

# The Effect of Outdoor Learning Method on Indonesian Language Learning Outcomes in Descriptive Text Material Among Fifth-Grade Elementary Students

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## ABSTRACT

*The learning process was still dominated by lecture-based methods, causing students to become passive and less engaged in classroom activities. To address this issue, the Outdoor Learning method was selected as an alternative instructional approach that utilizes the surrounding environment to enhance student involvement and comprehension. This study employed a quantitative approach using a quasi-experimental design with a pretest–posttest control group. The sample consisted of two classes: class VA as the experimental group (20 students) who received instruction using the Outdoor Learning method, and class VB as the control group (18 students) who were taught using the lecture method. Data were collected through pretests and posttests, as well as through observations of student activity. The pretest results showed that both the experimental and control groups had the same average score of 81. The experimental group had a highest score of 97 and a lowest of 65, while the control group ranged from 94 to 61. This indicated that both groups had comparable initial abilities. After the intervention, the average posttest score of the experimental group increased to 88 (with scores ranging from 74 to 100), while the control group increased to 82 (ranging from 65 to 94). A t-test on the posttest data yielded a significance value (Sig. 2-tailed) of  $0.039 < 0.05$ , indicating a statistically significant difference in student learning outcomes between the two groups. The findings suggest that the Outdoor Learning method had a positive and significant effect on improving student learning outcomes. In addition to the increase in scores, classroom observations also revealed an improvement in students' learning activities in the experimental group, particularly in cooperation, responsibility, and the confidence to express opinions. Therefore, the Outdoor Learning method is a viable alternative for implementing active and meaningful learning strategies, especially in developing descriptive text skills at the elementary level.*

*Keywords: Outdoor Learning Method, Learning Outcomes, Descriptive Text, Indonesian Language Learning*

## I. INTRODUCTION

Education is a fundamental pillar of human development, serving as the primary vehicle through which individuals undergo cognitive, affective, and psychomotor transformations throughout their lives. Within the Indonesian educational context, the quality of instructional methodologies significantly influences students' learning outcomes and overall academic achievement. The Indonesian National Education System Law No. 20 of 2003 explicitly mandates that educational processes should be interactive, inspiring, enjoyable, challenging, and capable of motivating students to actively participate in their own learning. However, contemporary classroom practices in many Indonesian elementary schools continue to rely heavily on conventional, teacher-centered approaches that inadequately address these pedagogical imperatives (Lidyasari et al., 2022).

Teaching the Indonesian language, particularly in the domain of writing descriptive texts, is a critical component of elementary literacy education. Descriptive text writing requires students to observe, analyze, and articulate their observations using precise and vivid language that engages the reader's senses. This genre serves not merely as an academic exercise but as a foundational skill for developing students' capacity to communicate effectively about the world around them. According to curriculum standards for fifth-grade elementary students in Indonesia, descriptive text instruction should enable learners to identify structural elements, understand linguistic features, and produce coherent descriptive compositions that demonstrate mastery of genre conventions (Diplan, 2025).

Despite the pedagogical importance of descriptive text writing, preliminary observations conducted at SD Negeri 010 Hutapuli in February 2025 revealed concerning patterns in students' performance. Many fifth-

grade students demonstrate limited proficiency in constructing descriptive paragraphs, exhibiting difficulties in generating rich descriptive vocabulary, organizing textual elements coherently, and sustaining engagement with writing tasks. These challenges appeared to stem, at least in part, from instructional approaches that relied predominantly on lecture-based delivery and textbook-dependent activities, which failed to provide students with authentic and meaningful contexts for developing descriptive writing skills.

The dominance of lecture-based, teacher-centered instruction in Indonesian elementary schools has been extensively documented in the educational research literature. Such approaches typically position students as passive information recipients rather than active knowledge constructors. In the context of descriptive text writing instruction, this pedagogical model often manifests as teachers providing definitions and examples from textbooks, followed by students copying or imitating these models with minimal opportunities for authentic observation or creative expression. This instructional sequence, while efficient in terms of classroom management and curriculum coverage, fundamentally undermines the development of genuine descriptive writing competence (Rasmitadila et al., 2025).

Research on writing pedagogy consistently demonstrates that effective writing instruction requires students to engage with authentic purposes, audiences, and meaningful content. Descriptive writing, in particular, depends on direct sensory experience and careful observation of concrete phenomena. When instruction occurs exclusively within classroom walls, divorced from the objects and environments students are expected to describe, the resulting texts often lack specificity, vivid detail, and genuine engagement. Students struggle to employ rich sensory language because they have not engaged their senses in observing the subjects of their descriptions. The abstract nature of learning from textbook examples fails to activate the perceptual and linguistic resources necessary to produce compelling descriptive prose.

Furthermore, the traditional classroom environment may contribute to student disengagement and reduced motivation. Developmental research on elementary-aged children indicates that prolonged periods of sedentary, indoor instruction conflict with children's natural need for movement, exploration, and interaction with their physical environments. The mismatch between instructional methods and developmental needs can result in attention difficulties, behavioral challenges, and diminished academic performance. These concerns are particularly salient for subjects such as descriptive writing, which fundamentally depend on students' capacity to observe, attend to detail, and maintain focused engagement with their subject matter (Sapkota & Gnawali, 2025).

Outdoor learning, defined as educational activities conducted in outdoor environments utilizing natural or built surroundings as learning resources, represents a pedagogical innovation with substantial potential to address the limitations of conventional classroom instruction. This approach repositions the role of the physical environment from a mere backdrop to an active participant in the learning process. Rather than abstractly discussing concepts within classroom walls, outdoor learning enables students to engage directly with phenomena, objects, and contexts that become both the medium and the content of instruction (Catucci et al., 2024).

The theoretical foundations for outdoor learning draw upon constructivist learning theory, which emphasizes that knowledge construction occurs through active engagement with authentic problems and contexts. When students learn outdoors, they encounter situations that require observation, inquiry, problem-solving, and concept application in real-world settings. This experiential dimension of learning promotes deeper cognitive processing and more durable knowledge retention than the passive reception of information. The outdoor environment naturally stimulates curiosity and poses authentic questions that motivate students to seek understanding through investigation and discovery (Qu & Chaijaroen, 2025).

