Factors affecting teacher feedback on writing achievement, self-efficacy, and self-regulation among Junior High School EFL students

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ABSTRACT

This research aimed to evaluate the effectiveness of Teacher Corrective Feedback (TCF) in enhancing participants' English paragraph writing skills, assess its impact on their self-efficacy and self-regulation, and elucidate the factors that influence its effectiveness. The study was conducted in an Indonesian EFL context, involving 180 junior high school students recruited through purposive sampling from six schools in Badung Regency, Bali Province. A mixed-methods design was employed to integrate and analyze data obtained from tests and questionnaires, using descriptive statistics, paired-sample t-tests, and correlation analysis. Semi-structured interviews using thematic analysis were applied to triangulate findings with qualitative insights. The findings revealed that TCF significantly improved participants' writing skills, with mean scores rising from 49.13 ("poor") to 78.09 ("good"). Self-efficacy also increased from 2.85 ("moderate") to 3.88 ("high"). Paired-sample t-tests showed TCF had a significant effect on writing skills ($p = 0.000 < 0.05$) with a strong effect size (Cohen's $d = 2.692$). Pearson correlation indicated significant relationships between self-efficacy and writing achievement ($p = 0.038 < 0.05$) and between self-regulation and writing skills ($p = 0.07 < 0.05$, $r = 0.200 > 0.155$). The findings also indicated that the success of TCF is contingent upon individual factors such as student readiness, self-awareness, knowledge, and learning goals, as well as external factors including teacher influence, peer dynamics, and the school environment. These findings underscore the importance of long-term, adaptive feedback strategies in maximizing the effectiveness of feedback for enhancing students' English writing abilities. However, the study's use of purposive sampling poses a limitation, as it may restrict the generalizability of the findings to broader populations. Future research should consider employing random sampling techniques or involving larger and more diverse participant groups to enhance the applicability and robustness of the results.

Keywords: corrective feedback; self-efficacy; self-regulation; writing errors

INTRODUCTION

Writing tasks for English as a Foreign Language (EFL) students in Indonesia, especially in a junior high school context, can be quite complex and challenging. To address these challenges, students need effective feedback from teachers on their writing errors. Research indicates that Teacher Corrective Feedback (TCF) is essential not only for improving students' English language proficiency but also for enhancing their writing self-confidence and self-regulation (Gharani et al., 2023). Therefore, incorporating TCF into classroom practices can create a supportive learning environment where students are encouraged to reflect on their mistakes, develop critical thinking skills, and build greater confidence in their writing abilities. Schunk (2023) highlights that low self-efficacy and poor self-regulation can significantly

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hinder student performance, emphasizing the critical roles of passion, resilience, and commitment in the learning process. Similarly, Reese (2024) asserts that neglecting these factors can impede students' ability to achieve their goals. Fu et al.,(2024) add that feedback plays a pivotal role in shaping learning outcomes, with the potential for both positive and negative effects. Moreover, Fitriyah et al., (2024) note that teachers use corrective feedback (CF) to monitor instructional progress, while students rely on it to identify and address their mistakes. Consequently, in the context of EFL junior high school learners, teacher corrective feedback (TCF) is regarded as an effective learning strategy, as it enables students to learn through the correction.

Teacher Corrective Feedback (TCF) is a crucial instructional strategy aimed at addressing and correcting students' errors in spelling, punctuation, grammar, and word choice, thereby enhancing their linguistic accuracy and overall writing proficiency. Furthermore, TCF serves as a formative tool that helps students understand their mistakes, develop critical thinking skills, and apply learned concepts to future tasks. It also encourages self-reflection and promotes independent learning, empowering students to take ownership of their progress. Hakim (2021) notes that when educators highlight students' mistakes without offering elaboration or comparative analysis, it can lead to confusion. Regarding the frequency of feedback, Yu et al., (2021) argue that an abundance of written feedback does not necessarily yield better outcomes; in some cases, a more concise approach may be more effective. Similarly, Wondim et al. (2024) emphasize that while feedback is a key pedagogical tool for improving students' writing abilities, an overload of feedback can cause psychological stress, such as diminished self-efficacy. This is supported by Mahvelati (2021), who observes that students receiving TCF combined with support for self-efficacy and self-regulation show greater progress compared to those who receive feedback solely on general writing aspects. While direct written feedback with metalinguistic explanations is valuable for enhancing the writing skills of English as a Foreign Language (EFL) students, Zhang and Hyland (2022) underscore the importance of oral feedback in reinforcing students' learning behaviors. In summary, effective feedback implementation requires a balanced approach that integrates both oral and written feedback. This balanced method can significantly enhance students' learning behaviors and writing competencies.

Research reveals diverse perspectives on the relationship between self-efficacy, self-regulation, and students' writing performance. Ellis' Feedback framework presents specific challenges that require further exploration, particularly in addressing behavior-based learning issues. Ellis (2009) provides a comprehensive framework for corrective feedback in second language acquisition, addressing types, timing, and delivery methods of feedback. A A study by Sari and Han (2024) found that combining oral and written feedback was more effective than traditional methods, such as solely providing general comments or using corrective strategies without detailed explanations, in improving learning outcomes. Similarly, Xu and Wang (2024) observed that self-efficacy derived from teacher feedback focusing on linguistic aspects negatively impacted students' writing abilities, while performance-focused feedback, in this case emphasizes the outcomes or results of a student's work rather than the learning process or strategies used to achieve those outcomes, positively influenced their skills. Globally, TCF has been recognized as an essential strategy for improving writing skills and fostering self-efficacy and self-regulation in EFL learners (Gharani et al., 2023; Schunk, 2023).

