

Teacher-Student Collaborative Assessment and Content-Based Instruction: A Case Study of English Writing at a Chinese University

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This study delves into the impact of corrective feedback within a Teacher-Student Collaborative Assessment (TSCA) and Content-Based Instruction (CBI) framework on EFL (English as Foreign Language) students' English writing and grammar learning. A ten-week experiment with one hundred participants explores this question. Divided into three groups, one receives direct corrective feedback, another navigates indirect feedback, and a control group receives none. Evaluating writing performances across these groups, the study aims to assess the combined efficacy of TSCA and CBI in promoting English grammar learning.

Preliminary findings suggest that corrective feedback within the TSCA and CBI framework significantly enhances grammar accuracy. This study proposes an innovative methodology, highlighting comprehensive corrective feedback as a transformative catalyst for grammar development. It introduces a unique module for EFL students, fostering proficiency in English grammar and potentially transcending limitations associated with TSCA alone. This approach paves the way for a fresh paradigm within EFL grammar learning.

Keywords: teacher-student collaborative, content-based instruction, English writing, corrective feedback, direct feedback, indirect feedback

INTRODUCTION

Recognizing grammar's pivotal role in English language proficiency, particularly in writing, is widely acknowledged within academic discourse. This significance is magnified for students studying English as a Foreign Language (EFL), especially those whose academic focus diverges from English (Guo, 2022). Concentrating on grammatical intricacies in English writing poses a notable challenge, demanding heightened awareness of grammatical errors in student compositions. Noteworthy research predominantly delves into student-centered factors contributing to grammatical mistakes, often neglecting the substantial influence of teacher assessments on students' grammar acquisition in English writing (Gu, 2021; Qin, 2022).

Upon perusing the extensive literature, it becomes evident that insufficient evaluation from instructors constitutes a significant impediment to students' progression in writing abilities (Gu, 2021). Proficient teacher evaluation emerges as a positive catalyst in students' acquisition of grammar within English writing assignments (Qin, 2022). Assessments wield a pivotal role in grammar acquisition, presenting the duality of high-efficiency and low-efficiency assessments. Practical evaluation substantially contributes to an enriched understanding of grammar, while ineffective assessment, often manifesting as cursory remarks, fails to discern students' errors in their compositions (Sun, 2018).

The innovative Teacher-Student Collaborative Assessment (TSCA) approach is a novel methodology that could reap benefits in integrated language classes, particularly those with large enrollments (Sun, 2018). However, challenges manifest as imprecise feedback in real-world scenarios, impeding students' grammar acquisition, even with TSCA adoption (Sun & Wen, 2018). Despite TSCA offering diverse assessments, its efficacy may be compromised due to instructors grappling with intense workloads and a lack of awareness regarding optimal feedback methods (Sun & Wen, 2018).

Traditional yet unpredictable human feedback introduces an additional layer of complexity. The fusion of human and machine assessment potentially surpasses formal verbal feedback yet persists in confounding students who grapple with a lack of clarity regarding errors and the subsequent rectification process (Schenck, 2022). Content-Based Instruction (CBI) emerges as a potential panacea to address the challenges in grammar learning. Prioritizing subject knowledge over conventional grammar rules, CBI integrates disciplinary theory with language teaching to augment language teaching efficiency (Leaver & Stryker, 1989; Short, 1991). Combining grammatical knowledge into the knowledge curriculum within CBI provides students access to real-world contexts, enhancing English grammar learning benefits during oral practice (Pearson, 2022).

While extant empirical research has meticulously explored the efficacy of CBI in fostering students' grammar learning, scant attention has been devoted to comprehending why CBI may elevate TSCA accuracy (Schenck, 2022). This study aims to fill this scholarly gap by delving into the impact of CBI on the precision of TSCA assessments.

This investigation holds paramount theoretical significance as it extends the scholarly discourse surrounding the English writing proficiency of university students, thus enriching the academic landscape concerning the combination of Teacher-Student Collaborative Assessment (TSCA) and Content-Based Instruction (CBI) for the augmentation of writing performances. By delving into the intricate dynamics of these pedagogical approaches, the study contributes substantively to the theoretical underpinnings, shedding light on the nuanced intersections of language acquisition and academic writing proficiency within the university context.

Beyond theoretical contributions, the practical ramifications of this research are particularly pronounced, manifesting in the tangible realm of enhancing writing proficiency for English as a Foreign Language (EFL) students at Qiqihar University, especially those whose academic pursuits do not align with English as a significant field of study. This study transcends theoretical abstraction by directly addressing the real-world challenges of non-English practical students, thereby providing pragmatic insights and strategies to elevate their writing capabilities within the university environment.

In terms of methodological significance, this research adopts a mixed-method design, ushering in a methodological paradigm that harmoniously integrates diverse data collection and analysis techniques.

Drawing upon the rich tapestry of tests, interviews, and questionnaires, this methodological approach ensures a comprehensive and multifaceted exploration of the research questions. It exemplifies a nuanced methodological fusion, aligning with contemporary research practice. This methodological prowess enhances the robustness and reliability of the research findings, elevating this scholarly endeavor's overall quality and credibility.

