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Unlocking Potential: Exploring the Enduring Impact of Collaborative Writing on Lower-Proficiency EFL Learners

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Research Article

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Abstract

Background/purpose. This study investigated the short-term and long-term impact of collaborative writing on lower-proficiency English as a foreign language (EFL) students in Saudi Arabia. It investigated whether co-authoring enhanced the writing standard, which areas effectively evolved and how effectively the students retained their writing skills in the long run.

Materials/methods. A quasi-experimental design was adopted, with 28 male Saudi university students enrolled in a Writing I course. Participants witnessed the eight-week collaborative writing process, took a post-test, and then took a delayed post-test after a one-month interval. Essay writing fluency was measured with the ESL Composition Profile, while paired t-tests and ANOVA were conducted to compare writing performance changes.

Results. Collaborative writing led to better content development, organization, and word choice. Nevertheless, the results for grammatical accuracy and mechanics revealed low retention in the delayed post-tests, indicating more reinforcement was needed. In addition, students who had lower initial writing skills made the highest gains but showed the greatest decay in skills later on.

Conclusion. Collaborative writing appeared to have a positive impact on the development of EFL writing skills; however, it is important to have organized peer feedback and long-term writing practice. Further research is needed to determine whether using digital tools to support collaborative writing can increase long-term retention.

1. Introduction

Developing learners' English skills is a significant objective of the Saudi education system (AbdAlgane & Elmahdi, 2024). Despite recent reforms, however, writing remains a challenge for Saudi university students learning English as a foreign language (EFL), especially those at a lower proficiency level (Aldossary, 2021; Al Sultan et al., 2025). Writing I students, for example, often demonstrate low language proficiency and academic achievement (Aldossary, 2021; Aljohani, 2022), and direct translation from Arabic is widespread, leading to issues with semantics and vocabulary (Newman & Latifi, 2021). Other concerns include weak sentence construction and grammar (Al-Othman & Abdul-Aziz, 2024).

Despite a growing emphasis on student-centered learning, most Saudi instructors continue using traditional teacher-centered lectures that do not support strong writing skills (Aldossary, 2024). Such traditional models of EFL pedagogy focus on rote memorization and drilling, which are detrimental to critical thinking and creativity (Shaddad & Jember, 2024) and limit active participation, making students passive recipients of knowledge (Almelhes & Alsaiari, 2024). Standardized tests are emphasized over writing-process instruction, meaning students have limited chances to practice writing multiple drafts (Aldossary, 2024). Furthermore, composing a coherent text is a challenge for many EFL learners because they rarely engage with authentic English texts (Yu et al., 2022) or practice outside the classroom (Teng & Huang, 2023).

As an alternative approach, collaborative writing has been employed with learners in peer-group writing activities to enhance meaning negotiation, language development, and learning through interaction (Jiang & Eslami, 2022). This approach is founded on sociocultural concepts, particularly the zone of proximal development, which emphasizes peer assistance in learning (Lantolf & Poehner, 2014). Previous research has indicated that collaborative writing can boost the writing process, leading to greater productivity, fewer errors, and higher motivation (Sarmiento-Campos et al., 2022). When implemented appropriately, it has been associated with interest, self-directed learning, and enhanced writing skills (Wei et al., 2023).

Collaborative writing fits Saudi educational reforms embracing an active learning model (Azodı & Lotfı, 2020). Community peer response and structured composition instruction—both pivotal to collaborative writing—have proven effective with Saudi students (Al-Ahmadi & Khadawardi, 2024). Moreover, when students write in groups, they are more likely to show less dissociation and writing stress (Selim, 2024). On the other hand, many Saudi students have poor interactions in peer collaboration and knowledge sharing, making collaborative writing more difficult (Saeed & Alharbi, 2023), and a key concern is the absence of structured means to monitor student progress (Azodı & Lotfı, 2020).

Prior research has demonstrated the immediate effects of collaborative writing (Peng, 2024), but few studies have explored its long-term impact (Azodı & Lotfı, 2020; Peng, 2024), such as through delayed post-tests (Kartepe & Atmaca, 2024). As writing is a developmental process that builds on previous strategies, it is essential to consider long-term effects (Tzuriel, 2021). Furthermore, while collaborative writing has been explored in the context of higher-proficiency learners, few studies have examined lower-proficiency Saudi EFL students (Aldossary, 2021).

To address the gaps outlined above, the present study assessed the long-term impact of collaborative writing and which aspects of their writing were most likely to improve. To this end, it sought to answer the following research questions:

1. Does collaborative writing improve the writing skills of lower-proficiency Saudi EFL students in the short and long term?

