

English Writing Development through Local Wisdom-Integrated Suggestopedia and Digital Portfolio Assessment: Evidence from a Repeated Measures Study

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Abstrak

Keterampilan menulis masih menjadi salah satu kemampuan yang paling menantang bagi mahasiswa EFL karena kesulitan dalam mengembangkan ide, mengorganisasi tulisan, dan melakukan revisi secara efektif. Penelitian ini bertujuan untuk menganalisis perkembangan keterampilan menulis bahasa Inggris mahasiswa melalui penerapan Local Wisdom-Integrated Suggestopedia dan Digital Portfolio Assessment. Penelitian menggunakan pendekatan kuantitatif dengan desain One-Group Repeated Measures yang melibatkan 14 mahasiswa Program Studi Pendidikan Bahasa Inggris. Kemampuan menulis diukur pada empat waktu pengukuran, yaitu sebelum intervensi (T1), selama intervensi (T2), satu bulan setelah intervensi (T3), dan dua bulan setelah intervensi (T4). Data dianalisis menggunakan statistik deskriptif, Repeated Measures ANOVA, dan uji lanjut Bonferroni. Hasil penelitian menunjukkan adanya peningkatan kemampuan menulis yang konsisten, dengan rata-rata skor meningkat dari 65,57 (T1) menjadi 75,43 (T2), mencapai puncak pada 83,57 (T3), dan tetap tinggi pada 79,36 (T4). Hasil Repeated Measures ANOVA menunjukkan perbedaan yang signifikan antar waktu pengukuran, $F(1,098; 14,279) = 28,827$; $p < 0,001$. Temuan ini menunjukkan bahwa intervensi yang diterapkan efektif dalam meningkatkan dan mempertahankan perkembangan keterampilan menulis mahasiswa. Secara pedagogis, integrasi kearifan lokal, Suggestopedia, dan asesmen portofolio digital menawarkan pendekatan yang kontekstual, rendah kecemasan, dan berorientasi proses dalam pembelajaran menulis bahasa Inggris.

Kata Kunci: *Keterampilan Menulis, Kearifan Lokal, Suggestopedia, Asesmen Portofolio Digital, Mahasiswa EFL*

Abstract

Writing is one of the most challenging skills for EFL students due to difficulties in generating ideas, organizing texts, and revising written work effectively. This study aimed at examining the development of students' English writing skills through the integration of Local Wisdom-Integrated Suggestopedia and Digital Portfolio Assessment. A quantitative approach with a One-Group Repeated Measures Design was employed involving 14 undergraduate students of an English Education Study Program. Writing performance was measured at four points: before the intervention (T1), during the intervention (T2), one month after the intervention (T3), and two months after the intervention (T4). Data were analyzed using descriptive statistics, Repeated Measures ANOVA, and Bonferroni pairwise comparisons. The results revealed a consistent improvement in writing performance, with mean scores increasing from 65.57 (T1) to 75.43 (T2), peaking at 83.57 (T3), and remaining high at 79.36 (T4). Repeated Measures ANOVA indicated a significant difference across the four measurements, $F(1.098, 14.279) = 28.827$, $p < .001$. The findings demonstrate that the intervention effectively improved and sustained students' writing development. Pedagogically, integrating local wisdom, Suggestopedia, and digital portfolio assessment provides a culturally relevant, low-anxiety, and process-oriented approach to enhancing EFL writing instruction.

Keyword: *Writing Development; Local Wisdom; Suggestopedia; Digital Portfolio Assessment; EFL Students*

Introduction

Writing skills are among the most important academic competencies in English language learning at the university level. As a productive skill, writing serves not only as a means of written communication but also as a medium for developing critical, reflective, and analytical thinking skills—which are key requirements of higher education. In the context of learning English as a Foreign Language (EFL), writing skills enable students to construct and communicate knowledge, develop academic arguments, and participate in various scholarly activities such as writing essays, research reports, academic articles, and other academic assignments (Hyland, 2022). In addition, strong writing skills are also a key indicator of students' academic success, as they are closely linked to academic literacy and readiness to face an increasingly competitive professional world (Hamsiah et al., 2026).

