PROCESS ORIENTED TRAINING IN THE EFL CLASSROOM: A STUDY OF EFFECTS ON WRITING PROFICIENCY

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ABSTRACT

The growing emphasis on academic writing enhancement in EFL contexts highlights the significance of instructional techniques that form cognitive, linguistic and strategic competencies. This research looking at the effectiveness of process-based writing teaching. Grounded in Communicative Language Teaching (CLT) and Task-Based Language Teaching (TBLT), the approach emphasizes meaningful interaction and recursive learning cycles rather than product-focused outcomes. Process-oriented training involves repeated stages of prewriting, drafting, revising, and editing, enabling learners to refine ideas, enhance clarity, and strengthen linguistic accuracy through continuous reflection. To evaluate the impact of this method, data were collected from 79 Saudi Arabian university EFL learners, who were separated into an Experimental Group (EG) receiving process-oriented training and a Control Group (CG) receiving traditional instruction. SPSS was used to conduct Descriptive Statistics, Paired-Sample t-Tests, and ANCOVA. Results demonstrated substantial improvements in the EG across all five writing variables: clarity increased from 56.80 to 74.90, organization from 55.90 to 73.80, vocabulary usage from 54.70 to 72.60, grammatical accuracy from 53.80 to 71.90, and coherence from 55.30 to 74.20. Paired-sample t-tests confirmed significant post-test differences (t=9.68–10.20, p<0.001). ANCOVA further validated the intervention's effectiveness, showing higher adjusted post-test means for the EG (71.90–75.10) compared to the CG (59.80–63.00), with strong F-values (51.47–55.25) and meaningful effect sizes (partial η^2=0.145–0.155, p<0.001). Overall, the findings reveal that structured, recursive, process-oriented instruction significantly enhances EFL learners' writing clarity, organization, lexical control, grammatical accuracy, and coherence, offering a pedagogically effective alternative to traditional writing instruction.

1. INTRODUCTION

EFL writing instruction emphasized learner development in a centre-based program, but students have difficulty in maintaining and regulating coherence. Product-based teaching focuses more on the product rather than skills. These limitations could be overcome by process-oriented methods that have repetitive feedback and promote independence, consistency, and general writing performance (Kadmiry 2021; Alqasham, & Al-Ahdal, 2022). Good EFL writing needs to be structured in terms of drafting and revision, yet learners were usually not genre aware. Traditional methods that emphasize grammar do not focus on strategic learning. Process-genre methods facilitate organized writing, develop strategic writing, and enhance linguistic precision and text structure towards better performance (Kitajroonchai et al. 2022; Al-Ahdal & Abduh, 2021; Albelihi, & Al-Ahdal, 2022). Self-regulated strategies play a vital role in EFL writing, but learners do not have the instructions to use them. Product-oriented instruction concentrates on doing things right and not planning. The strategy training and update, enhancement of metacognition, development of lexical diversity, and coherent writing were combined into process-based approaches that enhance writing skill development (Guo et al. 2021).

The corrective feedback was the way of EFL writing develops; however, the traditional product-based approach leads to superficial revision. Process-based instruction facilitates deeper revision, allowing learners to internalize grammar, develop greater organization, and build long-term writing competence by building on meaningful, iterative learning (Khaki & Tabrizi 2021). Blended learning increased the possibilities of EFL written language development, and the learners do not fully utilize technology in drafting. Personalized guidance was restricted by traditional teaching. The use of digital tools in process-oriented teaching can be more engaging, facilitate the revision process, and enhance structural and lexical writing skills (Ataizi & Kömür 2021). The computer-generated feedback provides personalized writing assistance, but the traditional teaching does not utilize the technology properly. Automated feedback in the process-oriented instruction allows long-term engagement, repeated revisions, and successful treatment of content and language problems in writing, which will enhance the writing results compared to product-oriented approaches (Shen et al. 2023).

Lexical diversity was a major determinant of the quality of EFL writing, and it was common for learners to repeat words. Normal teaching does not often address strategic vocabulary development. Concept mapping aided by computers in the context of process-based writing facilitates idea development, expands lexical range, and enables the systematic drafting and feedback (Hassanzadeh et al. 2021). The teacher qualifications and assessment practices have an impact on writing development, and there were still irregularities. The old assessment-intensive approaches disregard process involvement. Process writing under instructor guidance allows an evaluation of drafts continuously, encourages the use of strategic skills, and enhances grammar, coherence, and the quality of content (Al-Jarf 2022). The combined various elements of writing in EFL classrooms remain a difficult task, particularly in process-based instruction. The learners have difficulty in organizing and cohering their ideas. Instruction on the process of writing through scaffolding and repetitive feedback in the form of structured and sequential processes enhances content, coherence, and stylistic writing skills (Turago et al. 2023). The explicit instruction and process-based writing increase competence, but the old approaches were not systematic in scaffolding. Planning, drafting, and revising serve as an effective way to internalize the principles of writing, enhance the quality of the text, and acquire the necessary ability to self-monitor to ensure long-term proficiency (Dauletova 2023; Al-Ahdal & Hameed, 2025).

