

The Effectiveness of Blended Learning in Essay Writing Class for English Education Study Program

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Abstract

This study investigated the effectiveness of blended learning in improving essay writing skills among English Education Study Program students at Santo Agustinus Hippo Catholic University in West Kalimantan, Indonesia. Using an sequential experimental mixed-methods design, the study collected data from 26 third-semester students through pre-test, post-test, and semi-structured interviews. The blended learning approach applied a 30:70 ratio of face-to-face and online learning. Quantitative analysis demonstrated a substantial enhancement in students' essay writing proficiency ($t = 14.392$, $p < 0.001$), exhibiting considerable to substantial effect sizes in the introductory paragraph (Cohen's $d = 1.83$), concluding paragraph ($d = 1.06$), and paragraph unity and coherence ($d = 2.53$). Qualitative findings revealed that high-ability students thrived with flexibility and collaborative opportunities, while medium-ability students needed more structured guidance, and low-ability students experienced difficulties with self-regulation and technical barriers. This study suggests that blended learning can be an effective method for improving essay writing skills, even in resource-constrained environments, but requires differentiated support based on student ability levels.

Keywords: Blended Learning; Essay Writing; English Education

INTRODUCTION

Blended learning has emerged as a transformative educational approach in higher education, especially accelerated during the COVID-19 pandemic (Sankar et al., 2022). This pedagogical approach combines conventional face-to-face classroom instruction with online learning components, providing students with flexibility while preserving direct interaction between teacher and student (Dziuban et al., 2018). Despite its widespread adoption in developed countries, The utilization of blended learning models in rural Indonesian regions, such as West Kalimantan, remains under-researched and under implemented. The effectiveness of blended learning in language instruction has been demonstrated across various contexts. (Tawarik et al., 2021) noted that technology-based learning approaches can enhance students' reading comprehension and metacognitive awareness. Studies by (Kintu et al., 2017) have shown that blended learning facilitates individualized instruction and student engagement through diverse pedagogical approaches. In the Indonesian context, (Zein et al., 2020) observed that blended learning is predominantly utilized in metropolitan universities, with rural institutions only beginning to incorporate it into their instructional strategies. Essay writing instruction presents particular challenges that blended learning may address effectively. Online and face-to-face integration, components can provide students with additional resources, interactive tools, and personalized feedback essential for mastering writing skills. Recent research by (Tabassum et al., 2024) found that students in blended learning environments often outperform their peers in traditional classrooms, while (Cao, 2023) noted significant improvements in academic skills, including writing, due to the flexibility and individualized feedback afforded by blended approaches.

Despite the growing body of research, investigations of blended learning primarily focus on urban environments or institutions with abundant technological resources. There remains limited understanding of how blended learning can be effectively implemented in regions with restricted access to technology, such as West Kalimantan. Furthermore, there is a paucity of research exploring the application of blended learning to essay writing skills in English as a Foreign Language (EFL) contexts. Addressing these gaps is crucial to explore blended learning's potential while accounting for the unique challenges of under-resourced environments. This study investigates the efficacy of blended learning implementation in essay writing classes for students enrolled in the English Education Study Program at Universitas Katolik Santo Agustinus Hippo in West Kalimantan. The research specifically addresses two fundamental questions: (1) What is the impact of blended learning implementation on students' essay writing skills, as measured by pre-test and post-test performance, including its effectiveness and effect size? (2) How do students with varying proficiency levels (high, moderate, and low) experience and perceive the blended learning approach in essay writing courses? The objective of this study is both to provide theoretical insights and practical guidance for educators implementing blended learning in contexts with similar resource limitations.