Nevertheless, various studies indicate that writing skills remain one of the most challenging aspects for EFL students. Writing in a foreign language requires students to simultaneously integrate various linguistic and cognitive aspects, including vocabulary, grammar, organization of ideas, coherence, cohesion, and the ability to develop arguments logically (Hyland, 2022). Many students get difficulty to express their ideas in a systematic and easy-to-understand written form. In addition, Fareed et al. (2016) indicate that limited vocabulary, grammatical errors, and poor organizational structure are the main problems frequently found in EFL students' writing. Similar conditions are also found in various higher education contexts across Asia, where students still struggle to produce academic writing that meets the expected quality standards (Rahmatunisa, 2014).

More specifically, students often struggle with the ability to develop a paragraph structure consisting of a topic sentence, supporting sentences, and a concluding sentence. Paragraph structure is the cornerstone of academic writing because it determines the clarity and coherence of the ideas presented. However, many students are not yet able to formulate a clear topic sentence to guide the paragraph, develop relevant and well-organized supporting sentences, or construct a concluding sentence that reinforces the paragraph's main idea (Oshima & Hogue, 2014). As a result, the resulting paragraphs are often merely descriptive, lack structure, and fail to demonstrate logical connections between ideas. This issue indicates that students need educational support that can help them develop their writing skills in a gradual and sustained manner.

In addition, poor revision skills are another challenge that students often face when learning to write. Many students view writing as a one-step process that ends once the first draft is complete. In reality, the revision process is a crucial component of modern writing approaches because it allows writers to evaluate, improve, and refine their work through reflection and ongoing feedback (Li & Hebert, 2024). A lack of editing skills causes students to tend to repeat the same mistakes in subsequent assignments and hinders the long-term development of their writing skills.

This issue is closely tied to assessment practices that remain dominated by conventional, product-oriented approaches. In many cases, writing assessment is conducted through assignments or tests that yield only a single final score without providing sufficient information about the development of students' writing skills over time. Such an approach fails to adequately document the process of revision, reflection, and improvement in writing quality over time. Li & Zhang (2021) state that Effective assessment should not only serve to measure learning outcomes but also support the learning process by providing ongoing feedback. Therefore, an assessment model is needed that allows instructors and students to monitor the development of writing skills more comprehensively.

Advances in digital technology in education have opened up opportunities to transform assessment practices into ones that are more authentic, collaborative, and focused on the learning process. The integration of digital technology allows for the collection, storage, revision, and evaluation of learning outcomes in a more systematic manner than paper-based assessments. In the context of writing instruction, digital technology also provides students with the opportunity to receive feedback more quickly, engage in self-reflection, and document their learning progress on an ongoing basis (Redecker & Johannessen, 2013). As a result, digital assessment is increasingly viewed as a relevant approach to supporting English language learning in the era of digital transformation.

One form of digital assessment that has garnered widespread attention in language learning is digital portfolio assessment. Digital portfolios allow students to compile various writing samples on a single digital platform, enabling the continuous monitoring of their writing development. In addition to serving as a documentation tool, digital portfolios also support self-reflection, writing revision, and the

provision of constructive feedback. Research indicates that the use of digital portfolios can enhance student engagement, reflective skills, learning motivation, and the quality of writing in English language learning (Pourdana & Tavassoli, 2022).

On the other hand, recent research also emphasizes the importance of integrating local wisdom into English language learning. Integrating local wisdom allows students to learn a foreign language without losing their local cultural identity. Learning materials drawn from local culture have been shown to increase student engagement, the relevance of the learning experience, and students' ability to develop writing ideas, as the topics studied are more closely aligned with their own experiences (Tantri & Santosa, 2024). In the context of West Sumatra, *Minangkabau* cultural values such as the *Rumah Gadang*, *Randai*, the tradition of merantau, and the philosophy of *Adat Basandi Syarak, Syarak Basandi Kitabullah* can serve as a rich learning resource to support the development of English writing skills.