To enhance the writing performance of Saudi Arabian EFL learners across five variables: clarity, organization, vocabulary usage, grammatical accuracy, and coherence. A total of 79 learners completed a pre-test and were then divided into two groups: an EG receiving process-oriented, recursive writing instruction, and a CG receiving traditional instruction. Writing performance was assessed through pre- and post-tests. Descriptive statistics outlined the overall trends, paired-sample t-tests examined improvements within each group, and ANCOVA evaluated the impact of the instructional approach while monitoring for pre-and post-test scores. Results showed EG demonstrated consistent and substantial gains across all five writing variables, confirming that process-oriented instruction significantly strengthens academic writing performance among Saudi Arabian EFL learners.

2. RELATED WORKS

The available literature demonstrates that process-based teaching, self-regulated learning, project-based assignments, and AI-assisted feedback

can always enhance EFL writing, but most of the researches fail to provide different samples, control groups, and longitudinal analysis. Bagheri Nevisi and Adibrad (2024) used Structural Equation Modeling (SEM) analysis to assessment the Second Language (L2) product- and process-based writing teaching on self-efficacy, independence, ability, and use of strategies. Findings indicated that there were important positive effects ($p < 0.01$; Cohen d=0.62). It has limitations in the form of a small sample size and no longitudinal follow-up, which restricts its generalizability. El Ouidani and Madaoui (2024) distinguished differences in L2 writing outcomes when comparing product-based and process-based instructional approaches. Groups that were based on processes had a strong difference in fluency and text organization ($p < 0.05$; Cohen d=0.54). Limitations were single-institution sampling and a limited intervention period, which borderline the generalizability of results in other EFL situations. Ma (2023) compared learning-oriented assessment in English for Academic Purposes (EAP) writing with the help of examination and classroom observation. Formative feedback had an important positive connection with the student performance (r=0.47, $p < 0.01$). The limits were that it uses subjective teacher ratings and a small cohort size, and that it limits making generalizations to any other classroom setting other than the sampled.

Anggraeni et al. (2025) investigated the effect of self-regulated teaching on learning in EFL students in academic writing. The analysis based on a mixed-method design demonstrated significant changes in the writing performance of learners, and it was supported by the qualitative data about the improvement of their autonomy and the application of strategies.

The results demonstrate the effectiveness of the instructional approach in the development of theoretical writing. Aljasir (2025) inspected the impact of a self-managed, process-based writing course on adult EFL learners. There was a significant increase in post-intervention writing scores ($p < 0.01$; Cohen d=0.68). The lack of a CG and potential motivation bias were limitations because these influence the possibility of applying the results to larger adult EFL groups. Andargie et al. (2025) explored how project-based learning influences EFL students' writing performance. It showed a significant outperformance of EG over the controls ($p < 0.05$; partial η^2=0.19). Such limitations as the lack of intervention duration and a homogeneous group of participants limit the generalizability of findings to diverse learner groups.

Yu et al. (2023) analysed the properties of process- and product-based writing instruction on motivation and engagement in L2. The process-based instruction resulted in much more engagement ($p < 0.01$; Cohen d=0.57). The shortcomings were that self-reported data were used, and no longitudinal measurement of sustained motivational effects. Ma'rufah et al. (2021) performed a needs analysis of EFL writing skills through inspection and interview. Results emphasized the lexical and cohesion gaps, but no value of statistical significance was presented. The limitations were that there were biases in the self-perception and a lack of sample diversity to extend the findings to the wider student samples.

Wei et al. (2023) evaluated the use of computerized writing assessment of Chinese EFL students through a randomized controlled trial. The grammar and the cohesion were significantly enhanced ($p < 0.01$; Cohen's d=0.65). Limitations were that it is context-specific and an automated scoring system is used, and this could impact accuracy and transferability. Lee et al. (2024) explored the observations of AI-based writing tools among the students of the university by conducting surveys. Favourable attitudes were also positively associated with greater writing motivation (r=0.41, $p < 0.05$), but no experimental performance outcomes were obtained, and the impact of novelty could have affected the findings, which restricted the credibility of long-term engagement-related findings. Kadmiry (2022) investigated the impact of process-oriented writing training on the anxiety of EFL students. Dramatic changes in writing anxiety were made after the intervention ($p < 0.001$; Cohen d=0.72). Such limitations as single-institution sampling and short-term evaluation limit the applicability of the results to a variety of settings and longitudinal outcomes.

3. RESEARCH GAP

Even though extensive research has examined product-based and process-based writing instruction, several gaps remain in EFL writing studies, particularly within the Saudi Arabian context.

