Coherence and Cohesion: A Guide to Enhance EFL Learners' Comparison-contrast Essay

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Abstract

Writing a coherent and cohesive comparison-contrast essay has always proved challenging for university students, affecting their academic and professional achievement. Therefore, this research investigated how teachers and learners could adopt a writing guide which focused on the techniques of coherence as well as grammatical and lexical cohesion to enhance the students' comparison-contrast essays. Applying the quasi-experimental research design, a population of eighty-eight students from the intensive English course INTE 103 at Beirut Arab University during Fall 2024 was divided into two groups: experimental and control. Both groups took a pre-/post-test. The experimental group students were subjected to an intervention for ten weeks during which they wrote four essays using the writing guide. Data from the essays were collected and analyzed. Findings revealed that consciously employing the skills of coherence and cohesion contributed to enhancing the participants' comparison-contrast essay writing. Based on the results, the experiment as a whole proved that, through the use of the comparison-contrast coherence-cohesion writing guide, participating students' comparison-contrast essay writing skills showed remarkable improvement at the coherence as well as grammatical and lexical cohesion levels. Finally, it is recommended that teachers and students use the comparison-contrast writing guide through various in-class activities to help students develop a wellwritten comparison-contrast essay with strong coherence and cohesion.

Key words: coherence, comparison-contrast essay, discourse analysis, grammatical cohesion, lexical cohesion

الملخص

لطالما أثبتت كتابة مقالة متماسكة ومترابطة للمقارنة والتباين أنها تمثل تحديًا لطلاب الجامعة، مما أثر سلبًا على تحصيلهم الأكاديمي والمهني. لذلك، تهدف هذه الدراسة إلى استكشاف كيفية استخدام المعلمين والمتعلمين لدليل الكتابة الذي يركز على تقييات التماسك والترابط النحوي والمعجمي لتعزيز مهارات كتابة مقالات المقارنة والتباين لدى الطلاب. اعتمدت الدراسة تصميمًا شبه تجريبي، حيث تم تقسيم عينة مكونة من ثمانية وثمانين طالبًا من مقرر اللغة الإنجليزية المكثفة INTE 103 في جامعة بيروت العربية خلال فصل خريف عام 2024 إلى مجموعتين: تجريبية وضابطة. خضعت كاتا المجموعتين للاختبار القبلي/البعدي. تلقى طلاب المجموعة التجريبية تدخلاً استمر لمدة عشرة أسابيع، كتب الطلاب خلاله أربع مقالات باستخدام دليل الكتابة. ثم تم جمع البيانات من المقالات وتحليلها. أظهرت النتائج أن التوظيف الواعي لمهارات الترابط والتماسك ساهم في تعزيز كتابة مقالات المقارنة والتباين لدى المشاركين. وبناءً على هذه النتائج، أثبتت التجربة أن استخدام دليل الكتابة الخاص بالمقارنة والتباين و يعزز مستويات التماسك والترابط النحوي والمعجمي. أخيرًا، توصي الباحثة بأن يستخدم المعلمون والطلاب دليل الكتابة للمقارنة-التباين والتماسك. المختلفة داخل الصف لتمكين الطلاب من كتابة مقالات متماسكة ومترابطة.

Introduction

Comparison-contrast (CC) assignments are incorporated across the various disciplines at universities (Ferris & Hedgecock, 2014; Hyland, 2003; Hyland, 2013). These assignments motivate students to rise above mere description and explore subtle differences and unexpected similarities (The University of North Calorina at Chapel Hill, 2024). However, examining adult learners' essays over the years, the researcher found that learners are unaware of the importance of cohesion and coherence in their comparison-contrast essays. Hence, it was imperative to find a solution to the factors that have always hindered the acceptable development of the CC essay. Therefore, this study provides Intensive English language INTE 103 (Common European Framework of Reference CEFR: B2) students at Beirut Arab University with a comparison-contrast coherence-cohesion (CCCC) writing guide to help them produce a well-written comparison-contrast essay by applying the techniques of coherence and cohesion.

