



The Effect of Mindful Learning on Senior High School Students' English Writing Skills and Affective Engagement

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Abstract

Background: This study explores the impact of mindful learning in English as a foreign language (EFL) among high school students, with a focus on affective engagement. Mindful learning techniques have gained attention for enhancing students' focus, anxiety management, and overall academic performance; however, their effects in EFL settings have been less studied.

Objective: To examine the influence of mindful learning on students' writing skills and their engagement during the writing process in EFL contexts.

Methods: The study employed a convergent parallel mixed-methods design integrated with a quasi-experimental post-test control group design. Two intact classes from a high school in Singaraja, Indonesia, were selected, with one group receiving mindful learning instruction and the other receiving conventional EFL teaching. Data were collected through post-test writing scores, classroom observations, teacher interviews, and student journals.

Results: Post-test results, analyzed using an independent-samples t-test, revealed that the experimental group outperformed the control group in writing scores. Qualitative data indicated that students in the experimental group demonstrated better concentration, lower anxiety, and a more positive attitude toward their learning.

Conclusion: Mindful learning significantly enhances writing competency and affective engagement among high school EFL students. This study contributes by integrating analysis of writing skills and affective engagement in the application of mindful learning within a high school EFL context.

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INTRODUCTION

In recent years, English teaching in high schools has faced several challenges. One of the main issues is students' low engagement and underdeveloped emotional readiness. Students are not only expected to improve their English skills, but they also have to manage other subjects, school assignments, and academic responsibilities. All of this can leave students feeling overwhelmed, short on time, and even anxious, especially when school becomes busy. Writing in

EFL learning is an activity of conveying ideas and sharing thoughts through words that are communicated clearly (Heidegger, 1971).

One way to deal with these challenges is through mindful learning. This approach has gained considerable attention in education. According to Langer (2016), mindful learning means staying focused with an open mind so students can truly understand what they are learning. Instead of just memorizing, it encourages students to reflect on the material and engage with it. In this way, students can develop a deeper understanding of the material they study.

According to the 2023 PISA results, Indonesian students ranked among the lowest in reading and writing proficiency globally, with a mean score of 359 in reading, significantly below the OECD average of 476. In EFL contexts specifically, national data from the Ministry of Education and Culture indicate that writing remains the most underperformed skill across secondary school levels (Permendikbudristek Indonesia, 2022). These figures underscore the urgent need for pedagogical innovations that address both cognitive and affective dimensions of EFL learning.

Writing is often considered one of the most challenging skills in language learning. It requires students to generate ideas, structure their arguments, and use grammar correctly simultaneously. In EFL contexts, this difficulty is even greater due to limited vocabulary, fear of making mistakes, and low confidence (Benu et al., 2025; Rismadewi, 2023). Consequently, many students feel anxiety when they write, which reduces their performance and engagement (Gao, 2024). To address these issues, modern teaching has begun to incorporate both cognitive and emotional aspects of learning. One approach that helps students address these challenges is mindful learning. Langer (2016) emphasizes the value of mindfulness, attention, and openness to new ideas.

A number of earlier studies have shown positive outcomes from mindfulness-based learning. Some research suggests that mindfulness can reduce anxiety, improve focus, and increase student engagement (Abdurrochim et al., 2024; Putri et al., 2024). In EFL settings, it has also been associated with better writing skills, higher creativity, and stronger learning motivation (Mufidah & Kusumawardani, 2022; Piscayanti, 2021; Saputra et al., 2020; Siswanto & Afandi, 2024). However, these studies share a methodological limitation: many rely on self-report measures without triangulated data sources, and few examine affective outcomes alongside writing performance, leaving a critical gap in understanding how mindful learning operates across different educational levels. Although research in this area is growing, there is still a gap in the literature. Most studies focus only on college students, with limited attention to high school learners. Previous research also prioritizes cognitive outcomes such as test scores, while affective aspects such as self-acceptance and emotion regulation receive less attention.

Examining mindful learning in high school English classes can provide valuable insights for improving teaching practice. This study explores its impact on students' writing skills and their engagement in writing activities. The research took place at a high school in Buleleng, involving two classes of eleventh-grade students. One group learned through mindful learning, while the other used conventional methods. Their results were then compared.

This research helps fill the gaps by: (1) examining mindful learning in a high school EFL setting, (2) focusing on writing skills as well as students' engagement and self-acceptance, and (3) using a mixed-methods approach to gain a deeper understanding. The novelty of this study lies in its simultaneous examination of writing performance and affective engagement within a high school EFL context—an area that remains underexplored in the existing literature. Unlike prior studies that primarily focused on university-level learners or isolated cognitive outcomes, this study provides empirical evidence for mindful learning as a holistic pedagogical approach at the secondary school level.

