Finger

OPEN ACCESS

Jurnal Ilmiah Teknologi Pendidikan
https://ejournal.1001tutorial.com/index.php/finger

Improving Skills in Writing Explanatory Texts Using the RADEC Model in Grade V Elementary School

Three Rahmadona[1], R. Teti Rostikawati[2], Muftah Sharah[3*], Siti Utami[4]

[1,2,3]Universitas Pakuan
Bogor, Indonesia
[4]SDN Lawanggintung 2
Bogor, Indonesia
muftah.sharah2110@gmail.com*

Article Information:
Received April 12, 2025
Revised June 02, 2025
Accepted June 13, 2025

Keywords:
Classroom Action Research, Explanatory Text, RADEC Model, Writing Skills

Abstract

Background: Writing is a fundamental skill in elementary education, essential for developing students' cognitive abilities and communication. However, many Indonesian fifth-grade students struggle with explanatory text writing due to limited vocabulary, low motivation, and ineffective teaching models.
Aims: This study aims to improve the explanatory text writing skills of grade V students at SDN Lawanggintung 2 through the RADEC (Read, Answer, Discuss, Explain, Create) learning model.
Methods: The research employed Classroom Action Research in two cycles with 29 fifth-grade students. Each cycle included planning, action, observation, and reflection. Data were collected through writing tests, classroom observations, and documentation, and analyzed using quantitative and qualitative descriptive methods. The success criterion was set at 75% of students meeting the criteria for achieving learning objectives in Cycle I and 85% in Cycle II.
Result: In Cycle I, only 58.6% of students met the criteria for achieving learning objectives, with issues in text structure, vocabulary, and mechanics. After refining the RADEC implementation in Cycle II, 93.1% of students achieved the criteria for achieving learning objectives. Students demonstrated improved organization, richer vocabulary, and better grammatical accuracy.
Conclusion: The RADEC model effectively improved students' explanatory text writing skills by fostering active participation, structured discussion, and collaborative learning. This approach is recommended for Indonesian elementary language classes to address writing skill deficiencies and support 21st-century learning competencies.

A. Introduction

Education plays a crucial role in developing of a country's human resources. In Indonesia, basic education is a vital foundation for shaping students' character and abilities, including writing skills. Writing is a crucial communication skill, especially in an academic context, where students can articulate a main idea/idea or experience to be useful for themselves and others (P & Azkiya, 2024). The ability to write serves to express ideas and feelings, and as a tool to convey information in a clear and structured manner. Writing skills are essential abilities that students need to have at the elementary school level because the writing process can train children's cognitive skills to continue thinking and convey the results of their thoughts to others (Alerbitu et al., 2024). Writing skill is one of the essential basic competencies for students, especially in

How to Cite : Rahmadona, T., Rostikawati, R. T., Sharah, M., & Utami, S. (2025). Improving Skills in Writing Explanatory Texts Using the RADEC Model in Grade V Elementary School. *FINGER: Jurnal Ilmiah Teknologi Pendidikan*, *4*(2), 80–88. https://doi.org/10.58723/finger.v4i2.395
ISSN : 2830-6813
Published by : Asosiasi Profesi Multimedia Indonesia

the context of Indonesian language learning. One type of writing that is important for students to master is explanatory text.

In ideal learning, teachers are expected to be able to provide writing lessons that not only focus on theory but also train students to write independently and creatively. Students are also expected to be able to understand the structure and linguistic rules of explanatory text and be able to write explanatory text coherently, clearly, and logically, following applicable rules. Explanation text emphasizes the process experienced or that occurs in a phenomenon (Ramadini et al., 2021). This ability is important as it enables students to grasp cause-and-effect connections, enhance their critical thinking, and convey information clearly. Learning to write explanatory texts should involve activities that encourage students to actively seek information, discuss, and organize their ideas into structured writing (Suriani & Yanti, 2024). Therefore, learning to write an explanatory text is crucial for fostering students' communication abilities in the future.