Research Questions

This research aims to answer the following questions:

- 1. How effective is the CCCC writing guide, through using various coherence techniques, in improving the students' coherence skills in the comparison-contrast essay?
- 2. How effective is the CCCC writing guide, through using the diverse cohesion devices, in enhancing the students' cohesion skills in the comparison-contrast essay?

Review of Literature: Cohesion and Coherence

Cohesion and coherence are crucial for textual effectiveness. As Todirascu et al. (2013) emphasize, the more coherent a sequence of sentences, the better they are understood. Massadeh (2019), McCulley (1985), Ramadan (2003) further support this concept, stating that coherence and cohesion are vital for effective writing.

Halliday and Hasan (1976) emphasize that cohesion operates at the deeper level of semantic relationships, where one textual element relies on another for interpretation. Danglli & Abazaj (2014) suggest that cohesion transforms a sequence of sentences into a unified, meaningful text. Jabur (2023) asserts that a good text is made up of cohesive sentences and asserts the fundamental role of cohesion in constructing intelligible texts. To construct meaning, grammatical and lexical cohesion must be employed. Grammatical cohesion helps create smooth transitions between sentences by employing reference, conjunction, ellipsis, and substitution (Halliday & Hasan, 1976). With lexical cohesion, refined connections are formed across the text by using reiteration and collocation (Halliday & Hasan, 1976).

Coherence, for Johns (1986, p. 33), constitutes the "organization of text with all elements present and fitting together logically," forming a cohesive whole where ideas interweave to convey the message. Biber et al. (2020), emphasize that effective communication demands suitable information selection, well-ordered presentation, and skillful use of cohesive devices, allowing the reader to grasp the meaning and navigate the intricate relationships between ideas. To this end, the textual elements must be semantically arranged and strategically ordered, ensuring a logical flow of information and progression of ideas (Mclinn,1988). Cohesive ties are used to foster connections between ideas and enhance clarity (Halliday and Hasan, 1976) and enable readers to navigate the text effortlessly (Oshima and Hogue, 2006).

Methodology

Design

The researcher adopted the quasi-experimental research design with two groups: experimental and control. The experimental group was introduced to the techniques of coherence as well as grammatical (reference, ellipsis, conjunction and substitution) and lexical (reiteration and collocation) cohesion, while the control group did not receive any particular intervention.

Participants

The subjects of the study were two groups, experimental and control, of forty-four students enrolled at the various faculties at Beirut Arab University. Both groups had similar characteristics in that they come

from various educational backgrounds in Lebanon and the region, their mother tongue is Arabic and their first foreign language is either English or French. Both were newly admitted to Beirut Arab University and assigned the Intensive English language course INTE 103 during Fall 2023-2024. The choice of both the control and the experiment groups was not random; they were intentionally selected from the Intensive English Language course INTE 103 (CEFR: B2) as students at this level "can write clear, detailed texts on a variety of subjects related to their field of interest, synthesising and evaluating information and arguments from a number of sources" (Council of Europe, 2018, p. 61) "with a new focus on discourse skills apparent in relation to coherence/cohesion" (Council of Europe, 2018, p. 35). All participants agreed to be part of the study and were ensured that their identities shall remain confidential. They were also given the freedom to withdraw from the study at any phase.

Instruments

The instruments included a pre-/post-test essay taken by the control and experimental groups. Also, the experimental group students submitted four essays E1, E2, E3, E4 (Appendix B) written at the end of each stage in the study. All essays were evaluated against relevant rubrics created by the researcher (Appendix A). The validity and reliability of the rubrics were examined and confirmed (Appendix A-1). During the study, the experimental group students used the CCCC writing guide as a reference for analysing and constructing a comparison-contrast essay. This guide (Appendix C) is designed by the researcher to help students develop a comparison-contrast essay with strong cohesion and coherence. The validity and reliability of the CCCC guide were examined and confirmed through piloting.

Materials

Three textbooks were used to present to students the structure and organisation of the comparison-contrast essay as well as the various cohesive devices of concern to this study: Effective Academic Writing, The Researched Essay Book 3, English Grammar in Use (CEFR B1 - B2) and English Collocations in Use (CEFR B1 - B2).

