

ENHANCING EFL LEARNERS' WRITING SKILL THROUGH SPACED PRACTICE IN MICRO JOURNAL

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ABSTRACT

This study investigated the effectiveness of spaced practice through micro-journal writing in enhancing the writing skill of 20 non-formal EFL learners in Lombok, Indonesia, and examined whether the resulting improvement was retained after a delay. Using a pre-experimental one-group design, participants completed a pre-test, three spaced treatment sessions, a post-test, and a delayed post-test administered seven days later. Writing was scored using an analytical rubric adapted from the ESL Composition Profile (Jacobs et al., 1981) covering five aspects: content, organization, vocabulary, grammar, and mechanics. Results showed a significant improvement from pre-test ($M = 66.80$) to post-test ($M = 77.40$), $t(19) = 4.348$, $p = 0.001$, with a large effect size (Cohen's $d = 0.97$). No significant difference was found between post-test and delayed post-test scores, $t(19) = 1.522$, $p = 0.144$, indicating that the improvement was retained over the seven-day period. These findings confirm that spaced practice through micro-journal writing is effective in enhancing EFL learners' writing skill and that the resulting gains are durable.

Keywords: *Spaced Practice, Micro-Journal Writing, Writing Skill, EFL Learners, Pre-Experimental Research*

ABSTRAK

Penelitian ini mengkaji efektivitas spaced practice melalui micro-journal writing dalam meningkatkan keterampilan menulis 20 pembelajaran EFL non-formal di Lombok, Indonesia, serta mengkaji apakah peningkatan tersebut tetap terjaga setelah periode tunda. Menggunakan desain pre-experimental one-group, peserta mengikuti pre-test, tiga sesi treatment berjeda, post-test, dan delayed post-test yang dilaksanakan tujuh hari kemudian. Tulisan dinilai menggunakan rubrik analitik yang diadaptasi dari ESL Composition Profile (Jacobs et al., 1981). Hasil menunjukkan peningkatan signifikan dari pre-test ($M = 66,80$) ke post-test ($M = 77,40$), $t(19) = 4,348$, $p = 0,001$, dengan ukuran efek besar (Cohen's $d = 0,97$). Tidak ditemukan perbedaan signifikan antara post-test dan delayed post-test, $t(19) = 1,522$, $p = 0,144$, mengindikasikan bahwa peningkatan tersebut terjaga selama tujuh hari.

Temuan ini mengonfirmasi bahwa spaced practice melalui micro-journal writing efektif dalam meningkatkan keterampilan menulis dan bahwa peningkatan tersebut bersifat tahan lama.

Kata Kunci: Spaced Practice, Micro-Journal Writing, Keterampilan Menulis, Pembelajaran EFL, Penelitian Pre-Experimental.

A. Introduction

Writing is an essential productive skill that requires learners to articulate complex thoughts through precise application of linguistic structures. In today's digital era, writing has evolved into a primary mode of communication (Zarei, 2024). Beyond its communicative function, writing enables learners to express viewpoints and organize ideas in the target language (Kozhakhmet et al., 2022), making it a critical competency in English language instruction.

However, many EFL learners still face significant difficulties in developing writing skills. Unlike speaking or listening, writing requires systematic idea articulation and mastery of linguistic and cognitive processes (Marlina et al., 2024). Common challenges include grammar errors, limited vocabulary, and difficulty developing ideas. Journal practice has been identified as one approach to improve EFL students'

writing, with empirical research demonstrating its considerable promise (Rusmiati et al., 2025).

Micro-journal writing involves producing short, regular entries to maintain EFL students' writing proficiency and enhance comprehension, reasoning, and self-awareness (McIntosh et al., 2017; Abednia et al., 2013, as cited in Sudirman et al., 2021). This practice fosters reflection, linguistic experimentation, and personal engagement with writing as a pedagogical tool (Capous-Desyllas & Bromfield, 2020; Dumlao & Pinatacan, 2019, as cited in Zatalini & Yaw-kan, 2025).