Unlike previous studies that broadly examine TCF's impact, such as those by Ellis (2009), which explored the general effectiveness of corrective feedback in second language acquisition, and Hattie and Timperley (2007), which analyzed feedback as a mechanism for improving learning outcomes, this study delves deeper into specific aspects of TCF. It investigates not only its role in addressing linguistic errors but also its influence on fostering self-efficacy and self-regulation among EFL students. Therefore, this research uniquely focuses on Indonesian EFL learners, exploring the interplay between TCF, self-efficacy, and self-regulation. It also investigates whether self-efficacy or self-regulation contributes more effectively to writing achievement, a perspective largely unexplored in prior research. Therefore, this research is crucial to provide scientific evidence, information, and solutions to the pedagogical phenomenon. This study aims to explore how TCF influences Indonesian EFL students' self-efficacy and self-regulation in writing descriptive paragraphs. Furthermore, the objective of the study is also to provide information and evidence of factors that affect the effectiveness of feedback in improving Indonesian EFL students' writing performance. This study provides a significant contribution to education and academic purposes. Additionally, it offers other researchers a new perspective on TCF, considering its behavioral, cognitive, and psychomotor aspects in the context of EFL learning

Teacher Corrective Feedback
This research consolidates and summarizes theories on teacher corrective feedback, encompassing both Oral Corrective Feedback (OCF) and Written Corrective Feedback (WCF), to clarify their concepts, classifications, and benefits. Brookhart and McMillan (2020) highlight that teacher

feedback enhances student learning and performance by providing positive reinforcement and corrective guidance. Similarly, Hogan and Payne (2024) assert that effective feedback includes performance information aligned with learning objectives, clarification of performance standards, encouragement of self-assessment, and strategies to bridge the gap between current and desired outcomes. In the context of English language learning, OCF involves immediate spoken corrections or suggestions (Ye & Hu, 2024), while WCF consists of written comments, corrections, or suggestions on students' written assignments (Miao et al., 2023; Shen & Chong, 2023). The efficacy of WCF has been a topic of debate. Brown et al., (2023) emphasize its significance in second language acquisition, whereas Yang (2024) categorizes corrective feedback into six distinct types: Recast, Elicitation, Metalinguistic Clue, Explicit Correction, Clarification Request, and Repetition. Although Kao (2024) critiques the value of grammar-focused feedback, Zarrinabadi and Rezazadeh (2020) advocate for its role in fostering motivation and ensuring linguistic accuracy. These contrasting perspectives underscore the complexity of corrective feedback; while some learners may find it discouraging, others regard it as an essential tool for achieving academic success.

TCF plays a critical role in the educational process by offering insights into performance, guiding improvements, and reinforcing desirable behaviors. According to Dawson et al., (2019), effective feedback comprises several key elements, and unclear feedback can hinder the learning experience. Ideally, feedback should be delivered promptly after task completion, highlighting both strengths and areas for improvement, along with actionable recommendations. Ngoon et al.,(2018) emphasize that corrections should focus on behaviors that are modifiable and directly aligned with established objectives, providing constructive suggestions for enhancement. Additionally, Irons and Elkington (2021) argue that feedback must be tailored to individual needs and preferences, illustrating progress toward goals and fostering communication between the feedback provider and recipient. In conclusion, incorporating timely, clear, and personalized feedback is essential for facilitating effective learning while enhancing self-efficacy and self-regulation.

Self-efficacy and self-regulation
The concepts of self-efficacy and self-regulation are foundational in educational psychology, highlighting individuals' capacity to achieve their learning goals. Lippke (2020) defines self-efficacy as the belief in one's ability to succeed in specific tasks, while Lengetti et al., (2020) describe self-regulation as the ability to control one's thoughts, emotions, and behaviors to attain educational

objectives. Effective feedback is a critical factor in enhancing learning, as it provides insights into both strengths and areas for improvement (Schunk, 2023). Students with high self-efficacy are more likely to perceive feedback as a valuable tool for skill development (Ortlieb & Schatz, 2020). Self-efficacy, shaped by internal and external factors such as examination results and feedback, significantly impacts motivation, decision-making, and persistence (Schunk & DiBenedetto, 2021). It also influences how students regulate their learning behaviors. This study suggests that self-concept, or an individual's self-perception, is closely linked to self-efficacy, which is largely shaped by personal achievements and varies depending on context.

Bandura's theory of self-efficacy identifies four key elements: mastery experiences, vicarious experiences, verbal persuasion, and emotional states, with mastery experiences being the most influential. The interaction of these elements determines an individual's confidence in achieving their goals (Trautner & Schwinger, 2020). Self-efficacy influences various aspects of learning, including motivation, achievement, and self-regulation, reflecting empowerment through goal-oriented actions (Bessa et al., 2021) and shaping decision-making processes (Day et al., 2021). also affects students' effort, resilience, and problem-solving strategies (Hughes et al., 2021). This research aligns with Bandura's theory, emphasizing that students' self-efficacy is shaped by their learning environments and specific objectives.

Self-regulation in education is defined by an individual's awareness and accountability in achieving learning objectives. Greene et al., (2024) describe self-regulation as an active process in which individuals organize and direct their actions toward academic goals. Raković et al., (2022) emphasize the role of social influences, such as teacher support and peer interactions, in fostering self-regulation. They also identify goal setting, feedback, and reflection as essential components in cultivating these skills. Self-regulated learning (SRL) requires learners to systematically engage in and sustain cognitive, motivational, and behavioral processes to achieve their personal objectives. Theobald (2021) highlights that self-regulated learners possess both the ability and motivation to learn, strategize, and take ownership of their goals through intrinsic drive. Hadi and Gharaibeh (2023) argue that education should address temperament development and methods for assessing variations in emotional reactivity and attentional self-regulation, underscoring the significance of emotional factors in fostering self-awareness and enhancing the learning process.

Schunk's theory of self-regulation encompasses elements such as goal setting, perceived self-efficacy, strategic planning, monitoring, feedback, self-evaluation, and motivation, providing a

comprehensive framework for understanding how students manage their behavior to achieve academic success (Champ et al., 2023). Regulatory focus theory, proposed by Volz and Masicampo (2021) further expands on this by distinguishing between two types of self-regulation: a "promotion focus," which emphasizes progress and achievement, and a "prevention focus," which prioritizes safety and security. Research by Lee et al., (2023) demonstrates that self-regulated learning training programs can be highly effective, even at the elementary level. Their findings suggest that educators can enhance learning outcomes by implementing feedback mechanisms that strengthen students' self-efficacy and regulation, ultimately improving their overall academic performance.