Based on observations in grade 5 A at SDN Lawanggintung 2, students' learning outcomes in writing explanatory texts are still below expectations regarding their written assignments, which often lack completeness of content, proper structure, appropriate vocabulary, correct language use, and mechanics. Many students struggle to organize their ideas systematically and express them in writing. These difficulties stem from several factors, such as limited understanding of explanatory text structure, insufficient writing practice, and low motivation and interest in writing activities (Angely & Suriani, 2024). As a result, students' writing skill is often at a low level, with test results showing scores that are far from the expected standards (Retnowati, 2021). Several reasons cause the low writing skills of grade 5 students' explanatory texts, including: (1) students who tend to dislike reading so that they do not have much vocabulary to write it down in writing learning activities; (2) lack of enthusiasm for learning; (3) teacher and student interaction during learning is still lacking; (4) the models and media used are not innovative (Lestari et al., 2021).

In line with these problems, research conducted by Aqilah et al. (2024) and Tiara et al. (2023) stated that it is quite common for students to experience difficulties in writing explanatory texts. Trisnasari & Setiyadi (2020) also said that students still have difficulties in using proper grammar and word structure, as well as lack of ideas and lack of interest in writing. On the other hand, teachers also face challenges in finding effective explanatory text teaching methods to improve students' writing skills. In addition, research by Melany et al. (2025) stated that learning explanatory texts in elementary schools faces various obstacles, including low student interest, limited learning facilities, and a lack of teacher training in applying creative methods.

Using the appropriate learning model is crucial for achieving the planned learning objectives (Fitria, 2019). Therefore, there is a need for a learning model that can enhance students' skills in writing explanatory texts, such as the RADEC model. The RADEC learning model is an approach that encourages students to work together to solve problems, generate ideas, and carry out a series of activities to gain a deep understanding of concepts. The name RADEC itself comes from the stages of learning, namely Read, Answer, Discuss, Explain, and Create (Widodo et al., 2024). This model is designed to address the skills needed in the 21st century, which require students to have 4C skills, namely critical thinking and problem solving, creativity, communication skills, and the ability to work collaboratively (Hasibuan et al., 2024).

RADEC is highly relevant to the educational context in Indonesia, where students are required to master various scientific concepts in a limited amount of time while honing their multiliteracy skills. This model provides space for students to actively learn independently while collaborating, thereby supporting the comprehensive development of 21st-century skills, especially the ability to explain, and build a culture of reading students (Suriani & Yanti, 2024; Setiawan et al., 2020). According to Sopandi, According to Sopandi, RADEC is an appropriate alternative learning strategy because its basic principle is that every student can learn more in terms of knowledge and skills (Sopandi, 2017; Komalasari et al., 2022).

Previous studies indicate that the RADEC learning model effectively enhances students' skills in writing explanatory texts. This model encourages active student participation and creates a more meaningful and enjoyable learning environment (Suriani & Yanti, 2024). Research conducted at SD Negeri 06 Payung demonstrated that implementing the RADEC model significantly improved students' explanatory text writing abilities. The analysis revealed a notable difference between pretest and posttest scores, with a p-value less than 0.05, confirming the model's effectiveness in boosting student learning outcomes (Ramadini et al., 2021). Similarly, a study at SDN 29 Lumindai found that the RADEC model increased student engagement and activity during lessons. Beyond improving writing skills, it fosters a fun learning atmosphere that helps students better grasp the material (Suriani & Yanti, 2024). Additional research

highlights that the RADEC model emphasizes the final product and the learning process, which involves discussion and collaboration among students. This approach supports students in understanding how to accurately and adequately compose explanatory texts (Nuriva et al., 2023).

The purpose of this classroom action research is to improve the students writing skill in grade 5 through the application of RADEC learning model. This research is expected to contribute to the development of Indonesian language learning in elementary schools and provide solutions to the problem of students' writing skills remain underdeveloped.