Previous studies have reported improvements in self-efficacy, organization, fluency, grammar, and learner autonomy, but most investigations suffer from small sample sizes, single-institution settings, short intervention periods, and subjective teacher-based evaluations. Many earlier works also rely heavily on self-reported data, lack longitudinal follow-up, or fail to statistically control for pre-test differences, reducing the reliability and generalizability of the results.

To fill these gaps, the current research analyzes a Saudi Arabian EFL of 79 students, which is split into an EG where students would get a process-oriented writing training, and a CG where students would get a conventional training.

The SPSS-based Descriptive Statistics, Paired-Sample t-test, and ANCOVA are used to ensure that baseline equivalence, pre-test variation, and precise determination of instructional effects at the level of clarity, organization, vocabulary use, grammatical accuracy, and coherence are guaranteed. The research design addresses the limitations of previous studies and gives more robust empirical evidence on the success of process-oriented instruction in the Saudi EFL environment.

4. RESEARCH METHODOLOGY

A total of 79 Saudi Arabian EFL learners participated, initially assessed through a pre-test and then divided into EG and CG groups. The EG received process-oriented, recursive writing instruction, while the CG followed traditional teaching. Writing performance was measured across clarity, organization, vocabulary usage, grammatical accuracy, and coherence. Descriptive statistics summarized trends, paired-sample t-tests examined group differences, and ANCOVA adjusted post-test scores for pre-test variations, ensuring that observed gains reflected the effect of the instructional intervention. Process-oriented training of EFL learners in Fig. 1.
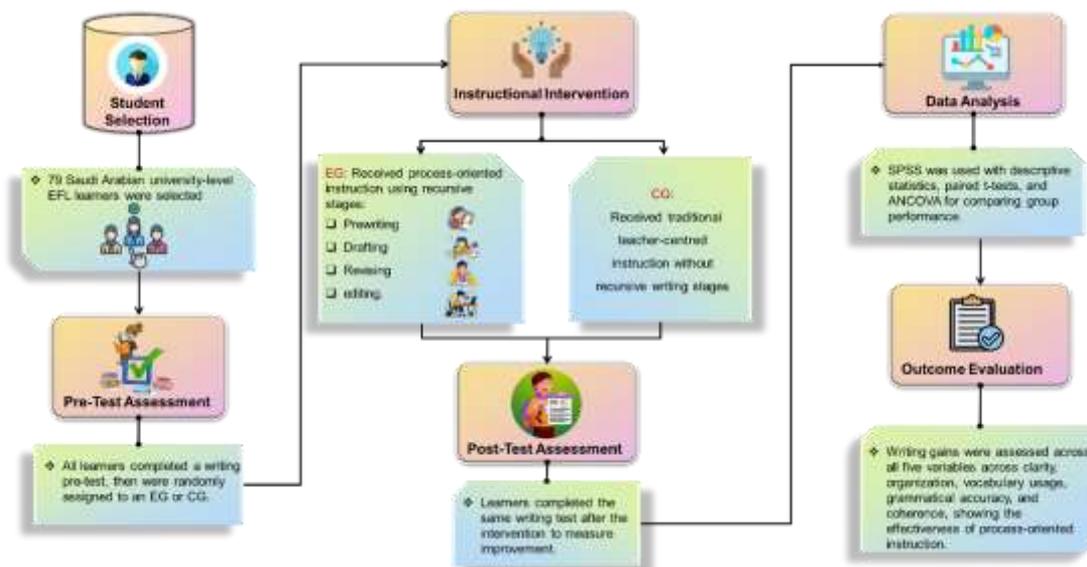

Figure 1: Workflow Chart of the Process-Oriented Training.

4.1. Participants Details

The impact of process-based teaching on writing growth was initially investigated by establishing the initial writing proficiency of the learners, so a comparable academic background is ensured, and the growth could be accurately tracked. The sample consisted of 79 EFL students from Saudi Arabia, drawn from a university-level English program because they have similar academic backgrounds and are enrolled in the same proficiency courses. All learners took a pre-test to determine their initial writing ability before grouping or intervention. The pre-test measured five components: Clarity (clear expression of ideas). Organization (logical organizing of material). Use of Vocabulary (using the right lexical selection). Grammatical Accuracy (proper language). Coherence (fluent consistency of thoughts). This pre-test was used as a control on how

many changes were made following the instructional intervention.

Table 1: Demographic Details of Participants.

