

EXPLICIT INSTRUCTION IN COHESION DEVICES: A STUDY OF EFFECTS ON EFL STUDENTS' ESSAY WRITING

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Abstract

This study investigates the impact of explicit instruction in cohesion devices on the coherence and overall quality of upper-intermediate EFL students' writing output. Employing a quasi-experimental pre-test/post-test design, a purposive sample of sixty students was assigned to an experimental group (n=35) and a control group (n=25). The former were exposed to explicit instruction in cohesive devices (conjunctions, lexical connectors, and reference words) while the latter continued with the prevalent classroom instruction. The experiment spanned six weeks during which time, the experimental group participated in weekly workshops featuring input sessions, guided practice, and feedback. Being a pre-post-test design, five essays each from before and after the intervention were obtained from both the groups and a validated rubric used to analyse for cohesion, coherence, and logical organisation. Results indicated a significant increase in the use and variety of cohesive devices following explicit instruction in the experimental group, in addition to reports of greater confidence in structuring ideas and linking sentences, though challenges with more complex devices such as ellipsis and substitution persisted. These results did not replicate in the control group. Study The findings highlight the efficacy of explicit, scaffolded teaching of cohesion devices combined with ample practice and feedback to enhance the essential features of essay writing. Pedagogically, the study supports the integration of cohesion-focused instruction in academic writing curricula, particularly for learners preparing for standardised tests like IELTS and TOEFL. Recommendations for future research include expanding instructional scope to include diverse cohesive features, longitudinal studies to evaluate retention, and the incorporation of learner-centered feedback techniques to foster deeper skill acquisition.

Keywords: Cohesion devices, quasi-experimental design, Halliday and Hasan's model, IELTS, TOEFL

INTRODUCTION

The ability to write clearly and cohesively is essential for success in academics and professional life in the English-speaking world. Learners of English as a Foreign Language (EFL) find this skill especially hard to master. Many students can achieve grammatical accuracy and some variety in vocabulary, but their writing often remains a challenge for comprehension. This happens not because of sentence-level mistakes, but because they struggle to connect ideas effectively across clauses, sentences, and paragraphs [15]. This issue highlights a lack of discourse competence and a limited understanding of cohesion devices.

Cohesion refers to the linguistic elements that link parts of a text, while coherence relates to the logical unity of the text that makes sense to a reader [20]. Although cohesion doesn't guarantee coherence, lacking cohesion usually makes it harder to achieve the latter. EFL writers often produce texts that consist of grammatically correct yet poorly connected sentences. This can make their arguments seem illogical and their narration disjointed [29]. This challenge is particularly evident in important academic writing situations, like the essay sections of standardised tests such as the IELTS and TOEFL, where coherence and cohesion are key scoring criteria [18,23].

Traditionally, the teaching of writing in ESL/EFL classrooms has emphasised grammatical structure and vocabulary over discourse features [22]. While these aspects are undoubtedly important, focusing exclusively on them can leave students unprepared to organise longer pieces of writing effectively. There is a growing agreement that cohesion, as a clear and teachable part of discourse competence, should receive explicit instruction [42]. Explicit instruction implies directly teaching linguistic rules and features, giving students metalinguistic knowledge to apply consciously in their writing [31]. This study's findings have implications for many stakeholders. For EFL instructors and curriculum planners, it will provide evidence about how effective explicit cohesion instruction is and offer models for workshops and lesson plans. For students, especially those preparing for academia or proficiency tests, this addresses a key weakness that can hamper their success. For researchers, it contributes to the ongoing discussion about form-focused teaching and offers a method that combines human and computer analysis for writing development.

Despite years of studying English, many EFL students produce writing that is hard to read and lacks fluency, not because of poor grammar, but because of weak cohesion. Their writing shows few conjunctive words, inconsistent pronoun use, limited lexical chains, and an over-reliance on simple coordinating conjunctions (e.g., and, but). This leads to dull, fragmented texts [26]. The problem continues because many teaching materials and classroom practices don't provide consistent training on the vast range of cohesion devices. When instruction does occur, it is often by chance rather than design [42].

This study aims to add to this educational discussion by exploring the effects of a structured program of explicit instruction in cohesion devices on the writing quality of upper-intermediate EFL students. Based on the theoretical background of Halliday and Hasan (1976), the research will measure results through human evaluation of essay quality and automated text.

THEORETICAL FRAMEWORK: HALLIDAY AND HASAN'S COHESION MODEL

The theoretical basis for this study comes from Halliday and Hasan's model of cohesion presented in their seminal work, *Cohesion in English* (1976). They defined cohesion as the linguistic resources that connect sentences to form texts, distinguishing it from a random sequence of sentences. According to their model, cohesion is achieved through five main types of ties:

1. Reference: A semantic relationship where a text component's identity can be found in another component. It can point outside the text (exophoric) or within it (endophoric). Endophoric reference is divided into:
 - Anaphoric: Referring back to a previously mentioned element (e.g., "A student arrived. He sat down.").
 - Cataphoric: Referring to an element that will be mentioned later (e.g., "Listen to this: you have won the lottery.").
 - Forms include pronouns (he, she, it, they), demonstratives (this, that, these, those), and comparatives (same, other, different).
2. Substitution: Replacing a linguistic item with another (e.g., "My phone is old. I need a new one."). It can happen at the nominal (one, ones), verbal (do, did), or clausal (so, not) level.
3. Ellipsis: Omitting a word or phrase that is assumed from the surrounding text, often called "substitution by zero" (e.g., "Which book do you want?" "[I want] The red one.").
4. Conjunction: Using linking words to express logical relationships between clauses and sentences. Halliday and Hasan categorised these into four types:
 - Additive: and, furthermore, in addition, likewise
 - Adversative: but, however, on the other hand, nevertheless
 - Causal: because, so, therefore, as a result
 - Temporal: then, next, finally, subsequently
5. Lexical Cohesion: Achieved by selecting related vocabulary. This includes:
 - Reiteration: Repeating the same word, using a synonym or near-synonym, or a superordinate/hyponym (e.g., "flower" → "rose").
 - Collocation: The tendency of words to occur together based on meaning (e.g., "rain" and "pour," "sick" and "leave").

