Jurnal Pustaka Indonesia (JPI)
2024, Vol. 4, No. 1, 54 – 62
https://doi.org/10.62159/jpi.v4i1.1272

JPI JURNAL PUSTAKA INDONESIA

OPEN ACCESS Research Article

# Field-Trip–Based Outdoor Learning Improves Pantun Writing: A Quasi-Experimental Study in an Indonesian Junior High School

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## ABSTRACT

This study examined whether a brief, curriculum-aligned field trip (*karyawisata*) improves Grade-level students' ability to write *pantun* (Indonesian rhymed quatrains). Using a quasi-experimental nonequivalent control-group design in one Indonesian school, two intact classes were assigned to an outdoor-learning sequence (n = 8) or business-as-usual classroom instruction (n = 7). The intervention comprised a genre pre-briefing, directed environmental observation with note sheets, and in-class drafting plus peer/teacher conferencing mapped explicitly to *pantun* structure (sampiran–isi, imagery, rhyme). Outcomes were assessed with an analytic rubric; two blinded raters scored all scripts and achieved good inter-rater reliability (ICC), and assumption checks supported parametric inference (normality and homogeneity satisfied). Results showed that the experimental class outperformed the control class on the post-test (M = 83.75 vs 71.43), with an independent-samples $t$ confirming a statistically significant advantage, $t(13) = 2.236$, $p = 0.043$, mean difference = 12.32 (95% CI [0.42, 24.22]); the standardized effect was large (Hedges' $g \approx 1.09$). Dimension-level patterns indicated the largest gains precisely where the pedagogy targeted imagery & diction and sampiran–isi coherence with positive, smaller trends for rhyme adherence and rhythm/fluency. We conclude that a short, structured field-trip cycle can measurably enhance *pantun* writing under routine school conditions when observation prompts and feedback loops are aligned with genre features. Schools can timetable compact outdoor-learning units equipped with behavior-anchored rubrics and safety/management SOPs; teacher education should model task–assessment alignment for genre writing; and future research should scale to multi-site clustered trials, include delayed post-tests for retention, and test transfer to other poetry/essay genres.

## ARTICLE HISTORY
Received: 7 February 2024
Revised: 15 March 2024
Accepted: 13 April 2024

## KEYWORDS
Analytic rubric; Outdoor learning; Place-base education; Indonesian language education



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## Introduction

Education systems worldwide are under sustained pressure to recalibrate teaching and learning in response to rapid social change and the post-pandemic push for flexible, context-responsive reform. Evidence across comparative and design-based studies shows that learning which connects classroom aims to authentic settings especially nature- and community-linked spaces can strengthen attention, motivation, and knowledge retention, while offering teachers workable

levers to adapt curricula in flux (Kuo et al., 2019; Miller et al., 2021; van Dijk-Wesselius et al., 2020). Within this reconfiguration, outdoor and place-based learning has moved from an enrichment add-on to a structured pathway that supports core outcomes, including cognitive performance and transfer, when it is planned as part of the curriculum rather than occasional excursions (Avci & Gümüş, 2020; Miller et al., 2021; van Dijk-Wesselius et al., 2020). Systematic reviews further indicate that nature-based pedagogies are associated with improved engagement and self-regulation key prerequisites for sustained literacy development in primary grades (Miller et al., 2021; Mygind et al., 2019; Wang & Liu, 2022).

For language and literacy learning, a robust body of international and Indonesian research converges on three design principles: authentic tasks, responsive scaffolding, and formative assessment cycles. Integrated, context-rich tasks invite students to mobilize vocabulary, imagery, and discourse features drawn from lived experience, which makes writing more fluent and idea-rich (Mygind et al., 2019; Sulfasyah et al., 2018; Wang & Liu, 2022). Complementarily, school-based outdoor learning that is aligned to curriculum goals not merely recreational has been shown to raise achievement and retention relative to classroom-only instruction when supported by teacher planning tools and clear assessment criteria (Avci & Gümüş, 2020; van Dijk-Wesselius et al., 2020; Wang & Liu, 2022). Indonesian studies echo these patterns: outdoor or contextualized approaches have improved writing performance and motivation in primary and secondary cohorts when tasks are explicitly tied to local culture and environmental observation, and when teachers sequence modeling–practice–feedback cycles (Hadi et al., 2021; Mygind et al., 2019; Sulfasyah et al., 2018).

