

The Effect of the Deep Learning Approach on the Fantasy Story Writing Skills of Fifth-Grade Students

Mayang Sari Nasution^{*1}, Elvina², Safrudin³, Rejeki⁴

^{1,2,3,4} Universitas Rokania, Indonesia

e-mail: mayangsari291020@gmail.com, elvinazulkarnain88@gmail.com, Safrudinsaf2@gmail.com, rejeki.jekimuria87@gmail.com

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ABSTRACT. Elementary school students' ability to write fantasy story texts still faces various obstacles, especially in developing ideas, maintaining logical flow, and using language appropriately, so a learning approach that encourages in-depth understanding is needed. This study aims to determine the effect of the deep learning approach on the fantasy story text writing ability of fifth-grade students of Public Elementary School 010 Rambah. The study adopted a quantitative, experimental approach using a One-Group Pretest–Posttest Design with one group of subjects, without a control group. Data were collected through a fantasy story text writing test given before and after the application of the deep learning approach. The results showed that students' pretest average score was 61.38, which increased significantly to 84.52 in the posttest. This increase indicates improvements in the content, story structure, and language of students' writing. The results of the hypothesis test using a paired t-test showed a t-value of 14.21, which is greater than the t-table value of 2.04 at a significance level of 0.05, so the null hypothesis was rejected. Thus, it can be concluded that the application of the deep learning approach significantly improves the fantasy story writing ability of fifth-grade students at Public Elementary School 010 Rambah.

Keywords: Deep learning approach; Fantasy story writing; Elementary school students; Pretest–posttest experiment; Writing ability.

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INTRODUCTION

The rapid advancement of technology and science over the past several decades has brought significant implications for various aspects of human life, including the education sector, which has undergone substantial transformation due to the integration of digital technology (Afrilyasanti et al., 2024; Huda et al., 2024; Sabariah et al., 2025). Conventional learning paradigms that emphasize the one-way transmission of knowledge from teachers to students are no longer considered adequate to meet the demands of 21st-century learning, as they are less effective in fostering students' critical thinking skills and creativity (Ataeifar et al., 2019; Badawi, 2025; Harahap, 2024; Ironsi, 2023). Therefore, meaningful learning requires educators to integrate instructional content with students' contextual experiences in order to facilitate deep understanding, enable the application of knowledge in real-life contexts, and enhance students' intrinsic motivation to learn (Devi & Neviyarni, 2025; Nasution et al., 2025; Pratiwi & Warlizasusi, 2023).

In order to optimally realize the objectives of the Merdeka Curriculum, learning strategies are required that not only focus on content delivery but also emphasize the development of

conceptual understanding, metacognitive awareness, and students' affective engagement (Hidayati et al., 2024; Mujiburrahman et al., 2025). One relevant approach in this context is Deep Learning, which signifies an educational transformation through the integration of technology and innovative instructional practices (Deng & Yu, 2014; Liu & Lang, 2019). Deep learning in the educational domain encourages students to explore knowledge in depth through active, collaborative, and continuous learning processes, enabling them to comprehend contexts, critically analyze information, and create innovative solutions based on strong conceptual understanding (Sølvik & Glenna, 2022; Weng et al., 2023).

The Deep Learning approach, or deep learning pedagogy, is regarded as a pedagogical framework capable of transforming conventional, rote-based instruction into a more constructive and reflective learning process (Pan et al., 2023; Shen & Chang, 2023). The primary focus of this approach lies in fostering deep conceptual understanding by emphasizing three core elements, namely meaningful learning, mindful learning, and joyful learning (Siregar et al., 2025), as well as three major cognitive stages: understanding, application, and reflection (Greene et al., 2004; Widiawati & Firman, 2025). The ultimate goal is to ensure that students not only achieve cognitive improvement but also are able to critically and reflectively connect conceptual knowledge with real-life contexts (Faizah et al., 2025; Salamah et al., 2025).

In Indonesian language learning, writing is considered the most complex competence among the four language skills, namely listening, speaking, reading, and writing (Nurhalisa et al., 2025; Syahrani & Purwono, 2024). Writing requires higher-order cognitive abilities in constructing ideas, organizing thoughts, and expressing them systematically and meaningfully (Indasari et al., 2024; Zamroni et al., 2025). One form of writing skill that involves a high level of complexity at the elementary school level is fantasy story writing, which demands creativity, imagination, mastery of narrative structure, as well as the use of distinctive linguistic features (Badawi, 2025; Santoso et al., 2025; Triyono et al., 2023).