METHOD

This study employed a sequential experimental mixed methods design to investigate blended learning effectiveness in essay writing at Universitas Katolik Santo Agustinus Hippo. A one-group pretest-posttest design was implemented over one semester. The intervention utilized a 30:70 ratio of face to face to online learning. Weekly face to face sessions (150 minutes) focused on writing fundamentals and direct feedback, while online components delivered through Google Classroom, Meet, and Docs covered advanced essay structure, facilitated peer review, and provided supplementary materials. Twenty-six third-semester English Education students (20 female, 6 male; ages 20-27) were selected through purposive sampling based on participation willingness and varied writing proficiency levels. A standardized written exam assessed essay writing skills at semester beginning and end, with students producing academic essays within 150 minutes. An analytical rubric evaluated three components: introductory paragraph (25 points), concluding paragraph (20 points), and paragraph unity/coherence (20 points), using a 5-point scale (Taherdoost & Group, 2017). Data analysis included descriptive statistics, Shapiro-Wilk tests for normality, and paired sample t-tests ($p < 0.05$) to measure statistical significance. Cohen's d statistic quantified effect size following (Lakens, 2013) approach. Instrument validity was established through Pearson correlation and reliability through Cronbach's alpha.

For qualitative data, six students representing high, moderate, and low proficiency levels participated in semi-structured interviews. Thematic analysis following (Braun & Clarke, 2019) methodology identified patterns in students' experiences with the blended learning intervention.

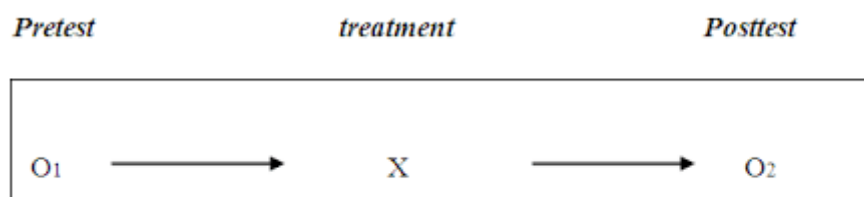


Figure 1. Experimental Design Notation

Noted:

- O1: Pretest measurement (baseline data).
- X: Treatment or intervention applied.
- O2: Posttest measurement (data after treatment).

RESULTS AND DISCUSSION

Results

The present study involved 26 third-semester English Education students from Santo Agustinus Catholic University in Hippo, West Kalimantan, aged 20-27 (20 female, 6 male). The participants were selected on the basis of their willingness to engage in blended learning and their proficiency in essay writing, which was assessed through a series of exercises.

Table 1. Participant Demographics

Student's Semester	Age Interval	Gender	Participant Description	Total	Presentase
3rd Semester	20-23	Female	Active participant	16	61.5%
3rd Semester	23-25	Female	Active participant	4	15.4%
3rd Semester	23-25	Male	Active participant	4	15.4%
3rd Semester	26-27	Male	Active participant	2	7.7%
Total				26	100%

The Level of Student's Essay Writing Skill

This section presents the results of the pre and post tests of students' essay writing skills, focusing on three main elements: the opening paragraph, the conclusion, and the coherence and unity of the paragraph. The purpose of the study is to evaluate how well blended learning helps students to develop their essay writing skills.

Table 2. Descriptive Statistics of Writing Skills Components

Items	Test	N	Minimum	Maximum	Mean	Std. Deviation
Introductory Paragraph	Pre-test	26	36.00	96.00	65.6923	12.80865
	Post-test	26	70.00	98.00	87.0769	7.75589
Concluding Paragraph	Pre-test	26	40.00	86.67	58.7169	11.93001
	Post- test	26	66.67	100.00	88.9735	10.65683
Paragraph Unity and Coherence	Pre test	26	45.65	79.11	63.6677	9.00054
	Post test	26	73.67	92.43	82.6631	5.65034

Analysis showed improvement across all three components. For the introductory paragraph, the mean score increased from 65.69 to 87.08, with more consistent performance indicated by

reduced standard deviation. The concluding paragraph showed improvement from 58.72 to 88.97, while paragraph unity and coherence improved from 63.67 to 82.66.

