

Fiyani, K. Y., & Fanani, A. (2025). Pengaruh Model RADEC (Read-Answer-Discuss-Explain-Create) terhadap kemampuan membaca pemahaman pada Siswa kelas IV Sekolah Dasar. *Pedas:Jurnal Ilmu Pendidikan Dasar*, *10*(01), 228–243. https://doi.org/https://doi.org/10.23969/jp.v10i01.23605

Hendracipta, N. (2021). *Buku Ajar Model Model Pembelajaran SD*. Multi Kreasi Press.

Ilma, R. N., Setyowati, R., & Mulyani, S. (2024). Pengaruh Model RADEC Terhadap Hasil Belajar Ranah Kognitif Bahasa Indonesia Siswa Kelas V SDN 24 Singkawang. *Pendas : Jurnal Ilmiah Pendidikan Dasar,* *9*(4), 1118–1126. https://doi.org/https://doi.org/10.23969/jp.v9i04.19123

International Association for the Evaluation of Educational Achievement (IEA). (2017). *PIRLS 2016 International Results in Reading.*

Januaripin, M. (2024). Relevansi Model Pembelajaran RADEC (read-answer, discuss, explain and create) dalam Meningkatkan Motivasi Belajar Siswa. *JIIP (Jurnal Ilmiah Ilmu Pendidikan*, *7*(2), 2057–2063. https://doi.org/https://doi.org/10.54371/jiip.v7i2.3226

Kamala, R. A., Bahri, S., & Winata, N. T. (2024). Efektivitas Metode Reciprocal Teaching dalam Pembelajaran Membaca Pemahaman Cerita Rakyat di Kelas X SMA Negeri 1 Anjatan Tahun Pelajaran 2023/2024. *Bahtera Indonesia; Jurnal Penelitian Bahasa Dan Sastra Indonesia*, *9*(2), 813–822. https://doi.org/10.31943/bi.v9i2.993

Kusumawati, N., & Maruti, E. S. (2019). *Strategi Belajar Mengajar di Sekolah Dasar*. CV AE Media Grafika.

Lubis, T. A., Lubis, R. H. H., & Ramadhan, N. (2024). Pengaruh Model Pembelajaran RADEC (Read, Answer, Discuss, Explain, Create) Terhadap Hasil Belajar IPA pada Tema 7 Indahnya Keberagaman di Negeriku Subtema 1 Keragaman Suku Bangsa dan Agama di Negeriku Kelas IV SD Negeri 101932 Perbaungan Tahun Pelajaran 2022/2023. *Tematik: Jurnal Penelitian Pendidikan Dasar*, *3*(2), 145–149. https://doi.org/10.57251/tem.v3i2.1502

Marlina, L., & Sholehun. (2021). Analisis Faktor-Faktor yang Mempengaruhi Hasil Belajar Bahasa Indonesia pada Siswa Kelas IV SD Muhammadiyah Majaran Kabupaten Sorong. *FRASA: Jurnal Keilmuan, Bahasa, Sastra, Dan Pengajarannya*, *2*, 66–74.

Maskura, S. A., & Irviana, I. (2023). Pengaruh Model Pembelajaran Reciprocal Teaching Berbasis Literasi Digital Terhadap Hasil Belajar Bahasa Indonesia Siswa Sekolah Dasar. *ISOLEK: Jurnal Pendidikan, Pengajaran, Bahasa, Dan Sastra*, *1*(1), 39–52. https://doi.org/https://doi.org/10.59638/isolek.v1i1.37

Maspiroh, I., & Sartono, E. K. E. (2022). Model Pembelajaran Radec (Read, Answer, Discuss, Explan, And Create) Untuk Meningkat Kemampuan Berikir Tingkat Tinggi (High Order Thingking Skill) Peserta Didik Pada Pembelajaran IPA di Sekolah Dasar. *Metakognisi: Jurnal Kajian Pendidikan*, *4*(2), 82–92. https://doi.org/https://doi.org/10.57121/meta.v4i2.43

Nashikhah, M., & Sb, N. S. (2025). Pengembangan Media Digital Smart Booklet Menggunakan Strategi Story Maps Upaya Peningkatan Membaca Pemahaman Siswa Kelas III SD Negeri Pulosari 1. *Autentik: Jurnal Pengembangan Pendidikan Dasar*, *9*(1), 147–159. https://doi.org/https://doi.org/10.36379/autentik.v9i1.632

Niswa, K., Daulay, S. H., Wahyuni, R., & Rafi'i, M. (2025). *Strategi Pembelajaran Bahasa: Inovatif dan Menyenangkan*. Umsupress.