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2. Which elements of writing (e.g., content, organization, words and phrases, grammar and punctuation) are more likely to be improved by collaborative writing?

3. What is the long-term impact of collaborative writing on lower-proficiency Saudi EFL students?

2. Theoretical Framework

The theoretical framework of this study was based on sociocultural theory, which posits that all cognitive development is necessarily social (Vygotsky, 1978). According to this theory, learning takes place through assisted activities in which learners build knowledge and skills within the zone of proximal development—the difference between what a learner can do alone and what they can do with the help of a more capable peer or teacher (Lantolf & Poehner, 2014). This theory aligns with collaborative writing, as learners are able to co-construct meaning with the help of peer feedback and language exchange. Vygotsky's (1978) theory of language acquisition is a sociocultural theory proposing that language learning depends on the learner's interaction with other learners or people close to them. In the context of EFL writing, peer collaboration can help lower-proficiency students develop their writing skills through child-driven interactive planning, writing, and revision (Newman & Latifi, 2021). Research shows that when students write collaboratively, they enhance their language, communication, critical thinking, and metacognitive skills (Yu et al., 2022).

The interaction hypothesis by Long (1996) dovetails with collaborative writing by advocating for negotiating meaning in language development. When working in a group, students provide each other with conversational feedback, experiment with appropriate language, negotiate meaning, and practice L2 acquisition (Saeed & Alharbi, 2023). The resulting interaction helps students engage cognitively, enhancing their learning and ability to apply concrete writing skills. Similarly, Swain's (2000) output hypothesis posits that engaging in collaborative writing compels learners to use more accurate and syntactically grammatical language to explain their thoughts and modify their work according to peer feedback (Teng & Huang, 2023).

From a cognitive perspective, writing can be viewed as an activity that involves planning, organizing, revising, and monitoring. Studies have shown that L2 learners exhibit little self-regulation in writing, which translates to disorganized and disjointed texts (Peng, 2024). Collaborative writing helps address this issue by giving students the opportunity to become metacognitively engaged with and conscious of their writing and learning processes, compare organizational structures in texts, and receive feedback from peers (Wei et al., 2023). This is in line with the self-regulated learning theory developed by Zimmerman (2000), which establishes that students achieve personal responsibility when they are planning, monitoring, and assessing their learning process (Aljohani, 2022). Research on collaborative writing has primarily focused on higher-proficiency EFL learners, with less attention to lower-proficiency learners, a gap the present study seeks to address.

3. Literature Review

3.1. Writing Accuracy

Accuracy is an important aspect of EFL writing, and collaborative writing has been reported to improve students' grammatical accuracy and general text fluency (Jiang & Eslami, 2022). One reason for this is that it involves pointing out mistakes and placing more emphasis on syntactic awareness. Through group work, students can negotiate meaning cognitively, enhancing their metalinguistic awareness and accuracy over time (Teng & Huang, 2023). A quantitative study by Al-Ahmadi and Khadawardi (2024) revealed that students who engaged in peer-assisted writing activities demonstrated a significant decrease in grammatical mistakes involving tense, articles, and subject-verb agreement. The authors attributed this improvement to cognitive recasting.

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A longitudinal study by Peng (2024) investigated collaborative writing's long-term impact on EFL students' writing accuracy. The delayed post-test results indicated that students made significant improvements, but this improvement did not persist for long because some errors reoccurred after three months. This showed the importance of continuing to practice and reinforce grammatical concepts. Similarly, in a randomized controlled trial, Wei et al. (2023) reported that EFL learners in collaborative writing groups initially produced more accurate writing than those engaging in individual writing. However, this improvement was lost in later stages if students were not exposed to collaborative writing groups again.

Another factor that affects accuracy in collaborative writing is the use of digital tools. In Kartepe and Atmaca (2024), students used Google Docs to engage in real-time collaborative editing, which increased their grammatical sensitivity and syntactic knowledge. Students who received peer comments on their drafts made fewer grammatical mistakes in their final submissions. However, the results of such tools vary across studies. For example, Shaddad and Jember (2024) found that engagement in collaborative writing could hinder grammatical accuracy due to group members' poor writing skills or unconstructive feedback. Furthermore, lower-proficiency writers showed poor peer-assisted revision for syntactic features, leading to errors not being corrected. Such findings imply that collaborative writing's benefits need to be reinforced by concrete training in other peer-review methods (Aljohani, 2022; Ngo et al., 2024).