Considering the theoretical review above, this research examines the effectiveness of TCF, specifically its impact on students' self-efficacy and self-regulation, and identifies the factors that enhance its effectiveness. The objectives of the study address two main research questions;

1. How does TCF influence Indonesian EFL students' self-efficacy and self-regulation in writing descriptive paragraphs?
2. What factors affect the effectiveness of TCF in improving Indonesian EFL students' performance in writing descriptive paragraphs?

METHOD

The research utilized a mixed-methods framework, combining both quantitative and qualitative data to achieve a thorough understanding of the phenomena being studied. This approach facilitates a detailed analysis and interpretation of the results. Clark et al., (2022) highlight the synergistic relationship between these methodologies in educational research, particularly when examining intricate issues such as students' perceptions of feedback and their academic outcomes. To assess the enhancement of writing skills, self-efficacy, and self-regulation following the implementation of TCF, a quantitative method featuring descriptive analysis was utilized. Additionally, to evaluate the differences in means and the correlation effects, correlational analysis was conducted. The second aim, which involved identifying the factors that either promote or obstruct students' self-efficacy and self-regulation in relation to teacher feedback, was explored through qualitative data gathered from interviews (Patton, 2023).

Respondents

The population of this study consisted of 1,800 junior high school students in Badung Regency, Bali Province, with 180 students selected as the sample using purposive sampling. This technique was deemed appropriate as it enabled the intentional selection of participants with specific traits critical to addressing the study's objectives (Campbell et al., 2020). The criteria for selection included age, gender, academic performance, and other characteristics relevant to the research focus, ensuring a targeted and meaningful sample. The justification for the sampling method could be expanded to strengthen the methodological rigor. The study selected respondents from six schools across diverse geographical areas (North, Central, and South Badung Regency), providing a balanced representation of students from varied educational and sociocultural contexts. Additionally, triangulating purposive sampling with other complementary sampling techniques, such as stratified random sampling, could be explored in future research to enhance generalizability and further minimize potential biases.

The distribution was as follows: School 1 in North Badung (N=30 students: 16 males, 14 females), School 2 in North Badung (N=30: 15 males, 15 females), School 3 in Central Badung (N=30: 16 males, 14 females), School 4 in Central Badung (N=30: 17 males, 13 females), School 5 in South Badung (N=30: 14 males, 16 females), and School 6 in South Badung (N=30: 16 males, 14 females), totaling 180 students (94 males (53.3%) and 86 females (46.7%). Because they were under 17 years old, they were required to obtain their parents' approval to participate in the study by signing a consent letter.

Data collection

To accomplish the objectives, this study utilized instruments to collect data. To achieve the first objective, performance tests were administered to the students to assess their English writing ability before and after the application of TCF. In the first stage, students wrote descriptive paragraphs about a famous actress or actor, a favorite animal, or a specific place. In the second stage, the teachers reviewed the writings, providing corrections on their papers and revising the errors. Teachers offered explanations through both oral and written feedback. Participants then rewrote the paragraphs. These activities were conducted over four sessions. The participants' writings were evaluated and scored using a rubric adapted from Oshima and Hogue (2007), which assessed the following criteria: Format (5 points), Punctuation and Mechanics (5 points), Content (25 points), Organization (40 points), and Grammar and Sentence Structure (25 points).

In the next stage, questionnaires were given to the participants to observe their self-efficacy and self regulation toward the The Self-Efficacy Questionnaire (SEQ) developed by Bandura (2001), consisting of 63 statements, and the Self-Regulation Questionnaire (SRQ), containing 20 statements, were wriiten in Indonesiam to make particpants

understand the statements. The questionnaires were constructed to explore their emotional perception before, duuring, and after the TCF was applied. A Likert scale ranging from 0 to 5 was utilized, allowing respondents to indicate their levels of self-efficacy and self-regulation while completing the writing tasks through TCF. The five-point scale was defined as follows: 1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree. Researchers computed each participant's score by averaging their responses.

For qualitative data, semi-structured interviews were conducted using a predetermined set of questions aimed at obtaining supplementary information. The interviews included eighteen participants from six different schools, with each institution represented by three students: one high-scoring (H1, H2, H3), one average-scoring (A1, A2, A3), and one low-scoring student (L1, L2, L3). This method aimed to capture diverse perspectives among the participants. Because the participants were underage, , researchers asked them six general questions in Indonesian based on three themes: (1) Participants' perceptions of TCF; (2) The benefits of learning with TCF; and (3) The challenges of TCF and factors limiting participants' learning success. These interviews were conducted both before and after the application of TCF, with each session lasting five minutes for each participant. The interviews were conducted in a friendly manner.

Data analysis
Quantitative data were collected from participants' pre-English paragraph writing performance and post-writing performances. Mean scores were calculated by dividing the total raw scores by the number of participants.. The paired sample t-test was carried out using SPSS paired sample t-test to compare the participants' writing performance before and after the application of the TCF. Additionally, Cohen's d effect size was calculated to assess the impact of the TCF on participants' writing performance, self-efficacy, and self-regulation. Furthermore, Pearson correlation analysis was performed to examine whether there was a significant correlation between self-efficacy, self-regulation, and writing performance.

The pre-performance mean score indicated the participants' initial ability to write descriptive paragraphs in English, while the post-writing performance mean score reflected their ability after four sessions of TCF, which included both spoken and written components. A paired sample t-test conducted using SPSS Version 25 analyzed the writing performance scores to identify significant differences, with significance set at $\alpha = 0.05$ (Field, 2024). This analysis assessed the effectiveness of TCF on the participants' English writing skills. Additionally, Cohen's d-effect size was used to

measure the standardized difference between the two means. The formula of *Cohen's d is = (M2 - M1) / Sdpooled* where: *SDpooled = √((SD12 + SD22) / 2* (Cohen, 2013). The second set of quantitative data was collected from two questionnaires: SEQ and SRQ. The mean scores from these questionnaires were compared to the post-test mean score after four TCF sessions using product-moment correlational analysis. This analysis assessed the relationship between feedback on participants' writing self-efficacy and self-regulation, and their writing achievement. In contrast, the results from the semi-structured interviews were analyzed using thematic analysis. Thematic analysis aids in identifying and categorizing themes, organizing data based on specific issues. (Riger & Sigurvinsdottir, 2016).