In addition to drawing on local wisdom, the Suggestopedia method also has the potential to improve the quality of writing instruction. Suggestopedia emphasizes creating a comfortable, relaxed, and low-stress learning environment through the use of music, positive suggestions, and enjoyable interactions (Lozanov, 2005). Such a learning environment is believed to enhance students' motivation, creativity, and confidence in using the target language. Several studies have shown that Suggestopedia can improve students' language skills and engagement in the learning process, particularly in the context of foreign language learning (Richards & Rodgers, 2014).

Although research on digital portfolios, local wisdom, and Suggestopedia has expanded in recent years, there are still a number of research gaps that need to be addressed. First, most studies on digital portfolios in writing instruction still use a pretest-posttest design, and thus are not yet able to describe in detail the patterns of students' writing skill development over time (Sari et al., 2025). Second, research on Suggestopedia focuses more on speaking skills and motivation to learn than on writing skills (Deswarni et al., 2023). Third, research integrating local wisdom, Suggestopedia, and digital portfolio assessment in English writing instruction remains very limited, particularly in the context of higher education in Indonesia. Fourth, there has been little research using a repeated measures design to monitor the development of students' writing skills continuously through multiple measurements. Therefore, this study aims to analyze the development of students' English writing skills through the application of local wisdom-integrated Suggestopedia and digital portfolio assessment using a repeated measures study design.

This study aims to describe students' writing skills at each assessment point—namely, the initial assessment (T1), the first assessment (T2), the second assessment (T3), and the third assessment (T4)—and to identify changes that occur during the learning process. Additionally, this study aims to determine whether there are significant differences in students' writing skills across these four measurement points as indicators of continuous development in writing ability. Through repeated measurements, this study is expected to provide a more comprehensive picture of the contribution of integrating local wisdom into Suggestopedia instruction and the implementation of digital portfolio assessment toward improving students' English writing skills..

The hypotheses proposed in this study are: 1) the null hypothesis (H_0) states that there is no significant difference in students' writing ability between the initial assessment (T1), the first assessment (T2), the second assessment (T3), and the third assessment (T4). 2) the alternative hypothesis (H_1) states that there is a significant difference in students' writing ability at at least one of the four measurement points.

Method

This study employs a quantitative approach using a one-group repeated measures design to observe the development of students' writing skills through multiple assessments of the same group (Schober & Vetter, 2018). The research design consists of four measurement points: the baseline measurement (T1), the first measurement (T2), the second measurement (T3), and the third measurement (T4) (Muhammad, 2023), conducted after the implementation of Local Wisdom-Integrated Suggestopedia and Digital Portfolio Assessment in each learning cycle. The sample in this study consisted of 14 students from the English Language Education Study Program, Faculty of Teacher

Training and Education, Dharmas Indonesia University, who were enrolled in the Intensive Writing course in the second semester of the 2025/2026 academic year. The sample was selected using total sampling because all members of the population met the research criteria.

The study was conducted over eight weeks. At the beginning of the study, the students took an English paragraph-writing test as a baseline assessment (T1). Subsequently, the students participated in writing instruction based on Local Wisdom-Integrated Suggestopedia, which incorporates the stages of preparation, presentation, active concert, passive concert, and practice (Lozanov, 2005). The course is conducted in three cycles, each focusing on a different aspect of local wisdom from Minangkabau, Jambi, and Java. At the end of each cycle, students write a paragraph and upload their work to a digital portfolio created using Google Forms, serving both as a record of their learning progress and as a source of research data..

Data were collected using a paragraph-writing test scored using an analytical rubric that assessed content, organization, vocabulary, grammar, and mechanics. The data were then analyzed using IBM SPSS Statistics. The Friedman test was used to test for differences in writing ability across the four measurement time points. If significant differences were found, the analysis was continued using the Wilcoxon Signed-Rank Test with a Bonferroni correction.

