THE EFFECT OF PEER FEEDBACK ON
ENGLISH WRITING SKILLS AMONG EFL STUDENTS

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ABSTRACT

This study investigates the role of peer feedback in enhancing the English writing skills of EFL students using a quantitative approach with a one-group pre-test post-test design. Twenty students from SMK Muhammadiyah Mataram participated in paragraph writing tasks assessed in grammar, vocabulary, and coherence. Peer feedback activities were structured and integrated with AI tools to support revision. Data were collected using test and analyzed using SPSS. The results demonstrated a statistically significant improvement in students' writing performance, with the average score rising from 53.42 to 85.89 ($p < 0.05$). The greatest gains were seen in grammatical accuracy and vocabulary development. Despite initial challenges such as fear of criticism and limited peer review skills, students showed increased awareness of their writing errors and benefited from collaborative learning. This study confirms that peer feedback, when guided and supported by technological tools, effectively enhances writing quality, fosters self-reflection, and builds confidence. The findings suggest that peer feedback can be a practical pedagogical tool to support EFL writing instruction.

Keywords: Coherence, EFL Writing, Grammar, Peer Feedback,

A. INTRODUCTION

Writing holds a central place in the process of language acquisition, particularly in the context of English as a Foreign Language (EFL) learning (Geng et al., 2022). As a productive skill, writing not only enables students to express thoughts and ideas effectively but also plays a key role in shaping their academic and professional trajectories (Onanuga et al., 2021). Unlike speaking, which allows for spontaneous communication, writing demands conscious effort in organizing ideas, applying grammatical structures correctly, and selecting appropriate vocabulary. It is also a vehicle for developing logical thinking, reflection, and argumentation, which are essential skills in higher education and beyond. In the EFL context, where exposure to authentic English input may be limited, formal writing instruction provides a structured environment for students to practice and internalize language use.

Therefore, fostering effective writing skills is a critical goal in EFL classrooms and has become a focal point of many curriculum reforms around the world

However, in the Indonesian context, various reports indicate that students' writing skills are still relatively low. The results of the National English Examination, for example, often reveal weak mastery of writing, especially in sentence structure and text coherence. This is also reflected in learning practices at vocational schools such as SMK Muhammadiyah Mataram, where students tend to have difficulty expressing their ideas in writing in a coherent manner and in accordance with English language rules. In addition, previous studies revealed that EFL students often face numerous challenges when engaging in academic writing. Sun et al., (2021) note limited vocabulary, insufficient grammar mastery, and weak textual coherence often hinder students' ability to produce effective texts. Such problems, as Bahrain et al. (2023) emphasize, frequently lead to fragmented writing that fails to convey meaning clearly. Writing in a foreign language is also a cognitively demanding task that requires attention to both form and content, and many students struggle to balance these components. Additionally, EFL learners frequently lack the confidence and motivation needed to improve their writing due to repeated failures or unclear feedback (Challob, 2021). These further compounds the difficulties they face, as students may become disengaged and hesitant to express themselves in writing. These persistent problems underscore the need for alternative instructional approaches that actively engage students in the writing process and offer meaningful opportunities for revision and improvement (Bean & Melzer, 2021). Based on initial observations in the classroom, students often make repeated mistakes in simple sentence structure, tense usage, and appropriate vocabulary selection. In addition, most students show reluctance when asked to write more than one paragraph because they feel that their writing is "definitely wrong." This condition is in line with (Larsen-Freeman et al ., 2002) findings regarding the low self-confidence of EFL writers, thus requiring learning strategies that can encourage active student involvement while reducing their anxiety in writing. Therefore, the urgency of improving writing skills in the local context is becoming increasingly apparent.

One promising pedagogical practice is peer feedback, which has gained increasing attention in recent years as a powerful pedagogical tool in language education (Shaddad & Jember, 2024). Peer feedback refers to the practice of students reviewing and providing constructive comments on each other's written work. As stated by Latifi et al., (2023) that peer feedback encourages active involvement, critical thinking, and metacognitive awareness, as students must not only identify issues in their peers' writing but also reflect on how similar issues might appear in their own work Moreover, peer feedback fosters a collaborative learning environment where students support one another in achieving shared academic goals. Moreover, Zhang (2022) points out that in EFL classrooms, peer feedback can be especially beneficial because it provides learners with immediate and contextualized responses to their work, which may be more relatable and comprehensible than teacher feedback. Furthermore, the act of giving feedback can be as valuable as receiving it, as it requires students to engage in analytical thinking and develop evaluative judgment. Therefore, when implemented with proper guidance and training, peer feedback has the potential to significantly enhance students' writing proficiency, autonomy, and motivation (Cui et al., 2021).