FINDINGS AND DISCUSSION
The influences of TCF on students' writing self-efficacy and regulation
The quantitative data analysis in this study examines how TCF influences students' self-efficacy and self-regulation in writing paragraphs. The findings are presented in four stages: (1) results from writing tests, (2) results from the self-efficacy questionnaire, (3) results from the self-regulation questionnaire, and (4) results from the Pearson correlation test.

The results from writing performance test
The first research finding shows participants' proficiency in writing descriptive English paragraphs before and after TCF implementation. The first research result comes from the quantitative data analysis of the pre-test and post-test distributions, indicating students' descriptive paragraph writing performance in each session. The participant's proficiency in writing descriptive paragraphs is measured on a 100-point scale (Oshima and Hogue, 2007:196). The proficiency categories are interpreted based on the mean (M) score range: M 0–30 = "very poor", M 31–50 = "poor", M 51–70 = "fair", M 71–85 = "good", M 86–100 = "excellent". The distribution of descriptive paragraph writing proficiency before and after TCF implementation is presented in Table 1.

The findings revealed that the pre-test mean score was 49.13, categorized as "poor" (31–50), indicating that participants' initial descriptive paragraph writings were full of errors. Scores ranged from 20 (N = 5) to 84 (N = 1), suggesting difficulties in punctuation, mechanics, content, organization, grammar, and sentence structure, leading to unclear meanings. Participants were unaware of their mistakes, causing confusion and a lack of motivation. Therefore, TCF was implemented over four sessions, focusing on gradual correction both orally and in writing. The sessions included six types of feedback: recast, elicitation,

metalinguistic clues, explicit correction, clarification requests, and repetition. In the introduction stage (session 1), participants reduced errors in word choice, spelling, and simple sentences, with an average post-test score of 68.40 ("fair"), up 20.30 points from the pre-test. In the formation stage (session 2), text structure improved despite errors in tenses, grammar, and vocabulary, with an average post-test score of 77.00 ("good"). The reinforcement stage (session 3) showed improved cohesion and coherence, with an average score of 80.79 ("good"). In the production stage (session 4), students produced well-constructed paragraphs, with an average score of 86.16 ("excellent"). The grand mean of the interventions was 78.09 ("good").

Table 1
The distribution of descriptive paragraph writing proficiency

Groups N=180	Pre-test	Post-test Session 1	Post-test Session 2	Post-test Session 3	Post-test Session 4	Grand Mean post-tests
Group 1	42.87	62.97	74.79	80.38	87.85	76.50
Group 2	41.97	65.57	74.33	83.33	86.17	77.35
Group 3	62.47	71.33	77.17	82.33	89.47	80.08
Group 4	45.10	69.6	77.98	77.9	79.67	76.29
Group 5	51.63	75.8	82.97	86.27	88.77	83.45
Group 6	51.23	65.13	74.73	74.53	85.03	74.86
Mean	49.13	68.40	77.00	80.79	86.16	78.09
Category	poor	fair	good	good	excellent	good

Based on the data analysis, this study revealed an improvement in the respondents' ability to write descriptive paragraphs in English. The improvement occurred gradually with each session, as major errors were reduced to minor ones. This suggests that TCF is an effective strategy for helping students improve their format, mechanics, content, organization, and sentence structure. The implication is that TCF can be more widely implemented as a structured teaching method to enhance student's writing skills in the context of learning English as a foreign language.

To see the difference between the mean score of pre-test and the mean score of post-test and to measure the effectiveness of TCF, a paired sample t-test was carried out using SPSS Version 25. Both pre-test and post-test data were confirmed to have normal distribution verified by the Kolmogorov-Smirnov test (Sig values > 0.05). The outputs of paired sample test are presented in Table 2.

Table 2
Outputs of Paired Samples Test

		Paired Differences							
					95% Confidence Interval of the Difference				Sig. (2 tailed)
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	
Pair 1	pre-test post-test	-28.961	10.542	.786	-30.512	-27.411	-36.858	179	.000

The outputs demonstrated a significant difference between mean scores pre-test and the post-test. The pre-test average score for participants' descriptive paragraph writing was 49.13 (SD = 13.869), while the post-test average score was 78.09 (SD = 6.249), indicating the participants' English writing ability was significantly improved after the implementation of TCF. It can be seen from the correlation test revealing a coefficient of 0.694 with a Sig. value of 0.000. The paired sample t-test results showed a Sig. (2-tailed) value of 0.000, less than 0.05, confirming a significant difference between pre-test and post-test averages, thus rejecting the null hypothesis (H0) and accepting the alternative hypothesis (Ha). This indicates that TCF significantly enhances participants' proficiency in writing descriptive English paragraphs. Cohen's d-effect size analysis was conducted to determine the level of effectiveness. The calculation resulted in Cohen's d = 2.692357, indicating a very large effect size. According to Cohen's conventions (0.2 = small, 0.5 = medium, 0.8 = large), an effect size of 2.692357 is substantial, suggesting a strong impact of TCF on participants' descriptive writing skills.

Contrary to these results, Zhu et al., (2024) indicated that teacher feedback did not affect students' writing proficiency when treatments were short and did not involve behavioral adaptations. Sedrakyan et al., (2020) emphasized that students play an active role in the feedback process by using strategies or adapting their behaviors. Without these strategies, feedback has little or no effect on improving learning. Furthermore, Vuogan and Li (2023) revealed that peer feedback has a significant positive overall effect on students' writing. However, there were no significant differences between the effects of peer feedback, teacher feedback, and self-revisions unless students had

more time to write and treatments. Jin et al., (2024) indicated that cognitive engagement, affective engagement, and behavioral engagement are significantly associated with students' writing performance. As a result, this study suggests that TCF has a strong and broad effect on the English writing proficiency of participants because it is implemented gradually over a longer period and incorporates behavioral elements such as self-efficacy and self-regulation with various types and styles of feedback.