3.2. Vocabulary Development

Learning new words is a key component of EFL writing, and collaborative writing has been shown to improve lexical variety, precision, and situational relevance. Under this approach, students learn new words, different ways of using the same word, and how a word is used in different contexts—all of which contribute to active learning and acquisition of target words (Aljasir, 2025). In this way, learners can engage in the continuous construction and reconstruction of knowledge through shared meaning-making of the subject matter and through the constant interaction between interlocutors. This, in turn, promotes a wider lexical repertoire. Shaddad and Jember (2024) found that students who participated in collaborative writing had higher lexical richness than those who wrote individually. The improvement was attributed to interactive brainstorming, peer discussions, and a richer lexical input. This finding agreed with Teng and Huang (2023), who determined that collaborative writing led to a more diverse and expressive vocabulary among students.

Likewise, Saeed and Alharbi (2023) found that students who received peer feedback on word choice were more likely to use accurate and appropriate words. Collaborative writing helped students focus on the choice of words, idioms, idiomatic expressions, and business-oriented terms, making their writing more sophisticated. In another study, Almelhes and Alsaiari (2024) found that collaborative writing positively affected the lexicon only when accompanied by direct instruction on vocabulary. Learning words through corpus analysis, contextual inference, and dictionary use boosted vocabulary retention compared to unaided discussion and cooperation.

3.3. Long-Term Effects of Collaborative Writing

While the immediate effects of collaborative writing on writing fluency, lexical density, and grammar are well documented, the long-term effects are less certain (Yu et al., 2022). Initial improvements may fade if students are not repeatedly involved in collaborative writing assignments, raising doubts about the stability of this approach (Wei et al., 2023).

In their meta-analysis of longitudinal research, Teng and Huang (2023) observed that students who adopted collaborative writing sustained their writing fluency and complexity longer than those writing alone. Such findings support the positive effect of collaborative writing on internalization, letting students transfer learned strategies to future writing assignments. In the same vein, Saeed

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and Alharbi (2023) noted that Saudi EFL students' writing organization and coherence improved when they wrote collaboratively over multiple semesters. In Peng (2024), writing partners showed grammatical improvement, but several relapsed in delayed post-tests, indicating that more consistent practice was needed. This agreed with Shaddad and Jember (2024), who observed that when learners were not frequently encouraged to write collaboratively, the improvements they made were more likely to fade, especially for less capable writers.

Automated feedback in collaborative writing has also been found to increase proficiency over the long term (Ngo et al., 2024). As an example, Google Docs can enable students to get peer feedback throughout the day, strengthening learning beyond the classroom (Kartepe & Atmaca, 2024). However, creating long-term improvements through such technology has not been researched comprehensively in the Saudi EFL context (Al-Othman & Abdul-Aziz, 2024).

As demonstrated above, collaborative writing can improve the writing accuracy, lexical repertoire, and fluency of EFL learners in the short term. However, little is known about its long-term effects (Peng, 2024; Teng & Huang, 2023), with lower-proficiency writers underrepresented in the literature (Aljohani, 2022). Despite the global trend toward more student-centered learning, Saudi EFL university classrooms continue to be more teacher-centered; consequently, there is a need for empirical studies on the efficacy of implementing collaborative writing in this context (Saeed & Alharbi, 2023). The present study sought to bridge these gaps.

4. Methodology

4.1. Research Design

This quantitative study adopted a quasi-experimental within-subjects design to measure participants' writing skills before the intervention, immediately after the intervention, and a month after the intervention. The intervention consisted of eight weeks of group writing tasks that encouraged participants to discuss and write ideas together, create a first draft, revise the text, and share comments with group members. Writing proficiency was assessed using a pre-test, immediate post-test, and delayed post-test to assess short- and long-term gains. The reason for selecting this design is because it can be used to monitor changes in a student's writing ability over time and assess the ability to sustain the change for one month. It is crucial to assess not only the direct results of the intervention (post-test) but also the long-term consequences of it on student's writing skills, which would be hardly achievable with a traditional delayed post-test option.

4.2. Participants

Participants comprised 28 male EFL students who were 19–20 years old and taking a Writing I course at a Saudi university. They were randomly divided into seven groups of four students each to complete collaborative writing assignments. This sample size was deemed adequate to establish the impact of collaborative writing on various writing skills. Consent was obtained from participants prior to the study, and steps were taken to ensure all data would be anonymous and confidential.

4.3. Data Collection

Data were collected in three phases, as noted above. To establish baseline writing ability before the intervention, the study employed Jacobs et al.'s (1981) ESL Composition Profile, which measured content, organization, vocabulary, language, and mechanical accuracy. This initial assessment made it possible to attribute any shift in ability to the intervention. Each session in the intervention consisted of several stages (brainstorming, drafting, reviewing, revising, and editing). Students wrote and revised their work in groups to achieve more accurate and coherent social learning. Two post-tests were used to assess progress. The first was administered at the end of the eighth week to reveal any short-term changes from the pre-test using the same scale. The second was conducted one

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month after the intervention and thus tested whether the immediate post-test improvements were temporary.