The results of preliminary observations in Grade V at SD Negeri 010 Rambah indicate that students' ability to write fantasy story texts remains at a low level. This is evidenced by the inability of most students to develop ideas, understand narrative structure, employ varied vocabulary, and construct coherent storylines, resulting in written products that tend to be simple and lack meaningful depth. This low level of competence indicates the need for effective pedagogical interventions to enhance both the quality of the learning process and the outcomes of writing instruction.

Numerous previous studies have examined the effectiveness of innovative learning approaches, including Deep Learning, in enhancing students' critical thinking skills, conceptual understanding, and learning motivation (Liu & Lang, 2019; Musslifah et al., 2025; Shen & Chang, 2023; Siregar et al., 2025, 2025). In addition, studies on writing skills and fantasy narrative texts have been widely conducted, particularly in the context of developing imagination, narrative structure, and linguistic elements (Budiyono et al., 2024; Muluk & Dahliana, 2024; Tajuddin et al., 2025). However, research that specifically investigates the impact of the Deep Learning approach on the ability to write fantasy narrative texts among fifth-grade elementary school students remains limited, especially studies employing quantitative designs with structured empirical measurements. Most existing research tends to emphasize conceptual and qualitative aspects, leaving a research gap regarding quantitative evidence on the effectiveness of this approach in improving students' creative writing skills. Therefore, further research is required to address this gap by providing objective and measurable empirical data.

This study aims to quantitatively analyze the effect of the deep learning approach on the ability of fifth-grade elementary school students to write fantasy narrative texts. Specifically, this research seeks to identify differences in students' writing abilities before and after the implementation of the deep learning approach, as well as to compare the results with those achieved through conventional learning methods. Through this study, it is expected to obtain a more comprehensive understanding of the effectiveness of the deep learning approach in

Indonesian language learning, while also providing empirical contributions to the development of innovative instructional strategies that are relevant to the Merdeka Curriculum (Ainissyifa et al., 2024; Shakina et al., 2025; Syarifah & Kubra, 2024).

Based on theoretical studies and previous empirical findings, the hypotheses proposed in this study are as follows: H₁: There is a significant effect of the implementation of the Deep Learning approach on the ability of fifth-grade elementary school students to write fantasy narrative texts. H₀: There is no significant effect of the implementation of the Deep Learning approach on the ability of fifth-grade elementary school students to write fantasy narrative texts.

METHOD

This study adopts a quantitative approach employing an experimental method. The research design used is a One-Group Pretest–Posttest Design, which involves a single group of participants without a control group. The students initially completed a pretest to measure their baseline ability in writing fantasy narrative texts, followed by an intervention in the form of instruction using the Deep Learning approach, and concluded with a posttest to evaluate improvements in writing performance. The absence of a control group was due to time constraints and the homogeneity of classroom conditions.

The study was conducted at State Elementary School 010 Rambah, Riau Province, involving all fifth-grade students as research subjects, totaling 21 participants. The sampling technique employed was total sampling, also known as saturated sampling, in which the entire population of fifth-grade students was included as respondents. The research variables consisted of the independent variable (X), namely the Deep Learning approach, which focuses on three main components Meaningful Learning, Mindful Learning, and Joyful Learning—and the dependent variable (Y), namely students' ability to write fantasy narrative texts.

The research instrument consisted of an essay test evaluated using a scoring rubric. The rubric encompassed several aspects, including content and narrative flow, characterization and dialogue, setting, linguistic features, creativity and imagination, text structure, and writing mechanics. Each criterion was rated on a scale of 1–4, where a score of 4 indicated very good performance and a score of 1 reflected inadequate performance. Content validity was established through expert judgment conducted by lecturers in Indonesian Language Education and a fifth-grade classroom teacher. Furthermore, the instrument was piloted with 21 students, and its reliability was analyzed using Cronbach's Alpha. The results yielded an alpha coefficient (α) greater than 0.7, confirming the instrument's reliability and adequate internal consistency, thereby indicating its suitability for use in the study.

The research procedure consisted of three main phases, namely: (1) Pretest, in which students were required to complete an essay task prior to the implementation of the intervention. (2) Treatment, which involved the implementation of instruction based on the Deep Learning approach through the stages of Meaningful Learning, Mindful Learning, and Joyful Learning. The learning activities were conducted in four sessions (each lasting 2×35 minutes) over a two-week period. (3) Posttest, in which students were again required to complete an essay task after the intervention to identify changes in their writing ability.