Variables	Categories	Number of Learners (79)	Percentage (%)
Gender	Male	35	44.3
	Female	44	55.7
Age Range	18-20 years	47	59.5
	21-23 years	32	40.5
Proficiency Level	Beginner	19	24.1
	Intermediate	43	54.5
	Advanced	17	21.5
Educational Level	High school	15	19.0
	Undergraduate	60	75.9
	Others (Diploma)	4	5.1

After the pre-test, demographics were noted to give a detailed description of the participants. Table

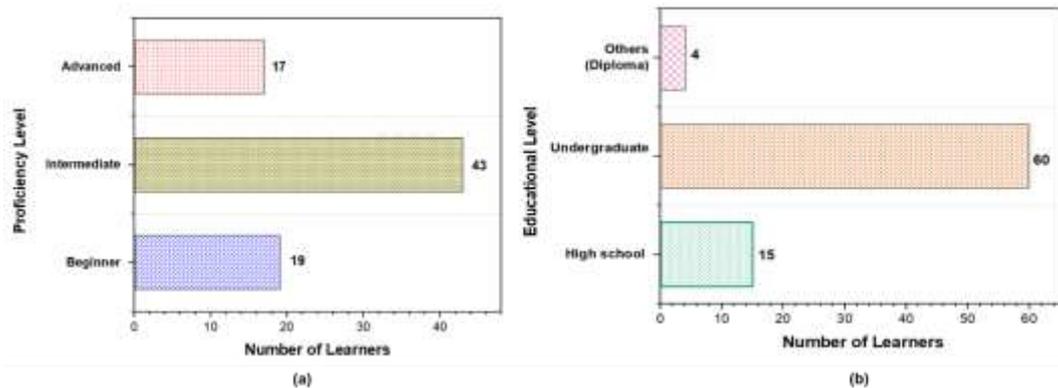1 and fig.2 presents (a) Proficiency level, (b) Educational level.

Figure 2: Learners Background Information Model: (a) Proficiency Level, (b) Educational Level.

Once the demographic data were registered, the Saudi Arabia 79 EFL learners were randomly split into two groups to eliminate sampling bias: Experimental Group (EG): 47 learners, Control Group (CG): 32 learners. The pre-test was already done before splitting the two groups, so the assessment was equal. The EG was taught using a process-oriented approach to writing, where writing was taught as a recursive and iterative process. Students were involved in cycle-like prewriting, drafting, revising, and editing, facilitated by Communicative Language Teaching (CLT) and Task-Based Language Teaching (TBLT) activities, in the form of discussions, role plays, and peer feedback. Conversely, the CG was taught traditional writing and was mainly oriented towards the final written work, teacher articulation, and insufficient revision. This group was not covered with recursive stages or CLT/TBLT strategies.

4.2. Instructional Procedures of EG and CG

The EG was given process-oriented instruction in writing. All 47 EFL learners were administered pre- and post-tests prior to and later the intervention using CLT and TBLT approaches. The instruction in writing was based on a recursive and iterative process, including four steps of prewriting, drafting, revising, and editing. Students participated in role plays, discussions, peer feedback, and collaborative activities, polishing such aspects of clarity, organization, vocabulary, and grammatical accuracy and coherence through repetition and reflection.

Prewriting: Idea generation, topic selection, brainstorming and outlining ideas, focus on planning and organizing ideas to provide adequate direction on drafting.

Drafting: Converting outlines into final texts, paying attention to content development and idea delivery, creating a rough draft that is to be later perfected.

Revising This involves critically examining drafts to make them clear, well-organized, use better words, and coherent to convey the information, reorganizing one idea, and enhancing connections to make the information easy to read.

Editing This is concerned with grammar, punctuation, spelling, and style, and it would guarantee a mistake-free writing and a well-presented work that is acceptable in academic communication.

Conversely, the CG (32 learners) was provided with conventional writing lessons, excluding CLT and TBLT. Teacher-centred lessons were more focused on the final written product and were not repetitive in writing. The analysis of pre- and post-test results shows that process-oriented interactive instruction is effective in improving the writing performance of EFL learners.

4.3. Variables Used to Assess Academic Writing Performance

To assess the impact of the instructional method on the development of writing in the learners, five key variables were analyzed as the predictors of academic writing performance. Clarity describes the degree of directness and accuracy in the way ideas are conveyed to reduce ambiguity and maximize the understanding on the part of the reader. An organization deals with logical organization of ideas, structure of paragraphs, and smooth flow of information. Vocabulary use is a factor that defines the suitability, breadth and accuracy of using vocabulary in academics. Grammatical accuracy is concerned with appropriate sentence structure, tense, punctuation and production of the language without errors. Coherence is the ability of ideas to be

related by transitions and logical connections in order to form a coherent and comprehensible text. Combined, these variables give a complete picture of the writing proficiency of learners.

4.4. Data Analysis and Statistical Techniques

The writing performance of EFL learners in the both groups was summarized using descriptive statistics to present means, standard deviations, and score distributions. The paired-sample t-test was used to assess improvement in each group, comparing the pre-test scores with the post-test scores. Analysis of Covariance (ANCOVA) compared post-test group differences, keeping track of pre-test scores, providing an accurate estimate of the effect of instruction. All assessments were conducted in Statistical Package of the Social Sciences (SPSS) showing that the process-based instruction in the EG created a more significant change in writing compared to the traditional CG strategy.