Nurfahada, A., & SB, N. S. (2025). Developing Bowling Letters Media Through NHT Learning Model: A Lesson from Primary Schools Learners. *Journal of Languages and Language Teaching*, *13*(3), 1445. https://doi.org/10.33394/jollt.v13i3.14447

Nurhasanah, Hopeman, T. A., & Yusup, R. (2025). *Pendekatan SAVI dalam Pembelajaran: Konsep, Strategi, dan Implementasi*. Keizen Media Publishing.

Nursyamsyiah, Y., Anggraeni, P., & Akbar, A. (2023). Penerapan Model Pembelajaran RADEC Untuk Meningkatkan Aktivitas dan Hasil Belajar Siswa Materi Daur Hidup Hewan. *Sebelas April Elementary Education (SAEE)*, *2*(2), 229–235. https://ejournal.unsap.ac.id/index.php/saee

OECD. (2023). *PISA 2022 Results (Volume II): Learning During and From Disruption. OECD.* https://doi.org/https://doi.org/10.1787/a97db61c-en

Permana, I., Djuanda, D., & Karlina, A. D. (2024). Pengaruh Model Pembelajaran Reciprocal Teaching terhadap Minat dan Kemampuan Membaca Pemahaman Siswa Kelas 5 SD. *Jurnal Onoma: Pendidikan, Bahasa Dan Sastra*, *10*(3), 3409–3419. https://doi.org/https://doi.org/10.32678/primer.v16i1.9975

Pohan, A. A., Abidin, Y., & Sastromiharjo, A. (2020). Model Pembelajaran RADEC dalam Pembelajaran Membaca Pemahaman Siswa. *Seminar Internasional Riksa Bahasa XIV*, 250–258. http://proceedings.upi.edu/index.php/riksabahasa

Pradja, B. P., & Firmansyah, M. A. (2020). Penerapan Model Pembelajaran Reciprocal Teaching dalam Pembelajaran Matematika untuk Meningkatkan Aktivitas dan Hasil Belajar Siswa. *IMAJINER(Jurnal Matematika Dan Pendidikan Matematika)*, *2*(2). https://doi.org/10.26877/imajiner.v2i2.5829

Purba, H. M., Zainuri, H. S., Syafitri, N., & Ramadhani, R. (2023). Aspek-Aspek Membaca dan Pengembangan dalam Keterampilan Membaca di Kelas Tinggi. *Inspirasi Dunia: Jurnal Riset Pendidikan Dan Bahasa*, *2*(3), 179–192. https://doi.org/10.58192/insdun.v2i3.1025

Reksamunandar, R. P., Kahar, A. A. D. Al, Ardianto, & Wangi, M. (2020). Metode Pembelajaran Dalam Meningkatkan Hasil Belajar Siswa Pada Mata Pelajaran Bahasa Indonesia Di Kelas VI MI Plus Assalam Manado. *Tarsius: Jurnal Pengabdian Tarbiyah, Religius, Inovatif, Edukatif Dan Humanis*, *2*(1).

Republik Indonesia. (1945). Undang-Undang Dasar Negara Republik Indonesia Tahun 1945.

Republik Indonesia. (2003). Undang-Undang Republik Indonesia Nomor 20 Tahun 2003 Tentang Sistem Pendidikan Nasional. Jakarta: Kementerian Sekretariat Negara.

Rifai, T. N. R., & Hidayat. (2025). Pengaruh Penggunaan Model Discovery Learning terhadap Hasil Belajar dan Aktivitas Siswa pada Pembelajaran IPAS di Kelas V SDN 060928. *Bahasa Dan Ilmu Sosial*, *3*(2), 170–183. https://doi.org/10.61132/nakula.v3i2.1648

Sele, Y. (2023). *Buku Ajar Belajar dan Pembelajaran*. NEM.