Procedures

Before the start of the study plan, the control and experimental groups took the pre-test essay. The study plan or intervention designed for the experimental group comprised three stages (Table 1) based on the Present-Practice-Produce (PPP) Approach to language teaching. Stage one (Present) lasted for four weeks. In this stage, the comparison-contrast essay writing process, coherence, lexical and grammatical cohesion and the CCCC writing guide were introduced. The teacher exposed the students to authentic compare-contrast essays which students examined using the writing guide. Stage two (Practice & Produce) lasted for six weeks and was divided into three phases. Each of these phases focused on specific categories of grammatical/lexical cohesion. At the end of each phase, students wrote an essay (E1, E2 and E3). In stage three (Produce), students produced essay 4 (E4), using the CCCC guide and consciously applying the rules of cohesion and coherence they had already learned. At the end of stage three, both groups took the post-test.

Table 1: Stages of the Study

Stage	Process	Description	Materials	Weeks	Notes	
1	Present	 Essay writing process Comparison-contrast essay writing Coherence Cohesion Grammatical Lexical CCCC Writing Guide 	Effective Academic Writing	4	-	

2	Practice & Produce	 Coherence Grammatical Cohesion Reference Substitution 	English Grammar in Use	2	Produce essay 1 focusing on
		 Coherence Grammatical Cohesion Ellipsis Conjunction 	English Grammar in Use	2	Produce essay 2 focusing on Coherence Ellipsis Conjunction
		 Coherence Lexical Cohesion Reiteration Collocation 	English Collocations in Use	2	Produce essay 3 focusing on Coherence Reiteration Collocation
3	Produce	Comparison-contrast essay	CCCC Writing Guide	-	Produce essay 4 focusing on Coherence Cohesion Grammatical Lexical

Data Collection

Data collected from the pre-/post-test essays and from the four essays were entered and analysed using Statistical Package for Social Science software (SPSS17). The independent sample t-test was used to compare the test results of the control and the experimental groups.

The subcategories of the rubric were renamed for statistical purposes as follows: coherence 1 (Coh1=organisation of the essay), coherence 2 (Coh2= connectedness between ideas, sentences and paragraphs), grammatical cohesion (CohG), lexical cohesion (CohL), and language (Lang). Grammatical cohesion CohG includes reference (Ref), substitution (Sub), Ellipsis (Ell), and conjunction (Conj), while lexical cohesion encompasses reiteration (Rei) and collocation (Coll). The overall essay score is 30 and the total passing grade is 18/30 or 60%. Each of the competencies is graded out of 5 with a passing grade of 3/5.

Results

Descriptive statistics show an increase in the experimental group students' means of the total and individual competency scores across the pre-test essay, E4 and post-test essay (Table 2).

Table 2: Score Progress across Pre-test Essay, Essay 4, and Post-test Essay

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Competency	N	Mean	Std.	Mean	Std.	Mean	Std.
			Deviation		Deviation		Deviation
		Pretest		Essay 4		Post test	
Content	44	2.477	.762	2.614	.5793	3.614	.4925
Coh1	44	1.795	.667	2.523	.6643	2.932	.7894
Coh2	44	1.318	.518	2.364	.6503	2.682	.7708
CohG	44	1.773	.677	2.545	.6271	2.977	.6985
CohL	44	1.364	.486	1.841	.6801	2.341	.8053
Lang	44	2.159	.713	2.250	.6862	3.250	.4882
Total	44	10.886	2.374	14.136	2.7330	17.795	3.0544

Descriptive statistics of the experimental group students' Coh1, Coh2, CohG and CohL scores reveal an increase across the pre-test, E1, E2, E3, E4 and post-test essays. Coh1 mean scores increased from 1.80 to 2.93 and Coh2 mean scores from 1.32 to 2.68 in the post-test essay. The total CohG score increased from 1.77 to 2.98, Ref rose from 1.89 to 3.34, Sub from 1.68 to 2.91, Ell from 1.57 to 2.82 and Conj from 1.85 to 3.25 in the post-test essay. Likewise, the total CohL scores rose from 1.36 to 2.34, Rei from 1.43 to 2.45 and Coll from 1.30 to 2.23 on the post-test essay.