Result and Discussion

Result

Descriptive Statistics of Writing Scoring

This section presents the results of descriptive statistical analysis to illustrate the development of students' writing skills at each measurement point: before the intervention (T1), during the intervention (T2), one month after the intervention (T3), and two months after the intervention (T4). The analysis examined mean scores, standard deviations, and writing proficiency categories to identify trends in changes in student performance and the stability of learning outcomes over time. A summary of the descriptive analysis results is presented in Table 1 below.

Tabel 1 Descriptive Statistics of Writing Scores Across Four Measurements

Measurement	Mean	SD	Kategori
T1 (before)	65,57	11,20	Poor
T2 (while)	75,43	5,29	Fair
T3 (1 month later)	83,57	3,99	Good
T4 (2 month later)	79,36	3,23	Good

Based on the descriptive statistics in Table 1, students' writing skills prior to the implementation of Suggestopedia-based learning and digital portfolio assessment showed an average score of 65.57 with a standard deviation of 11.20, which falls into the "Insufficient" category. This average score indicates that students' writing skills at the initial stage were not yet optimal. Furthermore, the relatively high standard deviation indicates that writing skills among students still vary considerably, resulting in a significant skill gap within the class.

After receiving instruction using the suggestopedia method and undergoing the second assessment (T2), the average score increased to 75.43 with a standard deviation of 5.29, placing it in the "Fair" category. This represents an increase of 9.86 points compared to the initial condition. The decrease in the standard deviation from 11.20 to 5.29 indicates that students' writing abilities are becoming more consistent. Nevertheless, the results at this stage indicate that students are still in the process of adapting to the learning strategies and the use of digital portfolio assessment, so the improvement observed has not yet reached the "Good" category. In the third measurement (T3), conducted one month after the intervention, the average score increased significantly to 83.57 with a standard deviation of 3.99, which falls within the "Good" category. An increase of 18.00 points from the baseline indicates that students have been able to develop their writing skills more effectively. The low standard deviation suggests that most students have achieved a relatively homogeneous level of proficiency. These results indicate that the integration of the Suggestopedia method and digital portfolio assessment has a positive impact on improving the quality of students' writing. In the fourth measurement (T4), conducted two months after the intervention, the average score decreased slightly to 79.36 with a standard deviation of 3.23, but remained in the "Good" category. A decrease of 4.21 points from T3 indicates a slight decline in writing skill retention after a certain period. Nevertheless, the

average score on T4 was still 13.79 points higher than at the beginning of the study. The decreasing standard deviation indicates that the students' writing skills remained stable and were relatively consistent across the group.

Overall, the research results show a consistent improvement in writing ability from the "Poor" category at the initial assessment to the "Good" category at the one-month and two-month assessments following the intervention. The absolute increase from 65.57 at T1 to 83.57 at T3 was 18.00 points, while the increase from T1 to T4 was 13.79 points. Furthermore, the decrease in standard deviation from 11.20 to 3.23 indicates that not only did writing skills improve, but there was also greater consistency in skill levels among students. These findings suggest that the implementation of Suggestopedia-based learning integrated with digital portfolio assessment is effective in continuously improving and maintaining students' writing skills.

Tabel 2. Summary of Student Writing Skill Improvement

Measurement	Mean	SD	Category	Improvement from T1
T1 (before)	65,57	11,20	Porr	-
T2 (while)	75,43	5,29	Fair	+9,86
T3 (1 month later)	83,57	3,99	Good	+18,00
T4 (2 month later)	79,36	3,23	Good	+13,79