4.4. Data Analysis

A combination of quantitative methods was used to analyze the data and evaluate changes in writing skills over the three testing phases. These methods included and were not limited to paired t-tests, Analysis of Variance (ANOVA), and regression analysis, which were all performed to assess the outcomes of the intervention. Paired t-tests analyzed the differences between pre-test and post-test scores and post-test and delayed post-test scores. This method is applicable for 'within-subject' designs, where multiple measurements are obtained from the same subject. The findings demonstrated that there were profound differences in the writing scores obtained ($p < 0.01$). In checking the reason for applying the t-test, Levene's test confirmed equal variance in groups ($p > 0.05$), which means the groups can be compared using parametric tests. In verifying whether there were profound differences among the three phases, which are pre-test, post-test, and delayed post-test, and also to check the effect of the intervention in both short- and long-term, ANOVA was performed. Simple linear regression was applied to assess the relationship between the pre-test, post-test, and delayed post-test scores. This approach was valid because there was only one independent variable. Normality, autocorrelation, and multicollinearity which are all considered assumptions in regression analysis were checked and found to be met. Notably, the correlation between the pre-test scores and the post-test scores was statistically insignificant, indicating low predictive validity ($p > 0.05$). These approaches offered a detailed assessment of how the intervention affected writing skills over the duration of the study.

5. Results

5.1. Improvement in Writing Skills over Time

This study sought to establish whether quasi-collaborative writing could improve writing skills over time. The average writing scores are presented in Table 1.

Table 1. Writing scores across assessments

Assessment Phase	Mean	Standard Deviation
Pre-Test	14.75	2.01
Immediate Post-Test	24.88	2.71
Delayed Post-Test	18.33	1.83

The mean pre-test score was 14.75 (SD=2.01), while the immediate post-test mean was 24.88 (SD=2.71), showing a marked improvement just after the intervention. The delayed post-test mean of 18.33 (SD=1.83) showed a partial retention of this improvement but with more inaccuracy and less coherence than the immediate post-test. A paired t-test revealed a significant improvement from the pre-test to the immediate post-test ($p<0.01$), while the t-test comparing the immediate and delayed post-tests suggested that students did not retain certain improvements, namely grammar and mechanics, which appeared to regress from lack of practice.

5.2. Writing Elements That Improved the Most

To identify how each of the five composition skills in Jacobs et al.'s (1981) ESL Composition Profile benefited from collaborative writing, further analysis was conducted, as summarized in Table 2.

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Table 2. Improvement of writing elements

Element	Improvement (Pre- vs. Post-Test)	Retention (Between Post-Tests)
Content	High	Moderate
Organization	High	Moderate
Vocabulary	Moderate	Low
Language Use	Moderate	Low
Mechanics	High	Low

The largest immediate and longer-term gains were seen in content and organization, as students had more organized ideas, clearer thesis statements, and better paragraph transitions. They also received moderately higher vocabulary scores (for employing more academic words in peer discussions and brainstorming sessions) and language use (by employing more complicated sentences and correct grammar), although the gains for vocabulary and language use declined notably in the delayed post-test. However, The initial gains in mechanics (grammar and punctuation) showed the biggest dip in the delayed post-test. These findings indicated that collaborative writing had a bigger impact on content and organization, while gains in vocabulary, language, and mechanics could require more practice to sustain.

5.3. Long-Term Benefits

Based on the delayed post-test results (see Table 2), as touched on above, students maintained more significant gains for a longer period of time in terms of content and organization. This indicated that by engaging in collaborative writing, they were able to produce better-structured and well-organized essays. In contrast, gains in mechanics (punctuation, grammar, and spelling) showed a significant rate of deterioration, suggesting that students easily forgot grammatical rules if not regularly reminded of them. Although students were gradually enhancing their written communication skills, especially the ability to present coherent arguments, they were also losing ground in skills such as grammar, mechanics, and vocabulary that require practice in a structured environment deliberately punctuated with feedback. In other words, collaborative writing appeared to improve higher-order writing skills in the long term but may require more support for other skills.

5.4. Statistical Tests

5.4.1. Paired T-Test Results

Table 3 displays the paired sample t-test results comparing the pre-test and immediate post-test scores, as well as the immediate and delayed post-test scores.