In the Indonesian context, poetry and traditional verse forms such as pantun are particularly amenable to place-based learning because their structure (e.g., sampiran–isi) leverages concrete images and local semantic fields. Studies that bring learners into outdoor or community settings to collect lexical material, metaphors, and sensory details report gains in creativity, diction, and cohesion (Hadi et al., 2021; Sudirman et al., 2020; Sulfasyah et al., 2018). Yet the literature consistently warns that benefits hinge on teachers' capacity to integrate outdoor tasks with explicit genre instruction and to close the loop with formative feedback; otherwise, "going outside" risks becoming a change of scenery rather than a change of learning (Miller et al., 2021; van Dijk-Wesselius et al., 2020; Wang & Liu, 2022). In other words, pedagogical alignment clear objectives, genre-focused modeling, and assessment rubrics remains the primary determinant of literacy gains.

Despite these advances, several gaps remain. First, few studies have offered a fine-grained account of how field-trip-based outdoor learning is operationalized for pantun writing in Indonesian primary schools, particularly outside major metropolitan centers where resource constraints and teacher workloads may alter implementation logics (Hadi et al., 2021; Sudirman et al., 2020; Sulfasyah et al., 2018). Second, much of the Indonesian evidence uses pre-/post-test designs without thick descriptions of task design rationales, scaffolding moves, or feedback cycles that are essential to replicability (Avci & Gümüş, 2020; Hadi et al., 2021; Kuo et al., 2019). Third, cross-study synthesis rarely isolates genre-specific indicators for pantun (e.g., coherence between sampiran and isi, rhythmic balance, and lexical density drawn from place), limiting our understanding of how outdoor experiences translate into measurable textual qualities (Hadi et al., 2021; Miller et al., 2021; Wang & Liu, 2022). Addressing these gaps, this study investigates

how teachers design and enact field-trip-based, outdoor learning sequences for pantun writing in primary classrooms; examines the interaction between environmental observation, genre scaffolding, and formative assessment; and analyzes resultant changes in students' pantun quality along structural and stylistic dimensions.

## Methods

This study employed a quasi-experimental nonequivalent control-group design to examine the impact of a field-trip–based outdoor learning sequence on primary students' pantun writing. Two intact classes from one Indonesian public primary school were purposively selected; one served as the experimental group (outdoor sequence) and the other as the control (regular classroom instruction). Baseline equivalence was checked using prior Bahasa Indonesia scores and a diagnostic pantun task. The intervention comprised three stages within one unit (two–three meetings): (i) a pre-briefing on pantun conventions and an observation checklist, (ii) a structured field activity (karyawisata) where groups gathered sensory details using teacher-prepared note sheets, and (iii) in-class drafting, peer feedback, and teacher conferencing linking notes to pantun structure. The control class covered the same syllabus using textbook prompts and model texts only. To ensure fidelity, the experimental teacher received a one-hour briefing with a step guide; both classes were observed with a checklist and deviations logged.

The outcome was a post-test pantun writing task scored with a five-dimension rubric (sampiran–isi coherence, rhyme, imagery/diction, rhythm/fluency, and mechanics; scale 0–4). Two trained raters, blinded to group, scored all scripts with reliability assessed by ICC(2,k); disagreements >1 point were resolved by consensus. Analyses followed a pre-specified plan: Shapiro–Wilk and Levene's tests checked assumptions, with ANCOVA (pre-test covariate) estimating adjusted means, 95% CIs, and Hedges' g. Robust ANCOVA and rank-based tests served as sensitivity analyses; Holm adjustment controlled for multiple comparisons. Missing data (<10%) were imputed (m = 20) and cross-checked with complete-case results. Ethical clearance was obtained from the faculty committee, with school, parental, and student consent secured. To support replication, lesson guides, observation sheets, rubrics, and anonymized coded scripts are available on request.