B. Research Methods

The research employed Classroom Action Research (CAR) to enhance students' skills in writing explanatory texts within Indonesian language learning. Classroom Action Research is a type of action research carried out by teachers systematically and reflectively to improve teaching practices and enhance teacher professionalism (Mufidah, 2021). The purpose of Classroom Action Research (CAR) is to improve the quality of learning (Fauzia et al., 2024). This research was conducted in two cycles. The research process was carried out as follows:

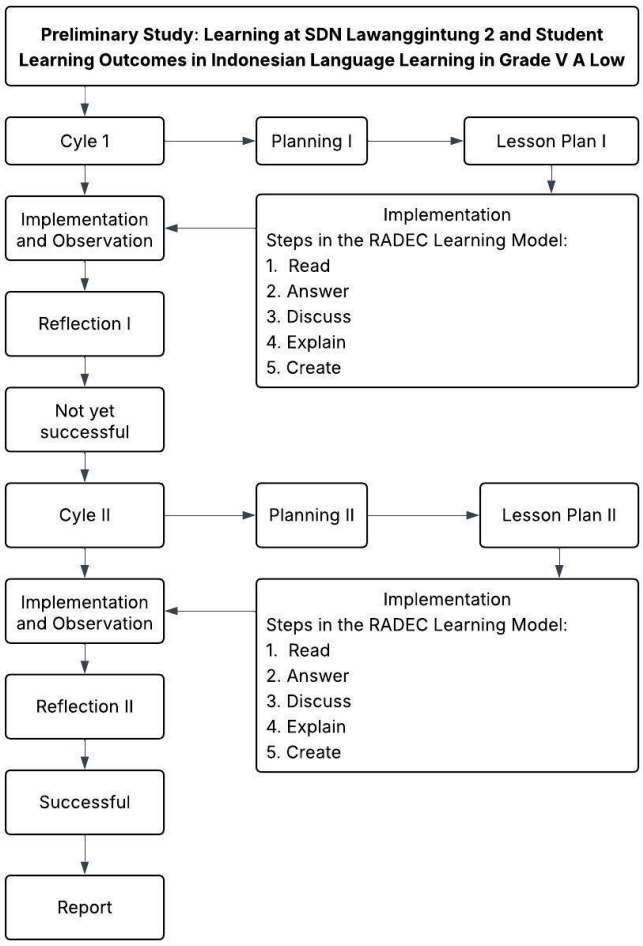

Figure 1. Classroom Action Research Process

This study was conducted in two cycles with systematic stages. In the Cycle I, the researcher designed teaching modules or lesson plans using the RADEC learning model, prepared teaching materials, learning media, and assessment instruments. Learning took place in two sessions; the first session focused on the Read and Answer stages, where students read explanatory texts and answered questions, while the second session involved the Discuss, Explain, and Create stages, where students discussed, explained, and created explanatory texts. Data was collected through writing tests, observations of teacher and student activities, and documentation, then analyzed using quantitative descriptive methods. The success of the first cycle

was measured by the increase in the number of students who achieved a minimum score of 75% based on the criteria for achieving learning objectives, and the analysis results were used to reflect on and improve shortcomings in the next cycle. In the second cycle, based on previous reflections, the researcher improved the learning strategy by preparing additional teaching materials and more engaging media. The action was implemented in two sessions with the same steps, but with a greater emphasis on student discussion and creativity. Data collection and analysis were conducted using the same techniques, with improved success criteria, namely 85% of students achieving the criteria for learning objectives. The analysis results in the second cycle were used to conclude the effectiveness of the RADEC learning model in improving students' explanatory text writing skills.

This study was conducted at SDN Lawanggintung 2, located on Jl. Lawanggintung, South Bogor Sub-district, Bogor City, West Java, during the even semester of the 2024/2025 academic year. The population consisted of all fifth-grade students at SDN Lawanggintung 2, with the sample being class V A, comprising 29 students-12 boys and 17 girls. Data analysis techniques in the research at SDN Lawanggintung 2 were carried out in detail by combining quantitative and qualitative analysis to obtain a comprehensive picture of student learning outcomes. Quantitative data were obtained from the results of explanatory text writing tests in each cycle, which were analyzed based on the criteria for achieving learning objectives. Qualitative data was collected through observation of the learning process and student discussions.