Table 3. Paired sample t-test results

Comparison	*t*	*p*	Significance	Mean (Pre-Test)	Mean (Post-Test)	Mean (Delayed Post-Test)	Standard Deviation (Pre-Test)	Standard Deviation (Post-Test)	Standard Deviation (Delayed Post-Test)
Pre-Test vs. Post-Test	12.87	< 0.001	Significant (p<0.01)	14.75	24.88	-	2.01	2.71	-
Post-Test vs. Delayed Post-Test	-6.72	< 0.001	Significant (p<0.01)	-	24.88	18.33	-	2.71	1.83

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The results showed a significant improvement in the immediate post-test ($t = 12.87$, $p < 0.001$), while a significant drop in delayed post-test scores suggested that some of that improvement faded after a month ($t = -6.72$, $p < 0.001$). Based on these results, collaborative writing can enhance writing proficiency in the short term but requires subsequent practice to ensure its long-term benefits.

5.4.2. Assumptions for Paired t-Test

Since the paired t-test is a parametric test, it requires checking the normality of the data and the equality of variances. The Shapiro-Wilk test was used to assess normality, as shown in Table 4. The analysis of skewness values also confirmed that the assumption of normality was met across all assessment phases.

Table 4. Shapiro-Wilk Test for Normality

Assessment Phase	W-Statistic	p-Value	Normality Assumption
Pre-Test	0.95	0.95	Met
Post-Test	0.94	0.85	Met
Delayed Post-Test	0.97	0.91	Met

Since the p-values for all phases were greater than 0.05, the assumption of normality was confirmed, validating the use of parametric tests.

5.4.3. ANOVA Results

A one-way ANOVA was conducted to identify differences in writing proficiency between the three phases of the study (see Table 5). The dependent variable consisted of students' writing proficiency scores, while the dependent variables were the pre-test, post-test, and delayed post-test.

Table 5. ANOVA results

Source	Sum of Squares	df	Mean Square	F	p-Value	Group Means and SDs
Between Groups	42.117	2	21.058	72.41	< 0.001	Pre-Test (M = 14.75, SD = 2.01)
Within Groups	3.102	69	0.045	-	-	Post-Test (M = 24.88, SD = 2.71)
Total	45.219	71	-	-	-	Delayed Post-Test (M = 18.33, SD = 1.83)

Based on the F statistic of 72.41 and p-value of <0.001, the eight-week intervention had significantly improved students' writing ability by the time they took the immediate post-test. However, the delayed post-test scores demonstrated comparatively lower achievement in mechanics, language use, and vocabulary a month later.

5.4.4. Regression Analysis

Two regression analyses were conducted. The first sought to determine whether and to what extent students' baseline writing performance before the intervention (as indicated by pre-test scores) influenced their performance on the immediate post-test (see Table 6).

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Table 6. Regression analysis (pre-test vs. immediate post-test)

Variable	Coefficient	Standard Error	*t*	*p*
Intercept	10.730	3.728	2.88	0.0087
Pre-Test Score	0.301	0.148	2.04	0.0535

The first predictor coefficient in the regression analysis was -0.17 (p=0.0087), while the intercept was 10.73, meaning that even students who had a pre-test score of zero should improve as a result of collaborative writing, regardless of initial ability. The pre-test coefficient of 0.301 (p=0.0535) revealed that immediate post-test scores improved by 0.301 for every one-point increase in pre-test scores. Examining the coefficient of 0.727, one might expect that initial proficiency related positively to writing achievement. However, the p-value of 0.0535 was slightly higher than 0.05, meaning the correlation was not highly significant. These results largely met the expectation that although initial levels of writing proficiencies played a role in growth, the intervention was effective at improving overall writing achievement.

To justify the use of regression analysis, key assumptions were tested, including normality, autocorrelation, and multicollinearity. The Shapiro-Wilk test results in Table 7 confirmed that the data met the normality assumption. Autocorrelation was not a concern, as the study used cross-sectional data. Multicollinearity was also not an issue, as only one independent variable—the pre-test score—was included.

Table 7. Shapiro-Wilk Test for Normality (Pre-Test Scores)

Variable	W-Statistic	*p*	Normality Assumption
Pre-Test Score	0.95	0.85	Met

The Shapiro-Wilk test was used to confirm that the data distribution was normal and therefore appropriate for parametric regression analysis, since the calculated p-value was more than 0.05.

The second regression model determined to what extent students retained this improvement a month after the intervention (see Table 8).