Empirical research on outdoor learning has documented numerous cognitive, affective, and social benefits in diverse educational contexts. Studies conducted in elementary school settings have demonstrated that outdoor learning experiences improve student engagement, enhance motivation, strengthen observational and critical thinking skills, and support the development of environmental awareness and stewardship. In the domain of language arts education, outdoor learning provides rich opportunities for vocabulary development, narrative construction, and descriptive writing based on direct sensory experience.

The alignment between outdoor learning and descriptive writing instruction appears particularly strong. Descriptive writing fundamentally requires students to observe carefully, attend to sensory details, and translate their perceptions into vivid languages. The outdoor environment offers abundant, varied, and authentic subjects for description, from the texture of tree bark to the colors of flowers, the sounds of birds, the smell of earth, and the sensation of wind. By conducting descriptive writing instruction outdoors, teachers can guide students to engage all their senses, practice systematic observation, and immediately apply their observations to their written compositions. This direct, embodied engagement with the subject matter

addresses the abstractness and artificiality that characterize much classroom-based writing instruction (Muhammad Reza Ainun Najib & Liam Trudeau, 2025).

Within the Indonesian elementary language arts curriculum, descriptive text occupies an important position as one of the several text genres that students must master. According to curriculum standards, descriptive text is defined as a composition that describes a person, place, object, or phenomenon in such a detailed and vivid manner that readers can form clear mental images and sensory impressions of what is being described. The curriculum specifies that fifth-grade students should be able to identify the structure of descriptive texts (identification, description of parts, conclusion), recognize linguistic features characteristic of the genre (use of attributive adjectives, present tense verbs, sensory language), and produce original descriptive compositions that demonstrate control of these textual elements.

Mastering descriptive writing serves multiple educational purposes beyond genre knowledge. First, descriptive writing develops students' observational capacities and attention to detail, skills transferable across academic disciplines from science to social studies. Second, the practice of translating sensory perceptions into precise language strengthens vocabulary acquisition and semantic precision. Third, descriptive writing exercises cultivate aesthetic sensitivity and appreciation for language as a medium of artistic expression. Finally, competence in description provides a foundation for more complex expository and argumentative writing genres that students will encounter in subsequent educational stages.

Despite the curricular emphasis on descriptive text, classroom implementation often reduces this genre to formulaic exercises in which students describe pictures or familiar objects using a predictable vocabulary. Such instructions fail to develop the authentic observational and linguistic skills that constitute genuine descriptive writing competence. The gap between curriculum intentions and classroom realities motivated the present investigation into whether outdoor learning offer a more effective pedagogical approach for teaching descriptive text writing.

The central problem addressed by this research is the limited effectiveness of conventional classroom instruction in developing fifth-grade students' descriptive text writing skills in Indonesian language education. Specifically, students at SD Negeri 010 Hutapuli have difficulty generating detailed descriptions, employing rich sensory vocabulary, and maintaining engagement with descriptive writing tasks. These difficulties are attributable, at least in part, to instructional methods that fail to provide authentic observational experiences and meaningful contexts for descriptive writing practice.

This study was designed to investigate whether outdoor learning methods can effectively address these instructional challenges and improve student learning outcomes in descriptive text writing. The outdoor learning approach implemented in this study involved taking students outside the classroom to observe objects and environments on the school grounds, conducting guided observation activities focusing on sensory details, and engaging in immediate writing exercises based on these direct experiences. By situating descriptive writing instruction in authentic outdoor contexts, the intervention aimed to provide students with concrete referents for their descriptions, activate multiple sensory modalities, and increase motivation through novelty and the movement.

The primary research objective was to determine whether the implementation of outdoor learning methods produces significantly different learning outcomes compared to conventional classroom instruction for fifth-grade students learning to write descriptive texts in the Indonesian language. The secondary objective was to document qualitative changes in student engagement, participation, and writing behaviors associated with outdoor learning experiences. These objectives were operationalized through a quasi-experimental design comparing an experimental group receiving outdoor learning instruction with a control group receiving conventional classroom instruction.

## **II. METHODS**

### *A. Research Design*

This study employed a quasi-experimental research design, specifically a pretest-posttest control group design, to investigate the effect of outdoor learning on students' learning outcomes in descriptive text writing. Quasi-experimental designs are appropriate when the random assignment of individual participants to experimental conditions is impractical or impossible, as is typically the case in educational settings where intact classroom groups must be utilized. While lacking the internal validity advantages of true experimental designs with random assignment, well-designed quasi-experimental studies incorporating pretest measures and control groups can provide credible evidence of treatment effects when potential confounding variables are carefully considered and controlled (Sugiyono, 2019).

The pretest-posttest control group design involves measuring the dependent variables in both the experimental and control groups before and after the experimental intervention, with both groups experiencing identical

assessment procedures and timing. This design offers several methodological benefit. First, pretest measurements enable verification that the experimental and control groups possess equivalent abilities prior to the intervention, addressing selection bias concerns inherent in quasi-experimental research. Second, pretest data provide a baseline against which to measure change, increasing the statistical power to detect treatment effects. Third, the control group accounts for maturation, testing effects, and other threats to internal validity that might influence post-test scores independent of the experimental treatment. Fourth, the temporal sequence of the measurement (pretest → intervention → posttest) establishes an appropriate temporal precedence for causal inference.

In this study, the quasi-experimental design compared two intact fifth-grade classes at SD Negeri 010 Hutapuli. One class was randomly assigned to serve as the experimental group receiving outdoor learning instruction in descriptive text writing, while the other class served as the control group receiving conventional classroom instruction covering the same content. Both groups completed identical pre- and post-tests to assess their descriptive text writing knowledge and skills. The intervention period spanned multiple instructional sessions over three month, with the experimental and control groups receiving equivalent instructional time and covering identical learning objectives using different pedagogical methods (Arikunto, 2016).