Spaced practice involves spreading out study or practice sessions across time rather than cramming them into a single block. Ebbinghaus (1885, as cited in Noor et al., 2021) demonstrated that this approach enhances long-term learning and memory retention by

providing the brain with opportunities to consolidate information. By facilitating periodic review, spaced practice optimizes durable learning in language acquisition (Arvanitis, 2019, as cited in Liu, 2024).

Although a growing body of research confirms that spaced practice improves EFL learning outcomes, most studies focus on short-term test scores rather than sustained retention. Murphy (2024) indicates this approach significantly enhances language acquisition, yet many investigations fail to incorporate delayed retention tests. Kim and Webb (2022) highlight that while the spacing effect is prominent, there remains significant methodological variability in how retention is measured. To address this gap, the present study investigates the impact of spaced practice via micro-journal writing on both immediate writing improvement and the retention of learning outcomes.

B. Research Method

This study employed a quantitative approach with a pre-experimental one-group pre-test/post-test/delayed post-test design (O1 - X -

O2 - (delay) - O3). The design allowed for the measurement of writing skill improvement and its retention without a control group. The research was conducted entirely online over 16 days using WhatsApp Group for treatment delivery and Google Forms for data collection.

The sample consisted of 20 non-formal EFL learners in Lombok, Indonesia, selected through purposive sampling based on predetermined criteria and voluntary participation. Purposive sampling involved the deliberate selection of information-rich participants whose characteristics closely matched the research focus (Tajik et al., 2024).

The primary instrument was a writing test administered in three phases. The pre-test (Day 1) measured initial writing ability using the prompt "Describe your daily routine." The post-test (Day 9) identified improvements following three periodic micro-journaling sessions using the prompt "A memorable experience." The delayed post-test (Day 16) assessed skill retention using the prompt "Describe your future goals." Participants wrote

short paragraphs of 100-150 words for each test.

Performance was assessed using an analytical rubric adapted from the ESL Composition Profile (Jacobs et al., 1981), covering five criteria: Content (30 points), Organization (20 points), Vocabulary (20 points), Grammar (20 points), and Mechanics (10 points), for a maximum of 100 points per test.

The treatment consisted of three micro-journal writing sessions on Days 3, 5, and 7, each lasting 15 minutes with a 2-day interval between sessions. Each session provided vocabulary lists, sentence patterns, and model paragraphs before a 70-100 word writing prompt. Data were analyzed using descriptive statistics, gain score analysis, and paired-sample t-tests with a significance level of $\alpha = 0.05$.

C. Findings and Discussion

Prior to the intervention, the participants' overall mean pre-test score was 66.80 (SD = 13.68), indicating a moderate baseline level with considerable variability. Following three periodic micro-journal sessions, the mean post-test score rose to 77.40

(SD = 10.13), representing a mean increase of 10.60 points. Improvements were observed across all five writing aspects, with 19 out of 20 participants demonstrating positive progress.

Table 1 Pre-Test vs. Post-Test Mean Scores

Aspect	Pre-Test	Post-Test	Gain
Content (max 30)	20.75	24.05	+3.30
Organization (max 20)	13.55	15.90	+2.35
Vocabulary (max 20)	13.60	15.40	+1.80
Grammar (max 20)	12.60	14.55	+1.95
Mechanics (max 10)	6.30	7.50	+1.20
Total (max 100)	66.80	77.40	+10.60

Statistical analysis using a paired-sample t-test confirmed that this increase was significant: $t(19) = 4.348$, $p = 0.001$ (< 0.05), leading to the rejection of the first null hypothesis (H_0). The large effect size (Cohen's $d = 0.97$) indicates that the spaced micro-journaling practice had a

practically meaningful impact on students' writing abilities.