Normality Test Results (Shapiro-Wilk Test)

Table 3. Tests of normality Introductory Paragraph

Test	Statistic	df	Sig.
Pre-test Introductory	.954	26	.281
Post-test Introductory	.938	26	.119

The pre test and post test data for the introductory paragraph component was found to be normally distributed, as indicated by the results of the normality test. In the pre-test, the Shapiro-Wilk test produced a statistical value of 0.954 with a significance level (p-value) > 0.05 ($p = 0.281$). In the post-test, the Shapiro-Wilk test yielded a statistical value of 0.938, with a significance level > 0.05 ($p = 0.119$). The significance value (p-value) in both the pre-test and post-test exceeds the significance level (α) of 0.05, suggesting that the null hypothesis (H_0), which asserts that the data is normally distributed, cannot be rejected.

Table 4. Tests of normality concluding paragraph

Test	Statistic	df	Sig.
Pre-test Concluding	.972	26	.669
Post-test Concluding	.945	26	.180

The pre test and post test data for the concluding paragraph component was found to be normally distributed, as indicated by the results of the normality test. In the pre-test, the Shapiro-Wilk test produced a statistical value of 0.972 with a significance level (p-value) > 0.05 ($p = 0.669$). In the post-test, the Shapiro-Wilk test yielded a statistical value of 0.945, with a significance level > 0.05 ($p = 0.180$). The null hypothesis (H_0) that the data is normally distributed cannot be rejected, as the significance value (p-value) in both the pre-test and post-test is greater than the significance level $\alpha < 0.05$.

Table 5. Tests of normality paragraph unity and coherence

Test	Statistic	df	Sig.
Pre-test Paragraph Unity and Coherence	.976	26	.792
Post-test Paragraph Unity and Coherence	.948	26	.209

The pre-test and post-test data for the paragraph unity and coherence component was found to be normally distributed based on the findings of the normality test. In the first row, the Shapiro-Wilk test produced a statistical value of 0.976 with a significance level (p-value) > 0.05 ($p = 0.792$). In the second row, the Shapiro-Wilk test showed a statistical value of 0.948 with a significance level > 0.05 ($p = 0.209$). The null hypothesis (H_0) that the data is normally distributed cannot be rejected because the significance value (p-value) in both tests for both rows is higher than the significance level $\alpha < 0.05$.

Validity and Reliability of the Instruments (Cronbach's Alpha)

Validity Test

Instrument validity was assessed using Pearson Product Moment correlation (Taherdoost & Group, 2017). Items were considered valid when r-calculated values exceeded the critical r-value of 0.388 ($\alpha = 0.05$, $df = n-2$).

Table 6. Validity test results

Component	Pre-test r-values range	Post-test r-values range	Status
Introductory Paragraph	0.591 - 0.859	0.501 - 0.770	Valid
Concluding Paragraph	0.614 - 0.875	0.727 - 0.854	Valid
Paragraph Unity & Coherence	0.760 - 0.901	0.727 - 0.922	Valid

All assessment indicators across the three essay writing components demonstrated good validity, confirming the instruments' appropriateness for measuring the targeted writing constructs in both pre-test and post-test conditions.

Reliability Test

The reliability of assessment instruments was evaluated using Cronbach's Alpha as described by (Tavakol & Dennick, 2011). This statistical measure assesses the internal consistency of research tools. Higher values closer to 1 indicate greater reliability. According to (Taber, 2018) values above 0.7 are generally considered acceptable in educational research.

Table 7. Interpretation of Cronbach's Alpha Values

Cronbach's Alpha Value	Interpretation
≥ 0.9	Excellent
0.8 - 0.9	Good
0.7 - 0.8	Acceptable
0.6 - 0.7	Questionable
< 0.5	Unacceptable

Table 8. Cronbach's Alpha Reliability Results for All Essay Components

Component	Pre-test α	Post-test α
Introductory Paragraph	0.727	0.678
Concluding Paragraph	0.819	0.834
Paragraph Unity and Coherence	0.855	0.785

The reliability analysis revealed that most assessment components demonstrated acceptable to good internal consistency. The introductory paragraph component showed acceptable reliability in the pre-test ($\alpha = 0.727$) and questionable but nearly acceptable reliability in the post-test ($\alpha = 0.678$). The concluding paragraph component displayed good reliability in both pre-test ($\alpha = 0.819$) and post-test ($\alpha = 0.834$). Similarly, the paragraph unity and coherence component exhibited good reliability in the pre-test ($\alpha = 0.855$) and acceptable reliability in the post-test ($\alpha = 0.785$). These results confirm that the assessment instruments generally possessed sufficient internal consistency for measuring the targeted writing constructs in this study (Ursachi et al., 2015). The slightly lower post-test reliability for the introductory paragraph component suggests potential for refinement in future assessments, but was still considered adequate for the purposes of this research given the overall strong reliability profile across components.