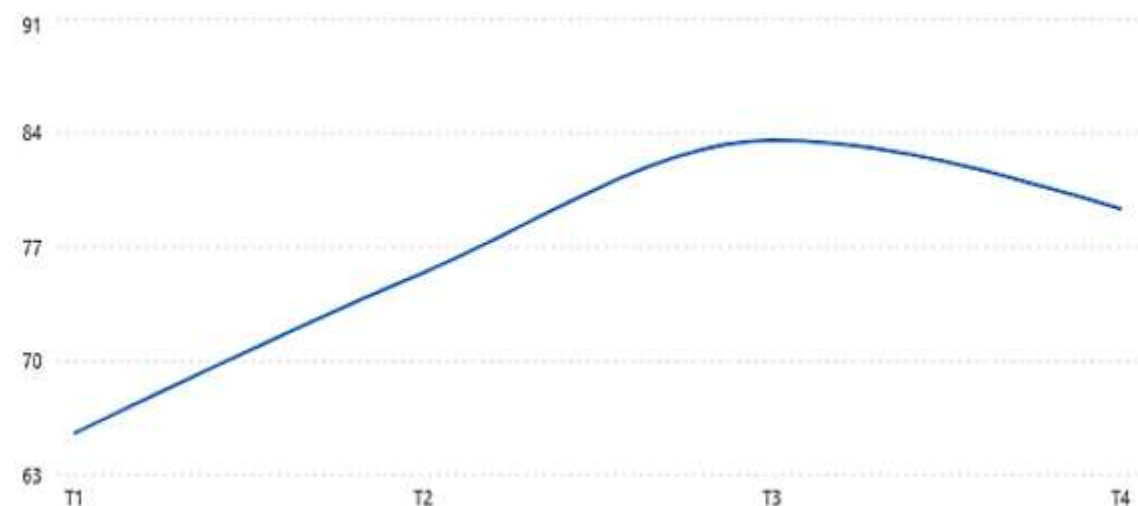
Based on these results, it can be concluded that the application of Suggestopedia and digital portfolio assessment is effective in improving students' writing skills, as indicated by an increase in the categories from Less, Sufficient, and Good, accompanied by a decrease in standard deviation which indicates that students' writing skills are increasingly evenly distributed in each measurement.

Trend of Writing Development

To complete the descriptive statistics, a trend analysis of students' writing skills development was conducted based on the average scores across the four measurement stages. This analysis was used to identify patterns of change in writing skills from baseline, during the intervention, and through the follow-up period after the learning process. Visualizing these trends provides information on the intervention's effectiveness in improving and maintaining students' writing skills over time.

Development of students' writing scores

changes in students' writing scores from before treatment to two months after treatment



The graph shows a trend of increasing student writing skills from the initial measurement to one month after treatment. At the initial stage (T1), the average student writing score was 65.57, which was in the poor category. After implementing digital portfolio learning and assessment, the average score increased to 75.43 at T2 (sufficient category), then peaked at 83.57 at T3 (good category).

Despite a slight decrease at T4 to 79.36, the score was still in the good category and remained higher than the initial condition. These findings indicate that the treatment provided not only improved students' writing skills in the short term but also maintained most of the improvement up to two months after the intervention. Overall, there was an absolute increase of 18.00 points from T1 to T3 and 13.79 points from T1 to T4. These results indicate that the applied learning method was effective in improving students' writing skills sustainably.

Normality Test Results

Before conducting inferential statistical analysis, a normality test was first conducted to determine whether the writing ability score data at each measurement time was normally distributed. The normality test is one of the prerequisites in the use of parametric analysis, including Repeated Measures ANOVA. In this study, the normality test was conducted using the Shapiro–Wilk test because the number of samples was relatively small ($n < 50$). In this test, the data is declared normally distributed if the significance value (Sig.) is greater than 0.05 ($p > 0.05$), while the data is declared not normally distributed if the significance value is less than 0.05 ($p < 0.05$).

Tabel 3. Tests of Normality

Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Standardized Residual for Kelompok_1	.203	14	.121	.929	14	.294
→ Standardized Residual for Kelompok_2	.205	14	.115	.930	14	.301
Standardized Residual for Kelompok_3	.217	14	.072	.917	14	.201
Standardized Residual for Kelompok_4	.207	14	.108	.902	14	.121
a. Lilliefors Significance Correction						

Based on the results of the Shapiro–Wilk test, the significance values obtained for measurements T1, T2, T3, and T4 were 0.294, 0.301, 0.201, and 0.121, respectively. The overall value of these measurements was >0.05 , indicating that the writing ability data at all measurement times were normally distributed. Thus, the assumption of normality has been met, allowing for the analysis to proceed using Repeated Measures ANOVA to determine differences in writing ability scores across measurement times.