The data obtained from the pretest and posttest were analyzed using a paired-sample t-test. This analysis involved calculating the mean difference in scores, the standard deviation of the differences, and the t-value, which was then compared with the critical t-value at a 5% significance level. This statistical test was conducted to determine whether there was a significant difference in the mean scores of students' writing ability before and after the implementation of the Deep Learning approach.

RESULT AND DISCUSSION

Result

General Description of the Research Data

This study aimed to examine the effect of the Deep Learning approach on the ability of fifth-grade students at State Elementary School 010 Rambah to write fantasy narrative texts. The research data were obtained through an essay test administered before the intervention (pretest) and after the intervention (posttest). The research subjects consisted of 21 students, all of whom were fifth-grade students; therefore, the sampling technique employed was total sampling.

Pretest Results of Fantasy Narrative Writing Ability

The pretest was conducted to measure students' initial ability to write fantasy narrative texts prior to the implementation of the Deep Learning approach. The distribution of pretest scores is presented in Table 1 below.

Table 1. Pretest Results of Students' Fantasy Narrative Writing Ability

Category	Value	Frequency	Persentase (%)
Poor	40–49	3	14,29
Moderate	50–59	6	28,57
Good	60–69	8	38,10
Very Good	70–79	4	19,04
Amount		21	100

Based on Table 1, the majority of students fell within the score range of 60–69, indicating that students' ability to write fantasy narrative texts prior to the intervention was at a moderate level. The students' written work generally exhibited limitations in the development of plot, consistency of characterization, and the use of linguistic features appropriate to the characteristics of fantasy texts. The mean pretest score was 61.38, reflecting that students' initial writing ability had not yet reached an optimal level and still required more in-depth instructional intervention.

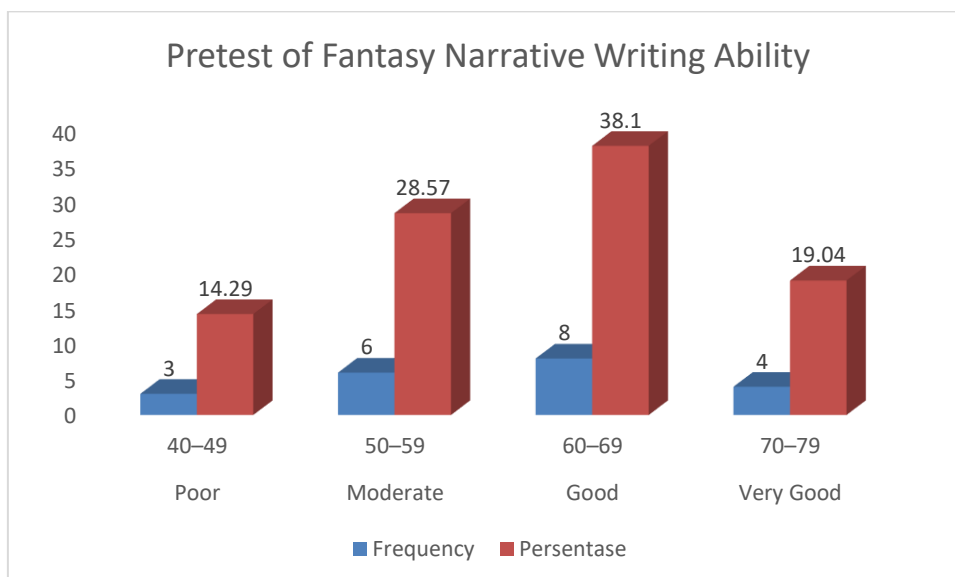


Figure 1. Pretest of Fantasy Narrative Writing Ability

Posttest Results of Fantasy Narrative Writing Ability

The posttest was administered after students received the instructional treatment in the form of learning activities based on the Deep Learning approach, which encompassed the stages of Meaningful Learning, Mindful Learning, and Joyful Learning over four instructional sessions. The distribution of posttest scores is presented in Table 2 below.

Table 2. Posttest Results of Students' Fantasy Narrative Writing Ability

Category	Value	Frequency	Persentase (%)
Poor	65–74	3	14,29
Moderate	75–84	8	38,10
Good	85–94	7	33,33
Very Good	95–100	3	14,29
	Amount	21	100

Table 2 shows a shift in the score distribution toward higher categories. The majority of students achieved scores in the range of 75–94, which fall within the good to very good categories. Students' written work demonstrated improvements in idea development, imaginative creativity, the use of dialogue, and the accuracy of fantasy narrative text structure. The mean posttest score increased to 84.52, indicating a significant improvement in students' writing ability following the implementation of the Deep Learning approach.