The Result of Paired Samples t-Test for Introductory, Concluding Paragraphs, and Paragraph Unity and Coherence in Essay Writing

Table 9. Paired Samples t-Test for Introductory, Concluding Paragraphs, and Paragraph Unity and Coherence

Aspect	Pre-Test Mean	Post-Test Mean	N	Std. Deviation	Correlation	t	df	Sig. (2-tailed)
Posttest vs. Pretest	63.63	80.39	78	10.46 (Pre) 9.85 (Post)	0.488	14.392	77	0.000

A paired samples t-test was used with SPSS to determine the effect of blended learning on students' essay writing abilities. The average difference between pre-test and post-test scores was 16.76513, with the post-test averaging $M = 80.39$ and the pre-test averaging $M = 63.633$. The t-test yielded a t-value of 14.392 with 77 degrees of freedom and a p-value of 0.000 ($p < .001$), indicating a statistically significant improvement in student performance after implementing blended learning. For hypothesis testing, the obtained t-value (14.392) was compared to the crucial t-table value (1.991) using a 95% confidence interval (Warner, 2020). Because the t-value exceeded the t-table value ($14.392 > 1.991$), the alternative hypothesis (H_a) was accepted and the null hypothesis (H_o) was rejected. This demonstrates that there is a statistically significant difference between the pre- and post-test results. The results indicate that blended learning significantly improved students' essay writing abilities. The significant improvement in post-test scores demonstrates the efficacy of blended learning as an instructional technique for improving writing skills. As a result, the hypothesis test demonstrates that blended learning considerably improves students' essay writing abilities.

Effect Size of Blended Learning on Essay Writing Skills

The effect size is a statistical measure that quantifies the amount of the difference between two groups or the strength of a relationship between variables. In this study, Cohen's d is used to calculate the effect size, which indicates how much the intervention affected students' performance in paragraph unity and coherence, concluding paragraphs, and introductory paragraphs. The effect size formula is as follows:

$$\text{Cohen's } d = \frac{\bar{X}_{\text{post}} - \bar{X}_{\text{pre}}}{SD_p}$$

$$SD_p = \sqrt{\frac{(n_1 - 1)SD_1^2 + (n_2 - 1)SD_2^2}{n_1 + n_2 - 2}}$$

Information:

- Mean Post-test: Mean score after the intervention.
- Mean Pre-test: Mean score before the intervention.
- Pooled Standard Deviation: The pooled standard deviation of the pre-test and post-test.
- n_1 : Number of pre-test samples.
- n_2 : Number of post-test samples.
- SD_1 : Standard deviation from the pretest.

- SD2: Standard deviation from the post-test

Table 10. The effect size is interpreted (Cohen, 1988)

Cohen's <i>d</i> effect size	Interpretation
0.01 $ d < 0.2$	Very small effect
$0.2 \leq d < 0.5$	Small effect
$0.5 \leq d < 0.8$	Medium effect
$0.8 \leq d < 1.2$	Large effect
$1.2 \leq d < 2$	Very large effect
$2 \leq d $	Huge effect

Table 11. Results of Effect Size of Introductory Paragraph, Concluding Paragraph and Paragraph Unity and Coherence

Aspect	Cohen's <i>d</i>	Effect Size Interpretation
Introductory Paragraph	1.83	Very Large
Concluding Paragraph	1.06	Large
Paragraph Unity and Coherence	2.53	Very Large

The effect size analysis showed substantial impact across all three aspects of essay writing, with paragraph unity and coherence showing the largest improvement ($d = 2.53$), followed by introductory paragraph ($d = 1.83$) and concluding paragraph ($d = 1.06$).