The results from the SEQ

The second quantitative data results explain the participants' self-efficacy in writing descriptive paragraphs before and after TCF implementation. This questionnaire was scored using a 5-point Likert scale. The criteria for categorizing participants' responses use the interpretation adapted from Phoong (2021) with the following Mean (M) ranges: M=1.00 - 1.80 "Very Low", M = 1.81 - 2.60 "Low:", M = 2.61 - 3.40 " Moderate:", M = 3.41 - 4.20 "High", and M = 4.21 - 5.00 "Very High". The difference in participants' writing self-efficacy before and after TCF implementation is presented in Table 3.

Table 3
The difference in participants' writing self-efficacy

| Groups	Mean Pre-SEQ	Category	Mean Post- SEQ	Category
Group 1	2.81	moderate	3.54	high
Group 2	2.60	low	3.52	high
Group 3	2.99	moderate	4.02	high
Group 4	2.89	moderate	4.08	high
Group 5	2.59	low	3.49	moderate
Group 6	3.20	high	4.53	very high
Mean	2.85	moderate	3. 88	high

Table 3 illustrates the change in participants' self-efficacy levels before and after TCF implementation. Initially, the mean pre-questionnaire score for writing self-efficacy was 2.85 ("moderate"), indicating doubts and challenges in paragraph writing abilities. After the TCF sessions, assessed through the SEQ, participants showed significant improvement, with a mean post-questionnaire score of 3.88 ("high"). Descriptive statistics revealed an average pre-questionnaire score of 2.85 (SD = 0.328) and a post-questionnaire score of 3.88 (SD = 0.554). This increase (2.85 < 3.88) demonstrates enhanced self-efficacy due to TCF.

A paired samples correlation yielded a coefficient of 0.598 with a Sig. value of 0.000, indicating a significant relationship between participants' self-efficacy before and after TCF (Sig.

< 0.05). Additionally, the paired sample t-test showed a significant difference between pre-and post-questionnaire scores (Sig. (2-tailed) = 0.000), leading to the rejection of the null hypothesis (H0) and acceptance of the alternative hypothesis (Ha). This affirms that TCF substantially strengthens participants' self-efficacy in writing descriptive English paragraphs. Cohen's d effect size was calculated as 2.262507, indicating a very large effect size, which suggests a robust positive impact of TCF on participants' writing self-efficacy, highlighting its effectiveness in improving confidence in writing descriptive paragraphs. This finding is supported by evidence from the self-efficacy questionnaire responses, indicating that participants believe TCF can help them write paragraphs better. Figure 1 illustrates the percentage levels of participants' self-efficacy in writing through TCF.

Figure 1
Students' responses to the SEQ statement
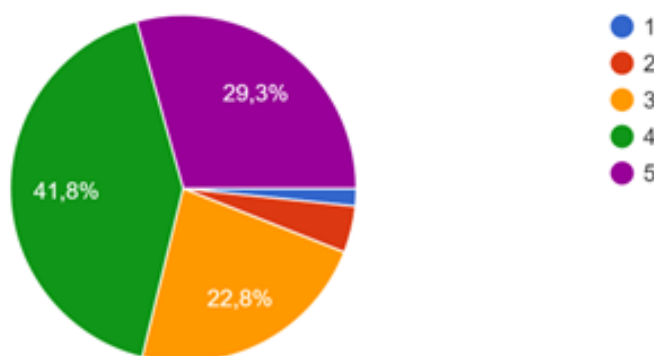
The data in the diagram indicates that a majority of students (71.1%) have a strong positive perception of teacher feedback in helping them write descriptive paragraphs in English well. Overall, the data highlights a consensus on the positive role of teacher feedback in improving writing skills, with most students recognizing its value. The result implies that TCF should focus on enhancing students' awareness of learning experiences, extracting feedback, and self-regulation rather than solely boosting self-efficacy.

The results from the SRQ

The following research results pertain to the level of participants' self-regulation in writing English during the implementation of TCF. The SRQ responses were calculated and categorized using a Likert scale ranging from 0 to 5. This measures the participants' ability to self-regulate by controlling and anticipating the feedback given by the teacher on their writing. The distribution of student responses to the SRQ regarding TCF is presented in Table 4.

Table 4
Distribution of SRQ

| Participants	SA (5)	A (4)	N (3)	D (2)	SD (1)	Total	Average	Category
Group 1	0	1	13	16	0	75	2.58	moderate
Group 2	1	13	14	2	0	103	3.43	high
Group 3	0	10	16	3	1	95	3.21	high
Group 4	0	0	16	14	0	76	2.53	moderate
Group 5	1	15	13	1	0	106	3.53	high
Group 6	0	12	17	1	0	101	3.37	high
Total	**2**	**51**	**89**	**37**	**1**	**556**	**3.11**	**high**

The data in Table 4 indicates that participants have "high" self-regulation in writing during the implementation of TCF, as evident from the average SRQ response score of 3.11. Out of a total of 556 responses, 1% "strongly agree," 28% "agree," 49% "neither agree nor disagree," and 21% "disagree" that self-regulation helps them anticipate corrective feedback from the teacher. This implies that self-regulation stems from students' self-awareness to prepare for or anticipate feedback. This is further supported by students' responses to the SRQ statement, "I usually note down teacher feedback for my achievement purposes." The percentage of students' responses to that statement is illustrated in Figure 2.