4.5. Descriptive Statistics

The writing concert of the EG and CG was analyzed using descriptive statistics. Such measures as average score, standard deviation, minimum, and maximum were estimated to be clear, organized, used vocabulary, grammatically accurate, and coherent. Where X_i are individual scores, N is the number of participants and $\overline{X}$ is the group mean. Mean and standard deviation (SD) were computed in Eqs. (1 and 2).

$$\overline{X} = \frac{\sum X_i}{N} \qquad (1)$$

$$SD = \sqrt{\frac{\sum(X_i - \overline{X})^2}{N}} \qquad (2)$$

Results showed that EG learners, with process-oriented CLT and TBLT instruction, had higher mean scores and consistent performance, while CG learners, with traditional instruction, had lower scores and greater variability, providing a foundation for inferential analyses.

4.6. Paired Sample t-test

To evaluate the significance of improvements in writing performance within each group, a paired-sample t-test was focused for the five writing variables. Let $D_i = X_{post,i} - X_{pre,i}$ represent the pre- and post-test scores of the i^thlearner, Mis total number of participants, and D_i=X_(post,i)-X_(pre,i)the difference score. The mean and standard deviation of the difference scores ($\overline{D}$ and SD_D) were considered in Eqs. (3 &4)

$$\overline{D} = \frac{\sum D_i}{M} \qquad (3)$$

$$t = \frac{\overline{D}}{SD_D/\sqrt{M}} \qquad (4)$$

The test (t) determined whether the pre- and post-test differences within the EG and CG were statistically significant. Results exposed that learners in the EG, who established process-oriented training, showed greater improvements compared to the CG, which followed traditional instruction. These results supported the effectiveness of recursive, CLT- and TBLT-based writing methods.

4.7. Analysis of Covariance (ANCOVA)

To determine the instructional influence of process-oriented teaching on learners' post-test writing performance while statistically controlling for their pre-test differences. Since the both groups did not begin at identical proficiency levels across the five writing variables ANCOVA provided a more accurate estimate of the intervention's true effect. Let Z_2 represent the post-test writing score for any of the five variables, Z_1 represent the corresponding pre-test score, and G be the group indicator (1=EG, 0=CG). The basic ANCOVA regression model for estimating the adjusted treatment effect is expressed in Eq. (5).

$$Z_2 = d_0 + \gamma_{ANCOVA}G + d_1Z_1 + \epsilon \qquad (5)$$

Here, d_0 is the intercept, γ_ANCOVA is adjusted treatment effect of process-oriented instruction, d_1 is regression weight for the pre-test score, and ϵ is error term. Including Z_1 controls for baseline variation, ensuring that changes in clarity, organization, vocabulary usage, grammatical accuracy, and coherence can be attributed to the intervention rather than initial proficiency differences. A general bias-adjusted ANCOVA estimator is shown in Eq. (6)

$$\gamma_{ANCOVA} = \gamma + \frac{(\alpha_2\alpha_G)(1-\alpha_1^2)}{(1-2\delta\alpha_1\alpha_G-\delta^2-\alpha_1^2\alpha_G^2)} \qquad (6)$$

Where α_2 is the impact of unobserved covariates on post-test performance, α_1 is the relation between pre-test scores and unobserved covariates, α_G is the association between group membership and unobserved covariates, and δ is the correlation between pre-test scores and unobserved factors. ANCOVA results offered clearer insight into how process-oriented, recursive writing instruction supported through CLT and TBLT activities enhanced writing quality. After adjusting for pre-test differences, the EG showed stronger gains across all five writing variables compared to the CG, demonstrating the effectiveness of interactive,

iterative writing practices.

5. RESULTS

The analysis part presents the findings of Descriptive Statistics, Paired-Sample t-Test, and ANCOVA, which analyze the differences in performance in groups in clarity, organization, vocabulary use, grammatical accuracy, and coherence.
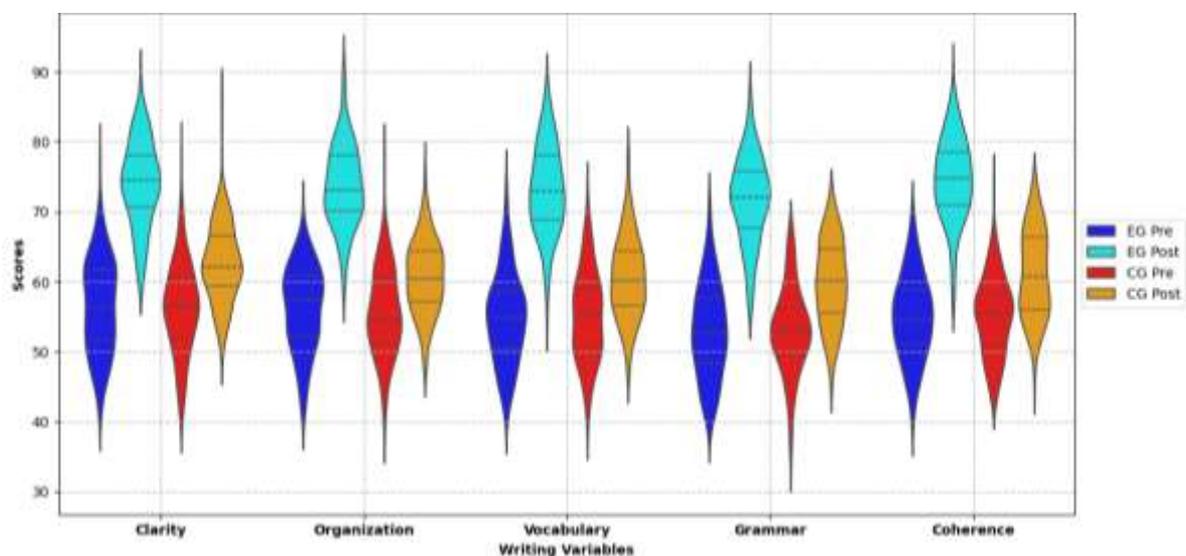
5.1. Descriptive Statistics