Experiences of Students with High, Low, and Moderate Essay Writing Skills after the Implementation of Blended Learning (Post-Test Interviews)

Semi-structured interviews were done with six students who had high, moderate, and low levels of writing proficiency to investigate the usefulness of blended learning in developing essay writing abilities. The findings are organized according to their proficiency levels, as determined by their pre- and post-test scores.

Experiences of Students with High Essay Writing Skills

Students with high writing skills, such as P11 and P24, reported positive experiences with blended learning. They appreciated the flexibility and autonomy it offered, allowing them to manage their learning pace effectively.

P11: "Blended learning allowed me to revisit the online materials whenever I needed to, which helped me deepen my understanding of essay writing concepts. I could also engage in peer discussions and collaborative writing projects, which enhanced my critical thinking and writing skills."

P24: "I could access the materials at any time, which was very helpful for me to review the lessons and improve my writing. The online feedback from the instructor was also very detailed and constructive."

These results are consistent with those of (Cao, 2023), who discovered that high-achieving students typically flourish in mixed learning settings because of their capacity for self-control and efficient use of online resources.

Experiences of Students with Moderate Essay Writing Skills

Students with moderate writing ability, P3 and P17, spoke of their positive experiences and challenges with blended learning. They appreciated the flexibility of blended learning, but also highlighted the need for more structured guidance.

P3: "I found the online materials very helpful, but sometimes I struggled to understand certain concepts without face-to-face explanations. Group discussions and peer review are very useful, but I need more direct feedback from the lecturer teaching."

P17: "I prefer face-to-face sessions because they help me stay focused and motivated. Online activities are useful, but I need more interaction with the instructor to clarify my doubts."

This is accordance with (Sewang, 2022), who pointed out that in order to attain the best results, students with middling skill levels frequently need a mix between online and in-person instruction.

Experiences of Students with Low Essay Writing Skills

Students with low writing ability, such as P13 and P25, faced significant challenges in adapting to the blended learning approach. They expressed difficulty in managing their time and understanding online materials without direct teaching.

P13: "I find it difficult to keep up with the online assignments because I am not used to study independently. I need more help from lecturers as well as friends, especially in understanding how to structure my essays"

P 12: The internet connection in my area is not stable and my cell phone is not very supportive in the learning process, making it difficult for me to participate in online discussions and submit assignments on time. I also feel disconnected from the class as I cannot interact with the teacher as much as I would like."

This finding is consistent with (Rianto, 2020), who found that students with lower proficiency levels often experience difficulties in self-paced blended learning, especially in resource-constrained environments.

Discussion

This study looked at how well English education students at Universitas Katolik Santo Agustinus Hippo in West Kalimantan improved their essay-writing abilities using blended learning. The results demonstrate the possibilities and difficulties of introducing blended learning in settings with limited resources. Significant gains in essay writing abilities were demonstrated by quantitative data, especially in the areas of introduction (Cohen's $d = 1.83$), conclusion ($d = 1.06$), and paragraph coherence and unity ($d = 2.53$). These gains were validated by the t-test ($t = 14.392$, $p < .001$), which is consistent with earlier research on blended learning in language training (Cao, 2023);(Dziuban et al., 2018). These findings imply that, even in environments with limited resources, blended learning offers a useful framework for honing particular writing abilities. Qualitative results showed that experiences varied according to students' skill levels. Proficient learners flourished in the mixed learning setting, skillfully employing its adaptability to regulate their speed, cooperate with classmates, and enhance their comprehension of essay composition principles. Students with middling proficiency, on the other hand, valued the flexibility but said that they needed more structured instruction and candid comments from teachers. Significant obstacles faced by low-proficiency students included trouble managing their time, understanding online content, and technical difficulties like erratic internet connections and subpar gadgets. These results are in line with those of (Sewang, 2022) and (Rianto, 2020), who pointed out that students with lesser proficiency