This framework offers a clear way to identify, teach, and analyse cohesive devices. For this study, explicit instruction focused on teaching students to recognise and use these five types of ties to cohesive devices for better-connected and fluent writing.

The following research questions guide this study:

1. Does explicit instruction in cohesion devices lead to a measurable increase in their use in the essays of upper-intermediate EFL students?
2. Does this increase in the use of cohesion devices correlate with improvements in perceived coherence and overall essay quality as rated by human evaluators?
3. What are learners' perceptions about the efficacy of explicit instruction in cohesion devices for their academic writing?

LITERATURE REVIEW

The Concepts of Cohesion and Coherence

Understanding the difference and relationship between cohesion and coherence is crucial in writing research. As noted, cohesion refers to the visible linguistic links between sentences and clauses^[20]. It is a feature of the text itself. Coherence, however, is about how a reader perceives the text as a clear and logical whole^[40]. A text can be cohesive but not coherent if the links are illogical or inappropriate (e.g., "It was raining. Therefore, I am a teacher.") Conversely, a text may be coherent with little overt cohesion, which is often seen in complex writing where meaning connections are implicit^[28]. However, for second language writers, especially at intermediate levels, using appropriate devices explicitly is crucial for achieving coherence. As^[15] argues, cohesion "guides the reader through the text and signals the writer's intended logical relationships" (p. 54). Therefore, while the ultimate goal is coherence, teaching cohesion equips learners with the tools needed to clarify those relationships for the reader.

Common Challenges with Cohesion in EFL Writing

Many studies have documented the specific challenges EFL writers face with cohesion.^[29] found that Chinese EFL learners tended to overuse additive conjunctions (e.g., and, also) while underusing adversative and causal conjunctions, resulting in a simplistic style of argumentation. Similarly,^[26] observed that Arabic-speaking EFL learners often misuse reference devices, especially pronouns, which can lead to ambiguity and confusion about their meaning.

A common problem is the "thematic break," where a new sentence starts without a clear connection to the previous one, forcing the reader to guess the relationship [42]. EFL writers also often struggle with lexical cohesion, leaning heavily on repetition instead of using synonyms, superordinates, or collocations to form strong lexical chains [15].

Explicit versus Implicit Instruction

The discussion about the best way to teach linguistic features has been ongoing in second language acquisition (SLA). Implicit instruction introduces learners to these features in communicative contexts without directly highlighting them, aiming to encourage subconscious learning [16,17]. Explicit instruction, in contrast, directly explains rules and patterns, making students aware of the linguistic features.

A meta-analysis [31] found that explicit instructional methods are more effective than implicit ones for learning a variety of linguistic features, and these benefits tend to last. [36] Later confirmed these results were confirmed, showing that explicit teaching helps with both simple and complex grammatical features. While much of this research focused on grammar, more evidence shows that discourse-level features like cohesion also improve with explicit teaching. [42] found that a teaching intervention focusing on conjunctions and references improved both cohesion and overall writing quality for EFL learners compared to a control group that only received implicit feedback [42].

Explicit instruction is thought to help learners "notice" gaps between their writing and the target language [34]. By making cohesion devices a clear learning goal, students are more likely to recognise them in their reading and use them in their writing.

Gaps in the Literature and Significance of the Present Study

While previous studies have addressed teaching cohesion, many have focused on a limited range of devices, often just conjunctions, or have been short-term interventions. This study aims to address these gaps by implementing a six-week intervention based on the complete [20] model. It also uses a mixed-methods approach to support its findings.

[6] studied the impact of a flipped learning model on teaching cohesive devices to Saudi EFL learners. In this quasi-experimental study, the experimental group received instruction through pre-class videos and online activities centred on conjunction types, followed by in-class collaborative tasks. The control group followed traditional lecture-based instruction. Post-test results showed that the flipped classroom group significantly outperformed the control group in the correct use of cohesive devices and the overall coherence of their essays. This demonstrated the effectiveness of blending technology with active learning for teaching discourse features. While the present study employs a traditional workshop model, these findings support the essential idea that the effect of explicit instruction on cohesion is positive. It suggests that a future direction in teaching could involve adapting explicit instruction into a flipped model to enhance in-class practice and personalisation [4,5,6].

On the other hand, [1] examined the specific relationship between conjunctive cohesion—additive, adversative, causal, and temporal—and the overall quality of argumentative essays written by Jordanian EFL university students. They used a corpus-based approach to analyse 156 essays. The findings showed a strong positive correlation between the frequency and variety of conjunctive devices, especially causal and adversative types, and higher writing proficiency scores. The study concluded that mastery of conjunctions is a key differentiator between intermediate and advanced EFL writing. [1] provides robust correlational evidence that supports the focus of the present study. The present study expands on this by testing whether explicitly teaching these specific conjunctions causes an improvement in writing quality, thus offering a solution to the challenges identified by [1].

[7] looked at the role of lexical cohesion, particularly reiteration—through repetition, synonymy, antonymy—and collocation in persuasive essays by Arabic-speaking EFL learners. The study compared learner texts with a native speaker corpus and found that learners over-relied on repetition while showing limited use of synonymy and collocation. This reliance negatively affected lexical sophistication and text fluency [7]. [7] called for teaching strategies that move beyond isolated words to focus on lexical networks and relationships. The present study directly addresses this gap. The instructional module titled Lexical Cohesion: Reiteration and Collocation (Week 4) aims to tackle the issues identified by [7]. This research provides empirical data on whether such explicit instruction can reduce repetition and boost the use of synonyms and collocations in student writing.

[9] conducted a meta-analysis of 15 experimental studies on the effects of explicit cohesive device instruction on EFL learners' writing [9]. Their analysis confirmed a significant and positive overall effect size, showing that explicit instruction is effective across various contexts. They also discovered that interventions lasting longer than eight weeks and those that included digital tools had larger effects. This synthesis provides strong evidence for the approach being tested in the present study. It adds a new data point to the research, combined with [9], as it reinforces their findings on the overall effectiveness of explicit instruction.