C. Results and Discussion

1. Results

RADEC Model Learning Implementation Observation Results

The implementation of learning with the RADEC model in this study consisted of two cycles, namely cycle I, one meeting, and cycle II, one meeting. Observations were made to assess the implementation of the RADEC model in learning to write explanatory texts in grade V elementary school.

In Cycle I, applying the RADEC model still faced several obstacles, such as limited time in the discussion stage and uneven student involvement. In the Read stage, students still tend to read and understand the explanatory text material passively. At the Answer stage, most students could answer questions with teacher guidance, but some students still had difficulty identifying the structure of the explanatory text. The Discuss stage went quite well, but interaction between students in developing ideas still needed to be improved. At the Explain stage, students who presented the results of the discussion were not able to convey ideas coherently. The Create stage produced explanatory texts that were still less structured and used limited vocabulary.

After reflection and improvement in Cycle II, there was an improvement in the application of the RADEC model. Students were more active in reading the material (Read), able to answer questions more independently (Answer), and participated more actively in group discussions (Discuss). At the explanation stage, students showed improvement in systematically explaining the discussion results. Meanwhile, at the Create stage, the quality of the resulting explanatory text improved, with a clearer text structure and more varied vocabulary. Thus, implementing learning with the RADEC model was optimized in Cycle II.

The following table presents a comparison of the implementation findings across each RADEC stage between Cycle I and Cycle II:

Table 1. The Implementation Findings Across Each RADEC Stage Between Cycle I and Cycle II

RADEC Stage	Cycle I Implementation	Cycle II Implementation
Read	Students were still passive; had difficulty understanding the reading material.	Students read more actively and independently; showed better comprehension of the material.
Answer	Most students answered questions with teacher assistance; some had difficulty identifying text structures.	Students answered more independently and were able to identify explanatory text structures correctly.
Discuss	Group discussions occurred but were uneven; only some students were engaged.	Discussions were more interactive and inclusive; students confidently expressed ideas.

RADEC Stage	Cycle I Implementation	Cycle II Implementation
Explain	Presentations lacked coherence and clarity; ideas were not conveyed systematically.	Students explained discussion results clearly and in order; communication skills improved.
Create	Texts were less structured, with limited vocabulary and frequent language errors.	Texts showed clearer structure, richer vocabulary, and improved grammar and mechanics.

This comparison highlights a marked improvement in all stages of the RADEC model from Cycle I to Cycle II. The refined implementation in Cycle II successfully enhanced students' engagement, understanding, and ability to produce more structured and coherent explanatory texts.

Learning Outcomes of Writing an Explanation Text

Students' learning outcomes in writing explanatory texts are measured based on the criteria for achieving learning objectives, including completeness of content, text organization, language use, and mechanics. Data on student learning outcomes were obtained through writing tests in each cycle.

In Cycle I, most students still had difficulties in composing explanatory texts. From the test results, only 58.6% of students, or 17 students, met the criteria for achieving learning objectives, while 12 students did not. A deeper analysis of their work revealed several recurring issues. Students often struggled to organize their ideas logically, resulting in texts with unclear structure and weak coherence between paragraphs. Many texts lacked essential components such as cause-and-effect explanations, and some students omitted conclusions altogether.