Seven days after the post-test, the mean delayed post-test score was 79.90 (SD = 11.41), representing a slight increase of 2.50 points compared to the post-test. A paired-sample t-test comparing post-test and delayed post-test scores yielded $t(19) = 1.522$, $p = 0.144$ (> 0.05), indicating no statistically significant difference. Consequently, H_{02} was accepted. The small effect size (Cohen's $d = 0.34$) further confirms that the change between the two testing points was negligible, indicating that students successfully maintained their writing improvement over the one-week interval.

Mechanics (max 10)	7.50	7.90	+0.4 0
Total (max 100)	77.4 0	79.90	+2.5 0

The significant improvement from pre-test to post-test ($t(19) = 4.348$, $p = 0.001$) supports spaced practice theory, particularly Ebbinghaus's principle that distributed practice allows better consolidation than massed practice (Noor et al., 2021). The 10.60-point mean increase suggests that three spaced sessions over nine days were sufficient to produce measurable gains, while the large effect size (Cohen's $d = 0.97$) confirms the practical significance of the intervention.

**Table 2 Post-Test vs. Delayed
Post-Test Mean Scores**

Aspect	Post-Test	Delayed	Gain
		d	
Content (max 30)	24.0 5	24.75	+0.7 0
Organization (max 20)	15.9 0	16.25	+0.3 5
Vocabulary (max 20)	15.4 0	15.60	+0.2 0
Grammar (max 20)	14.5 5	15.40	+0.8 5

This finding aligns with Rodliyah and Khoirunnisa (2023) and Shaumiwaty (2025), both of which found that journal writing improved EFL learners' writing ability, and with Li (2025), who demonstrated that spaced repetition significantly improved vocabulary retention. The present study extends this principle to a more complex, multi-componential writing skill. Participants with lower pre-test scores tended to show the

largest gains, suggesting that the treatment's scaffolding materials benefited lower-proficiency learners disproportionately.

The absence of a significant difference between post-test and delayed post-test scores ($t(19) = 1.522, p = 0.144$) indicates that writing gains were retained over the seven-day period. This addresses the gap identified in prior studies (Murphy, 2024; Kim & Webb, 2022) that rarely measured retention beyond immediate post-treatment performance. The small effect size (Cohen's $d = 0.34$) confirms negligible change, indicating highly stable writing skills after one week.

Notably, the mean score slightly increased rather than declined (77.40 to 79.90). However, retention was uneven at the individual level: 13 participants improved further while 7 declined. This variability may be linked to differences in prompt familiarity between testing stages and should temper the strength of the retention claim despite the robust group-level result.

Several limitations should be acknowledged. First, the pre-

experimental design without a control group limits the ability to establish direct causal inferences. Second, the small purposive sample of 20 learners constrains generalizability. Third, the use of different writing topics at each testing stage introduced variations in task difficulty and familiarity.

D. Conclusion

This study examined the effectiveness of spaced practice through micro-journal writing in enhancing and retaining the writing skill of 20 non-formal EFL learners in Lombok, Indonesia. The findings revealed a significant improvement in participants' writing scores from pre-test to post-test ($t(19) = 4.348, p = 0.001$, Cohen's $d = 0.97$), indicating that the intervention was effective. The most substantial gains were observed among participants with lower initial scores, suggesting the treatment particularly benefited less proficient learners.

Regarding retention, no significant difference was found between post-test and delayed post-test scores ($t(19) = 1.522, p = 0.144$) after a seven-day interval, confirming that the writing gains were generally

maintained over time. These findings suggest that spaced practice through micro-journal writing is a promising strategy for improving EFL learners' writing skill and supporting short-term retention of writing gains in a non-formal learning context.

For teachers, incorporating short, spaced writing sessions with scaffolded materials is a practical approach to support EFL learners' writing development. For future researchers, incorporating a control group, inter-rater reliability measures, and longer retention intervals are recommended to strengthen causal inference and provide a more comprehensive understanding across diverse EFL contexts.

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