Main Anlysisi Results

Before conducting a Repeated Measures ANOVA analysis, the sphericity assumption was first tested using Mauchly's Test of Sphericity. This test aims to determine whether the variance of differences between repeated measurements is homogeneous, thus fulfilling one of the main assumptions in Repeated Measures ANOVA. The following table shows the results of the sphericity assumption test using Mauchly's Test of Sphericity.

Table 3. Results of testing the sphericity assumption using Mauchly's Test of Sphericity

Mauchly's Test of Sphericity ^a							
Measure: Suggestopedia							
Within Subjects Effect	Mauchly's W	Approx. Chi-Square	df	Sig.	Greenhouse-Geisser	Epsilon ^b Huynh-Feldt	Lower-bound
waktu	.010	54.309	5	.000	.366	.375	.333
Tests the null hypothesis that the error covariance matrix of the orthonormalized transformed dependent variables is proportional to an identity matrix.							
a. Design: Intercept Within Subjects Design: waktu							
b. May be used to adjust the degrees of freedom for the averaged tests of significance. Corrected tests are displayed in the Tests of Within-Subjects Effects table.							

The test results show that Mauchly's W value = 0.010, with $\chi^2(5) = 54.309$ and Sig. = 0.000. Because the significance value is less than 0.05 ($p < 0.05$), the sphericity assumption is not met. Thus, the variance of the differences between measurement times is not homogeneous so that the interpretation of the Repeated Measures ANOVA results must use the Greenhouse-Geisser correction. In addition, the Greenhouse-Geisser epsilon value of 0.366 indicates that the level of violation of the sphericity assumption is quite high so that the use of this correction is necessary to produce a more accurate estimate.

Table 4. Sphericity Test Results

Effect	Mauchly's W	χ^2	df	Sig.	Decision
Time	0,010	54,309	5	0,000	Sphericity tidak terpenuhi

After Greenhouse-Geisser correction was carried out, the results of the Repeated Measures ANOVA showed that there was a significant difference in students' writing ability scores between the four measurement times.

Table 5. Result of Repeated Measures ANOVA

Tests of Within-Subjects Effects						
Measure: Suggestopedia						
Source		Type III Sum of Squares	df	Mean Square	F	Sig.
waktu	Sphericity Assumed	2487.482	3	829.161	28.827	.000
	Greenhouse-Geisser	2487.482	1.098	2264.736	28.827	.000
	Huynh-Feldt	2487.482	1.124	2213.144	28.827	.000
	Lower-bound	2487.482	1.000	2487.482	28.827	.000
Error(waktu)	Sphericity Assumed	1121.768	39	28.763		
	Greenhouse-Geisser	1121.768	14.279	78.563		
	Huynh-Feldt	1121.768	14.611	76.773		
	Lower-bound	1121.768	13.000	86.290		

Based on the Tests of Within-Subjects Effects table, the value of $F(1.098; 14.279) = 28.827$ was obtained, with $p = 0.000$. Because the significance value is less than 0.05, the null hypothesis (H_0) is rejected and the alternative hypothesis (H_1) is accepted. These results indicate that there is a significant change in students' writing skills from the initial measurement (T1), during treatment (T2), one month after treatment (T3), and two months after treatment (T4).

Pairwise Comparison Results

Further analysis using the Bonferroni Pairwise Comparisons test was carried out to determine which pairs of measurement times experienced significant differences.