Limited vocabulary also constrained students' ability to express complex ideas, leading to repetitive word use and awkward phrasing. Regarding language mechanics, frequent grammatical errors and incorrect punctuation, such as misuse of periods, commas, and capitalization, were commonly observed. For instance, one student wrote:

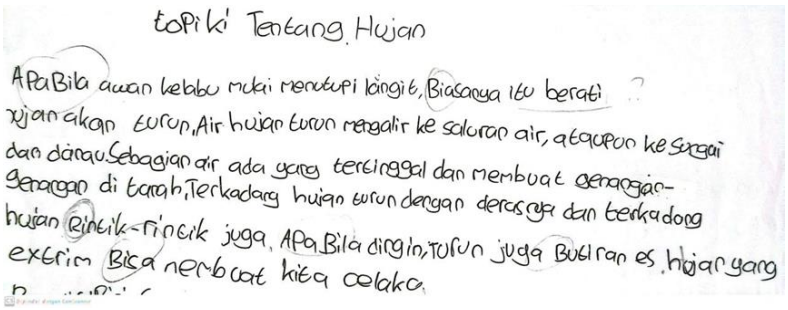

Figure 2. Student's Work in Cycle I

By Cycle II, there was a marked improvement in all assessed areas. 93.1% of students (27 out of 29) successfully met the criteria for achieving learning objectives. Students demonstrated a clearer understanding of the structure of explanatory texts, incorporating opening statements, cause-effect sequences, and conclusions more systematically. Paragraphs were better connected, and ideas developed logically and coherently.

Vocabulary use became more varied and precise, enhancing the richness of expression. Grammatical accuracy improved significantly, with fewer punctuation mistakes and better sentence construction. One student's revised text, for example:

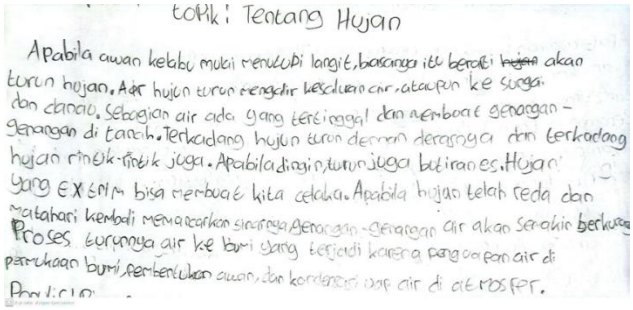

Figure 3. Student's Work in Cycle II

The shift from simple and fragmented writing to more structured, cohesive, and informative texts highlights the impact of the RADEC model, particularly the role of structured discussion and collaborative explanation in enhancing students' understanding and performance in writing.

The improvement in students' learning outcomes can be seen clearly by comparing the results from Cycle I and Cycle II in the following table:

Table 2. Cycle I vs Cycle II

Cycle	Number of Students Reaching Learning Objective Completeness Criteria	Percentage (%)	Students Not Reaching Learning Objective Completeness Criteria
I	17 students	58.6%	12 students
II	27 students	93.1%	2 students

This table illustrates a significant increase in the number of students meeting the learning objectives, indicating that the RADEC model effectively improved students' explanatory text writing skills. Two students still have not reached the criteria for achieving learning objectives, which may be caused by internal factors such as lack of confidence or limitations in understanding the material independently. Therefore, further efforts are needed in the form of individual guidance or additional exercises so that all students can achieve the set standards.

2. Discussion

The improvement in students' explanatory writing skills observed in this study can be directly attributed to the structured implementation of the RADEC model. Each stage of the model played a specific and interconnected role in supporting students' development in organizing ideas, expressing thoughts clearly, and refining their use of language.

In the Read stage, students were required to engage with explanatory text materials before class. This early exposure helped build background knowledge and familiarized students with the structure and language of explanatory texts. It aligns with findings by Aqilah et al., (2024), who found that increased reading activity correlates with stronger writing performance due to vocabulary enrichment and structural awareness

The Answer stage required students to respond to pre-reading questions, encouraging them to process and internalize key ideas from the text. This promoted comprehension and gave them a foundation on which to build their arguments and content. Suriani & Yanti (2024) similarly emphasized how RADEC's structured questioning deepened student engagement and independence.