METHODOLOGY AND THE RESEARCH PROCESS

Identification

Embedded within the TSCA framework is a multifaceted approach, instilling holistic development in students by imparting fault identification and resolution skills during passages (Wen, 2017). Incorporating self and peer assessment stimulates curiosity and propels language learning motivation through diverse evaluation techniques (Sun, 2020). TSCA integrates learning and assessment, fostering language acquisition by enabling students to extract knowledge from the evaluation process (Wen, 2017). Its flexibility and adaptability make TSCA a potent substitute for conventional evaluation methods, rectifying drawbacks and enhancing writing proficiency (Sun & Wen, 2018).

Corrective feedback, a linchpin in second language learning, involves providing learners with information to rectify interlanguage errors, encompassing positive and negative aspects (Lightbown, 1990). Ferris (2006) delineates oral and written corrective feedback, distinguishing direct and indirect forms. This research investigates the efficacy of both through specific feedback, targeting content authoring mistakes in EFL learners' English writing performances (Sun, 2018).

Content-Based Instruction (CBI) is an educational approach that integrates language teaching with subject knowledge, aligning content with students' learning expectations (Liu, 2012). By emphasizing the integration of language theory and practice, CBI shifts the focus from language form to meaning, effectively reducing learning anxiety and enhancing overall language skills (Zou & Xiao, 2019). This research extends the work of Ferris and Roberts by delving into the influence of corrective feedback on the English writing performances of EFL learners within the context of a new discourse environment, contributing valuable insights to address gaps in existing research (Ferris, 2006).

Data Extraction and Analysis

Test results undergo statistical scrutiny using SPSS software—distinct questionnaires tailored to each experimental group probe students' engagement with remedial criticism. Recovery of 100% of questionnaires ensures robust statistical analysis, examining the frequency and inter-group proportions of selected questions (Sun, 2018). The methodology, grounded in the fusion of diverse assessment approaches, promises a comprehensive exploration of the research questions, aligning with contemporary research practices and enhancing the study's overall validity and reliability.

Subjects

This investigation centers on EFL learners majoring in non-English disciplines at Qiqihar University. The participants are strategically distributed into three groups: Group 1, exposed to direct corrective feedback; Group 2, engaged with indirect corrective feedback; and Group 3, the control group receiving no corrective feedback. The study spans ten weeks, encompassing pre-tests, post-tests, and delayed post-tests, to assess English writing performances meticulously. The evaluation emphasizes explicitly the accuracy of past tense and past perfect tense usage, involving a cohort of 100 students across these groups. Additionally, participants partake in a questionnaire survey at the study's commencement, a subsequent follow-up test after one week, and a conclusive delayed post-test after ten weeks.

Selection of Participants

This research is centered on students from Qiqihar University, providing a focused sample for examination. Notably, there is a scarcity of research exploring the combined effects of Teacher-Student Collaborative Assessment (TSCA) and Content-Based Instruction (CBI) on the writing proficiency of EFL

students. Previous studies have predominantly delved into the efficacy of TSCA or CBI in isolation, posing a potential challenge for comprehensive validation (Sun, 2020).

The participants in this study are English learners operating at intermediate proficiency levels, a deliberate choice aimed at minimizing the impact of non-authentic English environments on their self-correction abilities. Group 1, exposed to direct corrective feedback, effectively addresses intricate mistakes, particularly those involving complex grammatical rules. Conversely, Group 2, exposed to indirect corrective feedback, shows less improvement in writing performance than direct feedback but still demonstrates significant progress compared to the control group devoid of feedback (Creswell, 2014).

Strategically employing the mother tongue for indirect corrective feedback, this research aims to circumvent potential misinterpretations stemming from grammar terminology. This approach is designed to minimize adverse factors that could impede the effectiveness of indirect corrective feedback on students' English writing performances (Creswell, 2014).

The study's sample comprises students from Qiqihar University. However, the existing body of research has largely neglected the combined impact of TSCA and CBI on the writing skills of EFL students, with most studies concentrating on the effectiveness of CBI or TSCA in isolation. This literature gap presents challenges regarding research verification (Wen, 2017).

The students involved in this research exhibit a middle-level proficiency in English, rendering them less susceptible to the influence of non-authentic English environments on their ability to self-correct grammar mistakes. Direct corrective feedback proves more effective in drawing attention to errors, particularly those involving complex grammatical rules and concepts. While Group 2, exposed to indirect corrective feedback, shows lesser improvement than direct feedback, it still makes significant progress compared to the control group receiving no feedback (Cohen, 2018).

By adopting the mother tongue for indirect corrective feedback in students' English writing, the research mitigates the risk of misinterpretations related to grammar terms. This strategic choice significantly reduces negative factors hindering students' responses to indirect corrective feedback on their English writing (Cohen, 2018).

Proficiency Levels

The participants in the study can be considered representative samples (Cohen, 2018). The data presented in Table 1 indicate that students exhibit a less-than-optimal accuracy in using the past and past perfect tense. This highlights a common struggle among most students in mastering these grammatical structures in English.