Table 2 and fig.3 shows a clear improvement in post-test scores across the five-writing variable quantity after the process-oriented instructional intervention. Learners in the EG achieved substantial

gains of about 17–19 points, while the CG showed only modest increases of 5–6 points. In the EG, clarity increased from 56.80 (6.10) to 74.90 (5.70), organization from 55.90 (6.20) to 73.80 (5.75), vocabulary usage from 54.70 (6.30) to 72.60 (6.00), grammatical accuracy from 53.80 (6.40) to 71.90 (6.10), and coherence from 55.30 (6.10) to 74.20 (5.80). Post-test ranges further highlight the stronger performance of the EG, with maximum scores between 85 and 88, whereas the CG remained lower, reaching only 70–74. Minimum scores were also higher in the EG, reflecting more consistent progress. Overall, the EG showed clear and meaningful improvement, confirming the effectiveness of process-oriented instruction over traditional methods.

Table 2: Writing Performance Statistics of the EG and CG.

Variables	Groups	Pre-test Mean (SD)	Post-test Mean (SD)	Minimum	Maximum
Clarity	EG	56.80 (6.10)	74.90 (5.70)	45	88
	CG	56.20 (6.00)	62.40 (5.80)	44	74
Organization	EG	55.90 (6.20)	73.80 (5.75)	44	87
	CG	55.40 (6.10)	61.10 (5.85)	43	73
Vocabulary usage	EG	54.70 (6.30)	72.60 (6.00)	42	86
	CG	54.20 (6.10)	60.30 (5.90)	41	72
Grammatical Accuracy	EG	53.80 (6.40)	71.90 (6.10)	41	85
	CG	53.10 (6.20)	59.40 (5.95)	40	70
Coherence	EG	55.30 (6.10)	74.20 (5.80)	44	88
	CG	55.10 (6.00)	60.80 (5.85)	43	72

Figure 3: Graphical Representation of the Descriptive Statistics of the EG and CG.

5.2. Paired-Sample t-test

Table 3 and Fig. 4 present the paired-sample t-test results for the pre-test scores of the EG and CG, showing that both groups performed similarly before the process-oriented instruction. The mean differences across all 5 variables were very small

(0.20–0.70), and the t-values remained low (0.30–0.90). The degrees of freedom (DF) for all comparisons were 78, indicating minimal variation between the groups. All Sig. (2-tailed) values were (>0.05), which means the p-values were not statistically significant. Since Sig. (2-tailed), and p-

value, these high values confirm that no meaningful difference existed between the groups at the start. This demonstrates that both groups began with

corresponding baseline writing concert, ensuring fair comparison for subsequent post-test analysis.

*Table 3: Comparison of Both Groups' Writing Scores Using Paired-Sample t-Test for Pre-Test Scores.*

Variables	EG Mean (SD)	CG Mean (SD)	Mean Difference	t − values	DF	Sig. (2-tailed)
Clarity	56.80 (6.10)	56.20 (6.00)	0.60	0.78		0.44
Organization	55.90 (6.20)	55.40 (6.10)	0.50	0.68		0.50
Vocabulary Usage	54.70 (6.30)	54.20 (6.10)	0.50	0.72	78	0.47
Grammatical Accuracy	53.80 (6.40)	53.10 (6.20)	0.70	0.90		0.37
Coherence	55.30 (6.10)	55.10 (6.00)	0.20	0.30		0.76

Table 4 and Fig. 4 displays the paired-sample t-test results for the post-test scores, where the EG showed substantial improvement compared to the CG after the process-oriented instruction. The EG recorded much higher mean scores across all writing variables, with large mean differences ranging from 12.30 to 13.40. Correspondingly, the t-values were very high (9.68–10.20). DF remained 78 for all comparisons. All Sig. (2-tailed) values were <0.001,

representing extremely low p-values and confirming highly significant differences between the groups. Since Sig. (2-tailed) equals the p-value, these results indicate that the instructional intervention had a strong positive impact. Overall, Table 4 clearly shows that the process-oriented approach effectively enhanced the writing services of learners in the EG, whereas the CG showed minimal progress.