Thus, peer feedback can be one alternative solution to overcome the writing obstacles faced by vocational high school students. This practice not only makes students more active in reviewing their friends' writing, but also encourages them to recognize similar mistakes in their own writing. However, the application of peer feedback in writing instruction in Indonesian secondary schools is still relatively rare, so research on its effectiveness is highly relevant.

Although a growing body of research supports the effectiveness of peer feedback in writing instruction, several gaps remain (Vuogan & Li, 2023). Many existing studies have examined the general impact of peer feedback on writing quality but have not specified which components of writing benefit the most grammar, vocabulary, or coherence (Chen & Cui, 2022). This lack of specificity makes it difficult for educators to tailor peer feedback activities toward particular learning objectives. Furthermore, emotional and cognitive challenges associated with peer feedback are often overlooked. According to Siegel-Stechler (2023), some students feel anxious about receiving criticism from classmates or are unsure about how to provide helpful and respectful comments. In addition, cultural factors and differing levels of proficiency can affect the quality and reception of feedback in multilingual classrooms. Furthermore, Yu and Yang (2021) argue that these limitations highlight the need for more focused empirical studies that investigate the concrete effects of peer feedback on specific writing dimensions in the EFL context, while also considering students' affective responses and perceptions (Yu & Hu, 2017). In addition, most research on peer feedback has been conducted in the context of universities or language courses, rather than at the vocational high school level. In fact, vocational high school students have specific needs in developing functional and applicable writing skills to support the world of work and further study. Furthermore, many previous studies only assessed general improvements in writing without specifying the aspects studied, such as grammar, vocabulary, and coherence. This has created an important research gap that needs to be followed up by examining how peer feedback can have a direct impact on these three aspects in vocational high school students.

In response to these gaps, this study aims to explore the effects of peer feedback on the development of EFL students' writing skills, with a particular focus on grammar, vocabulary, and coherence (Cao et al., 2022). The study employs a quantitative design using a one-group pre-test post-test method to measure improvements in students' writing performance following a peer feedback intervention. By combining statistical analysis of writing scores with insights into learner attitudes (Ghaffar et al., 2020), the research offers a more comprehensive understanding of how peer feedback functions as both an instructional strategy and a social practice in the EFL writing classroom. The findings are expected to inform teachers and curriculum developers on how to effectively integrate peer feedback into writing instruction, thus contributing to more responsive and learner-centered teaching practices (Tang, 2023). Therefore, this study aims to analyze the extent to which the application of peer feedback can improve the writing skills of EFL students at the vocational high school level, particularly in terms of grammar, vocabulary, and text coherence. By emphasizing these three components, this study is expected to provide empirical contributions to the development of more effective writing learning strategies and offer practical recommendations for teachers in designing writing activities that suit the needs of vocational high school students.

B. METHOD

This study employed a quantitative research method using a one-group pre-test and post-test design without a control group. This design was considered appropriate for measuring the effectiveness of the intervention, as it allows researchers to compare participants' performance before and after treatment within the same group (Sriyanti et al., 2021). The pre-test was administered prior to the peer feedback intervention to assess students' baseline writing abilities. Students were asked to complete a paragraph writing task, which was evaluated using a scoring rubric focusing on grammatical accuracy, lexical variety, and coherence. The rubric design drew upon recent writing assessment frameworks that highlight these dimensions as critical indicators of writing proficiency (Uludag & McDonough, 2022). After the pre-test, students participated in structured peer feedback activities, which encouraged collaborative evaluation and revision. Once the process was completed, a post-test of similar format was administered to measure improvements.

For data analysis, both descriptive and inferential statistics were employed. Descriptive measures (mean, median, standard deviation, variance, and range) were used to summarize students' performance across the two tests. To examine whether differences between pre- and post-test scores were statistically significant, a paired samples t-test was conducted. This test is widely used in within-subject experimental designs to detect changes in performance across two time points (Shivaraju et al., 2017). The analyses were performed using SPSS software, which remains one of the most reliable tools for quantitative data analysis in educational research (Weaver & Maxwell, 2014). The use of a significance threshold at $p < 0.05$ ensured that observed improvements could be attributed to the intervention with confidence.