[10] studied the impact of an intervention that combined explicit teaching of cohesive devices with peer review on the writing of Yemeni EFL students. The experimental group participated in lessons on cohesion and took part in structured peer feedback sessions focusing on identifying and correcting cohesion errors [10]. Results showed that this approach led to more significant gains in applying reference words and conjunctions correctly compared to a group that only received explicit instruction from the teacher. This highlights the value of interactive, metacognitive feedback practices. The present study also incorporates a feedback component in its workshops. Findings [10] suggest a possible enhancement to the present study's methodology. While feedback will likely be teacher-led, [10] indicates that adding structured peer feedback focused on cohesion could greatly enhance future versions of the instructional model and support students' learning even further.

METHODOLOGY

Research Design

This study used a quasi-experimental design with a pre-post-test model. This design was chosen for its practicality in an educational setting while still allowing for a comparison between the experimental group and the control group [14].

Participants

The study involved 60 EFL students (N=60) enrolled in upper-intermediate English courses at an academic institution in Saudi Arabia. Their proficiency level was determined by their placement test scores, which aligned with the B2 (Vantage) level of the Common European Framework of Reference for Languages (CEFR). They were informed of the research purposes, and written consent for participation was duly obtained from them. These were divided into two classes: the experimental group (n=35) and the control group (n=25).

Instruments and Materials

Two similar writing prompts were developed for use in the pre-test and post-test sessions. Each prompt instructed participants to produce an argumentative essay of 250–300 words on a topic of general interest, such as “Some people believe that university education should be free for all students. Do you agree or disagree?” To ensure consistency in assessment, these prompts were pilot tested to confirm they had comparable levels of complexity and both were capable of eliciting the use of cohesive devices.

For the experimental group, a six-week workshop curriculum was designed to focus on explicit instruction in cohesion. Each weekly session, lasting 90 minutes, concentrated on specific cohesive devices as conceptualised by [20]. The curriculum began with an introduction to cohesion and coherence, then proceeded to the study of reference, including pronouns and demonstratives. Next, it covered additive and adversative conjunctions, followed by causal and temporal conjunctions. Subsequent sessions explored lexical cohesion, specifically reiteration and collocation, as well as substitution and ellipsis. The final week was dedicated to review and practical application, encouraging students to combine multiple cohesion devices for a stronger textual effect.

1) Writing Prompts: Two similar writing prompts were created for the pre-test and post-test. Both prompts required an argumentative essay of 150-200 words on topics of general interest (e.g., "Some people believe that university education should be free for all students. Do you agree or disagree?"). The prompts were pilot tested to ensure they had similar levels of complexity and elicited cohesive devices.

2) Instructional Materials for EG: A six-week workshop curriculum was developed. Each 90-minute weekly session focused on one or two types of cohesive devices from the model of [20]:

- Week 1: Introduction to Cohesion & Coherence; Reference (Pronouns, Demonstratives)
- Week 2: Conjunctions I: Additive and Adversative
- Week 3: Conjunctions II: Causal and Temporal
- Week 4: Lexical Cohesion: Reiteration and Collocation
- Week 5: Substitution and Ellipsis
- Week 6: Review and Application: Combining Devices for Effect

The instructional materials included presentation slides, handouts with examples and explanations, and worksheets designed for both guided and independent practice. These resources incorporated authentic text samples and sentence-combining exercises to reinforce learning and provide context for the use of cohesive devices. For the control group, students received their regular upper-intermediate writing instruction during the same six-week period. This instruction focused on general academic writing skills such as paragraph structure, thesis statement development, vocabulary building, and grammar review, without explicit teaching of cohesion devices. Essay assessment was based on an analytical scoring rubric adapted from the IELTS Writing Task 2 band descriptors and ESL Composition Profile [24]. The assessment rubric evaluated four criteria: CC (cohesion and coherence measured the use of cohesive devices, logical sequencing, and paragraph structure); TR required addressing the task prompt and developing supported ideas; LR assessed vocabulary range and accuracy; and GRA rated the range and correctness of grammar. While the main focus was on the CC score, overall writing quality was considered based on the sum of all scores.

3) Perception Tools:

Participants in the experimental group maintained a weekly reflective sheet, responding to prompts about what they had learned and how they attempted to apply these new skills in their writing. At the end of the intervention, they also completed a questionnaire. This questionnaire included a five-item Likert Scale designed to measure their perceptions of the usefulness of the instruction. The questionnaire aimed to gather feedback on the impact of the workshop on participants' understanding and use of cohesion devices in their academic writing.

Data Collection Procedure

At the outset of the study, both the experimental and control groups completed a pre-test during the first week, responding to the designated writing prompt under timed conditions of 40 minutes. Over the following six weeks, the experimental group participated in workshops with a focus on cohesion, while the control group received their standard writing instruction. In the eighth week, both groups took part in a post-test using a new but comparably structured writing prompt, again under timed conditions. Throughout the intervention period, reflective entries from the experimental group were collected each week, and after the post-test, participants in the experimental group also completed an exit questionnaire to provide additional perceptual data.

Data Analysis

Quantitative data analysis was conducted using SPSS software. All pre-test and post-test essays were scored by two experienced EFL writing instructors who were blind to group assignments, as the assignments were given in the form of a Microsoft Word format and coded as Pupi, 1, etc. To assess scoring consistency, inter-rater reliability was calculated, which showed strong agreement. All essays were classified according to Halliday and Hasan's model, generating numerical values for selected linguistic and cohesion indices.

For statistical testing, paired samples t-tests were used to compare within-group differences (pre-test vs. post-test) for both the experimental and control groups on rubric scores. Independent samples t-tests were further used to compare between-group differences in gain scores (the change from pre-test to post-test). Regarding the questionnaire, reliability was calculated as shown in Table 1 below.