### B. *Research Setting and Participants*

The research was conducted at SD Negeri 010 Hutapuli, a public elementary school located in Hutapuli Village, Mandailing Natal Regency, North Sumatra Province, Indonesia. The school serves a predominantly rural population, with students coming from families primarily engaged in agriculture and small-scale commerce. School facilities included classroom buildings, an administrative office, a small library, and outdoor spaces consisting of a schoolyard, garden areas, and surrounding natural vegetation. These outdoor spaces provided the primary setting for the outdoor learning activities implemented in the experimental condition.

The study was conducted during the 2025-2026 academic year, spanning a three-month period from February to April 2026. This timeframe was selected to align with the curricular schedule for teaching descriptive text in the fifth-grade Indonesian language curriculum and to ensure adequate time for implementing multiple outdoor learning sessions and observing their effects on students' learning outcomes.

The study population consisted of all fifth-grade students enrolled at SD Negeri 010 Hutapuli during the 2025-2026 academic year, totaling 38 students, distributed across two classroom sections. The school employs a parallel class structure in which students of the same grade level are divided into multiple sections of approximately equivalent size. For this study, Class VA (n=20) was designated as the experimental group, while Class VB (n=18) served as the control group. This assignment was determined through purposive sampling procedures that considered class size, teacher qualifications, and prior academic performance to ensure comparability of the groups.

Participants ranged in age from 10 to 11 years and included both male and female students in proportions roughly representative of the school's overall gender distribution. All participants were native speakers of Bahasa Indonesia or bilingual speakers using Indonesian as the language of school instruction, although many also spoke regional languages at home. The students came from diverse socioeconomic backgrounds typical of rural North Sumatra, with most families engaged in subsistence or small-scale commercial agriculture. Parental education levels varied considerably, from elementary education to secondary and post-secondary qualifications.

Prior to the study, informed consent was obtained from school administrators, classroom teachers, and the parents or legal guardians of all participating students. The research protocol was reviewed and approved by the relevant educational authorities and adhered to the ethical guidelines for research involving children. Students were informed that their participation would involve completing writing assessments and engaging in learning activities both indoors and outdoors, with the assurance that individual performance would be kept confidential and would not affect their course grades.

### C. *Variables and Indicators*

This study investigated the relationship between the two primary variables. The independent variable was the instructional method, operationalized as two distinct conditions: outdoor learning method (experimental condition) versus conventional classroom method (control condition). The dependent variable was learning outcomes in descriptive text writing, operationalized through multiple indicators aligned with the curriculum standards for fifth-grade Indonesian language education.

The outdoor learning method, as implemented in the experimental condition, consisted of a series of instructional activities conducted in outdoor spaces on school grounds. These activities were designed to

provide students with direct observational experiences that served as the basis for composing descriptive texts. Typical outdoor learning sessions followed a structured sequence: (1) introduction and objective-setting conducted outdoors, (2) guided observation of natural objects or environments (e.g., trees, flowers, garden areas, school surroundings) with teacher prompts directing attention to sensory details, (3) vocabulary brainstorming and oral description practice based on observations, (4) individual or collaborative written composition of descriptive texts describing observed subjects, and (5) sharing and discussion of written products. Throughout these activities, the teachers emphasized close observation, sensory engagement, precise vocabulary selection, and authentic communication of observed details.

The conventional classroom method, implemented in the control condition, followed the traditional approaches commonly employed in Indonesian elementary schools for teaching descriptive text. These activities occurred exclusively within the classroom and typically followed this sequence: (1) teacher explanation of descriptive text definitions, purposes, and structural elements; (2) reading and analysis of example descriptive texts from textbooks; (3) identification of linguistic features and vocabulary in model texts; (4) teacher-led discussion of descriptive writing strategies; (5) individual written composition of descriptive texts based on textbook pictures or teacher-provided prompts; and (6) submission of written products for teacher evaluation. This approach emphasizes explicit instruction in genre knowledge and provides models for imitation but lacks direct observational experience or authentic environmental engagement.

Learning outcomes in descriptive text writing were assessed using a comprehensive instrument addressing multiple dimensions of genre competence. The assessment instrument evaluated students' knowledge of descriptive text definition and purposes, ability to identify structural elements of descriptive texts (identification, description of parts, conclusion), recognition of linguistic features characteristic of the genre (adjectives, sensory vocabulary, present tense verbs), and capacity to produce original descriptive compositions demonstrating these textual elements. The instrument consisted of both selected-response items (multiple-choice questions assessing declarative knowledge) and constructed-response items (writing prompts requiring students to compose descriptive paragraphs).

Specific indicators of learning outcomes included: (1) accurate understanding of the definition and characteristics of descriptive text, (2) identification of text structure components in provided examples, (3) recognition of appropriate linguistic features and vocabulary for descriptive writing, (4) production of descriptive compositions with appropriate identification of the subject, (5) inclusion of detailed descriptions addressing multiple sensory modalities (visual, auditory, tactile, olfactory), (6) use of specific, vivid vocabulary rather than generic terms, (7) logical organization of descriptive details, and (8) appropriate conclusion or closing statement. Each indicator was operationalized through specific assessment items and scored according to a standardized rubric.

#### *D. Instructional Interventions*

Both the experimental and control groups received instruction in descriptive text writing aligned with the fifth-grade Indonesian language curriculum and delivered by experienced teachers employed at SD Negeri 010 Hutapuli. The instructional period extended over multiple weeks, with each group receiving approximately equivalent amounts of instructional time dedicated to the descriptive text. However, the pedagogical approaches employed differed systematically according to the group assignment.

For the experimental group receiving outdoor learning instruction, each instructional session followed a carefully planned sequence designed to maximize the affordances of outdoor environments for developing descriptive writing. A typical outdoor learning session is as follows. First, students gathered in an outdoor location on school grounds selected for its rich observational possibilities—areas with diverse vegetation, varied textures and colors, interesting architectural features, and dynamic weather phenomena. The teacher began by establishing learning objectives for the session, reviewing the concept of descriptive text, and previewing the observational and writing tasks that students would complete.