Table 4: Statistical Summary of Post-test Writing Performance.

Variables	EG Mean (SD)	CG Mean (SD)	Mean Difference	t − values	DF	Sig. (2-tailed)
Clarity	74.90 (5.70)	62.40 (5.80)	12.50	9.82		
Organization	73.80 (5.75)	61.10 (5.85)	12.70	10.05		
Vocabulary Usage	72.60 (6.00)	60.30 (5.90)	12.30	9.68	78	<0.001
Grammatical Accuracy	71.90 (6.10)	59.40 (5.95)	12.50	9.75		
Coherence	74.20 (5.80)	60.80 (5.85)	13.40	10.20		
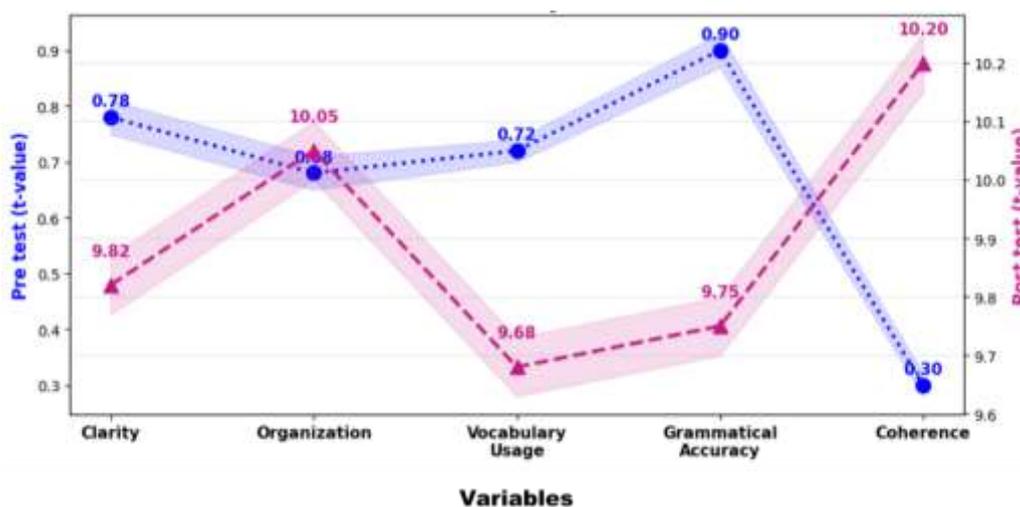
Figure 4: Comparison of Pre- and Post-Test for T-Values.

5.3. Analysis of Covariance (ANCOVA)

Table 5 and Fig. 5 present the ANCOVA results examining the outcome of process-oriented teaching

on the writing presentation of 79 EFL learners across five variables. The Pre-test mean scores designate that the EG and CG started at comparable proficiency levels. Adjusted post-test means, controlling for pre-

test differences, show substantial improvement in the EG across all variables (Clarity (75.10), Organization (73.90), Vocabulary Usage (72.80), Grammatical Accuracy (71.90), Coherence (74.00), compared to the CG (Clarity (63.00), Organization (61.80), Vocabulary Usage (61.50), Grammatical Accuracy (59.80), Coherence (61.90). The F-values (51.47–55.25) and

partial η² (0.145–0.155) indicate a strong effect of the intervention. All significance values (p<0.001) demonstrate that the EG's gains are highly significant, confirming that process-oriented, recursive writing instruction via CLT and TBLT effectively enhanced learners' writing performance compared to conventional teaching methods.

Table 5: Pre- and Post-Intervention of ANCOVA Writing Performance of EG and CG.