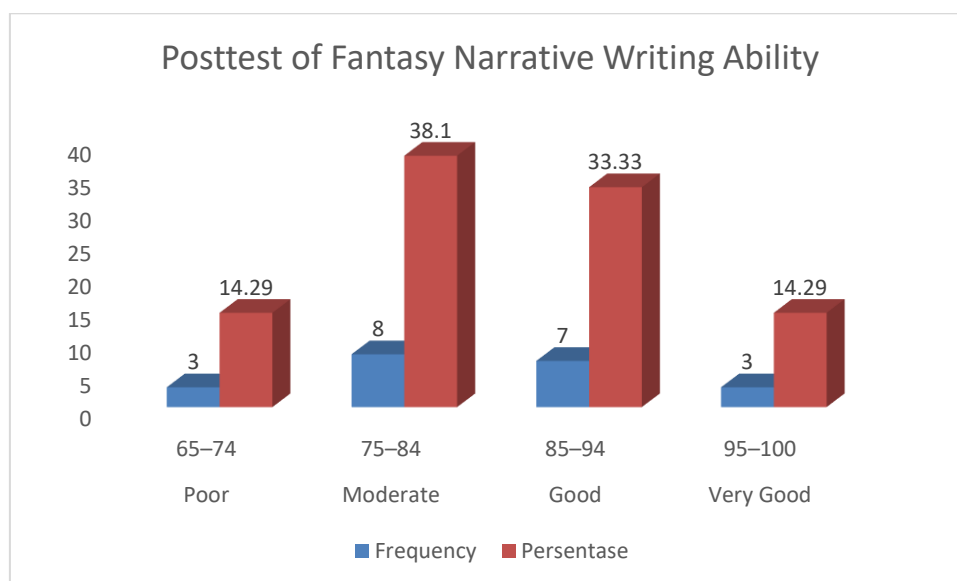


Figure 2. Posttest of Fantasy Narrative Writing Ability

Comparison of Pretest and Posttest Results

The comparison of the mean pretest and posttest scores indicates an increase of 23.14 points. This improvement suggests that instruction using the Deep Learning approach had a positive effect on students' ability to write fantasy narrative texts. Descriptively, the improvement was evident not only in quantitative aspects (scores) but also in the quality of the students' writing, as reflected in more complete narrative elements, more logical plot development, and the use of more varied and contextually appropriate language.

Results of Hypothesis Testing (Paired-Sample t-Test)

To determine the significance of the difference between the pretest and posttest scores, statistical analysis was conducted using a paired-sample t-test at a 5% significance level ($\alpha = 0.05$).

Table 3. Results of Hypothesis Testing

Mean Scores (Pretest - Posttest)	Difference in Standard Deviation	Calculate t-Value
23.14	6.87	14.21

The results of the analysis indicate that the calculated t-value is greater than the critical t-value and that the significance value is less than 0.05. Therefore, there is a statistically significant difference in students' fantasy narrative writing ability before and after the implementation of the Deep Learning approach.

DISCUSSION

The results of the study indicate that the implementation of the Deep Learning approach has a significant effect on improving the ability of fifth-grade students at State Elementary School 010 Rambah to write fantasy narrative texts. The increase in the mean score from 61.38 in the pretest to 84.52 in the posttest, along with the results of the paired-samples t-test ($p < 0.05$), indicates that this approach is effective in enhancing both the quality of the writing process and students' writing outcomes.

Theoretically, Deep Learning emphasizes meaningful learning, high-level cognitive engagement, and the integration of learning experiences with real-life contexts (Fullan, Quinn, & McEachen, 2018). This approach encourages students to understand text structures, develop ideas reflectively, and actively engage in the writing process. In the context of teaching fantasy narrative writing, this approach facilitates the systematic development of imagination, plot, conflict, and characterization.

The findings of this study are consistent with the results reported by (Musslifah et al., 2025), who demonstrated that the Deep Learning approach significantly improves elementary school students' narrative writing skills, particularly in the aspects of idea development, plot coherence, and creativity. Similarly (Siregar et al., 2025) reported that meaningful learning significantly enhances the quality of content and the structural organization of students' narrative texts. (Bahruddin et al., 2026; Haqqi et al., 2025) showed that metacognitive strategies in writing instruction effectively improve students' accuracy in textual structure and linguistic features. These findings are closely aligned with the core characteristics of Deep Learning, which emphasize cognitive awareness, reflection, and continuous revision, thereby exerting a positive impact on the overall quality of students' writing (Rekan et al., 2025; Relmasira & Donaldson, 2025; Sain et al., 2025).