C. FINDINGS AND DISCUSSION
1. A Pre-test and Post-test

This section presents and discusses the results of the study, focusing on students' performance before and after the implementation of the treatment. To evaluate the effectiveness of the intervention, a pre-test was administered prior to the treatment, and a post-test was given afterward. The comparison between the pre-test and post-test scores provides insights into the students' progress and the potential impact of the instructional approach employed. Table 1 summarizes the pre-test and post-test scores of the 20 participating students.

Table 1. Pretest and Postest Result

No	Name	Pretest	Posttest
1	Student 1	50	85
2	Student 2	45	85
3	Student 3	45	85
4	Student 4	55	85
5	Student 5	55	85
6	Student 6	55	85
7	Student 7	45	85
8	Student 8	50	85
9	Student 9	60	85
10	Student 10	55	85
11	Student 11	50	85
12	Student 12	45	85
13	Student 13	50	85
14	Student 14	55	85
15	Student 15	65	85
16	Student 16	60	85
17	Student 17	65	85
18	Student 18	50	85
19	Student 19	60	85
20	Student 20	50	85

Based on the data above, it was revealed that that the students' pretest scores had an average of 53.42 with a standard deviation of 6.47, the lowest score of 45, and the highest score of 65. After the treatment was given, the post-test scores of all students increased uniformly to 85, so that the average post-test score also reached 85.00. The difference between the post-test and pretest scores shows a significant increase, with an average increase of 31.58 points, a minimum of 20 points, and a maximum of 40 points. These findings indicate that the intervention provided was able to consistently improve student learning outcomes for all participants.

2. Descriptive Statistic

To provide a clearer overview of students' overall performance, descriptive statistical analysis was conducted on the pre-test and post-test scores. This analysis includes the minimum and maximum scores, mean values, and standard deviations, which offer a general picture of the students' achievement levels and the distribution of their scores. The results of this descriptive analysis are presented in Table 2.

Table 2 . Descriptive statistic
Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
pretest	19	45	65	53.42	6.466
postest	19	85	85	85.00	.000
Valid N (listwise)	19				

Based on the results of descriptive statistics analysis, it is known that the number of students sampled in the study was 20. The pretest scores ranged from a minimum of 45 to a maximum of 65, with an average of 53.42 and a standard deviation of 6.466. Meanwhile, the post-test scores of all students were the same, namely 85, so that the average reached 85.00 with a standard deviation of 0.000. This data shows an increase in scores from the initial condition (pretest) to the condition after treatment (post-test) evenly across all students.

3. Normality Test

Before conducting further statistical analyses, a normality test was carried out to determine whether the pre-test and post-test scores were normally distributed. Assessing normality is essential to ensure the appropriateness of subsequent parametric tests. The data were analyzed using both the Kolmogorov-Smirnov and Shapiro-Wilk tests. The results of the normality test are presented in Table 3.

Table 3. Test of Normality

Kolmogorov-Smirnov[a]			Shapiro-Wilk		
Statistic	df	Sig.	Statistic	df	Sig.
.137	20	.200[*]	.926	20	.130
.205	20	.028	.888	20	.024

Based on the results of normality tests using Kolmogorov-Smirnov and Shapiro-Wilk, it is known that the pretest data has a significance value greater than 0.05 (Kolmogorov-Smirnov = 0.200 and Shapiro-Wilk = 0.130), so that the pretest data is normally distributed. Meanwhile, the post-test data had a significance value of less than 0.05 (Kolmogorov-Smirnov = 0.028 and Shapiro-Wilk = 0.024), indicating that the post-test data was not normally distributed. Thus, it can be concluded that the research data did not fully meet the assumption of normality, so nonparametric statistical tests were more appropriate to use.

4. Wilcoxon Test

Since the normality test results indicated that the post-test data were not normally distributed, a nonparametric statistical test was deemed more appropriate for analyzing the difference between the pre-test and post-test scores. Therefore, the Wilcoxon Signed Ranks Test was employed to examine whether there was a statistically significant improvement in students' scores after the treatment. The results of the Wilcoxon test are presented in Table 4.

Table 4. Wilcoxon

Test Statistics[a]	
	posttest – pretest
Z	-3.844[b]
Asymp. Sig. (2-tailed)	.000
a. Wilcoxon Signed Ranks Test	
b. Based on negative ranks.	