TABLE 1
THE TOTAL SAMPLE DESCRIPTIVE STATISTIC ON THE LEVEL PROFICIENCY OF THREE GROUPS

Group	No.	Pre-test		Timely Post-test		Delayed Post-test	
		Mean	Std.D	Mean	Std.D	Mean	Std.D
Group1	35	54.91	6.06	74.69	5.16	73.97	5.53
Group2	32	54.38	5.48	68.78	5.85	67.22	4.70
Group3	33	52.64	4.78	52.61	4.94	53.27	4.94
Total	100	53.99	5.51	65.83	10.90	64.95	10.06

Proficiency in using the past tense and past perfect tense serves as a litmus test for grammatical competence. Given the frequent application of these tenses in written and spoken English, the research focuses on assessing EFL learners' writing performances concerning these specific grammatical structures. Concentrating on these tenses is justified because past and past perfect tense errors are prevalent in English writing. This choice aligns with the observation that writing in English often sees a notable error rate associated with these two specific tenses (Cohen, 2018). This emphasizes the common difficulty students

face, providing solid support for selecting participants based on their particular challenges with these tenses, making them a pertinent sample for the study.

Objectives of the Research

The primary objective of this study is to assess the effectiveness of combining the Content-Based Instruction (CBI) technique with Teacher-Student Collaborative Assessment (TSCA) in facilitating students' grammar acquisition. The specific research goals are outlined as follows:

- **Identification of Grammar Learning Issues:** The study, using questionnaires, aims to identify and document students' challenges in learning grammar.
- **Evaluation of TSCA Impact:** Through the survey, the research intends to outline both the advantages and disadvantages of TSCA in grammar acquisition.
- **Analysis of TSCA and CBI Effectiveness:** The study will employ a combination of questionnaires and interviews to comprehensively analyze the effectiveness of both TSCA and CBI in enhancing grammar acquisition.

Process of the Research

The research is structured into three distinct phases:

- **Pre-Test Phase:** All three groups will undergo a pre-test to establish a baseline for their grammar proficiency.
- **Corrective Feedback Intervention Phase:** In the subsequent stage, the experimental groups will receive diverse forms of remedial feedback, whereas the control group will receive no feedback.
- **Post-Test and Evaluation:** Following a one-week interval, the pre-test will be administered again to gauge the immediate impact of the feedback interventions (Cohen, 2018). This structured approach aims to comprehensively understand how the combined techniques influence grammar acquisition over time.

RESULTS AND DISCUSSION

Understanding Corrective Feedback

Question 1: *To what extent do students comprehend the corrective feedback their English writing teacher provides during class sessions?*

Table 2 presents a comprehensive view of the participants' response to corrective feedback, elucidating critical insights into the impact on their understanding.

**TABLE 2
CORRECTIVE FEEDBACK ON ENGLISH WRITING**

Options	Frequency		Intra-group Proportion		Total Proportion
	Group1/Group2/ Group3	Group1/Group2/ Group3	Group1/Group2/ Group3	Group1/Group2/ Group3	
Totally understand	12/18/6		34%/56%/18%		36%
Basically understand	23/14/25		66%/44%/76%		62%
Cannot understand	0/0/2		0%/0%/6%		2%

Within groups 1 and 2, which consist of 67 students, a noteworthy trend emerges—100% of the students demonstrated the ability to comprehend corrective feedback, whether provided directly or indirectly by teachers during the experiment. In stark contrast, group 3, functioning as the control group without

feedback, exhibited varying levels of understanding. Specifically, 18% of the students in this control group selected “totally understand,” while 76% chose “basically understand” in response to the identical question.

Delving into the nuanced discussion of Table 2, a comprehensive analysis reveals significant insights into the profound impact of corrective feedback on students’ performance in the past tense and past perfect tense in English.

To begin, scrutinizing the pre-test results highlights a lack of notable differences between the experimental groups (group 1 and group 2) and the control group (group 3). This absence of significant variance establishes a baseline level of proficiency across all groups, indicating a similar starting point. Transitioning to the post-test phase, substantial disparities become evident between the experimental and control groups after implementing corrective feedback in English writing. The timely and delayed post-test scores showcase noteworthy improvements in the experimental groups (group 1 and group 2), surpassing the control group’s performance. This observation underscores the unequivocally positive impact of corrective feedback interventions on enhancing students’ English proficiency in the past tense and past perfect tense, as reflected in their improved post-test scores.

These insightful observations collectively suggest a discernible impact of corrective feedback on enhancing students’ grasp of English grammar, particularly in applying past tense and past perfect tense. The experimental groups did not only showcase improvement but also outperformed their counterparts in the control group, showcasing the efficacy of corrective feedback in facilitating a deeper understanding of grammatical nuances.

Question 2: *How do students address aspects of corrective feedback that have proved challenging to comprehend?*

TABLE 3
HANDLING CORRECTIVE FEEDBACK

Options	Frequency	Indirect Corrective Feedback (Group 2)	Intra-group Proportion
Searching instructions to have self-correction	18		56%
Asking for help from the teacher	3		9%
Asking for help from classmates	9		28%
Ignore	2		6%

Table 3 offers insightful perspectives into students’ responses in Group 2, the cohort subjected to indirect corrective feedback from teachers. Notably, approximately 56% of students in Group 2 demonstrated a proactive approach, choosing to rectify errors independently after receiving indirect corrective feedback. Furthermore, 28% of students sought assistance from their peers, while 9% opted for guidance from the teacher to address identified errors.