The improvement in students' writing ability observed in this study can be explained by the effectiveness of the Deep Learning approach in fostering conceptual understanding, active engagement, and higher-order thinking skills. These findings affirm that Deep Learning represents a relevant and strategic instructional approach for enhancing creative writing skills at the elementary school level.

Initial Conditions of Students' Writing Ability and Learning Challenges

Students' writing ability, which falls within the moderate category, indicates that they have understood the basic structure of fantasy narrative texts but have not yet been able to optimally develop ideas, conflicts, and characters. This condition aligns with the findings of Graham et al. (2016), who reported that elementary school students experience difficulties in organizing ideas and developing narratives due to limited cognitive strategies and low intensity of meaningful writing practice. Writing instruction that is oriented toward final products without reflective processes also leads students to perceive writing as a difficult and less engaging activity (Suryanto et al., 2024).

The Impact of Deep Learning on the Improvement of Writing Skills

The Deep Learning approach has been proven to enhance writing quality through high-level cognitive engagement, reflection, and conceptual understanding (Kabalmay et al., 2025). This instructional approach encourages students to gain a deep understanding of narrative structures and relate them to real-life experiences. (Pan et al., 2023) demonstrated that Deep Learning significantly improves the quality of students' narrative writing, particularly in terms of plot development, conflict, and coherence of ideas. Similar findings were also reported by Hattie (2017), who emphasized that instruction emphasizing reflection and active engagement has a strong impact on literacy improvement.

The Role of Meaningful Learning in Developing Content and Storyline

Meaningful Learning enables students to connect personal experiences and imagination with writing tasks, resulting in more structured and relevant story ideas. Rahman et al. (2019) found that meaningful learning enhances creativity, plot completeness, and the overall quality of elementary students' narrative texts. Similar results were reported (Mahrus et al., 2025), indicating that meaningful approaches encourage students to develop conflicts and characters in a more logical and systematic manner.

The Contribution of Mindful Learning to Structural and Linguistic Accuracy

Mindful Learning contributes to improving students' metacognitive awareness, enabling them to plan, monitor, and revise their writing more carefully. (Asri et al., 2026) showed that metacognitive strategies enhance linguistic accuracy and textual coherence. Furthermore, (Weng et al., 2023) demonstrated that mindfulness-based learning significantly improves discourse structure and writing mechanics.

CONCLUSION

This study found that the implementation of the Deep Learning approach significantly improved the fantasy narrative writing skills of fifth-grade students at State Elementary School 010 Rambah. The increase in the mean score from 61.38 in the pretest to 84.52 in the posttest, along with the results of the paired-sample t-test indicating a significant difference ($p < 0.05$), confirms that this approach is effective in enhancing the quality of students' writing in terms of content, structure, and language use.

A key finding that emerged after the study was the noticeable improvement in students' active engagement, creativity, and metacognitive awareness during the writing process. Students were not only able to produce longer and more well-structured texts but also demonstrated greater ability to develop coherent plots, conflicts, and characters in a more logical and imaginative manner. This indicates that Deep Learning influences not only the final writing outcomes but also the quality of students' thinking processes and learning experiences. Another unexpected finding was the increase in students' motivation and self-confidence in writing. The Deep Learning approach, which integrates Meaningful Learning, Mindful Learning, and Joyful Learning, created a more enjoyable and meaningful learning environment, encouraging students to express their ideas more freely, experiment with imagination, and reflect on their written work. This condition contributed to improvements in the quality and originality of the fantasy narrative texts produced.

This study makes a significant academic contribution by confirming previous findings regarding the effectiveness of the Deep Learning approach in enhancing literacy skills, particularly creative writing abilities at the elementary school level. Moreover, this research extends the existing empirical literature by focusing specifically on fantasy narrative texts, which have received relatively limited attention within the context of Deep Learning. The integration of three core stages—Meaningful Learning, Mindful Learning, and Joyful Learning—offers a new

conceptual perspective on how deep learning-based instruction can be systematically operationalized in writing pedagogy.

This study has several limitations, including the relatively small sample size and the limited research setting, which involved only one school, thereby restricting the generalizability of the findings to broader contexts. In addition, the quasi-experimental research design was not fully able to control external variables that may have influenced the results, such as students' initial ability levels, the support of the learning environment, and the role of teachers.

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