In the Discuss stage, students engaged in peer discussion to clarify understanding and co-construct knowledge. Through dialogue, they were able to organize their ideas more coherently and receive immediate peer feedback. This collaborative environment aligns with findings by Ramadini et al. (2021), who observed that group discussions improved students' logical reasoning and cohesion in writing.

The Explain stage allowed students to present their understanding and ideas to the class. This step enhanced their ability to articulate thoughts logically and confidently—skills that transferred to their writing. As students gained experience explaining concepts aloud, their written work became more organized and persuasive.

Finally, students synthesized all prior steps into a structured explanatory text in the Create stage. By this point, they had developed a more precise grasp of text organization, logical sequencing, and appropriate

vocabulary usage. Compared to Cycle I, students in Cycle II produced more coherent paragraphs, used varied language, and made fewer grammatical and punctuation errors.

These observations are consistent with previous studies, such as those by Ramadini et al. (2021), which highlighted the RADEC model's potential in cultivating students' critical thinking, clarity in writing, and engagement through active learning. The present findings further support this by demonstrating measurable gains in writing quality after structured implementation of the RADEC model.

However, it is important to consider potential biases that may have influenced these outcomes. The Hawthorne effect, where participants modify their behavior because they are aware they are being observed, could have led students to exert more effort during the study. Thus, while the RADEC model is effective, part of the observed improvement may also reflect increased student motivation due to research awareness.

The success observed in Cycle II suggests that the RADEC model effectively enhances students' explanatory writing skills. Educators are encouraged to adopt and adapt this model for explanatory texts and various writing genres to foster a broader improvement in student literacy.

2.1. Implications

Teachers can apply the RADEC model more widely to different types of texts, not only explanatory texts, so that students' literacy skills develop thoroughly. The model can also be adapted for various subjects to improve the quality of literacy-based learning and collaboration in primary schools.

2.2 Research Contribution

This research contributes to developing innovative learning models that effectively improve elementary school students' writing skills, particularly in writing explanatory texts. The research results strengthen the evidence that activity-based learning and collaboration such as RADEC are able to significantly improve the quality of students' learning outcomes.

2.3 Limitations

There were still two students who did not meet the criteria for achieving learning objectives in Cycle II, which may be caused by internal factors such as lack of confidence or limited understanding of the material. In addition, this study was only conducted in one class in one school, so the generalization of the results is still limited.

2.4 Suggestions

It is recommended that teachers provide individual guidance and additional practice for students who have not yet achieved the criteria for achieving learning objectives. The RADEC model can also be tested on various texts and implemented in other classes or schools to test its consistency and effectiveness. Further research can expand the scope of the subject and deepen the analysis of factors that influence the successful implementation of the RADEC model.

D. Conclusion

The findings of this classroom action research indicate that the RADEC (Read, Answer, Discuss, Explain, and Create) learning model is a highly effective instructional approach to enhancing elementary-level students' skills in writing explanatory texts. Through its systematic and student-centered stages, the RADEC model fosters active participation, critical thinking, and collaborative learning, which are fundamental for improving literacy outcomes in a meaningful and sustainable way.

The observed improvement in students' performance from Cycle I to Cycle II reflects how structured learning experiences can help overcome common obstacles in writing, such as lack of coherence, limited vocabulary, and weak organizational skills. The model supports the development of technical writing abilities and cultivates students' confidence in expressing ideas and engaging in academic discourse.

This study underscores the need for teachers to adopt interactive and reflective teaching methods that position students as active learners. In doing so, classroom practices become more responsive to students' needs and learning styles, thereby creating an inclusive environment where literacy skills can flourish. Given its adaptability, the RADEC model holds potential for application beyond explanatory texts, into other writing genres and academic subjects. Future research could explore its integration across broader curricula to examine its long-term impact on various aspects of student achievement.

Finally, it is important to recognize that not all students progress at the same pace. Continued support through differentiated instruction, individual feedback, and writing enrichment programs is essential to ensure every learner can reach the expected competency standards. By combining innovative pedagogy with targeted support, educators can play a pivotal role in nurturing well-rounded, literate, and confident learners.