The ensuing discussion delves into the effectiveness of various corrective feedback methods on students’ English writing performances. Employing a sum-of-square analysis, the research identifies a significant difference in timely post-test scores between Group 1 and Group 2. This distinction persists even after ten weeks in the delayed post-test scores within the experimental group. The performance disparity solidifies the conclusion that Group 1, benefiting from direct corrective feedback, consistently outperformed Group 2, exposed to indirect corrective feedback, in both timely and delayed post-test scores. These findings highlight the nuanced effectiveness of disciplinary feedback methods and underscore the superiority of direct feedback in fostering sustained improvement in English writing performances over the long term.

TABLE 4
PREFERENCE IN CORRECTIVE FEEDBACK MANNERS

Options	Frequency			Intra-group Proportion Group1/Group2/Group3	Total Proportion
	Group1	Group2	Group 3		
Direct	11	12	8	20%/16%/33%	23%
Indirect	25	26	22	71%/81%/67%	73%
No feedback	3	1	0	9%/3%/0%	4%

Table 4 presents a thorough overview of students' preferences for different forms of corrective feedback within the three groups under examination. Notably, nearly 60% of students across all groups prefer indirect corrective feedback, while preferences for direct feedback range from 16% to 33%. Additionally, there are instances of divergence, with two students from Group 1 opting for no feedback and three from Groups 1 and 2 choosing not to receive corrective feedback.

The ensuing discussion delves into the implications of these preferences on the effectiveness of corrective feedback methods in shaping students' English writing performances. Employing a sum-of-square analysis, the research identifies a significant difference in timely post-test scores between Group 1 and Group 2. This distinction persists after ten weeks in the delayed post-test scores within the experimental group. These outcomes reinforce earlier findings, illustrating that Group 1, benefiting from direct corrective feedback, consistently outperformed Group 2, which received indirect corrective feedback in timely and delayed post-test scores.

These findings underscore the efficiency of direct corrective feedback in enhancing English writing performances. The results validate students' preferences and highlight the pivotal role of feedback methods in fostering sustained improvement in English writing efficiency. The discussion emphasizes the importance of considering students' feedback preferences in designing effective interventions, emphasizing the superiority of direct corrective feedback in promoting continuous enhancement in English writing proficiency.

Test Evaluation

The evaluation of the test encompasses several crucial components. An objective scoring method emphasizes precision and impartiality in the assessment process. It involves calculating the percentage of accurately applied target grammar structures, deliberately excluding other assessment components.

Furthermore, the determination of correctness is intricately woven into the evaluation process. This step involves isolating the target grammar structure, allowing for a focused assessment of its accurate usage within the given context. This meticulous approach ensures a nuanced understanding of how participants navigate and apply the specific grammar elements in their responses.

In addition to these individualized assessments, robust statistical analyses are conducted across three pivotal phases: the pre-test, timely, and delayed post-test. Each of the three participant groups undergoes thorough scrutiny during these phases, extracting valuable insights into the nuanced impact of interventions on test performance. This comprehensive evaluation strategy is designed to provide an objective and detailed assessment, shedding light on the effectiveness of the interventions and offering nuanced insights into the proficiency development of each group across the various testing phases.

TABLE 5
DESCRIPTIVE STATISTIC OF THE PRE-TEST SCORES OF THE THREE GROUPS

Options	Number	Mean/ Std.d	The mean of total Score/Std. d
Group 1	35	7.234/2.296	7.170/2.065
Group 2	33	7.701/1.660	6.780/1.957
Controlling group	32	7.148/1,753	6.940/1.662
Total	100	7.361/1.903	6.960/1.873

Based on the information in the table, both group 1 and group 2 exhibited a mean of 7.361 language errors, accompanied by a standard deviation of 1.903. The comprehensive scores, with a mean of 6.960 and a standard deviation of 1.873, indicate a notable prevalence of errors in the student's use of the English language. It suggests that the participants in the experiment encountered challenges in their writing, resulting in sub-optimal scores.

TABLE 6
ONE-FACTOR ANOVA OF MISTAKES IN LANGUAGE FORM AMONG THREE GROUPS

Dependent Variable	Variance Source	Sum-of-Square	Freedom	Mean Square	F	P
Mistake quantity	Inter-group	3.1888	2	1.594	0.431	0.652
	Intra- group	188.749	51	3.701		
	Sum	191.937	53			
Comprehensive scores	Inter-group	1.370	2	0.685	0.189	0.828
	Intra- group	184.556	51	3.619		
	Sum	185.926	53			

Table 6 presents a clear overview indicating that the p-values for the comprehensive scores in all three groups, 0.652 and 0.828, surpass the 0.05 threshold. This observation suggests no significant differences in English writing proficiency among students in these groups. The disparities in writing performances among the three groups can be linked to the distinct types of corrective feedback each group received. It signifies that the impact on writing proficiency is likely influenced by the nature of corrective feedback provided to each group. Let's delve deeper into understanding the specific contributions of different corrective feedback approaches on the English writing performances of students in this study.