In order to assess the effect of the intervention on the students in the experimental group, the difference between their pre- and post-test essay scores was obtained. Then, these differences were compared to those of the control group using an independent samples t-test. Descriptive statistics of the difference in each sub-score for each group indicate that the scores of the experimental group students increased at a much higher rate from the pre- to the post-test essay. The average total essay score for students in the experimental group increased by 6.91 points, while it only increased by 0.66 points for those in the control group.

Independent samples t-test results reveal significant differences in the increase of all sub-scores between the control and experimental groups, with the highest mean difference in the total scores, which differed by 1.562 points over 5, with t (60.228) = -18.872, p-value ≤ 0.001 . These results prove that the intervention led to a better acquisition of the required skills in the course (Table 3).

Table 3: Independent Samples T-test Results

Competen	cy	t-test for Equality of Means					
		Т	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	
Content	Equal variances assumed	-7.885	86	.000	955	.121	
Coh1	Equal variances not assumed	-10.395	56.631	.000	-1.068	.103	
Coh2	Equal variances not assumed	-11.167	45.979	.000	-1.386	.124	
CohG	Equal variances not assumed	-9.034	58.876	.000	-1.091	.121	
CohL	Equal variances not assumed	-9.281	43.000	.000	977	.105	
Lang	Equal variances assumed	-6.457	86	.000	750	.116	
Total	Equal variances not assumed	-18.872	60.228	.000	-6.250	.331	

Discussion

Findings show that there is a significant difference in the total essay scores and sub-scores of coherence and cohesion before and after the intervention. A major improvement in the experimental group students' essays was observed after comparing the experimental and control groups' results of the post-test with those of the pre-test. Therefore, the results revealed that the conscious implementation of the techniques of coherence and cohesion in the CC essay using the CCCC guide had a very good impact on students' high scores and quality essays.

Improvements in coherence and cohesion had a positive impact on students' writing. Both improved components of coherence enabled the students to produce more organised essays ensuring

their essays flow smoothly with a clear and impactful message. Their essays became clearer and could guide the reader through the argument in an organized manner using proper transitions, relevant supporting details and well-organized paragraphs. Moreover, both improved components of cohesion enabled the students to produce clear, logical essays. Grammatical cohesion, through the use of conjunctions, ellipsis, substitution and reference markers, helped students avoid repetition, maintain a clear line of thought and ensure a logical organization of their essays. With lexical cohesion, students could successfully link ideas through synonyms, repetition, and collocations without redundancy.

The CCCC writing guide, through its tasks, coherence and cohesion skills, pedagogical strategies, and practice activities had several advantages. It expanded the students' knowledge of cohesion and coherence and improved their ability to organise ideas, link sentences and paragraphs, and maintain a logical and smooth textual flow in their essays. Consequently, it improved their comparison-contrast writing skills and helped them produce coherent and cohesive essays.

The results of the study are in line with previous research studies on the employment of cohesion and coherence in the CC essay. Many of such studies have shown the positive effect of DA coherence and cohesion on essay writing as per text comprehensibility (Jafarpur, 1991; Johnson, 2000; Masadeh, 2019; McCulley, 1985; Ramadan, 2003; Todirascu et al., 2013), quality of writing (Lee, 2002; Martínez, 2015; Yang & Sun, 2012; Zhang, 2010), textual coherence (Brown & Yule, 1983; Carrell, 1985; Celce-Murcia & Olshtain, 2000; Givón, 1993; Kintsch, 1995; Louwerse, 2005; O'Rourke, Calvo & McNamara, 2011), logical flow of ideas (Kargozari et al., 2012; Narita, Sato & Suguira, 2004), written communication skills (Brown & Yule, 1983; Bussmann, 1998; Danglli & Abazaj, 2014; Jabur, 2023), and the need for explicit instruction (Adiantika, 2015; Ahmed, 2010; Al-Ahdal & Alqasham, 2021; Ariyanti & Fitriana, 2017; Behbahani et at., 2018; Belkhir & Benyelles, 2017; Dossomou et al., 2018; Olateju, 2006; Riswanto, 2012; Rostanti et al., 2019; Saud, 2015; Zahara, 2023).