E. Acknowledgment

With great respect, the authors would like to express their sincere gratitude for all the help and support given in completing this article. The author is especially grateful to Mrs. Dra. R. Teti Rostikawati, M.Si, as the Field Supervisor, Mrs. Siti Utami, S.Pd, as the Mentor Teacher, along with the teachers, staff, and students of SDN Lawanggintung 2, where this research was conducted. Their support meant a lot to the success of this research.

F. Author Contribution Statement

TRD conducted the classroom teaching practice and collected the primary data. TRW supervised the research process as the university advisor. SU provided guidance as the school teacher mentor. MS wrote the manuscript. All authors reviewed and approved the final version of the manuscript.

References

Alerbitu, N., Maipauw, M. M., & Heumassy, A. P. (2024). Analysis of Applying the Read Answer Discussion Explain and Create (RADEC) Model in Learning to Write Narrative Essays at the Grade V Students of Osi Island State Elementary School. *KnE Social Sciences*, 494–505. https://doi.org/10.18502/kss.v9i31.17611

Angely, & Suriani, A. (2024). Peningkatan Keterampilan Menulis Teks Eksplanasi Menggunakan Model Discovery Learning di Kelas V Sekolah Dasar. *Edu Research, 8*(2), 18592–18603. https://doi.org/10.31004/jptam.v8i2.15102

Aqilah, Y. A., Poerwanti, J. I. S., & Supianto. (2024). Hubungan Minat Membaca dan Kebiasaan Membaca dengan Keterampilan Menulis Teks Eksplanasi Kelas V Sekolah Dasar. *Didaktika Dwija Indria Ditemukan*, *12*(6), 421–427. https://doi.org/10.20961/ddi.v12i6.84057

Fauzia, A., Sriwijayanti, R. P., & Anjarwati, A. (2024). Penerapan Model Pembelajaran RADEC untuk Meningkatkan Kreativitas Ilmiah Siswa Kelas V SDN Jati 01 Kota Probolinggo. *Jurnal Review Pendidikan Dan Pengajaran*, *7*(2), 4291–4297. https://doi.org/10.31004/jrpp.v7i2.26602

Fitria, Y. (2019). *Landasan Pembelajaran Sains Terintegrasi (Terpadu) untuk Level Dasar* (ke 2). Sukabina Press. Google Scholar

Hasibuan, A., Pebriana, P. H., & Fauziddin, M. (2024). Penerapan Model Pembelajaran RADEC untuk Meningkatkan Keterampilan Membaca Pemahaman pada Siswa Sekolah Dasar. *Journal of Education Research*, *5*(3), 2458–2466. https://doi.org/10.37985/jer.v5i3.741

Komalasari, D., Apriliana, A. C., & Eka, W. (2022). Pengaruh Model Pembelajaran Radec (Read, Answer, Discuss, Explain, Create) Terhadap Keterampilan Menulis Teks Cerita Fiksi. *Literat - Jurnal Pendidikan Bahasa Dan Sastra Indonesia*, *1*(2), 103–108. Google Scholar

Lestari, I. D., Mulyono, H., & Hartono, H. (2021). Peningkatan keterampilan menulis narasi melalui model scaffolded writing dengan gambar seri pada siswa kelas iii sekolah dasar. *Didaktika Dwija Indria*, *9*(2), 12–17. https://doi.org/10.20961/ddi.v7i9.35639

Melany, P. I., Azzahra, A. A., Rahmadanti, I., & Julianto, I. R. (2025). Peran Guru Sebagai Fasilitator Dalam Menerapkan Pembelajaran Teks Eksplanasi di Sekolah Dasar. *Jurnal Cahaya Edukasia*, *03*(01), 24–30. Google Scholar