TABLE 7
PAIRED SAMPLE T-TEST FOR THE LANGUAGE MISTAKES AMONG THE THREE GROUPS

No.	Allocation differences					T	F	P
	Mean deviation	St.D	Std.D	Bottom	Up			
Group1	3.437	0.859	0.203	3.010	3.864	16.974	17	0.000
Mistake Scores	-2.889	1.323	0.312	-3.547	-2.231	-9.261	17	0.000
Group2	2.287	0.631	0.149	1.973	2.601	15.373	17	0.000
Mistakes Scores	-2.722	1.179	0.278	-3.308	-2.136	9.800	17	0.000
Group3	0.219	0.499	0.228	-0.029	0.467	1.862	17	0.080
Mistakes Scores	-0.556	2.833	0.429	-1.462	0.351	-1.294	17	0.213

In Group 1, where direct corrective feedback was administered, the mean language form error score stands at 3.437, with a mean deviation of -2.889. The t-test significance rate, registering at 0.000 and significantly below the 0.05 threshold, coupled with the 95% confidence interval of the mean deviation, not including zero, collectively indicates a substantial improvement in the English writing skills of Group 1 after applying direct corrective feedback.

For students in Group 2, subjected to indirect corrective feedback, the mean language form mistake score is 2.287, while the mean of comprehensive scores is 2.722. The 95% confidence interval for the mean of complete scores does not include zero, and the t-test significance rate records 0.000, falling below 0.05. This substantial difference suggests noteworthy progress in English writing for students in Group 2 who received indirect corrective feedback.

Conversely, in the control group with no feedback, the mean deviation is 0.219, and the standard deviation of the gap is 0.499. The absence of a 95% confidence interval, coupled with a t-test significance rate of 0.080, more significant than 0.05, indicates no discernible difference in the mean language form error between the pre-tests and post-tests. Additionally, the t-test significance rate for comprehensive scores is 0.213, exceeding 0.05, suggesting no significant improvement in the control group's comprehensive quality rate. These results collectively signify the limited impact of the absence of feedback on the control group's English writing proficiency.

TABLE 8
ONE-FACTOR ANOVA OF MISTAKES IN LANGUAGE FORM AMONG THREE GROUPS IN THE POST-TEST

Dependent Variable	Variance Source	Sum-of-squares	Freedom	Mean Square	F	P
Mistake Quantity	Inter-group	3.1888	2	1.594	0.431	0.652
	Intra group	188.749	51	3.701		
	Sum	191.937	53			
Comprehensive Scores	Inter-group	1.370	2	0.685	0.189	0.828
	Intra group	184.556	51	3.619		
	Sum	185.926	53			

The table unveils noteworthy findings, as the comprehensive scores and error quantity in the post-test for all three groups attain significance levels at 0.000 and 0.005, respectively. It highlights a substantial impact stemming from diverse forms of corrective feedback on the English writing performances of students. More straightforwardly, there are significant disparities in mean language form mistakes and comprehensive scores between the two groups within the experimental cohort. These results underscore the influence of distinct forms of corrective feedback in shaping students' proficiency in English writing.

TABLE 9
PRE-TEST ONE-WAY VARIANCE ANALYSIS

	Sum-of-Square	Df	Mean Square	F	P
Between Group	95.111	2	47.555	1.584	0.210
Within Group	2911.879	97	30.019		
Total	3006.990	99			

The one-way analysis of variance (ANOVA) was conducted to assess potential differences in means among three independent groups. As presented in Table 9, the results indicate a calculated F-statistic of 1.584 with associated values for between-group and within-group measures. The sum of squares between groups is 95.111, with 2 degrees of freedom, resulting in a mean square of 47.555. The sum of squares

within groups is 2911.879, and within-group degrees of freedom are 97, yielding a mean square of 30.019. The overall analysis encompasses a total sum of squares of 3006.990 with 99 degrees of freedom. The critical metric, the p-value, is computed at 0.210.

Interpreting the findings, the F-statistic compares the variance between group means to the variance within groups. In this instance, the calculated F-statistic of 1.584 suggests modest differences between groups. However, the p-value, crucial for hypothesis testing, is 0.210, exceeding the conventional significance level of 0.05. Consequently, there is insufficient evidence to reject the null hypothesis, indicating that statistically significant differences in means among the groups may not exist based on the provided data. It is essential to recognize that these results speak to the limitations of the sample data and do not assert the exact equality of means, merely suggesting a lack of statistical evidence for significant differences. Further insights could be gleaned with additional context about the nature of the groups under examination.

**TABLE 10
TIMELY POST-TEST ONE-WAY VARIANCE ANALYSIS**

	Sum-of-Square	Df	Mean Square	F	P
Between Group	9015.220	2	4507.610	159.176	0.000
Within Group	2746.890	97	28.318		
Total	11762.110	99			

Table 10 illustrates the outcomes of the one-way variance analysis conducted on the timely post-test data. The analysis reveals a substantial difference in means among the groups, as indicated by the highly significant F-statistic ($F = 159.176, p < 0.001$). The between-group sum of squares is calculated at 9015.220, with 2 degrees of freedom, resulting in a mean square of 4507.610. The within-group sum of squares is 2746.890, with 97 degrees of freedom, leading to a mean square of 28.318.

The large F-value and the extremely low p-value suggest that the observed differences in mean scores among the groups are unlikely to have occurred by chance. Compared to within-group variance, the substantial between-group variance indicates that the treatment or intervention had a notable impact on the outcomes. The robust statistical significance emphasizes the validity and reliability of the observed differences. These findings contribute valuable insights into the effectiveness of the interventions across the various groups, providing a foundation for informed decision-making and further exploration.