Second, the students engaged in structured observation activities guided by teacher prompts and questions. Teachers directed students to observe specific subjects (e.g., "Look carefully at this flowering plant" or "Observe the trunk of this old tree") and to attend systematically to different sensory modalities ("What colors do you see?" "What textures can you feel?" "What sounds do you hear?" "What smells can you detect?"). Students were encouraged to move around, examine objects from different perspectives, and use gentle touches to explore textures. This observation phase typically lasted 15-20 minutes and emphasized careful, sustained attention to sensory details that students could later incorporate into their written descriptions.

Third, students participated in vocabulary brainstorming and oral description practice while still engaging with the observed subjects. Teachers elicited descriptive vocabulary from students, recorded key terms on portable whiteboards or chart paper, and modeled the construction of vivid descriptive phrases. Students practiced oral

descriptions, with peers providing feedback on clarity, specificity, and sensory richness. This collaborative oral phase helped students rehearse the language they would subsequently employ in written form and build shared vocabulary resources for the class.

Fourth, students transitioned to individual written compositions, either remaining outdoors or moving to a comfortable outdoor writing location. Using the observations and vocabulary generated in the previous phases, the students composed descriptive texts about their chosen subjects. Teachers circulated to provide individual support, encouraging specificity, sensory details, and revision. Students had access to the physical subjects they were describing, enabling them to return to direct observation when needed to verify details or generate additional descriptions.

Finally, the sessions concluded with sharing and reflection activities in which students read their descriptive texts aloud to peers, received feedback, and discussed what made the descriptions effective or engaging. Teachers facilitated meta-cognitive reflection on the relationship between careful observation and vivid writing and how outdoor learning supported their descriptive writing process.

In contrast, the control group received conventional classroom instruction following the traditional pedagogical sequences common in Indonesian elementary schools. Instructional sessions occurred entirely within the classroom and relied primarily on textbook material and teacher exposition. A typical session proceeded as follows; First, teachers provided explicit instruction on descriptive text, including definitions, purposes, structural elements, and linguistic features, typically through a lecture format supplemented by examples displayed on whiteboards or in textbooks.

Second, teachers guided students through the analysis of model descriptive texts from their textbooks, asking students to identify the structural elements and linguistic features in the examples. This analytical phase emphasized the recognition of genre conventions and vocabulary appropriate for descriptive writing. Students typically worked individually or in pairs to complete workbook exercises identifying textual elements.

Third, teachers assigned descriptive writing tasks, typically based on pictures in textbooks or generic prompts (e.g., "Describe your classroom" or "Describe a favorite place"). Students composed descriptive texts individually at their desks, with teachers available to answer questions regarding vocabulary or mechanics. However, students had no opportunity for direct observation of the subjects they were describing, relying instead on memory, imagination, or visual representations in the textbooks.

Finally, students submitted their written products to teachers for evaluation, with limited opportunities for peer sharing or revision. Teachers provided written feedback on the submitted texts, focusing on correcting errors and identifying areas for improvement. The instructional cycle then proceeded to subsequent lessons, often with minimal opportunity for students to revise or develop their descriptive writing skills through iterative practices.

#### *D. Data Collection Procedures*

Data were collected at three primary time points: pre-test (prior to the instructional intervention), intervention implementation (ongoing observational data collection during instruction), and post-test (following the completion of the instructional intervention). Multiple data sources were employed to provide both quantitative measures of learning outcomes and qualitative insights into the instructional processes and student engagement.

The pretest was administered during the first week of the study period, before any instruction in descriptive text writing was delivered to either the experimental or control group. All participating students completed identical pretest instruments during a scheduled class period, under standardized testing conditions. Teachers provided standard instructions, ensured that students understood the assessment tasks, and monitored to maintain testing integrity. Pretests were collected immediately upon completion and scored by the researchers using predetermined scoring rubrics to ensure consistency across all student responses.

The instructional intervention period extended over multiple weeks, during which the experimental and control groups received their respective instructional approaches. Throughout this period, researchers conducted systematic classroom observations in both groups to document instructional practices, student engagement patterns, and the qualitative aspects of learning processes. Observational protocols focused on indicators of active engagement (on-task behavior, participation in discussions, persistence with writing tasks), social interaction patterns (peer collaboration, teacher-student interaction quality), and affective responses (apparent enjoyment, frustration, and interest). Observational data were recorded in structured field notes and subsequently analyzed for themes relevant to understanding how different instructional approaches influenced students' learning experiences.

Post-test administration occurred during the final week of the study period, after all planned instruction in descriptive text writing had been completed in both the experimental and control groups. The posttest

instrument was identical to the pretest in format and content, although specific item content differed to minimize memory effects while maintaining equivalent difficulty. Posttest administration followed the same standardized procedures employed for the pretest, ensuring the comparability of testing conditions across time points and between groups.

In addition to quantitative test data, the researchers collected samples of student work produced during the intervention period, including descriptive texts composed during both outdoor learning activities (experimental group) and classroom writing exercises (control group). These work samples provided qualitative data regarding the characteristics of student writing produced under various instructional conditions. The analysis of the work samples focused on descriptive specificity, sensory richness, vocabulary diversity, and other indicators of descriptive writing quality.

Finally, documentation data, including photographs of outdoor learning activities, lesson plans, and teaching materials, were collected to provide a comprehensive record of the intervention implementation. This documentation enabled the verification of the implementation of the instructional procedures as intended and provided contextual information for interpreting the study findings.

#### E. *Instrumentation*

The primary data collection instrument was a comprehensive assessment of descriptive text writing knowledge and skills, designed specifically for this study in alignment with Indonesian fifth-grade curriculum standards. The instrument consisted of multiple sections that addressed different dimensions of descriptive text competence.

The first section employed multiple-choice items to assess declarative knowledge of descriptive texts. Items addressed the definition and purpose of descriptive texts, identification of structural elements, recognition of appropriate linguistic features, and understanding of text organization principles. This section contained eight multiple-choice items, each presenting a question or scenario with four possible response options. Items were reviewed by experienced Indonesian language teachers for content validity and clarity, prior to administration. The second section presents constructed-response writing tasks that require students to produce original descriptive compositions. Two distinct prompts were used. The first prompt provided a visual stimulus (photograph of a natural object or scene) and asked students to write a descriptive paragraph about the subject depicted. The second prompt asked students to describe a familiar location or object from their own experience, requiring them to draw on memory and prior observation. For each prompt, students were expected to produce descriptive texts of at least two paragraphs, demonstrating appropriate text structure, sensory detail, vivid vocabulary, and coherent organization.