Based on the results of the Wilcoxon Signed Ranks Test, a Z value of -3.844 was obtained with a significance (Asymp. Sig. 2-tailed) of $0.000 < 0.05$, so it can be concluded that there is a significant difference between the pretest and post-test scores. This indicates that the treatment given in the study had a real effect on improving student learning outcomes, where the post-test scores were higher than the pretest scores. The results of this study indicate a significant increase between the pre-test and post-test scores of students' writing skills after the implementation of peer feedback. Based on the Wilcoxon Signed Ranks Test, a Z value of -3.844 was obtained with a significance level of Asymp. Sig. (2-tailed) = .000 ($p < 0.05$). These results indicate that all students experienced an improvement in writing skills after the intervention was given. The improvement achieved was seen in three main aspects, namely grammar, vocabulary, and coherence. The fact that no students experienced a decline in scores shows that peer feedback truly contributed positively and consistently to the improvement of writing. Thus, it can be concluded that peer feedback activities not only helped students identify errors but also enriched their understanding of language structure and idea development.

These findings are consistent with previous studies that confirm the effectiveness of peer feedback in writing instruction. Cui et al., (2022) revealed that students who are actively involved in the process of giving and receiving feedback are able to improve the accuracy of their sentence structure and expand the vocabulary used in their writing. Similarly Shintani et al., (2014) found that peer feedback encourages students to be more critical in reviewing texts, thereby developing their reflective thinking skills. The similarity of these findings with the results of this study strengthens the evidence that peer feedback can be applied effectively in various learning contexts (Moore & Teather, 2013). However, the contribution of this study lies in its context, namely vocational high schools in Indonesia, which have rarely been studied. Thus, the results of this study provide added value in the form of new empirical evidence from a different context.

In practical terms, the results of this study have important implications for English teachers in vocational high schools. Teachers can utilize peer feedback as an alternative learning strategy that encourages students to actively engage in writing. Through the process of giving each other feedback, students have the opportunity to learn from their friends' mistakes while improving their own weaknesses. This makes students not only recipients of knowledge, but also active critics and learners. From a theoretical perspective, this study supports the view that writing instruction in an EFL context is more effective when it is oriented toward active student participation. Peer feedback is consistent with the collaborative learning approach, in which students are trained to take responsibility for their own learning process and learning environment. Thus, this study contributes to the strengthening of student-centered writing instruction theory.

Although the results of the study show a significant effect, there are several limitations that need to be considered. First, this study only involved 20 students from one vocational high school, so the results cannot be generalized to a wider population. Second, the research design did not use a control group, so the effectiveness of peer feedback cannot be directly compared with other writing learning strategies, such as teacher feedback. Third, the relatively uniform post-test results raise the possibility of bias in the assessment instruments or the correction process. This could affect the reliability of the research results. Considering these limitations, the results should be interpreted with caution so as not to lead to overgeneralization.

Given these limitations, future research should involve a larger and more diverse sample, both in terms of schools and education levels. Research with a stronger experimental design, such as involving a control group, is needed to compare the effectiveness of peer feedback with other methods. In addition, further research could explore how peer feedback affects more complex aspects of writing, such as argumentation or style. Long-term research is also important to assess the sustainability of peer feedback's influence on students' writing skills. Thus, further studies can provide a more comprehensive and in-depth understanding of the application of peer feedback in learning English as a foreign language.

D. CONCLUSION

Based on the results of the study, it can be concluded that the application of peer feedback has a significant effect on improving the writing skills of EFL students in vocational high schools. The results of the Wilcoxon Signed Ranks Test show a significant difference between the pre-test and post-test scores with a Z value of -3.844 and significance of .000 ($p < 0.05$). The improvement in writing skills was evident in the three aspects that were the focus of the study, namely grammar, vocabulary, and coherence. These findings confirm that the involvement of students in providing feedback on their classmates' writing encourages them to be more critical and reflective, as well as to improve the overall quality of their writing. This study also reinforces the view that peer feedback is an effective learning strategy in the context of English as a Foreign Language (EFL), as it enables students to become active learners who are responsible for their own learning process. The implications of this study can be seen in both theoretical and practical terms. In practical terms, English teachers in vocational high schools can use peer feedback as a learning strategy that encourages students to become more involved in the writing process, while also increasing their sense of responsibility and critical thinking skills. In theoretical terms, this study contributes to the strengthening of collaborative writing learning theory in the context of EFL. However, this study has limitations in terms of the limited sample size and the absence of a control group, so the results cannot be generalized broadly. Therefore, further research is recommended to involve a larger sample size, use an experimental design with a control group, and explore more complex aspects of writing, such as argumentation and style, so that the effectiveness of peer feedback can be understood more comprehensively.

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