Figure 2
Percentage of students' responses to the SRQ statement
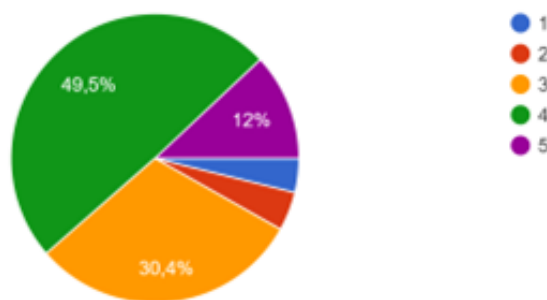
The diagram reveals that a majority of respondents (61.5%) agree or strongly agree with the statement about noting down teacher feedback for achievement purposes, indicating that self-regulation in anticipating feedback is relatively common among them. Specifically, 49.5% agree and 12% strongly agree with the statement. However, a significant portion, 30.4%, are neutral on the matter, suggesting that while noting feedback is common, it is not universally regarded as important. Meanwhile, a smaller percentage of respondents either disagree (4.3%) or strongly disagree (3.8%), indicating that the practice is not entirely accepted by everyone. Overall, the data suggests that noting feedback is a prevalent but not universally critical practice in self-regulation

The results from the correlation test

To determine whether there is a relationship between self-efficacy (X1), self-regulation (X2) regarding TCF, and the results of writing descriptive paragraphs in English (Y), a correlation test was conducted using the product-moment method. The correlation test for self-efficacy, self-regulation, and writing outcomes is presented in Table 5.

Table 5
The correlation test for self-efficacy, self-regulation, and writing outcomes

Correlations

		self-efficacy	self-regulation
writing proficiency	Pearson Correlation	-.155*	.200**
	Sig. (2-tailed)	.038	.007
	N	180	180

The results of the Pearson correlation test can be understood in three ways: by looking at the significance value (Sig, 2-tailed), the calculated r-value (Pearson correlation), and the SPSS asterisk * indicator. Based on a Sig (2-tailed) value of 0.038 < 0.05, a calculated r-value of 0.155 < the table r value of 0.159, and only one SPSS asterisk *, there is a low correlation between self-efficacy (X) and students' English writing achievement (Y). This indicates that the level of self-efficacy does not directly influence the English writing performance of the participants. This is because participants need more than just self-confidence; they also require awareness of other behavioral factors such as learning experiences, learning consciousness, and self-regulation, which play key roles in achieving writing skills. Conversely, self-regulation is significantly correlated with English writing performance. This is evident from the correlation test outputs: a Sig (2-tailed) value of 0.007 < 0.05, a calculated r-value of 0.200 > 0.159, and two SPSS asterisks **. This relationship indicates that the higher the students' self-regulation, the better their academic writing performance.

These findings align with previous research of Wei et al., (2024) who found a significant positive relationship between writing self-efficacy and writing performance at both the paragraph and sub-skill levels. Additionally, Chen (2020) discovered that only students with good English performance had high self-efficacy scores, indicating a positive correlation between self-efficacy and English performance. This study revealed that self-efficacy does not have a significant correlation with student's English writing outcomes because they lack awareness of English language learning, feedback experiences, and learning commitment.

Meanwhile, in line with the finding of self-regulation, Zhu et al., (2024) emphasized that Self-Regulation (SR) is of great importance for enhancing students' writing proficiency and supporting social development. Therefore, this study also underscores that the type of feedback provided by teachers can stimulate students' cognitive engagement in writing. This aligns with the findings of Yang et al., (2023) who demonstrated that SR-based feedback practices help EFL writers develop and use self-regulated writing strategies, foster positive learning beliefs about writing, and improve their revising experiences. The finding implies that enhancing students' self-regulation skills can significantly improve their English writing performance, suggesting that educational strategies and feedback mechanisms should focus on developing these skills to foster better academic outcomes.

Results based on the thematic analysis
To identify the factors and participants' perceptions regarding TCF in enhancing and limiting the effectiveness of their self-efficacy and self-regulation, this study used semi-structured interviews. Each school group was represented by three participants selected from different levels of English writing proficiency: "High" (H), "Average" (A), and "Low" (L). A total of 18 out of 180 students were interviewed in Indonesian, and the results were then transcribed into English. The interview consisted of six questions, which elaborated on three themes: (1) Participants' perceptions of feedback on participants' writing self-efficacy and self-regulation; (2) The benefits of learning with TCF, and (3) The challenges of TCF and the factors that limit the success of participants' learning achievements. The following is a review of the interview results for each theme.

Participants' perceptions of TCF
Based on the interview results, all participants reported that they felt excited about TCF in their descriptive paragraph writing in English. Because teachers rarely provided detailed feedback, the participants were unaware of the mistakes or correctness of their work. With TCF, they felt noticed and appreciated, which emotionally helped to increase their self-efficacy and self-regulation as they prepared to anticipate the corrections given by the teacher. The question is *"How do you feel when you receive feedback or corrections from your teacher regarding your writing?"*

Student H1:	"I feel very impressed with TCF because I can identify mistakes in my writing, word choices, and text structure, allowing me to learn from the corrections given by the teacher."
Student A1:	I feel very impressed with TCF because I can identify mistakes in my writing, word choices, and text structure, allowing me to learn from the corrections given by the teacher."
Student L1:	"I am happy with TCF on my writing mistakes, although I get a little nervous because I am wondering if I make any errors"

Following the participants' answers, TCF generally not only motivates them to improve their self-efficacy in writing correct descriptive paragraphs but also helps them anticipate the teacher's questions about their writing with well-formed arguments. However, it cannot be denied that direct corrections can weaken students' performance (L) and cause anxiety.

This finding aligns with Mahvelati (2021) revealed that although these concerns negatively affected students' attitudes, they created facilitating anxiety that drove learners to engage more actively in the learning process than their TCF counterparts. However, Zhang (2021) demonstrated that explicit correction is more associated with learners' ability to notice target forms and L2 development. This means that the participants in this study feel that TCF helps them recognize their mistakes and improve their learning targets.