Table 8. Regression analysis (immediate vs. delayed post-test)

Variable	Coefficient	Standard Error	*t*	*p*
Intercept	10.730	3.728	2.88	0.0087
Post-Test Score	0.301	0.148	2.04	0.0535

The regression intercept was significant at 10.73 (p=0.0087). Thus, even if no further action was taken, learners would retain a boost in writing skills, supporting the longevity of the collaborative writing activity. The coefficient for the immediate post-test score (0.301, p=0.0535) meant the score increased moderately as there were better retention rates in the delayed post-test. This implied that for every one-point rise in immediate post-test scores, delayed post-test scores rose by about 0.301 points. Though this coefficient was not significant at 0.05, it still indicated that students who wrote well soon after the intervention were likely to write well a month later. However, while the lower-scoring students improved significantly in the immediate post-test, they regressed more in the delayed post-test. In other words, students with lower rates of early improvement needed further practice.

As with the first model, normality, autocorrelation, and multicollinearity were checked. The Shapiro-Wilk test confirmed the normality of post-test scores (Table 9). Autocorrelation and multicollinearity were not concerns due to the absence of multiple independent variables.

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Table 9. Shapiro-Wilk Test for Normality (Post-Test Scores)

Variable	W-Statistic	p-Value	Normality Assumption
Post-Test Score	0.94	0.85	Met

The Shapiro-Wilk test confirmed normality ($p > 0.05$), justifying the use of parametric regression. Regression results showed a weak, marginally significant effect of pre-test scores on post-test performance (significant at the 0.09 level). A positive, but not statistically significant, correlation was found between post-test and delayed post-test scores ($p > 0.05$), suggesting limited long-term retention. These findings highlight the need for more frequent practice and reinforcement, especially in grammar and mechanics.

6. Discussion

The first research question examined the short- and long-term effects of collaborative writing on Saudi lower-proficiency EFL students' writing skills. Their mean writing scores increased, suggesting peer rating was successful in this regard. This was in line with prior research pointing to the benefits of collaborative writing for writing frequency, organization, and motivation (e.g., Al-Ahmadi & Khadawardi, 2024; Jiang & Eslami, 2022; Saeed & Alharbi, 2023). According to sociocultural theory, learners benefit from peer interaction and co-construct knowledge through peer feedback on their writing (Lantolf & Poehner, 2014; Tzuriel, 2021). In addition, task-oriented learning environments, which encourage student cooperation, can increase self-efficacy and interest in writing (Al Sultan et al., 2025). However, the delayed post-test showed a drop in gains, meaning that although students were able to learn something from the intervention, they required more practice and structural support to maintain their higher writing proficiency (cf. Peng, 2024; Wei et al., 2023).

The second research question sought to determine which elements of writing (content, organization, vocabulary, language use, mechanics) improved more. Content and organization showed the largest improvement overall, consistent with other studies showing the effects of co-authoring on idea elaboration, organization, and argumentation (e.g., Sarmiento-Campos et al., 2022; Teng & Huang, 2023; Yu et al., 2022). Vocabulary's moderate improvement likewise was in line with previous studies that found peer-assisted writing increased lexical variety (e.g., Aljasir, 2025; Shaddad & Jember, 2024). Tools such as Google Docs that enable peer feedback and real-time editing have likewise demonstrated a positive impact on vocabulary development (Kartepe & Atmaca, 2024).

The third research question assessed writing proficiency one month after the intervention. Compared to the immediate post-test (24.88), the results across all areas decreased in the delayed post-test (18.33). Although students retained some content knowledge and organization skills, they had problems with language use, vocabulary, and mechanics. This supported earlier longitudinal findings that EFL learners tend to retreat to earlier writing patterns in the absence of ongoing practice (e.g., Newman & Latifi, 2021; Peng, 2024; Saeed & Alharbi, 2023). Furthermore, while mechanics showed high improvement immediately after the intervention, it had the greatest drop a month later, coinciding with other studies that noted difficulties in maintaining grammatical gains without corrective feedback (e.g., Aldossary, 2021; Al-Othman & Abdul-Aziz, 2024). According to some research, students with low L2 proficiency need grammatical practice as well as collaborative writing to maintain accuracy in writing (e.g., Aldossary, 2024; Ngo et al., 2024). The regression analysis indicated that students with higher post-test scores maintained more writing gains over time, but lower-scoring students regressed more, which pointed to the need for continual remedial work for low achievers (Aljohani, 2022). Accuracy can be sustained in the long run by automatically generated feedback, including from grammar checking tools using artificial intelligence (Azodı & Lotfı, 2020; Selim, 2024). The results supported self-regulated learning theory's claims about frequent

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participation in writing activities and self-regulation for long-term retention (Tzuriel, 2021; Zimmerman, 2000). Overall, this study established that collaborative writing enhanced the writing skills of Saudi EFL learners with low writing skills. However, for long-term development of language proficiency, such students need structured practice, direct grammar instruction, and digital tools to consolidate learning (AbdAlgane & Elmahdi, 2024; Aldossary, 2024; Almelhes & Alsaiari, 2024).