Student responses to constructed-response items were evaluated using analytical scoring rubrics addressing multiple dimensions of descriptive writing quality. The rubric assessed: (1) Content and Development extent to which the text provided detailed, specific information about the subject and engaged multiple sensory modalities, (2) Organization and Structure presence of appropriate identification, descriptive development, and conclusion, and logical sequencing of ideas, (3) Language and Vocabulary use of vivid, specific vocabulary including sensory adjectives and descriptive phrases, (4) Sentence Construction variety and complexity of sentence structures, and appropriate use of grammatical forms, and (5) Mechanics correct spelling, punctuation, and capitalization. Each dimension was scored on a scale from 1 (minimal/inadequate) to 4 (exemplary), with detailed descriptors for each performance level.

Prior to use in the main study, the assessment instrument was pilot tested with a sample of fifth-grade students from a different school in the same district. Pilot data were analyzed to evaluate the item difficulty, discrimination, and reliability. Based on the pilot results, minor revisions were made to the item wording and rubric descriptors to improve clarity and appropriateness for the target population. The internal consistency reliability analysis of the complete instrument yielded a Cronbach's alpha coefficient of 0.82, indicating satisfactory reliability for research purposes.

#### iF. *Data Analysis*

Data analysis proceeded through several phases, addressing different research questions and hypotheses. Quantitative analysis of pretest and posttest scores employed inferential statistics to determine whether the outdoor learning intervention produced significantly different learning outcomes compared with conventional instruction. Qualitative analysis of observational data and student work samples provided complementary insights into the mechanisms and processes through which instructional approaches influence learning.

Prior to hypothesis testing, preliminary analyses were conducted to examine the descriptive statistics for the pretest and posttest scores in both the experimental and control groups. Measures of central tendency (mean, median) and variability (standard deviation, range) were calculated to characterize the distribution of scores

within each group at each time point. These descriptive statistics provided initial insights into whether the groups differed in baseline performance and the magnitude of change from pretest to posttest.

Hypothesis testing to determine the effect of outdoor learning on learning outcomes employed independent samples t-tests comparing post-test scores between experimental and control groups. The independent samples t-test is appropriate when comparing means from two independent groups on a continuous dependent variable, as in the design of this study. Prior to conducting the t-tests, statistical assumptions were evaluated. The normality of the score distributions was assessed using the Kolmogorov-Smirnov test. The homogeneity of variance across groups was evaluated using Levene's test. When assumption violations were detected, appropriate alternative procedures or adjustments were employed.

The primary hypothesis test addressed whether posttest scores differed significantly between the experimental and control groups after accounting for baseline differences captured in the pretest scores. The null hypothesis stated that no significant difference existed between the mean posttest scores of the experimental and control groups ( $H_0: \mu_1 = \mu_2$ ). The alternative hypothesis states that a significant difference exists between the group means ( $H_a: \mu_1 \neq \mu_2$ ). Statistical significance was evaluated using an alpha level of 0.05, which is the conventional standard for educational research.

To control for potential differences in initial ability between groups, an additional analysis examined whether pretest scores differed significantly between the experimental and control groups. This analysis employed an independent samples t-test to compare the pretest means. Non-significant results would provide evidence that groups possessed equivalent abilities prior to the intervention, strengthening causal inferences about treatment effects.

Effect sizes were calculated to quantify the magnitude of the differences between groups beyond mere statistical significance. Cohen's *d*, a standardized measure of mean difference, was computed to indicate the practical significance of the outdoor learning intervention. Effect size interpretation followed conventional guidelines:  $d = 0.2$  (small effect),  $d = 0.5$  (medium effect), and  $d = 0.8$  (large effect).

All quantitative statistical analyses were performed using IBM SPSS Statistics Version 22. Data were entered into SPSS, verified for accuracy, and analyzed according to the procedures described above. Tables presenting descriptive statistics, test results, and effect sizes were generated to summarize the quantitative findings.

Qualitative data from classroom observations and student work samples were analyzed using thematic analysis. Observational field notes were systematically reviewed to identify recurring patterns in student engagement, participation, and behavior across different instructional conditions. Student work samples were analyzed for qualitative indicators of descriptive writing quality, including the specificity of detail, sensory richness, and vocabulary diversity. The qualitative findings were synthesized to complement and explain the quantitative results, providing a more comprehensive understanding of how outdoor learning influences descriptive text instruction.

### III. RESULTS AND DISCUSSION

#### A. Descriptive Statistics and Baseline Equivalence

Prior to examining the effects of the outdoor learning intervention, preliminary analyses established the baseline characteristics of the study participants and verified the equivalence of the experimental and control groups at pre-test. Table 1 presents the descriptive statistics for the pretest and posttest scores for both the experimental and control groups.

Table 1. Descriptive Statistics for Pretest and Posttest Scores by Group

Group	Test	N	Mean	Std. Deviation	Minimum	Maximum
Experimental	Pretest	20	81.00	8.72	65	97
Experimental	Posttest	20	88.00	7.16	74	100
Control	Pretest	18	81.00	9.18	61	94
Control	Posttest	18	82.00	8.45	65	94

As shown in Table 1, both the experimental and control groups demonstrated identical mean pretest scores of 81.00, suggesting comparable initial abilities in descriptive text writing. The standard deviations of 8.72 (experimental) and 9.18 (control) indicated similar variability within the groups. Score ranges also revealed overlap between groups, with the experimental group ranging from 65 to 97 and the control group from 61–94.

These descriptive patterns suggest that the two groups possessed equivalent abilities prior to the intervention, although formal statistical testing was required to confirm this conclusion.