Table 1: Reliability of the questionnaire

Dimension	Cronbach's Alpha	N of Items
Perceived Improvement and Essay Quality	0.943	9
Perceptions of Instruction	0.863	9
Challenges	0.811	7
Total	0.919	25

Strong internal reliability can be seen in Table 1 for all dimensions. Further, the questionnaire exhibited very good reliability with a total Cronbach's alpha of 0.919, which is strong evidence that the scale as a whole is very reliable for gauging respondents' attitudes and experiences. These high reliability coefficients imply that the tool is well-developed and appropriate for substantiating significant findings about students' perceptions, learning experiences, and perceived difficulties.

Table 2: The use of cohesion devices before and after the implementation

Use cohesion devices in essays before	Never	Rarely	Sometimes	Often	Always
	7	18	10	00	00
	20.0%	51.4%	28.6%	00	00
Use cohesion devices in essays composed after explicit instruction	00	00	6	12	17
	00	00	17.1%	34.3%	48.6%
Cohesion devices usage occurrence basis ease of use	Reference	Substitution	Ellipsis	Conjunctions	Lexical cohesion
	8	00	00	7	20
	22.9%			20.0%	57.1%

Table 2 shows how students used cohesion devices in their essays before and after explicit instruction, as well as which types of devices they found the easiest to use. Before explicit instruction, students didn't always use cohesive devices: most of them said they "rarely" (51.4%) or "sometimes" (28.6%) used them, and a smaller group said they "never" used them (20%). It is important to note that none of them said they used cohesion devices "often" or "always" at this point, which shows that they were generally not confident in or aware of these tools in their writing practice before they were taught how to use them.

After the implementation, a clear change can be seen in their reported frequent use. In fact, at this stage, none reported "never" or "rarely" using them. Instead, 17.1% said they "sometimes" used cohesive devices, 34.3% said they "often" used them, and 48.6% said they "always" used them. This significant change shows that the instructional intervention worked to raise both awareness and practical use of cohesive devices in writing.

The most common types of cohesion devices that the students thought were easiest were lexical cohesion (57.1%), reference devices (22.9%), and conjunctions (20.0%). Notably, no students indicated that substitution or ellipsis were easy to use, suggesting that these concepts remain relatively less accessible or more challenging for learners, possibly due to their complex syntactic requirements or insufficient direct instruction. These findings show that explicit teaching can help students use more cohesive devices in their writing more often and in more ways. However, they also show that students still have trouble using more advanced grammatical cohesion types like substitution and ellipsis.

Table 3: The utilisation of Cohesion Devices by all the participants in the pretest

Type	Personal	Demonstrative	Comparative	Substitution			Ellipsis			Conjunction			Lexical		Total	
				Nominal	Verbal	Clausal	Nominal	Verbal	Clausal	Additive	Adversative	Causal	Temporal	Reiteration		
P1	18	9	0	2	0	0	0	0	0	12	2	8	4	22	8	85
P2	16	8	1	1	0	0	0	0	0	10	3	6	3	18	6	72
P3	15	7	0	2	0	0	0	0	0	11	1	7	3	20	7	73
P4	17	7	1	1	0	0	0	0	0	10	2	8	4	18	8	76
P5	15	8	0	2	0	0	0	0	0	11	1	7	2	19	7	72
P6	16	8	0	1	0	0	0	0	0	10	2	6	3	20	6	72
P7	17	6	0	2	0	0	0	0	0	9	1	7	3	18	7	70
P8	16	7	1	1	0	0	0	0	0	10	2	6	3	20	6	72
P9	15	7	0	1	0	0	0	0	0	9	1	6	3	19	5	66
P10	16	8	0	1	0	0	0	0	0	11	2	7	3	21	6	75
Total	161	75	3	1	4	0	0	0	0	103	7	68	1	195	66	733

According to the results from the pretest essays summarised in Table 3 above, students in both groups significantly rely on a number of important cohesive device categories, which are necessary for producing academic writing that is both logical and coherent. Personal references predominate among these, occurring 161 times overall across all students. This illustrates how students frequently employ possessives and pronouns to maintain literary coherence and prevent repetitions. There are also many occurrences of demonstrative type (75 in all), which show that terms like "this," "that," and "these" are frequently used to refer back to earlier concepts and strengthen the link between sentences and paragraphs. The fact that there are so few comparative devices (just three) indicates that students do not use explicit comparative structures very often, which could be an area for instructional improvement.

With only 14 nominal replacements and no verbal or clausal substitutions or ellipses noted, substitution and ellipsis are used sparingly. Students' propensity to repeat material instead of employing more succinct, substitutional wording, which could improve text fluidity and sophistication, is highlighted by this scarcity. With 31 temporal occurrences, 68 causal, 17 adversative, and 103 additive examples, conjunctions make up a significant percentage of cohesive relationships. Although adversative conjunctions, which are crucial for opposing ideas, are comparatively underrepresented, additive and causal conjunctions are more common, showing students' propensity to sequence ideas and demonstrate cause-and-effect linkages. Although evident, the employment of temporal conjunctions is still moderate. With 195 occurrences, lexical coherence is primarily demonstrated through repetition, highlighting the frequent use of important terms to keep the discussion on track. With 66 occurrences, collocation supports this by demonstrating clustered word use; nonetheless, its lower frequency indicates chances to improve semantic linkages and vocabulary variety.

Overall, the 733 cohesive devices detected in 10 essays demonstrate that students are mostly using conjunctions and references, bolstered by lexical repetition, to establish fundamental cohesiveness. Focused instructional strategies could further improve academic writing competency by diversifying coherent procedures and boosting discourse sophistication, as evidenced by the restricted use of replacement, ellipsis, adversative conjunctions, and comparative references.