Conclusion

After training students on the skills of coherence and cohesion under the CCCC guide for ten weeks, it was noticed that the students' acquisition of the comparison-contrast writing skills was enhanced. In other words, the increase in students' training in coherence and cohesion resulted in an increase in their post-test grades. This leads to the conclusion that the more educators adopt integrated pedagogical strategies and activities in the teaching of comparison-contrast writing, including coherence and cohesion, the better students will perform and thus the higher they will score on their comparison-contrast essays.

Recommendations for Practical Application of the CCCC Guide in Class

Some practical suggestions are presented to develop the students' comparison-contrast essay writing with strong coherence and cohesion using the CCCC guide. Here are some ways the guide can be integrated into the writing class:

Explicit teaching: Teachers can use the guide to directly teach specific writing skills, such as paragraph structure, thesis statement development, coherence and cohesion.

Model writing: Teachers can demonstrate how to apply the guide's principles through writing samples.

Guided practice: Teachers can provide structured activities where students apply the guide's concepts under close supervision.

Adapting to student needs: Teachers can use the guide to create differentiated tasks based on student abilities and learning styles.

Challenging advanced writers: The guide can be used to introduce more complex writing concepts and expectations.

Feedback: Teachers can use the guide to provide specific and actionable feedback on student work.

Reference tool: Students can use the guide as a reference during writing tasks, helping them make informed decisions about structure, style, and mechanics.

Self-assessment: Students can use the guide to evaluate their own writing, identifying strengths and areas for improvement.

Peer review: Students can use the guide to provide constructive feedback to peers, focusing on specific criteria outlined in the guide.

By effectively integrating the CCCC writing guide into their instruction, teachers can empower students to become confident, competent writers.

Future Studies

The discourse analysis coherence-cohesion techniques were adopted in this study to test their influence on enhancing the students' comparison-contrast essays. Other researchers can investigate the influence of these techniques on other types of writing or even other language skills such as speaking. Future studies can also probe the effects of the DA coherence-cohesion techniques on students of different language level or specific genders.

The researcher suggests the following topics for further research:

- Investigating the impact of targeted instruction on coherence and cohesion strategies on the writing performance of students with varying learning styles.
- Examining how instruction on coherence and cohesion in comparison-contrast essays impacts students' writing skills in other contexts over time.
- Inspecting the influence of writing a well-organised comparison-contrast on students' performance in other courses at university.
- Examining if the use of technology-assisted learning tools (e.g., interactive exercises, feedback software) enhances the effectiveness of instruction on coherence and cohesion in comparisoncontrast essays compared to traditional methods.
- Testing the influence of the comparison-contrast coherence-cohesion CCCC guide for lower/higher intensive English levels (below/above B2) on students' comparison-contrast essays.

While the study scope and sample size were limited, its findings encourage broader adoption of the CCCC guide for comparison-contrast essay development. Further research is necessary to explore the applicability of these techniques to other essay formats, as the current methods might not be universally suitable for all learners.

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Appendixes Appendix A

Assessment Rubric for Comparison-Contrast Essay (Pre-/Post-test Essay and Essay 4) 1=Very Poor 2=Poor 3=Fair 4=Good 5=Very Good