Table 6. Pairwise Comparisons Data Processing Results

Pairwise Comparisons						
Measure: Suggestopedia						
(I) waktu	(J) waktu	Mean Difference (I-J)	Std. Error	Sig. ^b	95% Confidence Interval for Difference ^b	
					Lower Bound	Upper Bound
1	2	-9.857	3.239	.057	-19.922	.207
	3	-18.000 [*]	2.429	.000	-25.548	-10.452
	4	-13.786 [*]	2.477	.001	-21.481	-6.091
2	1	9.857	3.239	.057	-.207	19.922
	3	-8.143 [*]	.948	.000	-11.090	-5.196
	4	-3.929 [*]	1.024	.012	-7.111	-.746
3	1	18.000 [*]	2.429	.000	10.452	25.548
	2	8.143 [*]	.948	.000	5.196	11.090
	4	4.214 [*]	.422	.000	2.904	5.524
4	1	13.786 [*]	2.477	.001	6.091	21.481
	2	3.929 [*]	1.024	.012	.746	7.111
	3	-4.214 [*]	.422	.000	-5.524	-2.904
Based on estimated marginal means						
*. The mean difference is significant at the .05 level.						
b. Adjustment for multiple comparisons: Bonferroni.						

The results of the Bonferroni test show that:

1. There was no significant difference between T1 and T2 ($p = 0.057 > 0.05$). This finding indicates that the improvement in writing skills in the initial treatment phase was not large enough to produce a statistically significant difference.
2. There was a significant difference between T1 and T3 ($p < 0.001$), with an average increase of 18.00 points. This result indicates that the impact of the treatment began to be clearly visible after one month of implementation.
3. There was a significant difference between T1 and T4 ($p = 0.001$), with an average increase of 13.79 points, indicating that the improvement in writing skills persisted two months after treatment.
4. A significant difference was also found between T2 and T3 ($p < 0.001$), indicating that writing skill development continued after the initial implementation phase.
5. Although the mean score of T4 decreased slightly compared to T3, the difference between T3 and T4 remained significant ($p < 0.001$), indicating a change in writing ability during the retention period.

Discussion

The results of the study indicate that the implementation of Local Wisdom-Integrated Suggestopedia and Digital Portfolio Assessment had a significant impact on the development of students' writing skills. This finding is evidenced by the results of the Repeated Measures ANOVA which showed a significant difference between measurement times with a value of $F(1.098; 14.279) = 28.827$, $p < 0.001$, and a very large effect size ($\eta^2p = 0.689$). In the initial measurement (T1), students'

writing skills were still in the poor category with an average score of 65.57. After the implementation of the learning, the average score increased to 75.43 at T2 (the sufficient category). Although this increase was not significantly different from the initial conditions, these results indicate a positive student response to the applied learning strategy.

The most significant improvement occurred at T3, one month after the treatment, with an average score of 83.57, categorized as good. Pairwise comparisons showed an increase of 18 points between T1 and T3, which was statistically significant. This finding indicates that students need time to internalize the learning experience, develop ideas, and utilize the feedback obtained through the digital portfolio assessment. Although there was a slight decrease at T4 to 79.36, this score was still in the good category and significantly higher than the initial condition. Thus, Suggestopedia-based learning combined with digital portfolio assessment was not only effective in improving students' writing skills in the short term, but also maintained most of these improvements over the longer term.

These results indicate that the combination of Suggestopedia-based learning and digital portfolio assessment can produce substantial changes in writing skills. This finding aligns with research Dwimarta et al. (2016) who found that the Suggestopedia method significantly improves writing skills because it is able to create a comfortable learning atmosphere, reduce anxiety, and increase student participation in the learning process. In addition, research by Sunengko & Nurfaizal (2024) also shows that Suggestopedia is effective in improving students' achievement in writing descriptive texts. On the other hand, the use of Digital Portfolio Assessment supports the process of developing writing skills through mechanisms of reflection, revision, and continuous feedback. This finding is consistent with the research of Tabatabaei & Farzaneh (2012) which reveal that portfolio assessment significantly improved EFL students' writing performance compared to traditional assessment. Guo & Li (2024) also demonstrate that electronic portfolios can improve students' writing quality, learning motivation, and self-confidence. Thus, the integration of local wisdom-based Suggestopedia learning and digital portfolio assessment has proven effective in supporting the gradual and continuous development of writing skills.