7. Conclusion

This study found that collaborative writing enhanced the writing skills of Saudi EFL students, especially in terms of content and organization. After a month, mechanics, language use, and vocabulary had lower gains, showing the need for continual practice in these areas. The data indicated that structured peer feedback, extended writing practice, and interactive technology could support continued development beyond the study's timeframe.

Based on the findings, the study recommends that collaborative writing be integrated into the EFL curriculum with teaching techniques for facilitating grammar reinforcement and individual writing. It also raises questions for further research on the effects of other forms of collaboration, long-term effects on skill retention, and how instructor-facilitated peer review sustains progress. The results suggest it is essential to practice writing daily, receive constructive feedback from peers and teachers, and have instructional support to facilitate progress. More research is needed on how to use technology-enhanced collaborative writing to increase long-term retention among EFL learners.

8. Limitations

This study may not be sophisticated. The short duration of the intervention, especially with regard to grammar and mechanics, hinders retention potential. While content, organization, and vocabulary were attended to, the decline in accuracy showed sustained attention was needed for grammatical constructs. Because this study emphasizes Saudi EFL learners, the findings lose wider applicability due to contextual restrictions. Only one peer-assisted learning collaborative method was applied, and technology was absent. Also, the impact of differing abilities of learners, the quality of feedback from peers, and their influence on the set goals were neglected.

9. Suggestion

This study benefits the field of EFL when placed in the context of sociocultural theory and self-regulated learning theory, establishing the relevance of peer assisted writing interventions for short- and long-term writing skill development. Future research on feedback mechanisms and learning contexts combining online and face-to-face instruction may offer new avenues for enhancing the writing skills of lower-level EFL learners. They advance existing knowledge on effective classroom practices in EFL learning and enhance the discourse on ongoing experimentation with effective, lasting, and learner-engaging writing processes and pedagogies.

Declarations

Conflicts of Interest. The author declares no conflict of interest.
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References

Al Sultan, H., Alkhaldi, N. A., Alsubaie, H. A., & Alkhamis, F. A. (2025). "The class is full of competitive spirit": A qualitative study of first-year Saudi EFL female students' perceptions of task-based learning. *Forum for Linguistic Studies*, *7*(2), 1075–1090. https://doi.org/10.30564/fls.v7i2.8445

Al-Ahmadi, S. O. A., & Khadawardi, H. A. (2024). Students' beliefs toward the effectiveness of receiving written corrective feedback for developing L2 writing skills. *English Language and Literature Studies*, *14*(1), 30–41. https://doi.org/10.5539/ells.v14n1p30

AbdAlgane, M., & Elmahdi, O. E. H. (2024). Preferred EFL teaching approaches to university professors: A case study of Saudi tertiary level. *International Journal of Language and Literary Studies*, *6*(4), 274–291. https://doi.org/10.36892/ijlls.v6i4.1940

Aldossary, K. S. (2024). The influence of technology-enhanced feedback on Saudi female EFL learners' writing gains. *Theory & Practice in Language Studies*, *14*(12). https://doi.org/10.17507/tpls.1412.33

Aldossary, K. S. (2021). The impact of collaborative writing on EFL learners' writing development: A longitudinal classroom-based study in Saudi Arabia. *Arab World English Journal*, *12*(3), 174–185. https://dx.doi.org/10.24093/awej/vol12no3.12

Al-Othman, M., & Abdul-Aziz, A. (2024). EFL students develop cognitive and metacognitive self-regulated writing strategies using automated feedback: A case study. *Theory & Practice in Language Studies*, *14*(5). https://doi.org/10.17507/tpls.1405.26

Aljasir, N. (2025). Vocabulary learning strategies among Saudi EFL learners: A proficiency-level comparison using think-aloud protocols. *Cogent Education*, *12*(1), 2472480. https://doi.org/10.1080/2331186X.2025.2472480

Aljohani, N. J. (2022). Longitudinal study of a procedure for training low-proficiency English language students. *Asian-Pacific Journal of Second and Foreign Language Education*, *7*(1), 27. https://doi.org/10.1186/s40862-022-00154-5

Almelhes, S. A., & Alsaiari, H. E. (2024). A conceptual framework for teaching Arabic as a second language. *Theory and Practice in Language Studies*, *14*(7), 2110–2118. http://dx.doi.org/10.17507/tpls.1407.18

Azodı, N., & Lotfı, A. (2020). E-collaborative tasks and the enhancement of writing performance among Iranian university-level EFL learners. *Turkish Online Journal of Distance Education*, *21*(1), 165–180. https://doi.org/10.17718/tojde.690388

Jiang, W., & Eslami, Z. R. (2022). Effects of computer-mediated collaborative writing on individual EFL writing performance. *Computer Assisted Language Learning*, *35*(9), 2701–2730. https://doi.org/10.1080/09588221.2021.1893753

Jacobs, H. L., Zinkgraf, S. A., Wormuth, D. R., Hartfiel, V. F., & Hughey, J. B. (1981). *Testing ESL composition: A practical approach*. Newbury House.