Mufidah, L. (2021). Urgensi Penelitian Tindakan Kelas Dalam Memperbaiki Praksis Pembelajaran. *At-Tajdid : Jurnal Pendidikan Dan Pemikiran Islam*, *4*(02), 168. https://doi.org/10.24127/att.v4i02.1426

Nuriva, Andi husniati, & Ma'rup. (2023). Peningkatan Hasil Belajar Matematika Melalui Penerapan Model Pembelajaran Berbasis Masalah Pada Siswa Kelas V A SDN 159 Inpres Tekolabbua. *JKP: Jurnal Khasanah Pendidikan*, *2*(1), 75–80. https://doi.org/10.58738/jkp.v2i1.211

P, V. W., & Azkiya, H. (2024). Peningkatan Keterampilan Menulis Teks Eksplanasi Dengan Menggunakan Model Mind Mapping Pada Pembelajaran Bahasa Indonesia Kelas V SDN 09 Simpang Utara Kabupaten Pasaman. *Scholastica Journal Jurnal Pendidikan Sekolah Dasar dan Pendidikan Dasar (Kajian Teori Dan Hasil Penelitian)*, *6*(1), 1–14. https://doi.org/10.31851/scholastica.v6i1.14813

Ramadini, R., Murniviyanti, L., & Fakhrudin, A. (2021). Efektivitas Model Pembelajaran RADEC Terhadap Kemampuan Manulis Teks Eksplanasi Siswa di SD Negeri 06 Payung. *Edumaspul: Jurnal Pendidikan*, *5*(2), 99–104. https://doi.org/10.33487/edumaspul.v5i2.1647

Retnowati, A. (2021). Upaya Meningkatkan Kemampuan Menulis Teks Eksplanasi Melalui Metode Contextual Teaching and Learning pada Siswa Kelas V. *Jurnal Educatio FKIP UNMA*, *7*(4), 1482–1487. https://doi.org/10.31949/educatio.v7i4.1522

Setiawan, D., Sopandi, W., & Hartati, T. (2020). The influence of read, answer, disscuss, explain, and create (RADEC) learning model on the concept mastery of elementary school students on the water cycle topic. *Journal of Physics: Conference Series*, *1521*(4). https://doi.org/10.1088/1742-6596/1521/4/042113

Sopandi, W. (2017). the Quality Improvement of Learning Processes and Achievements Through the Read-Answer-Discuss-Explain-and Create Learning Model Implementation. *In Proceeding 8th Pedagogy International Seminar*, *8*(October), 132–139. Google Scholar

Suriani, A., & Yanti, R. (2024). Implementasi Model Pembelajaran RADEC pada Keterampilan Menulis Teks Eksplanasi di Kelas V Sekolah Dasar. *Indonesian Research Journal on Education*, *4*(1), 162–168. https://doi.org/10.31004/irje.v4i1.455

Tiara, S. M., Indihadi, D., & Mulyadiprana, A. (2023). Penggunaan Media Gambar Tunggal Dalam Keterampilan Menulis Teks Eksplanasi Peserta Didik Kelas V Sekolah Dasar. *Pendas: Jurnal Ilmiah Pendidikan Dasar*, *08*(02), 5797–5806. https://doi.org/10.23969/jp.v8i2.9760

Trisnasari, D., & Setiyadi, R. (2020). Pembelajaran Keterampilan Menulis Teks Eksplanasi Pada Siswa Sekolah Dasar Kelas V Dengan Menggunakan Metode Inquiry Learning Dengan Setting Mind Mapping Technique. *Journal of Elementary Education*, *03*(05), 208–221. https://doi.org/10.22460/collase.v3i5.4406

Widodo, Suciati, & Hidayat, R. (2024). Implementasi Model Pembelajaran RADEC (Read Answer Discuss Explain Create) Serta Dampaknya pada Kemampuan Berpikir Tingkat Tinggi dan Kemampuan Komunikasi. *Jurnal Studi Guru Dan Pembelajaran*, *7*(1), 270–285. https://doi.org/10.30605/jsgp.7.1.2024.3706