Conclusion

This study aims to analyze the development of students' English paragraph writing skills through the application of Local Wisdom-Integrated Suggestopedia and Digital Portfolio Assessment using the One-Group Repeated Measures design. The results showed that the combination of the three components was able to improve students' writing skills significantly and sustainably. Descriptively, the average student writing score increased from 65.57 in the initial measurement (T1) which was in the less category, to 75.43 in T2 (sufficient), then reached 83.57 in T3 (good), and remained in the good category with a score of 79.36 in T4. The increase in scores from T1 to T3 by 18.00 points and from T1 to T4 by 13.79 points indicates that the improvement in writing skills not only occurred during the learning process but was also maintained after the retention period.

The results of the inferential analysis using Repeated Measures ANOVA confirmed these findings. After Greenhouse-Geisser correction due to violation of the sphericity assumption, the F value $(1.098; 14.279) = 28.827$ was obtained with $p < 0.001$, indicating a significant difference in writing ability at the four measurement times. Pairwise Comparisons analysis revealed that the most significant improvement occurred between T1 and T3 and between T1 and T4. This finding indicates that students need time to internalize learning experiences, develop writing ideas, and optimally utilize the feedback obtained through the digital portfolio assessment. Furthermore, the decrease in the standard deviation from 11.20 at T1 to 3.23 at T4 indicates that the improvement in writing ability occurred not only in some students but also followed by an increase in the distribution of abilities within the group.

The findings of this study indicate that the integration of local wisdom, the Suggestopedia method, and digital portfolio assessment is an effective approach to developing students' English writing skills. Local wisdom-based materials help students generate richer and more contextual writing ideas because they are close to their cultural experiences. Furthermore, the comfortable and low-anxiety learning environment created through Suggestopedia encourages students to be more confident in expressing their ideas. Meanwhile, digital portfolio assessment provides opportunities for students to

reflect, revise, and continuously improve their writing, thus supporting the long-term development of writing skills. Thus, this study provides empirical evidence that a learning approach that integrates cultural, psychological, and technological aspects can be an innovative alternative in improving the quality of English writing learning in higher education.

This study shows that the development of EFL students' writing skills can be enhanced through the integration of local wisdom, the application of the Suggestopedia method, and the use of Digital Portfolio Assessment. Therefore, English lecturers need to utilize local cultural themes as a source of writing ideas that are relevant to students' experiences to facilitate idea development and strengthen cultural awareness. Furthermore, the application of Suggestopedia indicates the importance of creating a comfortable, supportive, and low-anxiety learning environment to increase students' confidence in expressing their ideas in writing. The research findings also emphasize that assessment should be process-oriented through the use of digital portfolios that allow for progress monitoring, ongoing feedback, and systematic reflection and revision of writing. Furthermore, improving writing skills has been shown to require a continuous process, so writing learning needs to be designed as a long-term activity involving routine practice, repeated revision, and consistent feedback to produce optimal writing skill development.

Next, recommendations can be made for further research. First, future research is recommended to use an experimental or quasi-experimental design with a control group to obtain stronger evidence regarding the effectiveness of Local Wisdom-Integrated Suggestopedia and Digital Portfolio Assessment. Second, expanding the number and characteristics of participants from various universities and educational contexts is needed to increase the generalizability of the research results. Third, further studies can test the application of this approach to more complex writing types, such as essay writing, academic writing, argumentative writing, and research report writing. Fourth, further research should explore the contribution of each intervention component separately to identify the factors most influential in improving writing skills. Fifth, the use of a mixed methods approach is recommended to gain a deeper understanding of students' learning experiences, feedback processes, and writing skill development. Finally, longitudinal research with a longer follow-up period is needed to evaluate the sustainability of the learning impact and the long-term retention of students' writing skills.

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