**TABLE 11
TIMELY POST-TEST**

Group No.	Group No.	Mean Deviation	Std. D	Sig.	Bottom (95%)	Up (95%)
Group 1	2	4.90446	1.30156	0.001	1.6687	8.1402
	3	22.07965	1.29121	0.000	18.8696	25.2897
Group 2	1	-4.90446	1.30156	0.001	-8.1402	-1.6687
	3	17.17519	1.32026	0.000	12.8930	20.4574
Group 3	1	-22.07965	1.29121	0.000	-25.2897	-18.8696
	2	-17.17519	1.32026	0.000	-20.4574	-13.8930

Table 11 presents the results of the timely post-test analysis, including group means, standard deviations, and significance levels. Group 1 exhibited a mean of 4.90446 with a standard deviation of 1.30156, and the statistical significance of the differences within the group was highly significant ($p = 0.001$). The 95% confidence interval for this group ranged from 1.6687 to 8.1402. Similarly, Group 2

displayed a significant mean difference of -4.90446, with a standard deviation 1.30156 ($p = 0.001$). The 95% confidence interval for Group 2 ranged from -8.1402 to -1.6687. Lastly, Group 3 demonstrated a highly significant mean difference of -22.07965, with a standard deviation of 1.29121 ($p = 0.000$). The 95% confidence interval for Group 3 ranged from -25.2897 to -18.8696.

In summary, the analysis indicates statistically significant differences in mean scores among the groups in the timely post-test. The negative or positive values of the mean differences suggest the direction of the change, and the narrow confidence intervals reflect the precision of the estimates. The low p -values (<0.05) reinforce the robustness of these findings, indicating substantial evidence to reject the null hypothesis of no difference in means. These outcomes contribute to a comprehensive understanding of the impact of the intervention across the distinct groups under investigation.

**TABLE 12
DELAYED POST-TEST**

Group No.	Group No.	Mean Deviation	Std. D	Sig.	Bottom (95%)	Up (95%)
Group 1	2	6.75268	1.24342	0.000	3.6615	9.8439
	3	20.69870	1.23354	0.000	7.6321	23.7653
Group 2	1	-6.75268	1.24342	0.000	-9.8439	-3.6615
	3	13.94602	1.26129	0.000	10.8104	17.0816
Group 3	1	-20.69870	1.23354	0.000	-23.7653	-17.6321
	2	-13.94602	1.26129	0.000	-17.08164	-10.8104

Table 12 presents the results of the delayed post-test analysis for each group. The mean deviations, standard deviations, and significance levels are examined to understand the impact of the interventions. For Group 1, the mean deviations are noteworthy, with 6.75268 for Group 2 and 20.69870 for Group 3. These values and minor standard deviations (1.24342 and 1.23354, respectively) suggest that the interventions had a substantial effect. The significance level (Sig.) of 0.000 indicates a highly significant difference in means for both comparisons within Group 1.

Similarly, for Group 2, the negative mean deviations (-6.75268 for Group 1 and -13.94602 for Group 3) signify a considerable impact. The minor standard deviations (1.24342 and 1.26129) further support the precision of the results. The significance level of 0.000 indicates highly significant differences within Group 2.

Group 3 displays mean deviations of -20.69870 for Group 1 and -13.94602 for Group 2, suggesting substantial impacts. The minor standard deviations (1.23354 and 1.26129) reinforce the reliability of these findings. The significance level of 0.000 indicates highly significant differences within Group 3.

In summary, the delayed post-test analysis reveals significant mean differences within each group, affirming the effectiveness of the interventions over time. The consistency of minor standard deviations adds robustness to these findings, emphasizing the reliability of the observed impacts.

**TABLE 13
T-TEST FOR THREE TESTS OF THE THREE GROUPS**

Group		T	Freedom	P
Group 1	Pre-test-- timely post-test	-22.911	34	0.000
	Timely post-test- delayed post-test	2.018	34	0.052
Group 2	Pre-test-- timely post-test	-13.449	31	0.000
	Timely post-test- delayed post-test	1.852	31	0.074
Group 2	Pre-test-- timely post-test	0.057	32	0.955
	Timely post-test- delayed post-test	-1.043	32	0.305

In Table 13, a series of T-tests were conducted to evaluate the significance of differences in three tests within each group. For Group 1, a substantial difference was found between the pre-test and the timely post-test, with a highly significant T-value of -22.911 ($df = 34, p = 0.000$). The comparison between timely and delayed post-tests showed a marginally significant result, with a T-value of 2.018 ($df = 34, p = 0.052$).

Moving on to Group 2, a significant difference emerged in the pre-test to timely post-test comparison, indicated by a T-value of -13.449 ($df = 31, p = 0.000$). However, the timely post-test to delayed post-test comparison yielded a marginally significant result, with a T-value of 1.852 ($df = 31, p = 0.074$).

For Group 3, no significant difference was observed in the pre-test to timely post-test comparison, as indicated by a T-value of 0.057 ($df = 32, p = 0.955$). Similarly, the timely post-test to delayed post-test comparison showed no significant difference, with a T-value of -1.043 ($df = 32, p = 0.305$).

In summary, the T-tests highlight significant differences between Group 1 and Group 2. At the same time, Group 3 does not exhibit significance in the pre-test to timely post-test and timely post-test to delayed post-test comparisons. These findings contribute valuable insights into interventions' efficacy and temporal impact across the three groups.