Table 4: The utilisation of Cohesion Devices by the control group in post test

Type	Personal	Demonstrative	Comparative	Substitution			Ellipsis			Conjunction			Lexical		Total	
				Nominal	Verbal	Clausal	Nominal	Verbal	Clausal	Additive	Adversative	Causal	Temporal	Reiteration		
P1	14	8	1	3	1	0	1	1	0	14	3	8	5	19	8	86
P2	14	9	1	2	1	1	0	0	0	14	4	9	4	18	7	84
P3	13	8	0	2	1	0	1	1	0	13	3	8	5	19	9	83

P4	17	7	1	3	1	0	0	0	17	4	6	4	19	8	87	
P5	14	8	1	2	1	1	0	1	0	12	3	8	4	20	8	83
P6	15	9	1	2	1	0	0	1	0	15	3	7	5	18	7	84
P7	17	6	1	2	1	0	0	0	0	15	3	5	4	19	7	80
P8	14	7	1	2	1	0	1	1	0	14	3	7	4	19	7	81
P9	15	8	0	1	1	0	1	1	0	15	3	6	4	20	6	81
P10	17	9	1	2	1	0	1	1	0	15	4	9	4	28	9	101
total	150	79	8	21	10	2	5	7	0	144	33	73	43	199	76	850

The results of the pretest and posttest control groups in Table 4 above show some significant changes in the way students employ cohesion devices, suggesting that their writing abilities have improved post-intervention from 733 in the pretest to 850 in the posttest. The total frequency of cohesion devices showed a rise. This increase implies that cohesive device application can be enhanced by general writing instruction, even in the absence of specific cohesion-focused training. Specific category analysis revealed modest increases in demonstrative and comparative references and a slight decrease in personal references. Although personal references continued to be the most used cohesive device, it is evident that participants adopted some diversity in their cohesion device use. It is noteworthy that the use of more complex grammatical cohesion devices, such as substitution and ellipsis, increased from very few instances to small but expanded usage, indicating a growing familiarity that may benefit from further instruction.

All subtypes of conjunctions showed a noticeable increase, with additive and adversative conjunctions displaying especially noticeable increases. Additionally, the usage of temporal and causal conjunctions increased, suggesting better use of logical connectors to connect concepts and better organise discourse. As a result of improved vocabulary use and semantic connections within the texts, lexical cohesion—as determined by reiteration and collocation—also improved. Notwithstanding these numerical improvements, students' use of cohesive devices seems to be limited in terms of both quality and complexity, particularly when it comes to more complex devices like substitution and ellipsis. The slight improvement in these areas indicates that although general writing practice promotes some development, mastery of coherent writing patterns is not entirely fostered by it.

Though explicit, focused instruction is necessary to enable deeper, more consistent, and sophisticated application of cohesion devices in writing, the data generally suggests that explicit writing instruction can lead to some development in the use of cohesion devices. The results highlight the necessity of targeted cohesion training to assist students in creating texts that are highly coherent and well-structured.

Table 5: The utilisation of Cohesion Devices by the experimental group in the post-test

Type	Reference			Substitution			Ellipsis			Conjunction			Lexical		Total	
	Personal	Demonstrative	Comparative	Nominal	Verbal	Clausal	Nominal	Verbal	Clausal	Additive	Adversative	Causal	Temporal	Reiteration	Collocation	
P1	22	12	1	4	1	0	1	1	0	18	3	12	6	29	11	121
P2	21	12	2	3	1	1	1	1	0	17	4	10	5	26	9	113
P3	20	10	1	3	1	0	1	1	0	16	3	10	5	25	9	105
P4	22	12	2	4	1	0	1	1	0	17	4	11	5	27	10	117
P5	21	12	2	3	1	1	1	1	0	17	3	11	5	26	10	114
P6	22	12	1	3	1	0	1	1	0	16	3	10	5	27	9	111
P7	20	10	1	3	1	0	1	1	0	17	3	11	5	25	9	107
P8	21	12	2	3	1	0	1	1	0	17	3	10	5	26	9	111
P9	20	11	1	3	1	0	1	1	0	16	3	10	5	25	8	105
P10	22	12	1	3	1	0	1	1	0	18	4	11	6	28	10	118
total	211	115	1	32	1	0	10	0	0	169	3	106	52	264	94	1122

Table 5 above shows how the experimental group used cohesion devices in their post-test output. In the Reference category, there are 211 instances of personal references, which is the most common type. This shows that students use a lot of personal pronouns and possessives to keep their texts going. Demonstrative references are also very important, appearing 115 times. This shows how important they are for making clear connections to information that was already

mentioned and helping the reader understand. There are only 14 instances of comparative references, which means that some students are trying to show how things are alike or different, but not very often. Substitution and ellipsis, which are ways to shorten sentences by replacing or leaving out parts, are not used very much. There were 32 nominal substitutions, 10 verbal substitutions, and only 2 clausal substitutions. Ellipsis devices are very rare, which shows that students are being careful to stay clear instead of using short expressions.

The Conjunction category shows active engagement, with 169 instances of additive conjunctions and 106 of causal conjunctions. This means that students used additive and cause-effect relationships frequently to make their arguments clear. Adversative conjunctions appear less frequently (33 instances), potentially signifying tentative employment of contrastive connectors. There were 52 instances of temporal conjunctions, which suggests moderate temporal sequencing and helps the narration move along logically. There are 264 reiterations and 94 collocations, which shows that lexical cohesion is strong in the output. This pattern shows that students tend to repeat words and use groups of words that are semantically related to support thematic consistency. The balance between reiteration and collocation shows that students began to pay more attention to cohesive vocabulary choices. The total of 1122 cohesion devices used shows a big jump in complexity and density compared to earlier stages. This positive trend indicates the necessity of cultivating proficiency in managing textual connections to achieve coherent and cohesive writing. Even so, the low frequency of ellipsis and comparative references suggests that there are areas where teachers could help students improve the overall quality of their academic writing.

Finally, the perceptions of the participants after having undergone explicit instruction were obtained via a questionnaire; the responses are tabulated below.