This theme also includes participants' opinions on the most effective types of TCF (i.e., verification feedback, directive feedback, scaffolding feedback, teacher praise) and how TCF should be delivered to participants, whether through OCF, WCF, or both. *What type of feedback do you prefer? In written or spoken? Could you explain your reasons?*

Student H2:	"In my opinion, I prefer verification and praise feedback because I can immediately know my mistakes and corrections, and receiving praise motivates me. This applies to both oral and written feedback."
Student A2:	"I choose directive and praise feedback, both orally and in writing."
Student L2:	"I find scaffolding and praise feedback, both orally and in writing, to be suitable because it helps me understand my main mistakes."

From the interview results above, it is clear that all students prefer praise feedback because they feel more motivated by rewards for the small things they do. Additionally, they prefer a combination of oral and written feedback because it helps them understand both verbal suggestions and the correct written English in descriptive observations of their writing. However, high-achieving participants tend to prefer verification feedback, while average and lower-achieving participants prefer directive feedback. This is because high-achieving participants enjoy cognitive challenges. These interview results align with the research by Colognesi et al., (2020) which indicated that students who received oral feedback showed more progress than those who received written feedback. Additionally, Solhi and Eğinli (2020) demonstrated that the group receiving OCF on their writing outperformed the group receiving WCF in terms of content and organization.

The benefits of learning with TCF

Participants' interview answers about the benefits of TCF in writing descriptive English paragraphs support the finding that feedback is effective in the learning process. All participants mentioned that feedback greatly enhances their confidence and self-regulation, which in turn positively impacts their writing skills. The question asked was, *"Do you think that feedback is helpful for your writing self-efficacy, self-regulation, and achievement?"*

Student H3:	Yes, in my learning experience, although I initially had doubts, I gained a better understanding of sentence patterns, and my paragraph became more readable, which improved my achievement."
Student A3:	"Absolutely yes, because the corrections on my writing errors help me learn new words, structures, and sentences."
Student L3:	"Yes, although I am a bit anxious, I think I need more time to understand and get used to the English language."

Based on the participants' answers, this research confirms that TCF plays a crucial role in influencing their self-regulation and English writing achievement. Initially, their confidence was low, but they adjusted their learning goals and worked hard to follow the teacher's suggestions and corrections. The following question in this theme also concerns the contribution and role of feedback in changing attitudes and developing English writing learning outcomes. Therefore, the question *"Do you feel that the feedback given by your teacher contributes to the improvement of your English writing? Can you explain how?"* can provide supporting information for the above research results.

Student H4:	"Yes, based on my observation, the teacher's feedback has significantly contributed to the improvement of my knowledge, writing skills, and learning behavior."
Student A4:	"I think the feedback not only impacts my awareness of mistakes I previously thought were correct but also my learning behavior."
Student L4:	"Yes, for me, I always felt afraid of making mistakes and hesitant when submitting my writing. However, when the teacher explained the corrections, I started to understand and feel more confident to learn better."

Based on the interview results above, all participants felt that TCF positively impacted their behavior and learning outcomes. Changes in behavior were observed in their increased confidence, initially fearful but growing more self-assured, and their self-regulation in preparing to write descriptive paragraphs. This research aligns with Tambunan, et.an.,(2022) which showed that TCF positively contributed to the writing improvement of Indonesian EFL students. Additionally, Yang et al., (2024) indicated feedback

strategies helped the experimental group students accurately understand writing and strengthen the logical structure of their writing. However, Bagheri (2024) noted that TCF did not contribute to participants' writing when the assignments were highly complex. Therefore, based on the interview results, this research confirms that TCF has a positive impact when the complexity of the tasks is adjusted according to the students' intelligence levels.

The factors that limit the success of participants' learning

The interview results on the topic of the challenges of TCF provide detailed information about the relationship between pre-test and post-test writing scores and the effects of TCF on self-efficacy and self-regulation. Several factors limiting the effectiveness of this strategy were identified. The related question was, *"What makes it difficult for you to accept or implement the feedback given by your teacher?"* Here are the students' responses:

Student H5:	Sometimes it's challenging to accept feedback because I feel confident in my approach and have put a lot of effort into my work"
Student A5:	"I find it difficult to implement the feedback because I often don't fully understand what the teacher means in limited time"
Student L5:	"Accepting feedback is hard for me because it feels discouraging. When I get a lot of corrections, I feel like I'm not good enough and lose motivation."

Participant responses, challenges in responding to TCF include time constraints, memory lapses, and emotional factors. Some students prefer relying on peers for explanations due to teacher apprehension. In line with this finding, (Yu et al., 2020) discovered that WCF tended to discourage students' motivation and engagement in L2 writing. However, scoring, peer and self-feedback, and especially expressive feedback seemed to boost student writing motivation and engagement. Meanwhile, Yu and Liu (2021) found that TCF provides a pragmatic alternative to traditional classroom feedback practices, better facilitating the training of feedback-literate academic writers. This study believes that the difference is attributed to students' lack of readiness and excessive respect for teachers when receiving feedback.

The challenges of TCF limit the success of participants' learning

The interview results on the topic of the challenges of TCF (Teacher Corrective Feedback) provide detailed information about the relationship between pre-test and post-test writing scores and the effects of TCF on self-efficacy and self-regulation. Several

factors limiting the effectiveness of this strategy were identified. The related question was, *"In your opinion, what factors should be present in feedback to enhance your learning motivation?"* Here are the students' responses:

Student H6:	"Reinforcement, I need more specific clear examples of how to apply the feedback."
Student A6:	"Clear explanations, I want some constructive criticism with suggestions for improvement and regular follow-ups to track progress"
Student L6:	"Encouraging words; If I don't understand the teacher's explanation, I am usually motivated by encouragement"

The interview results identified three main factors that affect the effectiveness of Teacher Corrective Feedback (TCF): internal, external, and psychological influences. Internally, participants often struggle with grammar and sentence structure, so consistent reinforcement and corrections from the teacher are essential. Externally, the teacher's strategy in delivering feedback is crucial in optimizing its effectiveness, which requires clear and precise explanations. Psychologically, students' perceptions of feedback can be influenced by their emotional responses, so teachers need to use encouraging language to support and motivate them. Consistent with these findings, Gonzales and Valeo (2023) found that learner and contextual factors influence learners' affective, cognitive, and behavioral engagement with WCF (Written Corrective Feedback) in complex ways. Additionally, Zhang and Zou (2023) revealed that conditions influenced activities through learners' experiences, trust in peers, effort and time devotion, emotions, and efficiency in peer interaction and feedback exchange. Meanwhile, Rashidi and Majdeddin (2023) suggest that negotiated help from the teacher was crucial in helping learners internalize their oral errors. Based on these previous research findings, we believe that paying attention to these three factors can help teachers and students maximize the effectiveness of TCF in achieving learning goals.