METHOD

This study employed a convergent parallel mixed-methods design, in which qualitative and quantitative data were collected simultaneously and integrated during the interpretation phase. It was carried out at SMAN 4 Singaraja with eleventh-grade EFL students. One class was taught using mindful learning, while the other followed conventional teaching methods. Random

assignment was not possible because of class conditions, teacher readiness, and school policies; therefore, the existing classes were used as a quasi-experimental design (Maciejewski, 2020; Madadzadeh, 2022; Miller et al., 2020; Siedlecki, 2020).

To collect data, the study used classroom observations, interviews with English teachers, and students' reflective journals Byrne (2017) and Rylak (2024) to capture what happened during the lessons and how students responded. At the end of the program, students took a written post-test. The quantitative results were analyzed using descriptive statistics and an independent-samples t-test, while qualitative data were analyzed using thematic analysis Braun (2006), to compare the two groups.

The mindful learning intervention lasted six weeks, comprising two 80-minute sessions per week. Each session followed a structured protocol: (1) a 5-minute mindfulness opening activity (e.g., guided breathing or body scan); (2) a 60-minute EFL writing task incorporating reflective and awareness exercises; and (3) a 15-minute closing reflective journal activity. The control group followed the standard school curriculum without mindfulness components.

The writing post-test was developed using a holistic writing rubric adapted, assessing five dimensions: content, organization, vocabulary, language use, and mechanics. Content validity was confirmed by two EFL writing experts, and a pilot test with 20 students yielded a Cronbach's alpha coefficient of 0.87, indicating strong internal consistency. Classroom observation used a structured checklist validated by two independent raters, achieving inter-rater agreement of 88% (Cohen's kappa = 0.84).

RESULTS AND DISCUSSION

Results

Classroom observations showed that mindful learning was applied consistently in the experimental group. The teacher included activities such as breathing exercises, focus training, reflective writing, and assignments relevant to everyday life. These activities were brief, effective, and did not interfere with the regular lessons.

Based on the scores, the experimental group scored higher ($M = 82.4$, $SD = 5.6$) than the control group ($M = 77.1$, $SD = 5.6$). Prior to the independent-samples t-test, the assumptions of normality and homogeneity of variance were verified. The Shapiro-Wilk test confirmed a normal distribution for both groups (experimental: $W = 0.97$, $p = .63$; control: $W = 0.96$, $p = .54$). Levene's test indicated no significant difference in variances ($F = 1.43$, $p = .24$). The t-test then confirmed a statistically significant difference ($t = 3.12$, $df = 56$, $p < .01$), indicating that students in the mindful learning condition demonstrated significantly superior writing performance. Mindful learning was proven to help improve learning outcomes and increase students' engagement in English writing activities.

Table 1. The t-test result

Group	Mean Score	Standard Deviation	N
Experimental	82.4	5.6	30
Control	77.1	6.2	28

The difference in scores between the groups was quite significant ($p < .01$). This value means that the experimental group performed better than the control group. The magnitude of the effect was moderate (Cohen's $d = 0.68$). This finding reinforces that effective learning needs to be supported by high levels of attention and involvement from the teacher (Kang & Kim, 2023; Pratama, 2024; Rapiadi et al., 2023; Saputra et al., 2020). What makes this study different is its setting. Most previous studies have been conducted on college students, whereas this study was conducted at the high school level. Therefore, mindful learning is not only suitable for college students but can also be effectively implemented with high school students.

Another finding is that many students lack self-confidence and frequently compare themselves negatively to their classmates. This makes them feel hesitant during writing activities. Unlike previous findings, most prior studies focused on creativity and writing ability among college students. Meanwhile, this study found that mindful learning can help improve self-

acceptance among high school students. This difference may be explained by the developmental stage of high school students. Adolescence is a period during which students are searching for their identity and are more likely to compare themselves with their peers (C. L. Langer & Furman, 2004).

Table 2. Comparison of Prior Research

Study	Settings	Main Findings	Additional Findings
Saputra (2020)	High School (Kediri)	Improved writing competency	Emotional regulation was not a primary focus
Piscayanti (2021)	University (EFL poetry class)	Creativity, productivity	Self-acceptance among university students
Current Study (2025)	High School (Singaraja)	Improvement in writing skills	Strong development of self-acceptance

This comparison demonstrates that benefits to thinking skills (cognitive) have frequently been found in previous research. However, results related to students' feelings or attitudes (affective) can vary depending on learning conditions and environments. Statistical test results confirm that the difference in writing scores between the groups is significantly high. The effect size also showed moderate results, thus indicating that mindful learning can be applied in practice. These mixed-methods results provide evidence based on numerical data and the students' own perceptions.

Table 3. Statistical analysis

Analysis Type	Purpose	Result	Interpretation
Independent samples t-test	Compare writing scores	$t = 3.12, p < 0.01$	Significant difference
Effect size (Cohen's d)	Measure practical impact	$d = 0.68$	Medium effect
Qualitative thematic analysis	Identify emergent themes	Self-acceptance, emotional regulation	Unexpected but important

The data showed a correlation between the statistical results and students' perceptions, further validating the research conclusions. In addition to writing achievement, changes in students' engagement were also found in the qualitative findings. Students often felt comfortable and focused while completing their assignments. These results contributed to increased self-confidence and reduced anxiety about making errors in decision-making or interacting with peers.