1=Very Poo	or 2=Poo	OT	3=Fair 4=Good 5=Very Good			
Skill	1	2	3	4	5	Mark
Content Generating ideas (similarities and differences in distinct features between two subjects)	Ideas are totally irrelevant and illogical. Target reader is not informed.	Ideas supporting examples and evidence may be incomplete, irrelevant or mis- represented. Target reader is minimally informed.	Ideas and supporting examples and evidence are somewhat complete and/or somewhat logical. Target reader is mostly informed.	Ideas and supporting examples and evidence are mostly relevant, complete and logical. Target reader is on the whole informed.	Ideas, supporting examples and evidence are thoroughly relevant, complete and very logical. Target reader is fully informed.	
Coherence1 Organisation of the essay Follow basic structure of a compare and contrast essay (introduction, thesis statement, body paragraphs, supporting details with similarities and differences between two subjects, conclusion)	Text contains no elements of a compare and contrast essay.	Text contains few of the elements of a compare and contrast essay.	Text contains some of the elements of a compare and contrast essay.	Text contains most of the elements of a compare and contrast essay.	Text contains all of the elements of a compare and contrast essay.	
Coherence2 Connectedness between ideas, sentences and paragraphs using transition words/phrases	Text is not connected.	Text is minimally connected using a very limited number of linking words.	Text is connected and cohesive using basic linking words.	Text is generally cohesive, using a variety of linking words.	Text is well connected and cohesive.	
Grammatical Cohesion Use of reference, ellipsis, conjunction and substitution	Cohesive devices are misused/not employed.	Cohesive devices are minimally employed/corr ect.	Cohesive devices are somehow correctly employed.	Cohesive devices are well employed.	Cohesive devices are very well employed.	

Lexical Cohesion Use of reiteration and collocation	Text has no semantic relations between words.	Text has a very limited extent of semantic relations between words.	Text has a few semantic relations between words.	Text has a good range of semantic relations between words.	Text is lexically well interconnected.	
Language Use of conventions, such as spelling, sentence structure, and subject-verb agreement	Text is full of spelling mistakes, run-on sentences, sentence fragments, and subject-verb agreement errors.	Text contains many spelling mistakes, run- on sentences, sentence fragments, and subject-verb agreement errors.	Text contains some spelling mistakes, run-on sentences, sentence fragments, and subject-verb agreement errors.	Text contains very few spelling mistakes, run- on sentences, sentence fragments, and subject- verb agreement errors.	Text is free from spelling mistakes, run- on sentences, sentence fragments, and subject-verb agreement errors.	

Overall Mark: _____ / 30

Appendix A-1

Validation of the Assessment Rubric for Comparison-Contrast Essay

Developing an effective rubric is crucial for fair and accurate assessment of student writing. Here's a breakdown of key validation strategies to ensure the rubric is reliable, valid, clear, unbiased, and user-friendly:

1. Reliability Testing:

• Inter-rater Reliability: Two INTE 103 instructors were randomly selected to assess five writing samples for INTE 103 students using the rubric. The level of agreement between both raters was calculated to assess consistency using percent agreement as shown in Table 4. An 80% agreement means that the majority of the students received the same scores by both assessors.

Table 4: Inter-rater Percent Agreement

Variable #	Rater 1	Rater 2	Difference
1	12	12	0
2	17	16	1
3	14	14	0
4	10	10	0
5	11	11	0
Number of Zeros			4
Number of Items			5
Percent Agreement			80%

• Intra-rater Reliability: One of the assessors was randomly selected to score the same writing samples two times (T1, T2) at two different intervals. The correlation coefficient was calculated to check the consistency of scores in order to ensure the rubric yields consistent results over time. A correlation of r = 0.9 suggests a strong, positive association between two variables (Table 5), which means that the scores are very close to each other at both intervals of time.

Table 5: Intra-rater Reliability

1 0010 01 111110 10101 1101100						
Essay	T1	T2				
1	12	11				
2	17	15				
3	14	14				
4	10	9				
5	11	11				
r	0.956296					

2. Validity Testing:

- Content Validity: The rubric was accurately reviewed and evaluated by subject-matter experts in this case three INTE 103 instructors to examine if it reflects the intended learning objectives and writing skills to be assessed (herein comparison, contrast, coherence, cohesion).
- Construct Validity: Students' performance on the essay using the rubric was analyzed and compared with another measure of the same essay (using a checklist) to see if the rubric captures the targeted construct. Therefore, a t-test was conducted to determine if there is a significant difference between the means of two groups of essays and how they are related. A p-value of 0.368565057 (greater than 0.05) indicates that the result is insignificant. This means that the rubric yielded similar results to the other measure (Table 6).