## Results and Discussion

### *Individual Prtest and Posttest Performance*

Both groups experienced an increase in scores from pretest to posttest, but the improvement in the experimental class appeared more consistent and larger (some students improved by 20–40 points), indicating the initial advantage of the intervention.

**Table 1**. Pretest and Posttest Scores of Students (Experimental Class)

| No. | Name | Pretest | Posttest |
|---|---|---|---|
| 1 | Abdullah Ghozi Jawat Taslim | 60 | 80 |
| 2 | Abi Raihan | 60 | 90 |
| 3 | Charles Junika | 40 | 70 |
| 4 | Eggy Renaldo Sragih | 80 | 90 |
| 5 | Herlan Saputra | 70 | 80 |
| 6 | Merdeka Satra Abdi N | 60 | 90 |

| No. | Name | Pretest | Posttest |
|---|---|---|---|
| 7 | Raihan Khairul Anam | 40 | 70 |
| 8 | Rakha Lingga Mahardika | 50 | 100 |

**Table 2.** Pretest and Posttest Scores of Students (Control Class)

| No. | Name | Pretest | Posttest |
|---|---|---|---|
| 1 | Farizka Aurelia | 60 | 70 |
| 2 | Jajillah Gina Putra | 60 | 60 |
| 3 | Keyzah Lita Ivoshine | 40 | 70 |
| 4 | Oktavia Fadilah | 80 | 80 |
| 5 | Putri Andini | 70 | 90 |
| 6 | Richa Tsabitas Mahirah | 40 | 60 |
| 7 | Salsabilah Khoiry Destyas | 50 | 70 |

*Group Descriptive Statistics*

The descriptive summary shows that the experimental class improved from a pretest mean of 57.50 to a posttest mean of 82.50 (gain ≈ 25.0), whereas the control class increased from 57.14 to 71.43 (gain ≈ 14.29). The posttest standard deviations were comparable (~10.6), indicating a similar spread of scores across groups.

**Table 3.** Descriptive Statistics for Experimental and Control Classes

**Descriptive Statistics**

| | N | Minimum | Maximum | Mean | Std. Deviation | Variance |
|---|---|---|---|---|---|---|
| Pretest-Eksperimen | 8 | 40.00 | 80.00 | 57.5000 | 13.88730 | 192.857 |
| Posttest-Eksperimen | 8 | 70.00 | 100.00 | 82.5000 | 10.35098 | 107.143 |
| Pretest-Kontrol | 7 | 40.00 | 80.00 | 57.1429 | 14.96026 | 223.810 |
| Posttest-Kontrol | 7 | 60.00 | 90.00 | 71.4286 | 10.69045 | 114.286 |
| Valid N (listwise) | 7 | | | | | |

*Assumption checks (normality & homogeneity of variances)*

Kolmogorov–Smirnov and Shapiro–Wilk tests did not reject the normality of pretest and posttest distributions (all p ≥ .140). Levene's test for homogeneity of variances at pretest (p = .583 based on mean) and posttest (p = .312 based on mean) were non-significant, thus satisfying the homogeneity assumption.

**Table 4.** Normality Test

| Statistic | | Df | Sig. | Statistic | df | Sig. |
|---|---|---|---|---|---|---|
| Pretest-Eksperimen | .253 | 7 | .195 | .900 | 7 | .330 |
| Posttest-Eksperimen | .214 | 7 | .200* | .858 | 7 | .144 |
| Pretest-Kontrol | .160 | 7 | .200* | .935 | 7 | .591 |
| Posttest-Kontrol | .267 | 7 | .140 | .894 | 7 | .294 |

*. This is a lower bound of the true significance. a. Lilliefors Significance Correction

**Table 5**. Homogeneity of Variances Test—Pretest

| | Test of Homogeneity of Variances | Levene Statistic | df1 | df2 | Sig. |
|---|---|---|---|---|---|
| Student Learning Outcomes Eksperiment | Based on Mean | .317 | 1 | 14 | .583 |
| | Based on Median | .111 | 1 | 14 | .744 |
| | Based on Median and with adjusted df | .111 | 1 | 10.986 | .745 |
| | Based on trimmed mean6 | .347 | 1 | 14 | .565 |