Following the instructional intervention, notable differences emerged in posttest performance. The experimental group achieved a mean posttest score of 88.00 (SD = 7.16), representing an increase of 7 points from pretest baseline. In contrast, the control group achieved a mean posttest score of 82.00 (SD = 8.45), representing only a 1-point increase from baseline. The experimental group's posttest scores ranged from 74 to 100, with some students achieving perfect or near-perfect scores. The control group's posttest scores ranged from 65 to 94, indicating more modest gains. These descriptive patterns suggested that the outdoor learning intervention may have produced superior learning outcomes compared to conventional instruction, though statistical hypothesis testing was necessary to determine whether observed differences exceeded chance variation.

### B. Tests of Statistical Assumptions

Before conducting hypothesis tests to compare group means, the statistical assumptions underlying the parametric tests were evaluated. Table 2 presents the results of the normality testing for the pretest and posttest score distributions.

Table 2. Tests of Normality (Kolmogorov-Smirnov)

Group	Test	Statistic	df	Sig.
Experimental	Pretest	0.158	20	0.200
Experimental	Posttest	0.143	20	0.200
Control	Pretest	0.162	18	0.200
Control	Posttest	0.154	18	0.200

The Kolmogorov-Smirnov test results indicated that all score distributions (pre- and post-tests for both groups) demonstrated non-significant departures from normality (all  $p > 0.05$ ). These results satisfied the normality assumption for independent-samples t-tests, supporting the use of parametric statistical procedures for hypothesis testing.

Homogeneity of variance was assessed using Levene's test, with results presented alongside the t-test results in subsequent tables. For both pretest and posttest comparisons, Levene's test results were non-significant ( $p > 0.05$ ), indicating that the assumption of equal variances across groups was satisfied. Together, these assumption tests confirmed the appropriateness of independent-samples t-tests for comparing group means.

### C. Baseline Equivalence Testing

To verify that the experimental and control groups possessed equivalent abilities prior to the intervention, an independent samples t-test was used to compare pretest means. Table 3 presents the results of this study.

Table 3. Independent Samples T-Test Comparing Pretest Scores

Levene's Test		t-test for Equality of Means				
F	Sig.	t	df	Sig. (2-tailed)	Mean Diff.	Std. Error Diff.
0.663	0.421	0.095	36	0.925	0.00	3.02

The independent samples t-test comparing pretest scores yielded a t-value of 0.095 ( $df = 36$ ,  $p = 0.925$ ), indicating no statistically significant difference between the experimental group mean ( $M = 81.00$ ) and the control group mean ( $M = 81.00$ ). The two-tailed significance value of 0.925 substantially exceeded the conventional alpha level of 0.05, providing strong evidence that the groups possessed equivalent baseline abilities. The mean difference of 0.00 and the confidence interval spanning both positive and negative values further confirmed the baseline equivalence. These results satisfied a critical assumption of quasi-experimental research: that observed post-test differences can be attributed to the intervention rather than pre-existing group differences.

The primary research hypothesis stated that outdoor learning methods would produce significantly different learning outcomes in descriptive text writing compared to conventional classroom instruction. This hypothesis

was tested by comparing post-test scores between the experimental and control groups using an independent samples t-test. Table 4 presents the results of this study.

Table 4. Independent Samples T-Test Comparing Posttest Scores

Levene's Test		t-test for Equality of Means				
F	Sig.	t	df	Sig. (2-tailed)	Mean Diff.	Std. Error Diff.
0.866	0.358	2.180	36	0.039	6.00	2.75

The independent samples t-test comparing post-test scores yielded a t-value of 2.180 ( $df = 36$ ,  $p = 0.039$ ), indicating a statistically significant difference between groups. The experimental group's mean post-test score ( $M = 88.00$ ) exceeded the control group's mean ( $M = 82.00$ ) by 6.00 points. The two-tailed significance value of 0.039 fell below the alpha level of 0.05, providing sufficient evidence to reject the null hypothesis of no difference between groups and accept the alternative hypothesis that the outdoor learning method produces significantly different learning outcomes compared to conventional instruction.

The effect size for this comparison, calculated as Cohen's  $d$ , was 0.73, which, according to conventional interpretive guidelines, represents a medium-to-large effect. This effect size indicates that the outdoor learning intervention produced practically meaningful improvements in learning outcomes beyond mere statistical significance. Students in the experimental group performed approximately three-quarters of a standard deviation higher than those in the control group, a difference likely to be noticeable and educationally significant in classroom practice.

To further elucidate the effects of outdoor learning, within-group comparisons were used to examine the magnitude of learning gains from pre-to post-test. Table 5 presents the mean gain scores for each group.

Table 5. Mean Gain Scores from Pretest to Posttest

Group	Pretest Mean	Posttest Mean	Gain Score	Percentage Improvement
Experimental	81.00	88.00	7.00	8.64%
Control	81.00	82.00	1.00	1.23%

The experimental group demonstrated a mean gain of 7.00 points from pre-test to post-test, representing an 8.64% improvement relative to their baseline performance. This substantial gain suggests that outdoor learning instruction effectively enhanced students' descriptive text writing knowledge and skills over the intervention period. In contrast, the control group demonstrated a mean gain of only 1.00 point, representing only a 1.23% improvement. This minimal gain likely reflects normal learning that occurs through maturation and repeated exposure to writing tasks, rather than specific instructional effects.

The difference in gain scores between the groups (7.00 vs. 1.00) provides additional evidence of the outdoor learning intervention's effectiveness. Students receiving outdoor learning instruction improved seven times as much as students receiving conventional classroom instruction, despite both groups receiving equivalent amounts of instructional time and covering identical curriculum objectives. This dramatic difference in learning gains constitutes strong evidence that outdoor learning pedagogy offers superior instructional affordances for teaching descriptive text writing compared with traditional approaches.

#### D. Qualitative Analysis of Student Engagement and Participation

Observational data collected throughout the intervention period provided qualitative insights into how outdoor learning influenced students engagement, participation, and learning processes. Several consistent themes emerged from the systematic analysis of field notes and teacher reports.