Table 6: T-test for Rubric Construct Validity

Rubric Results	Checklist Results
12	11
17	16
14	14
10	10
11	10
t-test	0.368565057

3. Clarity and Usability:

• Peer Assessment: Five INTE 103 students and an instructor were randomly selected to assess the understandability of the rubric's language and criteria. The essays were graded by the instructor on the one hand and by the students as well. This helped check if students were able to understand the wording and the structure of the rubric. However, all peer assessment scores were higher than those of the instructor (Table 7). A p-value of 0.004636 (smaller than 0.05) indicates that the result is significant. This means that the rubric did not yield similar results by the instructor and the students.

Table 7: T-test for Rubric Clarity and Understandability

Essay	Instructor's Assessment	Peer Assessment
1	12	13
2	16	17
3	14	15
4	10	12
5	11	13
T-test	0.004636	

• Interviews: Based on the results of the t-test, the researcher interviewed both the students and the instructor to identify any areas of confusion or difficulty in interpreting the criteria and descriptors. The instructor found the rubric clear while the students found difficulty interpreting the sections on cohesion and coherence. Therefore, the wording and structure of these sections in the rubric were refined for clarity based on the feedback received.

4. Bias and Fairness:

- Review for Bias: The advisor analyzed the rubric for language or criteria that would favor or disadvantage certain student groups, including cultural bias or focusing on specific writing styles.
- **Multiple Perspectives:** The perspectives of two academic experts (INTE 103 instructors) were included when developing and reviewing the rubric to minimize bias.

5. User Feedback:

- Student Survey: After updating the rubric based on the students', instructors', raters', experts' and the advisor's recommendations, a student survey was conducted (Appendix A-2). The five students involved in the peer-assessment activity were asked to reply to a 7-likert scale survey concerning the usage of the rubric in assessing the comparison-contrast essays. The survey includes five statements about the rubric's clarity, connection to the writing task, usefulness, fairness, and overall experience.
 - I found the criteria in the rubric to be easy to understand. (This assesses clarity of the rubric language.)
 - The rubric clearly explained what was expected of me in my writing assignment. (This assesses if the rubric connects criteria to the writing task.)
 - The rubric helped me identify areas where I could improve my writing. (This assesses the rubric's usefulness in self-assessment.)
 - I felt that the rubric fairly assessed my writing skills. (This assesses fairness of the rubric criteria.)
 - Overall, I found the rubric to be a helpful tool for understanding how my writing will be graded. (This assesses the overall user experience with the rubric.)

Tables 8 to 12 depict the results of the student survey concerning the implementation of the rubric in peer assessment. All results indicate that the students either agreed or strongly agreed to each statement with the percentages of 40 & 60 or vice versa.

Table 8: Student Survey: Rubric Analysis S1

	S1: I found the criteria in the rubric to be easy to understand.							
		Valid	Cumulative					
Scale	Frequency	Percentage	Frequency	Cumulative Percentage				
A	2	40	2	40%				
STA	3	60	5	100%				

Table 9: Student Survey: Rubric Analysis S2

S2: The	S2: The rubric clearly explained what was expected of me in my writing assignment.						
			Cumulative	Cumulative			
Scale	Frequency	Valid Percentage	Frequency	Percentage			
Α	2	40	2	40%			
STA	3	60	5	100%			

Table 10: Student Survey: Rubric Analysis S3

S3: The rubric helped me identify areas where I could improve my writing.						
			Cumulative	Cumulative		
Scale	Frequency	Valid Percentage	Frequency	Percentage		
Α	3	60	3	60%		
STA	2	40	5	100%		

Table 11: Student Survey: Rubric Analysis S4

S4: I felt that the rubric fairly assessed my writing skills.						
			Cumulative	Cumulative		
Scale	Frequency	Valid Percentage	Frequency	Percentage		
Α	3	60	3	60%		
STA	2	40	5	100%		

Table 12: Student Survey: Rubric Analysis S5

S5: Overall, I found the rubric to be a helpful tool for understanding how my writing will be graded.