Table 6: Perceived improvement in writing quality

No	Item	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Std. Deviation	Mean
1	My essays have become more coherent after learning about cohesion devices.	4	2	5	13	11	1.296	3.71
		11.4%	5.7%	14.3%	37.1%	31.4%		
2	My overall essay writing quality has improved since the instruction.	2	2	6	11	14	1.162	3.94
		5.7%	5.7%	17.1%	31.4%	40.0%		
3	I feel more confident organising ideas in my essays.	3	5	6	11	10	1.29	3.57
		8.6%	14.3%	17.1%	31.4%	28.6%		
4	I feel more confident linking ideas in my essays.	3	5	6	11	10	1.29	3.57
		8.6%	14.3%	17.1%	31.4%	28.6%		
5	I am better able to organise my essays into clear paragraphs and sections.	3	3	6	11	12	1.268	3.74
		8.6%	8.6%	17.1%	31.4%	34.3%		
6	My grammar and sentence accuracy have improved after the instruction.	3	2	4	14	12	1.216	3.86
		8.6%	5.7%	11.4%	40.0%	34.3%		
7	I am more aware of the vocabulary and lexical choices in my writing	3	3	5	12	12	1.262	3.77
		8.6%	8.6%	14.3%	34.3%	34.3%		
8	I am motivated to continue improving my writing skills because of the instruction	3	3	5	12	12	1.262	3.77
		8.6%	8.6%	14.3%	34.3%	34.3%		
9	I notice more coherence and logical flow in my essays compared to before the instruction.	4	4	4	11	12	1.371	3.66
		11.4%	11.4%	11.4%	31.4%	34.3%		

Table 6 shows how students thought their essays became better after learning about cohesion devices. Most of the responses are in the "agree" and "strongly agree" categories for most statements. Almost all the participants said they agreed or strongly agreed that their essays were more coherent, better overall, more organised, and more grammatically correct.

The mean scores for all items range from 3.57 to 3.94, which shows that students generally thought their writing got better. These means indicate that, on average, students perceived the intervention to have substantially enhanced their writing coherence, organisation, and confidence. The standard deviations, ranging from 1.162 to 1.371, show that the responses are spread out around the mean, which means that there is some variation in how students perceived their improvements, but most of the responses are on the positive end of the scale. Questions about motivation and awareness

of lexical choices show that students' interest in writing grew, and most of them saw that the logical flow of their writing improved.

In general, the data shows that teaching students about cohesion devices helped them write better essays. Most students said that as a direct result of the instruction, they were better organised, more coherent, and more aware of language. The small change (SD ~1.2-1.3) helps confirm that, even though there are still some outliers or neutral opinions, the central tendency is very positive. These results support the idea that teaching students how to use explicit cohesion in writing can be helpful.

Table 7: Perceptions about instruction in the use of cohesion devices

No	Items	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Std. Deviation	mean
1	I find it easy to understand the different types of cohesion devices taught.	3	3	5	12	12	1.262	3.77
		8.6%	8.6%	14.3%	34.3%	34.3%		
2	The instruction helped to merecognise cohesion devices in academic texts.	4	4	6	10	11	1.357	3.57
		11.4%	11.4%	17.1%	28.6%	31.4%		
3	I can use cohesion devices correctly in my essays after the instruction.	3	3	7	11	11	1.255	3.69
		8.6%	8.6%	20.0%	31.4%	31.4%		
4	Using cohesion devices makes my writing clearer for readers.	3	3	6	12	11	1.25	3.71
		8.6%	8.6%	17.1%	34.3%	31.4%		
5	I still feel unsure about how to use some cohesion devices properly.	3	3	5	12	12	1.262	3.77
		8.6%	8.6%	14.3%	34.3%	34.3%		
6	The examples and exercises were relevant and useful.	5	5	6	7	12	1.462	3.46
		14.3%	14.3%	17.1%	20.0%	34.3%		
7	The feedback on cohesion devices helped improve my writing.	4	4	5	10	12	1.374	3.63
		11.4%	11.4%	14.3%	28.6%	34.3%		
8	More time should be devoted to practising cohesion devices in writing classes.	3	5	7	9	11	1.313	3.57
		8.6%	14.3%	20.0%	25.7%	31.4%		
9	Learning cohesion devices has increased my confidence in academic writing.	5	5	5	9	11	1.442	3.46
		14.3%	14.3%	14.3%	25.7%	31.4%		

Table 7 summarises students' perceptions of instruction in cohesion devices, each rated from "strongly disagree" to "strongly agree." The student responses show a generally positive reception to both the content and delivery of the instruction. Several items, notably those related to the clarity of instruction, perceived usefulness in helping to identify cohesion devices, and self-reported capability to use cohesion devices after instruction correctly, fall predominantly in the "agree" and "strongly agree" categories. For these items, more than 65% of students agree or strongly agree that instruction improved their recognition and application of these devices in writing.

Furthermore, students largely concur that using cohesion devices enhanced the clarity of their writing for readers, with mean values of 3.71, and they acknowledge feeling more confident after the instruction. However, it is notable that a similarly high section expresses continued uncertainty about the correct use of some cohesion devices, underscoring that while instruction has been effective, some complexities remain. Responses indicate appreciation for the practical value of examples, exercises, and instructor feedback, but also reveal a desire for additional practice (mean = 3.57) and more instructional time devoted to cohesion.

For nearly all items, the standard deviations (around 1.25–1.46) indicate moderate variability in responses, suggesting diversity in individual learning preferences, prior knowledge, and experiences of instruction. Overall, the table illustrates that explicit teaching of cohesion devices positively influences students' awareness, confidence, and perceived writing quality, but also highlights an ongoing need for further focused practice and support in mastering these essential academic writing skills.