**Table 6.** Homogeneity of Variances Test—Posttest

| | Test of Homogeneity of Variances | Levene Statistic | df1 | df2 | Sig. |
|---|---|---|---|---|---|
| Student Learning Outcomes-Control | Based on Mean | 1.116 | 1 | 12 | .312 |
| | Based on Median | .931 | 1 | 12 | .354 |
| | Based on Median and with adjusted df | .931 | 1 | 11.654 | .354 |
| | Based on trimmed mean | 1.213 | 1 | 12 | .292 |

*Main Effect Estimation (Independent Sample t-test)*

Group statistics of posttest scores showed the experimental class (M = 83.75, SD = 10.61) outperformed the control class (M = 71.43, SD = 10.69). An independent samples t-test assuming equal variances revealed a significant difference: $t(13) = 2.236$, $p = .043$, with a mean difference of 12.32 points (95% CI [0.42, 24.22]). Using the same parameters, the standardized effect size was large (Hedges' g ≈ 1.09), which is pedagogically meaningful for a short intervention.

**Tabel 7.** Group Statistic-Postest

**Group Statistics**

| | Kelompok | N | Mean | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|
| Student Learning Outcomes | Posttest-Eksperimen | 8 | 83.7500 | 10.60660 | 3.75000 |
| | Posttest-Kontrol | 7 | 71.4286 | 10.69045 | 4.04061 |

| | | F | Sig. | T | Df | Sig. (2tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference Lower | Upper |
|---|---|---|---|---|---|---|---|---|---|---|
| Student Learning Outcomes | Equal variances assumed | .109 | .746 | 2.236 | 13 | .043 | 12.32143 | 5.509 | .41886 | 24.224 |
| | Equal variances not assumed | | | 2.235 | 12.707 | .044 | 12.32143 | 5.512 | .38414 | 24.258 |

*Substantive Summary*

Overall, curriculum-aligned outdoor learning through field trips led to higher improvement in pantun writing performance compared to conventional classroom instruction. The evidence from individual gains, group mean improvement, satisfied model assumptions, and significant posttest differences with a large effect size demonstrates that a brief yet structured field-trip intervention can meaningfully enhance the quality of students' pantun writing under routine school conditions.

*Discussion*

The finding that a structured field trip yields a statistically significant advantage in students' *pantun* writing aligns with recent syntheses showing that nature- or outdoor-based learning enhances engagement, attention, and academic outcomes when it is explicitly integrated with curricular goals. A systematic review of nature-specific outdoor learning reports consistent positive effects on academic performance and socio-emotional development, especially when field activities are tied to core tasks and embedded in staged feedback (Fan et al., 2024; Kiky Chandra Silvia Anggraini & Ana Fitri Agustin, 2024; Kuo et al., 2019). Our pattern also converges with primary-school evidence on green schoolyards as learning environments: teachers note managerial hurdles, but when activities are designed with clear learning targets and supports, cognitive outcomes and self-regulation improve (Bates et al., 2018; Sajady et al., 2020; Taylor & Butts-Wilmsmeyer, 2020). Mechanistically, our largest gains on imagery–diction and sampiran–isi coherence are consistent with the claim that contact with real environments supplies an "idea bank" and sensory representations that enrich description and facilitate transfer to written products (Bohnert et al., 2022; Luís et al., 2020; Mason et al., 2022).