First, students in the experimental group demonstrated substantially higher levels of active engagement and on-task behavior during outdoor learning activities than their typical behavior during classroom instruction. Teachers reported that students who were often distracted or disengaged during indoor lessons became animated and focused when learning outside. The novelty of the outdoor environment, combined with the concrete, hands-on nature of observation activities, appeared to capture students' interest more effectively than textbook-based instruction. Students exhibited sustained attention during observation periods, asked

substantive questions about the subjects they were describing, and persisted with writing tasks longer than is typically observed during classroom writing assignments.

Second, outdoor learning activities appear to reduce behavioral management challenges and create more positive classroom dynamics. Teachers noted fewer disciplinary incidents during outdoor sessions than during typical classroom periods. Students who typically exhibited restless or disruptive behavior during prolonged indoor instruction appeared to be better able to self-regulate when given opportunities for movement and environmental engagement. The semi-structured nature of outdoor observation activities, which permitted controlled movement and exploration while maintaining focus on learning objectives, seemed to accommodate students' developmental need for physical activity while still supporting academic learning goals.

Third, outdoor learning fosters increased peer collaboration and social interaction around academic tasks. During the observation and brainstorming phases, students spontaneously shared discoveries with their peers, compared observations, and collectively generated descriptive vocabulary. This collaborative knowledge construction rarely occurs during conventional classroom instruction, where students typically work independently on assigned tasks. The social dimension of outdoor learning appeared to enhance students' descriptive vocabulary development, as peers introduced one another to words and phrases they had not independently generated. Additionally, the collaborative atmosphere created a supportive environment for risk-taking and creative expression, with students being more willing to attempt sophisticated descriptive language when working alongside peers.

Fourth, outdoor learning appeared to enhance students' meta-cognitive awareness of the relationship between careful observation and effective description. When asked about their learning experiences, the experimental group students frequently articulated how direct sensory engagement with subjects helped them generate specific details and vivid language for their written descriptions. Comments such as "I could write better because I was looking at the real tree" and "When I touched the bark I found words to describe how it felt" illustrated students' recognition that direct experience facilitated descriptive writing. This met-cognitive awareness contrasted with control group students' more limited understanding of how to generate descriptive content, with many simply stating they "didn't know what to write" or relied on formulaic phrases from textbook models.

Fifth, the quality and characteristics of writing produced during outdoor learning differed notably from that produced in conventional classroom conditions. Analysis of student work samples revealed that the experimental group compositions contained more specific and concrete details than the control group compositions. For example, rather than generic descriptions ("The tree is big and green"), experimental group students produced more vivid, specific descriptions ("The old mango tree has thick, gray bark with deep grooves that feel rough like sandpaper"). Sensory details spanning multiple modalities appeared more frequently in the experimental group's writing, suggesting that the emphasis on multi-sensory observation during outdoor learning translated into richer written descriptions. Additionally, the experimental group students demonstrated greater variety in descriptive vocabulary, employing more precise adjectives and more varied sentence structures compared to the relatively formulaic language common in the control group writing.

### *E. Discussion*

The statistically significant superiority of the experimental group's posttest performance ( $p = 0.039$ ) provides empirical evidence that outdoor learning produces better learning outcomes for descriptive text writing instruction than conventional classroom approaches. This finding aligns with and extends previous research demonstrating the effectiveness of outdoor learning in diverse educational contexts and subject areas. Several interrelated factors likely contribute to the advantages of outdoor learning in teaching descriptive writing.

First, outdoor learning provides authentic and concrete referents for descriptive writing that address the fundamental cognitive challenges inherent in learning to write descriptions. Descriptive writing fundamentally requires students to observe carefully, attend to sensory details, and translate their perceptual experiences into language. When instruction occurs exclusively indoors using textbook pictures or abstract prompts, students must rely on their memory, imagination, or limited visual information to generate descriptive content. These cognitive demands may exceed young students' working memory capacity and abstract thinking abilities, resulting in superficial, generic descriptions that fail to demonstrate genuine observational engagement. In contrast, outdoor learning places students in direct, embodied contact with the subjects they describe. Students can see, touch, hear, and smell the objects they write about, engaging multiple sensory modalities simultaneously. This multi-sensory engagement provides rich perceptual input that students can immediately transform into written language, reducing cognitive load and enabling more specific and detailed descriptions (Ghimire & Mokhtari, 2025).

Second, outdoor learning creates motivational conditions that enhance student engagement and efforts. Research in educational psychology has consistently demonstrated that novelty, autonomy, and authentic purpose enhance student motivation. Outdoor learning capitalizes on all three of these motivational principles. The novelty of learning outside the classroom captures students' attention and generates positive feelings that facilitate learning. The semi-structured nature of outdoor observation activities provides students with greater autonomy to explore, discover, and make choices about their learning focus, compared to highly teacher-directed classroom instruction. The authentic purpose of describing real objects in one's immediate environment contrasts with the artificial nature of describing textbook pictures, providing stronger reasons for careful observation and precise description. Enhanced motivation translates into increased cognitive engagement, persistence, and willingness to take risks with sophisticated language—all factors likely contributing to the superior learning outcomes observed in the experimental group (Florese, 2025).

Third, outdoor learning aligns with constructivist learning principles by positioning students as active knowledge constructors rather than passive information recipients. During outdoor learning, students generate their own observations, discover relevant details, and construct original descriptions based on their direct experience. Teachers facilitate this process through guiding questions and prompts but resist simply telling students what to observe or write. This inductive, discovery-oriented approach contrasts sharply with the deductive approach of conventional classroom instruction, in which teachers provide definitions and models for students to memorize and imitate. Constructivist approaches typically produce a deeper understanding and more durable learning because students actively process information and integrate it with existing knowledge rather than passively receiving it. The experimental group's superior performance likely reflects the constructivist advantages inherent in outdoor learning pedagogy (Tawali, 2025).

Fourth, outdoor learning may develop broader cognitive and perceptual capacities that support descriptive writing beyond specific genres. Learning to observe carefully, attend to sensory details across multiple modalities, and translate perceptual experiences into precise language constitutes transferable skills relevant across literacy domains and academic disciplines. By prioritizing these fundamental observational and representational capacities, outdoor learning instruction may develop more generalizable competencies than conventional instruction, which focuses narrowly on genre conventions and textbook-based exercises. This broader skill development may explain why the experimental group students demonstrated superior post-test performance not only on items assessing declarative knowledge about descriptive texts but also on constructed-response writing tasks requiring the application of that knowledge in novel contexts.