frequently struggle in self-paced blended learning settings, especially in places with few resources. Additionally, (Tawarik et al., 2024) established a favorable association between self-motivation and English academic accomplishment, highlighting the necessity for motivation-based support for low-proficiency students in blended learning contexts. The study underscores the importance of differentiated support in blended learning. The significance of differentiated support in blended learning is emphasized by the study. Moderate and low-proficiency students need more individualized instruction and extra help, whereas high-achieving students like the independence and flexibility of blended learning. To better meet the needs of these students, the study's 30:70 ratio of in-person to online instruction may need to be modified. For example, students who have trouble with self-paced learning can benefit from more in-person interaction or a more balanced approach.

For educational institutions and educators these findings have practical implications. First, institutions using blended learning in settings with limited resources need to think about offering more technical assistance and instruction, especially for students who have little access to gadgets or low digital literacy. Second, teachers should use a differentiated approach, giving high-achieving students more freedom and providing intermediate and low-proficiency children with more organized instruction and feedback. Third, to guarantee that complicated writing concepts receive sufficient explanation and scaffolding, blended learning course designs should carefully balance online and in-person components. It is important to recognize the limitations of this study, though. The findings may not be as broadly applicable as they could be due to the very small sample size ($n=26$) from one educational institution. Furthermore, nothing is known about the long-term impacts of blended learning on writing growth due to the one-semester implementation duration. Through carrying out larger-scale investigations across several universities and investigating the long-term effects of blended learning, future research should overcome these constraints. Additionally, research into the best blending ratios for various student populations as well as targeted tactics to help lower-proficiency students in blended learning settings would advance knowledge in this area.

CONCLUSION

This study examined into the value of blended learning in enhancing essay writing skills among English Education Study Program students in West Kalimantan, a region that is sometimes disregarded in discussions about technology-enhanced learning. The findings show that blended learning considerably improves students' writing abilities, with notably large gains in paragraph unity and coherence (Cohen's $d = 2.53$), introduction paragraphs ($d = 1.83$), and closing paragraphs ($d = 1.06$). Blended learning has the ability to alter language instruction, especially in under-resourced settings, as evidenced by significant differences in pre-test and post-test scores ($t = 14.392$, $p < .001$). The study also highlights how students with different proficiency levels experience blended learning differently. High-achieving students thrive in this environment, leveraging its flexibility and collaborative opportunities to deepen their understanding of essay writing. Moderate-proficiency students, while appreciating the flexibility, express a need for more structured guidance and direct feedback. In contrast, low-proficiency students face significant challenges, including difficulties with self-regulation, comprehension of online materials, and technical barriers such as unstable internet connections. These findings highlight the significance of differentiated support and context-sensitive deployment of blended learning strategies. Theoretically, this study adds to the expanding corpus of research on blended learning by establishing its effectiveness in boosting key aspects of essay writing and highlighting how these impacts differ depending on students' current competence levels. It also addresses a critical gap in the literature by providing empirical evidence from a resource-constrained region, offering insights that are often absent in studies

conducted in well-resourced urban settings. Practically, the findings provide actionable recommendations for educators and policymakers. To optimize the benefits of blended learning, teachers should use a differentiated approach, providing more structured supervision to intermediate and low-proficiency students while affording more autonomy to high-achieving learners. Policymakers must invest in digital infrastructure, such as reliable internet connection and adequate equipment, to provide equal access to blended learning. Furthermore, institutions should provide training for both students and teachers to improve digital literacy and make better use of online resources.

In conclusion, blended learning represents a promising approach for enhancing essay writing skills in under-resourced educational settings like rural West Kalimantan. However, its success depends on careful implementation that considers students' diverse needs and the availability of technological resources. As educational institutions increasingly integrate technology into language instruction, this study offers valuable guidance for creating inclusive and effective blended learning experiences that can improve writing outcomes for all students, regardless of their geographic location or resource availability. Future research should explore the long-term effects of blended learning on writing development and investigate optimal blending ratios for different student populations, ensuring that the potential of this innovative approach is fully realized.

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