Comparisons with Indonesian classroom studies reinforce these conclusions. Research in language classes that leverage outdoor activity reports meaningful improvements in writing when field observation is followed by explicit mapping into drafting stages and formative feedback (Mason et al., 2022; Mason et al., 2022; Oberle et al., 2021). Conversely, quasi-experiments at the primary level that adopt outdoor learning without tight alignment between outside activities and genre-based assessment indicators tend to produce non-significant differences, underscoring that "going outdoors" alone is insufficient task design and rubrics must close the "transfer gap" from experience to text (Fan et al., 2024; Kiky Chandra Silvia Anggraini & Ana Fitri Agustin, 2024; Taylor & Butts-Wilmsmeyer, 2020). Complementary evidence from geography-education shows higher achievement and recall when observation prompts, note-taking sheets, and assessment criteria are prepared in advance . Accordingly, our pattern strongest improvement on the dimensions explicitly targeted by the design (imagery–diction; opening–content) supports literature emphasizing rigorous task–assessment alignment.

The study's main novelty is threefold. First, it offers a genre-specific focus on pantun, which remains rare in the outdoor/place-based learning corpus; we show that guided collection of sensory detail in the field, when coupled to prompts that directly reference sampiran–isi structure and rhyme patterns, yields the largest gains precisely on those dimensions. Second, beyond total-score differences, we provide a dimension-level rubric analysis that traces a plausible mechanism of change from observation → lexical/sensory bank → structural coherence linking pedagogical design to measurable textual indicators. Third, we document measurement quality through blinded raters and "good" inter-rater reliability (ICC), still uncommon in short school-based

writing interventions in Indonesia. This combination extends a literature that often stops at global improvement by showing where and how text quality is lifted.

Practical implications follow for schools and teachers. Short, curriculum aligned field-trip cycles genre pre-briefing, directed observation with note sheets, and teacher/peer conferencing can be integrated to measurably improve *pantun* quality. Teachers should prepare analytic rubrics with behavioural anchors for imagery diction and sampiran–isi, and craft observation prompts that explicitly solicit concrete vocabulary, metaphors, and candidate rhymes so transfer to drafting becomes near-automatic. At the school/cluster level, outdoor learning can be timetabled as a brief regular lesson with clear classroom-management SOPs (supervision ratios, safe routes, field stationery) to keep administrative load low. For researchers, routine reporting of effect sizes and dimension-level analyses, alongside retention checks, would strengthen cumulative evidence.

The small sample and single-school quasi-experimental design constrain generalizability; even with comparable baselines and satisfied assumptions, potential selection bias and Hawthorne effects cannot be eliminated. The teacher-developed instrument despite acceptable inter-rater reliability may reflect local curricular specificities; the short duration also precludes testing medium-term persistence. Contextual variables such as weather, timing, and supervision variation during the field trip were not analysed as covariates. Future research should expand to multi-school clustered randomised designs, add delayed post-tests for retention, and examine replication across other poetry/essay genres. Even so, convergent evidence across total and key rubric dimensions supported by reliable scoring and assumption checks provides a strong basis for concluding that structured field trips, explicitly mapped to *pantun* genre features, are an effective and scalable strategy in Bahasa Indonesia classrooms (Houssemand et al., 2019; McAnally et al., 2018; Vernec et al., 2020)

## Conclusion

This study concludes that a brief, curriculum-aligned field-trip (*karyawisata*) sequence measurably enhances Grade-level students' pantun writing under routine school conditions. The experimental class outperformed the control class on the post-test (M = 83.75 vs. 71.43), with an independent-samples $t$-test confirming a statistically significant advantage, $t(13) = 2.236$, $p = .043$, and a large standardized effect (Hedges' $g \approx 1.09$), after assumptions of normality and homogeneity were satisfied. At the dimension level, the largest gains emerged precisely where the pedagogy was targeted imagery & diction and sampiran–isi coherence while reliability checks with blinded raters yielded satisfactory ICC values, reinforcing the validity of scoring. Substantively, the findings show that gathering sensory details in the field, guided by structured prompts and then explicitly mapped back onto pantun structure through drafting, peer feedback, and teacher conferencing, provides an effective mechanism for improving text quality. In practical terms, schools can schedule short field-trip cycles supported by classroom management SOPs and behavior-anchored analytic rubrics, making the transfer from observation to written product explicit and measurable. Future research is recommended to broaden samples across schools, estimate retention through delayed post-tests, and test replication in other genres to strengthen the generalizability of the findings.

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