Sopandi, W., & Handayani, H. (2019). The Impact of Workshop on Implementation of Read-Answer-Discuss-Explain-And-Create (RADEC) Learning Model on Pedagogic Competency of Elementary School Teachers. *In 1st International Conference on Innovation in Education*, *178*, 7–11. https://doi.org/https://doi.org/10.2991/icoie-18.2019.3

Sopandi, W., Sujana, A., Sukardi, R. R., Sutinah, C., Yanuar, Y., Imran, M. E., Suhendra, I., Dwiyani, A. S., Sriwulan, W., Nugraha, T., Sumirat, F., Nurhayati, Y., Kusumastuti, F. A., Lestari, H., Yuniasih, N., Nugraheny, D. C., & Suratmi. (2021). *Model Pembelajaran RADEC : Teori dan Implementasi di Sekolah*. UPI Press.

Sugiyono. (2020). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Alfabeta Bandung.

Surbakti, L. A., Gaol, R. L., Sinaga, R., Tanjung, D. S., Hs, D. W. S., & Silaban, P. J. (2024). Pengaruh Model Pembelajaran Reciprocal Teaching Terhadap Hasil Belajar Siswa Kelas IV Pada Mata Pelajaran Bahasa Indonesia SDN 060921 Medan Sunggal. *Pendas : Jurnal Ilmiah Pendidikan Dasar,* *9*(4), 444–458. https://doi.org/https://doi.org/10.23969/jp.v9i04.20489

Suroso, N. L. D. H., Setiyawan, H., & Roosyanti, A. (2025). Penerapan Model Reciprocal Teaching pada Kemampuan Membaca Pemahaman Siswa Kelas IV Mata Pelajaran Bahasa Indonesia. *Indo-MathEdu Intellectuals Journal*, *6*(1), 1400–1409. https://doi.org/10.54373/imeij.v6i1.2673

Tantowie, T. A., Sunendar, D., Rahman, & Hartati, T. (2022). The Effect of Reciprocal Teaching Learning Model and Self-Concept on Reading Comprehension Ability. *JPI (Jurnal Pendidikan Indonesia)*, *11*(4). https://doi.org/10.23887/jpiundiksha.v11i4.52363

Tulljanah, R., & Amini, R. (2021). Model Pembelajaran RADEC sebagai Alternatif dalam Meningkatkan Higher Order Thinking Skill pada Pembelajaran IPA di Sekolah Dasar: Systematic Review. *Jurnal Basicedu*, *5*(6), 5508–5519. https://doi.org/10.31004/basicedu.v5i6.1680

Umi, C. (2020). *Arif Cerdas untuk Sekolah Dasar Kelas 5*. Gramedia Widiasarana Indonesia.

Vioreza, N., Marhamah, Nugroho, B. T. A., Solihat, E., Hasanah, N., Oktaviana, E., Arisona, R. D., & Ginting, M. B. (2020). *Call For Book Tema 4 (Model dan Metode Pembelajaran)*. CV. Jakad Media Publishing.

Wijayanti, D. S., SB, N. S., & Purwati, P. D. (2025). Enhancing Narrative Text Reading Comprehension Through Augmented Reality-Assisted Pop-Up Book Media Development. *AL-ISHLAH: Jurnal Pendidikan*, *17*(3). https://doi.org/10.35445/alishlah.v17i3.6937

Windiasari, D. A., Wiarsih, C., & Febrianta, Y. (2021). Kesulitan membaca pemahaman peserta didik di kelas IVA SD Negeri 1 Karangnanas. *Jurnal Ika Pgsd (Ikatan Alumni Pgsd) Unars*, 239–247.

Yanti, R., & Suriani, A. (2024). Pengaruh Penerapan Model Pembelajaran Radec Terhadap Keterampilan Menulis Teks Eksplanasi Siswa Kelas V Sekolah Dasar. *Jurnal Pendidikan Tambusai*, *8*(2), 18583–18591. https://doi.org/https://doi.org/10.31004/jptam.v8i2.15098

Yulianti, M. T., Qomario, & Nureva. (2023). Pengaruh Model Pembelajaran RADEC (Read, Answer, Discuss, Explain and Create) terhadap Hasil Belajar. *Journal of Elementary School*, *2*(1), 33–40. https://doi.org/https://doi.org/10.30599/jari.v2i1.458

Zakiyyah, A. Z., & SB, N. S. (2025). Developing a Smart Apps Creator Application Using the Institution Word Method to Enhance Early Reading Skills in Young Learners. *Journal of Languages and Language Teaching*, *13*(3), 1341. https://doi.org/10.33394/jollt.v13i3.14812