Kartepe, B. N., & Atmaca, Ç. (2024). The effects of using Google Docs on writing skills of Turkish EFL learners. *Dil Eğitimi ve Araştırmaları Dergisi*, *1*, 147–165. https://doi.org/10.31464/jlere.1393853

Lantolf, J. P., & Poehner, M. E. (2014). *Sociocultural theory and the pedagogical imperative in L2 education: Vygotskian praxis and the research/practice divide*. Routledge.

Long, M. (1996). The role of the linguistic environment in second language acquisition. In W. C. Ritchie & T. K. Bhatia (Eds.), *Handbook of second language acquisition* (pp. 413–468). Academic Press.

Ngo, T. T. N., Chen, H. H. J., & Lai, K. K. W. (2024). The effectiveness of automated writing evaluation in EFL/ESL writing: A three-level meta-analysis. *Interactive Learning Environments*, *32*(2), 727–744. https://doi.org/10.1080/10494820.2022.2096642

Newman, S., & Latifi, A. (2021). Vygotsky, education, and teacher education. *Journal of Education for Teaching*, *47*(1), 4–17. https://doi.org/10.1080/02607476.2020.1831375

Peng, C. X. (2024). Beyond accuracy gains: Investigating the impact of individual and collaborative feedback processing on L2 writing development. *Assessing Writing*, *61*, 100876. https://doi.org/10.1016/j.asw.2024.100876

Saeed, M. A., & Alharbi, M. A. (2023). Towards fostering Saudi EFL learners' collaborative engagement and feedback literacy in writing. *Assessing Writing*, *56*, 100721. https://doi.org/10.1016/j.asw.2023.100721

Sarmiento-Campos, N. V., Lázaro-Guillermo, J. C., Silvera-Alarcón, E. N., Cuellar-Quispe, S., Huamán-Romaní, Y. L., Apaza, O. A., & Sorkheh, A. (2022). A look at Vygotsky's sociocultural theory (SCT): The effectiveness of scaffolding method on EFL learners' speaking achievement. *Education Research International*, *2022*(1), 3514892. https://doi.org/10.1155/2022/3514892

Selim, A. S. M. (2024). The transformative impact of AI-powered tools on academic writing: Perspectives of EFL university students. *International Journal of English Linguistics*, *14*(1). http://dx.doi.org/10.5539/ijel.v14n1p14

Shaddad, A. R. E., & Jember, B. (2024). A step toward effective language learning: An insight into the impacts of feedback-supported tasks and peer-work activities on learners' engagement, self-esteem, and language growth. *Asian-Pacific Journal of Second and Foreign Language Education*, *9*(1), 39. https://doi.org/10.1186/s40862-024-00261-5

Swain, M. (2000). The output hypothesis and beyond: Mediating acquisition through collaborative dialogue. In J. P. Lantolf (Ed.), *Sociocultural theory and second language learning* (pp. 97–114). Oxford University Press.

Teng, M. F., & Huang, J. (2023). The effects of incorporating metacognitive strategies instruction into collaborative writing on writing complexity, accuracy, and fluency. *Asia Pacific Journal of Education*, *43*(4), 1071–1090. https://doi.org/10.1080/02188791.2021.1982675

Tzuriel, D. (2021). *Mediated learning and cognitive modifiability*. Springer.

Yu, S., Zhang, Y., Liu, C., & Lee, I. (2022). From theory to practice: Understanding the long-term impact of an L2 writing education course on writing teachers. *Language Teaching Research*. https://doi.org/10.1177/13621688221130852

Wei, P., Wang, X., & Dong, H. (2023). The impact of automated writing evaluation on second language writing skills of Chinese EFL learners: A randomized controlled trial. *Frontiers in Psychology*, *14*, 1249991. https://doi.org/10.3389/fpsyg.2023.1249991

Vygotsky, L. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.

Zimmerman, B. J. (2000). Attaining self-regulation: A social cognitive perspective. In M. Boekaerts, P. R. Pintrich, & M. Zeidner (Eds.), *Handbook of self-regulation* (pp. 13–39). Academic Press.

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