One significant finding from this interview is that TCF substantially enhances students' writing self-efficacy and self-regulation by making them feel noticed and appreciated, which emotionally supports their learning process. However, it also highlights that the effectiveness of feedback is influenced by the feedback type and delivery method, as well as individual student characteristics, such as their anxiety levels and preferences for feedback formats. This research implies that by understanding and addressing individual, external, and situational factors, educators can create more effective and supportive learning environments. Additionally, tailored feedback that considers these

factors can lead to improved student engagement and better learning outcomes.

The pre-test scores revealed unexpectedly low writing proficiency, with a mean score of 49.13, categorized as "poor," and five participants scored as low as 20, indicating substantial deficiencies in grammar, organization, and mechanics that were more severe than anticipated. While TCF effectively improved writing performance in stages, an unexpected finding was the weak correlation between self-efficacy and writing outcomes. This suggests that, despite increases in confidence, self-efficacy alone may not directly translate into improved writing performance. It indicates that other factors, such as skill mastery or cognitive strategies, may play a more critical role in driving progress.

While self-regulation displayed a significant positive correlation with writing improvement, indicating that behavioral engagement and structured learning approaches are crucial, self-efficacy showed a limited standalone impact. This suggests that confidence, without the support of effective behavioral and cognitive strategies, is insufficient to drive substantial progress in writing proficiency. Furthermore, a noteworthy finding was the variation in students' preferences for feedback types based on their achievement levels. High achievers favored verification feedback, which confirms the accuracy of their work, while lower achievers preferred directive feedback, offering explicit guidance on how to correct errors. These results highlight the importance of tailoring feedback strategies to individual learner needs, challenging the assumption that a one-size-fits-all approach to feedback is universally effective.

Limitation

This study demonstrates a clear improvement in participants' ability to compose descriptive paragraphs in English through the application of Teacher Corrective Feedback (TCF). However, several limitations should be noted. First, the research did not establish a significant relationship between self-efficacy and students' writing performance in English. This lack of correlation may be attributed to factors such as the participants' limited awareness of English language acquisition, their previous experiences with feedback, and their overall commitment to learning. Second, the effectiveness of TCF was found to depend on several variables, including the type of feedback provided, the mode of delivery, and individual student characteristics, such as anxiety levels and preferences for specific feedback styles. These factors suggest that the findings may not be universally applicable, as students may respond differently to the same feedback methods. Finally, the study primarily focused on short-term improvements, leaving the long-term sustainability

of these advancements unclear. Further research is needed to explore these factors in a broader range of contexts and over extended periods to better understand the overall efficacy and durability of TCF as an instructional strategy.

Implications of the findings

The findings of this study highlight significant implications for EFL teaching and learning practices, emphasizing the importance of Teacher Corrective Feedback (TCF) as a structured, gradual approach to improving students' English writing skills by reducing errors and enhancing content, organization, and sentence structure. Educators are encouraged to design feedback strategies that address linguistic and mechanical issues while fostering cognitive engagement, self-regulation, and motivation to write. Personalized feedback approaches, such as combining oral and written feedback, are essential to cater to diverse student preferences, with verification feedback benefiting high-achieving students and directive feedback supporting average and lower-achieving learners. Additionally, the study underscores the critical role of self-regulation in long-term writing improvement, suggesting that educational strategies should include activities that build learning awareness, commitment, and behavioral adaptation to feedback. These insights provide valuable guidance for educators, curriculum developers, and policymakers in refining instructional methods to enhance writing proficiency in EFL contexts.

CONCLUSION

The findings of this research reveal two new insights into TCF. Implementation of this strategy significantly enhances participants' ability to write descriptive paragraphs in English. It has a positive and broad effect on their overall English writing proficiency due to its gradual implementation over an extended period and the inclusion of behavioral elements such as self-efficacy and self-regulation, combined with diverse feedback styles. TCF proves effective in building linguistic knowledge, structuring texts, strengthening sentence connections, and producing clear, meaningful, and readable paragraphs. The success and limitations of feedback depend on individual factors like student readiness, self-awareness, knowledge, and learning goals, as well as external factors such as teacher influence, peer dynamics, and the school environment. Moreover, the specific learning situation significantly influences TCF's effectiveness, shaping outcomes in educational contexts.

The findings from this study highlight the significant role of TCF in enhancing Indonesian EFL students' writing self-efficacy and self-regulation. The substantial improvements in

descriptive paragraph writing scores and the positive correlations between feedback, self-efficacy, and self-regulation suggest that consistent, behaviorally adaptive feedback strategies can effectively enhance English writing skills. These results imply that educators should focus on long-term and tailored feedback approaches to foster students' confidence and self-regulatory behaviors in writing. However, the study's limitations include the potential influence of external factors such as the students' varying backgrounds and the teacher-student relationship, which were not controlled for. Additionally, the research's reliance on self-reported data may introduce bias, and the specific context of Indonesian EFL students may limit the generalizability of the findings to other settings. Further research should concentrate on these variables and include a more diverse participant demographic to validate and expand upon these findings. Investigating the influence of TCF on learners across various educational contexts—such as primary schools, high schools, and higher education—as well as among different age groups, could yield valuable insights into how TCF operates across varying developmental stages and learning environments. Such studies would deepen our understanding of its adaptability and effectiveness, providing guidance for customizing feedback strategies to address the unique needs of diverse learner populations.

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