Table 8: Challenges faced in using Cohesion Devices

No	Items	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Std. Deviation	mean
1		4	4	7	9	11		3.54

	I find it difficult to use conjunctions correctly in my essays.	11.4%	11.4 %	20.0%	25.7%	31.4%	1.35 8	
2	I often overuse or underuse some cohesion devices in my writing.	4	4	6	9	12	1.37 6	3.6
		11.4%	11.4 %	17.1%	25.7%	34.3%		
3	It is hard for me to use reference words (e.g., pronouns) correctly to refer back to ideas.	5	5	8	8	9	1.38 8	3.31
		14.3%	14.3 %	22.9%	22.9%	25.7%		
4	I struggle to use lexical cohesion devices like synonyms and repetition effectively.	6	6	8	5	10	1.47 1	3.2
		17.1%	17.1 %	22.9%	14.3%	28.6%		
5	Remembering the different types of cohesion devices during writing is challenging for me.	6	6	8	5	10	1.47 1	3.2
		17.1%	17.1 %	22.9%	14.3%	28.6%		
6	My mother tongue interferes with my use of cohesion devices in English writing.	5	5	8	7	10	1.41 3	3.34
		14.3%	14.3 %	22.9%	20.0%	28.6%		
7	Lack of enough writing practice makes it hard for me to master cohesion devices	4	6	8	11	6	1.26 8	3.26
		11.4%	17.1 %	22.9%	31.4%	17.1%		

Table 7 shows the challenges that students admitted they had when they used cohesion devices in their writing. The data shows that problems with cohesion are quite common in a lot of different areas. A significant number of students (57.1%) agreed or strongly agreed that they struggled to utilise conjunctions correctly in their essays, emphasising conjunctions as a notable area of challenge. This aligns with studies showing that learners often make a lot of mistakes and misuse conjunctions for various reasons. In the same way, 60% of the students said they were inclined to use cohesion devices too much or too little, which could make their writing less clear or its flow less smooth. Almost half of the students (48.6%) said that pronouns and other references that are important for cohesion were also difficult to use. This shows that it is hard to connect ideas back together without making things confusing.

Lexical devices such as synonyms and repetition presented moderate difficulty (approximately 43% agreement on related items), indicating that vocabulary diversity and suitable reiteration are still areas that need improvement. A similar number of students also said that remembering the different types of cohesion devices and interference from mother tongue were problems they had with mastering cohesive writing. This shows that cognitive load and cross-linguistic influence are obstacles to learning cohesive writing. Interestingly, a smaller percentage of students (about 48.5%) said that not getting enough writing practice made it harder for them to master cohesion devices. This means that even though teaching of these is important, using in real life what students learn and writing about it often are both very important for crystallising the skill. The standard deviations across items (about 1.27 to 1.47) show that responses are moderately varied, which means that these challenges are common, but students' experiences are very different.

These findings emphasise the complex challenges associated with cohesion device usage and underscore the necessity for focused instructional strategies on conjunction usage, balanced cohesion application, thorough device knowledge, and extensive writing practice to cultivate students' cohesive writing skills fully.

RESULTS AND DISCUSSION

This study investigated the impact of explicit instruction in cohesion devices on students' use of these in essay writing and their perceptions of such instruction. The analysis was based on pretest and posttest use of cohesion devices, perceived improvements in essay quality, perceptions of the instruction received, and challenges faced in mastering cohesion devices.

Cohesion Device Utilisation in Pretest and Posttest Essays

The most commonly used devices across essays, according to the analysis, were additive conjunctions and personal references, highlighting their fundamental function in preserving textual coherence, with lesser usage of comparative references, substitution, and ellipsis, demonstrative references and causal conjunctions, in that order. Reiteration was the most used in lexical cohesion. At the same time, collocation was employed less frequently, indicating that students still had scope for improvement. The total frequency of use increased from 733 to 1122 from pretest to posttest, indicating an overall increase in the use of cohesive devices. This indicates that instruction improved the density and complexity of cohesive ties in students' writing.

Students' Perceptions

The questionnaire data indicated that students generally perceived their essays to have become more coherent and of higher quality following the instruction. Mean scores for perceptions of improvement ranged from 3.57 to 3.94, with most students agreeing or strongly agreeing that the intervention enhanced their organisation, coherence, and grammar.

Students also reported increased confidence in organising ideas and linking them, as well as heightened lexical awareness. These self-reported gains attest to the effectiveness of explicit teaching in fostering writing competence.

Overall satisfaction with cohesion instruction was reflected in the students' responses. They acknowledged that instruction aided them in identifying and using cohesion devices correctly, and they found it relatively easy to understand various device types. Although many students believed that cohesive links helped make their writing more comprehensible, some students continued to be unsure about how to employ all cohesion devices properly, indicating complex areas that might benefit from more attention. Students also highlighted the need for sustained and scaffolded learning experiences to crystallise mastery by expressing a desire for more practice opportunities and instructional time, despite their appreciation of pertinent examples, exercises, and feedback.

Amongst the challenges, a number of issues surfaced, most notably the inability to use conjunctions correctly and the propensity to either overuse or underuse devices, which can throw off the essay's flow. While remembering various cohesion device types presented a cognitive load, pronoun usage and lexical cohesion (such as selecting synonyms) were moderately challenging. Another barrier mentioned was first-language interference, a problem frequently reported in studies on second-language writing. Furthermore, insufficient writing practice was identified as a barrier to mastery, highlighting the importance of regular, contextualised writing assignments in addition to instruction.

DISCUSSION

The results of this study demonstrate that students' capacity to use cohesion devices effectively in essay writing can be greatly improved by explicit instruction on their use. ^[2,3,8,11] found that students' performance improved as a result of the intervention. Using conjunctions that took into account the students' low level of proficiency helped create cohesion, which is a sign of good writing. Before being explicitly taught, they didn't know much about or use of cohesion devices, and when they did, they didn't use them consistently or wisely. This lack of familiarity affected the overall coherence and cohesiveness of their essays, which is a problem that many language learners face. ^[20] said that cohesion is important for making texts that are connected and easy to understand. Further, learners often have trouble with cohesive devices because of low proficiency. This finding goes in the same vein as the findings of ^[27,41], who found that many L2 learners have trouble with cohesive devices, which makes their writing less effective.