Variables	Groups	Pre-test Mean (SD)	Adjusted Post-test Mean (SD)	F-value	Partial η²	Significance (p)
Clarity	EG	56.80 (6.10)	75.10 (0.55)	54.32	0.152	p < 0.001
	CG	56.20 (6.00)	63.00 (0.50)	-	-	-
Organization	EG	55.90 (6.20)	73.90 (0.57)	52.85	0.148	p < 0.001
	CG	55.40 (6.10)	61.80 (0.52)	-	-	-
Vocabulary Usage	EG	54.70 (6.30)	72.80 (0.60)	51.47	0.145	p < 0.001
	CG	54.20 (6.10)	61.50 (0.55)	-	-	-
Grammatical Accuracy	EG	53.80 (6.40)	71.90 (0.58)	53.10	0.150	p < 0.001
	CG	53.10 (6.20)	59.80 (0.52)	-	-	-
Coherence	EG	55.30 (6.10)	74.00 (0.57)	55.25	0.155	p < 0.001
	CG	55.10 (6.00)	61.90 (0.50)	-	-	-
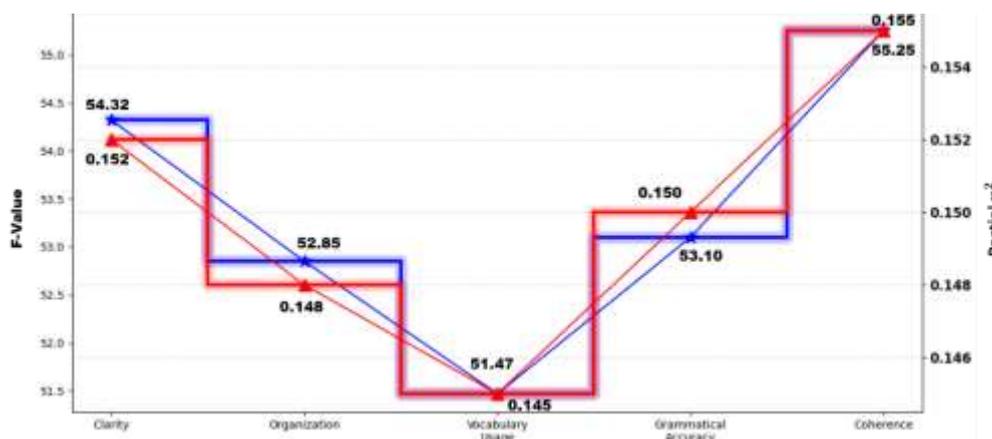
Figure 5: Step Plot of F-Values and Partial η² Across Variables.

Across all three analyses-Descriptive Statistics, Paired-Sample t-Tests, and ANCOVA EG consistently outperformed the CG. EG showed strong post-test gains, highly significant t-values (p<0.001), and higher adjusted post-test means with strong ANCOVA effects. Together, the findings confirm that process-oriented instruction produced far greater writing improvement than traditional teaching.

6. DISCUSSION

Process-oriented writing instruction has been implemented to improve clarity, organization, vocabulary usage, grammatical accuracy, and coherence among Saudi EFL learners [12]. Previous studies showed that traditional teaching or less-structured interventions often limited learner autonomy, yielded inconsistent gains, and relied

heavily on teacher-centered methods [14]. Some process-based interventions improved writing fluency and cohesion, but short durations, small sample sizes, or unstandardized measures restricted generalizability [18]. Peer feedback and task-based approaches enhanced idea organization, yet uneven participation sometimes reduced overall effectiveness.

To fill these gaps, this research used 79 Saudi Arabian EFL students who received iterative process-based teaching using CLT and TBLT tasks. The EG learners completed prewriting, drafting, revising, and editing, and the CG attended traditional classes. ANOVA used post-test scores after accounting the pre-test scores, such that gains did not indicate a baseline proficiency score. Descriptive statistics showed significant improvement in the EG (17-19 points) as opposed to slight improvements in the CG

(5-6 points). Initial equivalence was established by paired-sample t-tests (Sig.(2-tailed) <0.001), and the ANCOVA findings showed that the intervention effects were highly significant (p<0.001, partial η^2=0.145-0.155). These results indicate that structured, recursive writing activities, which have been confirmed by ANCOVA, are effective in improving the writing proficiency of Saudi Arabian EFL learners, addressing the shortcoming of earlier techniques and ensuring consistent, quantifiable improvements in all five writing variables.

7. CONCLUSION

The Structured, process-oriented, recursive writing instruction significantly improved the writing skills of 79 Saudi Arabian EFL learners. The study examined whether interventions involving prewriting, drafting, revising, and editing cycles supported by CLT and TBLT could enhance clarity, organization, vocabulary usage, grammatical accuracy, and coherence. Learners were divided into an EG, which received process-oriented training, and a CG, which followed traditional instruction. Descriptive statistics revealed substantial gains for the EG: clarity 56.80-74.90 [45–88], organization 55.90-73.80 [44–87], vocabulary usage 54.70-72.60 [42–86], grammatical accuracy 53.80-71.90 [41–85], and coherence 55.30-74.20 [44–88], whereas CG improvements were modest, with post-test maximums between 70–74. Paired-sample t-tests confirmed significant post-test differences (t=9.68–10.20, DF=78, Sig. 2-tailed<0.001). ANCOVA, controlling for pre-test scores, showed adjusted EG post-test means of clarity 75.10, organization 73.90, vocabulary 72.80, grammar 71.90, and coherence 74.00, with F-values ranging from 51.47 to 55.25, partial η^2=0.145–0.155, p < 0.001. These findings demonstrate that structured, recursive process-oriented instruction effectively enhanced the writing proficiency of Saudi EFL learners, producing consistent, measurable gains across all five variables.

8. LIMITATIONS AND FUTURE SCOPE

Narrow success of single-institutions context, no qualitative information and no follow-up of performance over time; future research could involve larger mixed populations, longer training sessions, and incorporation of digital writing tools to increase generalizability and investigate long-term effects of process-based instruction.

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