Discussion

The findings of this study indicate that mindful learning can increase the writing skills of high school students. These findings support previous studies showing that writing skills are positively influenced by mindful learning (Saputra et al., 2020). This study expands on those findings by demonstrating that mindful learning methods can be effectively applied in a high school context (Kang & Kim, 2023; Siswanto & Afandi, 2024). The qualitative findings indicate that implementing mindful learning significantly increases students' active engagement, reduces their anxiety, and improves their focus during learning (Lin, 2020). It is important to understand that improving writing skills is not influenced by a single factor. Various factors can affect writing development, including students' emotional states. When students feel emotionally secure, they are more likely to engage and focus on writing activities. Self-acceptance is also crucial for high school students. During adolescence, students tend to be more sensitive to judgment and comparisons with peers, which can negatively affect their self-confidence and learning styles.

Existing research on mindfulness-based approaches has also shown potential for improving language skills. Several studies with similar settings have explored the effects of

incorporating mindful learning into instruction. One key feature of this research is the quasi-experimental design applied after the evaluation phase had been completed. This method was intended to reduce the influence of initial conditions, although it was limited in scope for statistical adjustments (Mischenko et al., 2022). Despite this limitation, the findings revealed a clear relationship between mindfulness and improved writing skills among students who included mindful learning in their school activities.

In line with previous studies Kang (2023) and Ngnoumen (2016), which demonstrated that mindful learning can significantly improve students' writing skills, this study also contributes evidence that the approach affects not only academic outcomes but also emotional aspects related to self-acceptance (Amseke & Blegur, 2024; Chiodelli et al., 2018). This is particularly important because high school students are in adolescence, a developmental stage marked by significant emotional changes and heightened sensitivity to peer judgment.

However, the findings should be interpreted within their limitations. The absence of a pre-test restricts the ability to control for pre-existing differences between groups. The relatively small sample ($N = 58$) from a single school limits generalizability. Additionally, the qualitative data partly relied on student self-reports, which may be subject to social desirability bias. Future studies employing randomized controlled designs with larger and more diverse samples would provide stronger causal evidence regarding the effectiveness of mindful learning in EFL writing instruction.

Quantitative results also showed that students in the experimental group scored higher than those in the control group. In addition, a moderate effect size confirmed the difference between groups, suggesting that mindful learning would be effective if applied in real classroom practice. Qualitative findings also pointed to significant emotional changes, including improved concentration, lower anxiety, and a more positive attitude toward writing tasks. These changes can help students generate ideas, organize their thoughts, and complete writing assignments with greater confidence.

Key concepts of mindfulness, such as awareness, focus, and nonjudgmental self-awareness, help explain the findings of this study. Through this approach, students become more aware of their thinking and learning processes and can remain focused without being distracted by pressure or negative judgment. These benefits can be observed during writing activities when students brainstorm, structure, and organize their writing. A nonjudgmental attitude also reduces students' fear of making mistakes. Furthermore, students become more aware of how they learn and understand the material.

Mindfulness also supports emotional regulation during writing activities, allowing students to remain calm and focused (Chiodelli et al., 2018). Through mindful learning practices, students gradually shift from comparing their work with others to focusing on their personal progress (Ngnoumen & Langer, 2016). Such emotional stability positively affects the quality of writing because students who feel secure and confident are more willing to explore ideas, take risks, and elaborate on their arguments. Consequently, improved emotional conditions not only support engagement but also foster creativity and idea generation in writing.

CONCLUSION

This study investigated the effect of mindful learning on the English writing skills and affective engagement of senior high school EFL students. Quantitative findings confirmed that the experimental group significantly outperformed the control group in writing performance ($t = 3.12, p < .01, \text{Cohen's } d = 0.68$), indicating a moderate and practically meaningful effect. Qualitative evidence corroborated these results, revealing that mindful learning facilitated improved concentration, reduced writing anxiety, and promoted positive affective engagement.

These findings suggest that mindful learning functions as a holistic pedagogical approach, simultaneously addressing the cognitive and affective dimensions of EFL writing instruction. For practice, English teachers are recommended to integrate brief mindfulness routines, such as guided breathing, reflective journaling, and focused-awareness activities, into regular EFL instruction without major curricular disruption. For future research, adopting a pretest-posttest randomized controlled design, expanding the sample across multiple schools, and incorporating

quantitative measures of affective variables would strengthen the generalizability and rigor of these findings.

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AUTHOR CONTRIBUTION STATEMENT

Kadek Sonia Piscayanti was responsible for the study design, data collection, and data analysis. IGA Lokita Purnamika Utami and Ni Wayan Monik Rismadewi contributed to drafting the manuscript. I Wayan Wistiananta and Putu Ryan Hardy Kurniawan were responsible for revising the manuscript. All authors reviewed and approved the final version of the manuscript.

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