After the intervention, students used cohesive devices more often and in different ways, whether conjunctions, personal and demonstrative references, or lexical devices like collocations and repetition. This means that direct instruction not only helps students understand things better, but it also gives them useful tools to make their writing lucid and better organised. These findings are consistent with the findings of ^[19], which illustrated that focused instruction in cohesion enhances learners' ability to organise and produce coherent written discourse, also confirmed by ^[35], which highlighted the positive effects of explicit instruction in cohesion on the writing quality of EFL students. ^[12,13,39] show that tasks that focus on cohesion, like continuation tasks and detailed feedback, exhibit improved L2 writing cohesion over time. Corpus-based research indicates that learners of cohesive devices evolves as their proficiency increases, supporting the notion that targeted interventions influence teaching ^[37,38]. After the lesson, students felt more confident in themselves when it came to structuring their ideas and linking sentences. This showed that they were their writing and understanding of the language had improved. But there were still problems with more complex grammatical structures, such as ellipsis and substitution. This underlines the inherent complexity of these traits and the need for continuous, structured education that specifically addresses these challenges ^[21].

Issues such as insufficient device usage and first-language interference were frequently cited, stressing the importance of integrating explicit cohesion instruction with ample practice opportunities and feedback ^[30]. The cognitive demands of mastering different types of cohesion ^[25,32,33,43] further emphasise the need for repeated, contextualised exercises. The study supports the notion that explicitly teaching cohesion devices is crucial for enhancing students' academic writing skills. It makes them feel better about their writing and gives them more confidence, as well as helping them get better at using cohesive ties. To help students learn all the skills they need, future educational programs should include learner-centred feedback techniques, ongoing formative assessment, and targeted practice on complex cohesive features.

CONCLUSION

The research shows that teaching students explicitly how to use cohesion devices makes it much easier for them to connect ideas and write well. Students become more confident in how to put together sentences and connect ideas, which shows writing and comprehension enhancement. But there are still problems with more complicated cohesive mechanisms, which shows that learning should be pursued in a structured way. Some common problems are using cohesive devices inappropriately or too much, and interference from the mother tongue. This shows how important it is to combine explicit teaching with adequate practice and feedback. The cognitive demands of mastering various types of cohesion underscore the need for repeated, contextualised exercises.

In general, it is important to teach cohesion devices directly in order to improve academic writing skills. Not only does it help students get better at using cohesive ties, but it also makes them feel better about their writing and gives them more confidence. To encourage full development, future teaching programs should include feedback that focuses on the learner, ongoing testing, and focused practice on difficult cohesive features to help students master the material and communicate well.

Limitations and Avenues for Future Research

Despite the benefits of explicit cohesion instruction, it has notable drawbacks, including a focus on limited cohesive devices and potential participant bias due to restricted sample size and backgrounds. The short duration of interventions raises concerns about long-term retention and skill transfer. Additionally, cognitive load and first-language interference are persistent issues that need qualitative and longitudinal investigation. Future research should encompass a broader range of cohesive devices, utilise diverse samples, and explore the impact of instructional support on cohesion skills over time. Investigating the interplay of learner strategies and feedback formats, as well as incorporating technology-enhanced assessments, could also enhance cohesion training and foster learner autonomy.

Ethical approval statement

This study was conducted in accordance with established ethical guidelines to ensure the protection and confidentiality of all participants and information. Informed consent was obtained from all participants before they participated in the research. The author declares no conflicts of interest and affirms that the research was carried out with integrity and transparency.

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Cohesion Category	Type of Device	Frequency	Description/Examples
Reference	Personal		Pronouns: he, she, it, they
	Demonstrative		this, that, these, those
	Comparative		same, identical, different
Substitution	Nominal		one, ones (as substitutes for nouns)
	Verbal		do, does, did (as substitutes for verbs)
	Clausal		so, not (as clause substitutes)
Ellipsis	Nominal		Omission of noun (e.g., "I'll have two. [cakes]")
	Verbal		Omission of verb ("She will leave but he won't [leave].")
	Clausal		Omission of clause ("He said he would help, but he hasn't.")

Conjunction	Additive		and, also, furthermore, besides
	Adversative		but, however, on the other hand
	Causal		so, thus, consequently, because
	Temporal		then, next, after that, finally
Lexical Cohesion	Reiteration		Repetition, synonym, superordinate, general word
	Collocation		Words that commonly occur together (e.g., question/answer)

The questionnaire

Use of Cohesion Devices

1. Before the course, how often did you consciously use cohesion devices in essays?
2. After explicit instruction, how often do you use cohesion devices in essays?
3. Which cohesion devices do you find easiest to use? (Reference / Substitution / Ellipsis / Conjunctions / Lexical cohesion

No	Perceived Improvement and Essay Quality	Strongly disagree	disagree	Neutral	agree	Strongly agree
1	My essays have become more coherent after learning about cohesion devices.					
2	My overall essay quality has improved since the instruction.					
3	I feel more confident organising ideas in my essays.					
4	I feel more confident linking ideas in my essays.					
5	I am better able to organise my essays into clear paragraphs and sections.					
6	My grammar and sentence accuracy have improved after the instruction.					
7	I am more aware of the vocabulary and lexical choices in my writing.					
8	I am motivated to continue improving my writing skills because of the instruction.					
9	I notice more coherence and logical flow in my essays compared to before the instruction.					
	Perceptions of cohesion devices: Instruction					
1	I find it easy to understand the different types of cohesion devices taught.					
2	The instruction helped to recognise cohesion devices in academic texts.					
3	I can use cohesion devices correctly in my essays after the instruction.					
4	Using cohesion devices makes my writing clearer for readers.					
5	I still feel unsure about how to use some cohesion devices properly.					
6	The examples and exercises were relevant and useful.					
7	The feedback on cohesion devices helped improve my writing.					
8	More time should be devoted to practising cohesion devices in writing classes.					

9	Learning cohesion devices has increased my confidence in academic writing.					
	Challenges					
1	I find it difficult to use conjunctions correctly in my essays.					
2	I often overuse or underuse some cohesion devices in my writing.					
3	It is hard for me to use reference words (e.g., pronouns) correctly to refer back to ideas.					
4	I struggle to use lexical cohesion devices like synonyms and repetition effectively.					
5	Remembering the different types of cohesion devices during writing is challenging for me.					
6	My first language sometimes interferes with my use of cohesion devices in English writing.					
7	Lack of enough writing practice makes it hard for me to master cohesion devices.					