The qualitative observational findings regarding enhanced engagement, improved behavior, increased collaboration, and meta-cognitive awareness complement and help explain the quantitative learning outcome differences. These qualitative patterns suggest that outdoor learning's effectiveness stems not from any single mechanism but from multiple interrelated factors operating simultaneously: increased motivation, concrete experiential learning opportunities, social knowledge construction, and meta-cognitive development. This multidimensional impact distinguishes outdoor learning from more narrow instructional interventions targeting specific skills in isolation.

The finding that conventional classroom instruction produced minimal learning gains (1.00 point mean improvement) deserves attention. This suggests that traditional approaches commonly employed in Indonesian elementary schools may be relatively ineffective in developing genuine descriptive writing competence. Students in the control group possessed baseline knowledge of descriptive texts, as evidenced by their pretest scores, but conventional instruction failed to substantially advance their capabilities beyond this baseline. This pattern likely reflects the limitations inherent in teaching descriptive writing primarily through textbook-based examples and artificial prompts divorced from authentic observation. When students lack concrete referents and authentic purposes for description, instruction in genre conventions and linguistic features may remain superficial, failing to develop the fundamental observational and expressive capacities that constitute true descriptive writing competence.

The findings of this study have several important implications for elementary Indonesian language education. The results provide empirical support for integrating outdoor learning experiences into descriptive text writing instruction. Teachers seeking to improve student outcomes in this curricular domain should incorporate regular outdoor observation and writing activities rather than relying exclusively on classroom-based instruction. The outdoor learning approach implemented in this study can be adapted to diverse school contexts, requiring no specialized materials or facilities beyond outdoor spaces accessible on the school grounds. Even schools with limited outdoor resources can implement modified versions of outdoor learning by utilizing schoolyards, gardens, or nearby natural areas as instructional settings (Wahdian & Arifah, 2025).

More broadly, these findings contribute to the growing evidence that elementary education would benefit from more frequent integration of outdoor learning across the curriculum, extending beyond language arts to other

subject areas. The observed benefits of outdoor learning for student engagement, behavior, collaboration, and meta-cognitive development suggest that such experiences support holistic student development in ways that transcend any single curricular objective. As Indonesian education policy increasingly emphasizes student-centered, active learning approaches, outdoor learning offers a concrete pedagogical strategy that aligns with these reform priorities.

This study also highlights the importance of providing students with authentic and meaningful contexts for literacy learning. The superior outcomes achieved through outdoor learning compared to conventional textbook-based instruction underscore that effective writing instruction requires more than the explicit teaching of genre conventions and linguistic features. Students need opportunities to engage with authentic purposes, real audiences, and meaningful content that motivates careful attention and genuine communication. Outdoor learning provides such contexts naturally, but similar principles could inform literacy instruction more generally, encouraging teachers to seek authentic writing purposes and real-world connections, even when teaching must occur indoors.

Finally, these findings may inform teacher-education and professional-development programs. Many teachers lack confidence and experience with outdoor learning, contributing to its limited implementation despite growing evidence of its effectiveness. Teacher preparation programs and in-service professional development should incorporate explicit instruction on outdoor learning pedagogy, including practical strategies for lesson planning, classroom management in outdoor settings, and alignment with curriculum standards. When teachers possess greater knowledge and confidence regarding outdoor learning, they are more likely to implement such approaches regularly rather than viewing them as occasional enrichment activities.

#### **IV. CONCLUSIONS**

This quasi-experimental study provides empirical evidence that outdoor learning method produces significantly superior learning outcomes compared to conventional classroom instruction for teaching descriptive text writing to fifth-grade elementary students in Indonesian language education. Students receiving outdoor learning instruction demonstrated statistically significant higher posttest scores ( $M = 88.00$ ) compared to students receiving conventional instruction ( $M = 82.00$ ), with a two-tailed significance value of  $p = 0.039$  and a medium-to-large effect size (Cohen's  $d = 0.73$ ). The experimental group achieved mean learning gains of 7.00 points (8.64% improvement), compared to minimal gains of 1.00 point (1.23% improvement) in the control group, despite equivalent baseline abilities and instructional time. These quantitative findings were complemented by qualitative observational data indicating that outdoor learning enhanced student engagement, improved behavioral regulation, fostered peer collaboration, and developed meta-cognitive awareness of the relationship between observation and description. The effectiveness of outdoor learning for descriptive text instruction appears attributable to multiple interrelated mechanisms. First, outdoor learning provides concrete, multi-sensory referents that reduce cognitive demands associated with generating descriptive content and enable students to produce more specific, detailed descriptions. Second, the novelty, autonomy, and authentic purpose inherent in outdoor learning create motivational conditions that enhance student engagement and cognitive effort. Third, outdoor learning embodies constructivist principles by positioning students as active constructors of knowledge through direct experience rather than passive recipients of information. Fourth, outdoor learning develops fundamental observational and expressive capacities that constitute transferable skills supporting literacy development broadly. These findings carry important implications for elementary Indonesian language education. Teachers should consider integrating regular outdoor learning experiences into descriptive text writing instruction rather than relying exclusively on classroom-based, textbook-dependent approaches. More broadly, the study contributes to growing evidence supporting increased integration of outdoor learning across the elementary curriculum as a means of enhancing student engagement, learning outcomes, and holistic development. Implementation of outdoor learning aligns with contemporary educational reform priorities emphasizing student-centered, active, contextual learning approaches.

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#### **Ethical Compliance**

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards.

### Data Access Statement

A Data Access Statement is a section in a scientific publication or research report that explains how the data used or generated in the study can be accessed by readers and other researchers. This statement aims to promote transparency, support research reproducibility, and comply with open-access policies, where applicable.

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### Conflict of Interest Declaration

The authors declare that they have no affiliations or involvement with any organization or entity with any financial interest in the subject matter or materials discussed in this manuscript.

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