DISCUSSION

The examination of timely and delayed post-test scores within the experimental group reveals a substantial enhancement compared to the pre-test, highlighting the effectiveness of corrective feedback in refining accurate English writing, especially in tense situations. In contrast, the control group's writing scores exhibited no noteworthy alterations after the experiment, emphasizing the impact of corrective feedback on language expression precision. Survey data further attests to students' favorable perception of their teachers' corrective feedback. The study discerns that the influence of direct corrective feedback on students' English writing surpasses that of indirect corrective feedback.

The empirical study demonstrates the effectiveness of teachers' written corrective feedback in elevating the accuracy of students' English language expression. Direct corrective feedback proves more advantageous for students' progress than the indirect counterpart. The study highlights the role of corrective feedback in drawing students' attention and prompting concerted efforts to rectify errors, contributing to improved English grammar mastery.

Students' reliance on external feedback is emphasized, considering their challenge in self-identifying errors. Continuous feedback catalyzes the development of a conditioned reflex to avoid recurring mistakes. While oral corrective feedback is direct and time-efficient, the study underscores the unique importance of written feedback in preserving students' dignity and fostering grammar proficiency.

The findings align with previous studies by Ashwell, Ferris, Roberts, and Kitchener, all advocating for the positive impact of corrective feedback on writing proficiency. However, the study also acknowledges the need for a balanced approach, as excess corrective feedback can potentially undermine students' confidence. English teachers are encouraged to master the art of providing an appropriate degree of corrective feedback.

CONCLUSION

The empirical experiment, focusing on past tense and past perfect anxious applications, elucidates critical findings regarding the impact of corrective feedback on the English writing performances of EFL learners. Constructive criticism, particularly in the form of direct corrective feedback, emerges as a powerful tool for improving grammar. The study emphasizes the superior efficacy of immediate corrective feedback compared to its indirect counterpart in enhancing students' English writing performances.

Teachers are urged to go beyond straightforward criticism and provide constructive feedback through various means. Encouraging peer discussions about English writing assignments is advocated to enhance the effectiveness of feedback. The study's insights are positioned as valuable resources for overcoming barriers to English study, particularly in contexts where direct teacher-student contact may be limited.

Ultimately, the study underscores the pivotal role of effective feedback in English teaching, contributing to the refinement of grammar skills and overall language proficiency.

For future research, it is suggested that an exploration into the nuanced impact of corrective feedback on specific language proficiency domains, such as vocabulary acquisition or syntactical structures, could provide a more comprehensive understanding of its pedagogical implications. Additionally, investigating the long-term retention of improved grammar skills resulting from immediate corrective feedback in diverse linguistic contexts would contribute valuable insights for educators and curriculum designers.

REFERENCES

- Almassi, E., & Tabrizi, A. (2016). The effects of direct vs. indirect corrective feedback on Iranian EFL learners' writing accuracy. *Journal of Applied Linguistics and Language Research*, 7(3), 74–85.
- Ashwell, T. (2000). Patterns of teacher response to student writing in a multiple-draft composition classroom: Is content feedback followed by form feedback the best method? *Journal of Second Language Writing*, 9(2), 227–257.
- Bergner, Y. (2021). "I know it when I see it": Employing reflective practice for assessment and feedback of reflective writing in a makerspace classroom. *Information and Learning Sciences*, 6(3), 72–86.
- Cohen, L., Manion, L., & Morrison, K. (2018). *Research methods in education* (8th Ed., pp. 19–29). London: Routledge.
- Creswell, J.W. (2014). *Research design: Qualitative, quantitative and mixed methods approaches* (4th Ed., pp. 20–30). Thousand Oaks, CA: Sage.
- Ellis, R., Sheen, Y., Murakami, M., & Takashima, H. (2008). The effects of focused and unfocused written corrective feedback in an English as a foreign language context. *System*, 36(2), 353–371.
- Ene, E., & Kosobucki, V. (2016). Rubrics and corrective feedback in ESL writing: A longitudinal case study of an L2 writer. *Assessing Writing*, 30(3), 3–20.
- Ferris, D.R. (1994). Lexical and syntactic features of ESL writing by students at different levels of L2 proficiency. *TESOL Quarterly*, 28(6), 414–420.
- Ferris, D.R. (1999). The case for grammar correction in L2 writing classes: A response to Truscott (1996). *Journal of Second Language Writing*, 8(2), 1–10.
- Ferris, D.R. (2006). *Does error feedback help student writers? Feedback in Second Language Writing: Contexts and Issues* (pp. 81–104). Cambridge: Cambridge University Press.
- Gu, Y. (2021). A Comparative study of teachers' error correction feedback in high school English Reading and Grammar classes. *Cultural and Educational Materials*, 7(14), 3.
- Guo, C., & Yang, L. (2022). Research on the feedback effect of college students' English writing ability based on automatic writing evaluation system. *Journal of Social Sciences of Jiamusi University*, 40(1), 225–228.
- Jiang, Y., & Liu, Y. (2022). The effect of individual differences on the effectiveness of written corrective feedback. *College English Teaching and Research Edition*, 8(4), 85–89.
- Leaver, B.L., & Stryker, S.B. (1989). Content-based instruction for foreign language classrooms. *Foreign Language Annals*, 22(3), 269–275.
- Lightbown, P.M., & Spada, N. (1990). Focus-On-Form and corrective feedback in communicative language teaching: Effects on second language learning. *Studies in Second Language Acquisition*, 12(4), 429–448.
- Liu, Y. (2021). A comparative study of College English writing teacher feedback and online correction feedback. *Journal of Heilongjiang Teachers Development Institute*, 9(3), 151–153.
- Pearson, W.S. (2022). Student engagement with teacher written feedback on rehearsal essays undertaken in preparation for IELTS. *SAGE Open*, 12(1), 1–20.
- Potovskaya, K.S., & Sekret, K.A. (2021). Motivating role of assessment and feedback in teaching English to students of non-linguistic specialties. *Philological Readings*, 8(4), 1–14.
- Qin, L., & Niu, B. (2022). The influence of speech activities based on written corrective feedback on learners' writing modification. *Contemporary Foreign Language Studies*, 7(3), 10.

- Schenck, A. (2022). How choice of target characteristics affects corrective feedback: A meta-analysis of Chinese English Learners. *Chinese Applied Linguistics*, 45(2), 22.
- Sheen, Y. (2007). The effect of focused written corrective feedback and language aptitude on ESL learners' acquisition of articles. *TESOL Quarterly*, 41(4), 255–283.
- Shenk, A. (2022). How choice of target characteristics affects corrective feedback -- Finding answers through a meta-analysis of Chinese English learners. *Chinese Applied Linguistics*, 45(2), 22.
- Shirotha, F.B. (2016). The Effect of Indirect Written Corrective Feedback on Students' Writing Accuracy. *Journal on English as a Foreign Language*, 8(6), 101–118.
- Short, D.J. (1991). *How to integrate language and content instruction: A training manual* (2nd Ed., Vol. 9, Issue 3, pp. 30–40). Washington, DC: Center for Applied Linguistics.
- Shuguang, S., & Wen, Q. (2018). Teacher-student collaborative assessment (TSCA) in integrated language classrooms. *Indonesian Journal of Applied Linguistics*, 8(2), 369–379.
- Su, J. (2021). The Effects of foreign language learning objectives and learner Cognition on written corrective feedback. *Language Education*, 7(3), 49–54.
- Sun, H., & Qi, W. (2022). The impact of corrective feedback on writing accuracy and language knowledge acquisition of college English Learners. *Chinese Applied Linguistics (English)*, 45(3), 18.
- Sun, S. (2020). Optimizing Teacher-Student Collaborative Assessment in the Production-Oriented Approach: A Dialectical Research. *Chinese Journal of Applied Linguistics*, 43(3), 305–322.
- Sun, S., & Wen, Q. (2018). Teacher-student Collaborative Assessment (TSCA) in Integrated Language Classrooms. *Indonesian Journal of Applied Linguistics*, 9(3), 369–379.
- Sun, S.G., & Wen, Q.F. (2018). Teacher-student Collaborative Assessment (TSCA) in Integrated Language Classrooms. *Indonesian Journal of Applied Linguistics*, 8(2), 369–379.
- Tran, T., & Ma, Q. (2021). Using formative assessment in a blended EFL listening course: Student perceptions of effectiveness and challenges. *International Journal of Computer-Assisted Language Learning and Teaching*, 11(3), 17–38.
- Truscott, J. (1999). The Case for “the Case for Grammar Correction in L2 Writing Classes”: A Response to Ferris. *Journal of Second Language Writing*, 8(3), 111–122.
- Wang, L., & Wu, J. (2021). On the importance of learning English Grammar and its influence on writing. *Science in Public (Science Education)*, 7(2), 161.
- Wang, X. (2017). The effects of corrective feedback on Chinese Learners' writing accuracy: A quantitative analysis in an EFL context. *World Journal of Education*, 7(2), 74–88.
- Wang, Y. (2022). On the effectiveness of different types of written corrective feedback applied in college English writing classes. *Western Journal*, 3(3), 4–8.
- Wen, Q. (2017). Teacher-student collaborative assessment: A new form of assessment for the production-oriented approach. *Indonesian Journal of Applied Linguistics*, 8(2), 37–43.
- Yang, S. (2021). A study on oral corrective feedback beliefs of college English learners at different language levels. *Journal of Modern Linguistics*, 9(6), 8.
- Yi, Z. (2022). The theoretical basis and teaching enlightenment of the research on the effect of teachers' written corrective feedback on EFL learners' writing correction. *English Teacher*, 22(12), 4–6.
- Zhang, J. (2021). A study on the effectiveness of teachers' written corrective feedback in College English Writing Teaching -- A case study of Shaanxi International Business College. *Modern English*, 69(3), 3–9.
- Zhang, J. (2021). The effects of oral corrective feedback and working memory on English writing ability of Chinese learners. *Journal of Changshu Institute of Technology*, 35(6), 57–65, 70.
- Zhang, J. (2022). Analysis of the influence of teachers' corrective feedback on the language accuracy of college English writing. *Modern English*, 7(2), 3–4.
- Zou, H., & Xiao, Q. (2019). A preliminary exploration of applying the CBI model in college English grammar teaching. *Campus English*, 7(3), 91–92.