Scale	Frequency	Valid Percentage	Cumulative Frequency	Cumulative Percentage
A	2	40	2	40%
STA	3	60	5	100%

• **Educator Interview:** An interview was conducted with the instructor to understand her experience in using the rubric. The following questions were discussed:

General Use:

- How easy was it for you to integrate the rubric into your teaching and assessment practices?
 Very easy
- Did you require any additional training or support materials to effectively use the rubric? N_{θ}

Effectiveness in Guiding Writing:

- In your experience, did the rubric effectively guide students in understanding the expectations for the writing assignment? to a great extent
- Did you observe any changes in how students approached their writing after being introduced to the rubric? Students' focus on specific criteria such as coherence increased greatly. They were able to construct a five-paragraph essay with a good thesis and linking words.
- Did the rubric provide a clear framework for providing constructive feedback to students
 on their writing? Definitely because it presents each section separately with very clear descriptions, so
 students know exactly where their weaknesses lie.

Fairness and Assessment:

- Do you believe the rubric fairly assesses the writing skills targeted by the assignment?
 Indeed
- Have you encountered any situations where the rubric might not have been suitable for a particular student's writing or learning style? It meets all styles since it is clear and concise.
- Overall, how confident are you that the rubric provides a fair and accurate assessment of student writing? Very confident

Additional Feedback:

- Are there any areas of the rubric you would like to see improved? *No, everything is clear.*
- Do you have any suggestions for how the rubric can be used more effectively in the classroom? In addition to instructor and peer assessment, self-assessment will help students identify their weaknesses by themselves.

In conclusion, implementing these validation strategies ensured that the rubric is reliable, valid, clear, unbiased, and user-friendly, ultimately leading to a more effective assessment process for student writing.

It is worth noting that the Assessment Rubric for Comparison-contrast Essay 1, Assessment Rubric for Comparison-contrast Essay 2, and Assessment Rubric for Comparison-contrast Essay 3 share the same sections as Assessment Rubric for Comparison-contrast Essay with very minor differences. To be specific, all of the four rubrics contain the same sections on content, coherence1, coherence2 and language. In Assessment Rubric for Comparison-contrast Essay 1, the section on lexical cohesion is removed while the section on grammatical cohesion is divided into two: reference and ellipsis. Similarly, in Assessment Rubric for Comparison-contrast Essay 2, the section on lexical cohesion is substituted by two sections on grammatical cohesion: substitution and conjunction. Finally, in Assessment Rubric for Comparison-contrast Essay 3, the grammatical cohesion section is removed and the section on lexical cohesion is divided into reiteration and collocation. All of the sections and sub-sections in the three rubrics, whether directly or indirectly included in the Assessment Rubric for Comparison-contrast Essay, were accurately revised by educational experts in the field. These were also comprehensively explained to the experimental group students before implementing the rubrics in class.

Appendix B Essay Prompts

- Pre-/post-test essay: Write a well-organised essay (200-250 words) in which you compare and contrast real-life conversations and chats on social media. Write about three similarities and three differences.
- Essay 1: Write a well-organised essay (200-250 words) in which you compare and contrast two
 historical figures from different periods, focusing on their contributions and leadership styles.
- Essay 2: Write a well-organised essay (200-250 words) in which you review two similar products, highlighting their strengths and weaknesses for a specific audience.
- Essay 3: Write a well-organised essay (200-250 words) in which you compare and contrast two literary characters' motivations and actions
- Essay 4: Write a well-organised essay (200-250 words) in which you compare and contrast two
 scientific theories explaining the same phenomenon, analyzing their evidence and limitations.

Appendix C

Comparison-Contrast Coherence-Cohesion Writing Guide

A. Comprehensive Documentation

- i. Purpose: The CCCC guide aims at helping students write a comparison-contrast essay with strong cohesion and coherence.
- ii. Intended Use: The guide was used as one of the instruments in this study to check its efficiency in enhancing the INTE 103/CEFR B2 students' comparison-contrast essay writing.
- iii. Structure: The CCCC guide integrates comparison-contrast writing with cohesion and coherence in alignment with Bloom's Taxonomy and CEFR levels. It is divided into three

levels, lower, middle and upper. Each part includes personalised pedagogical strategies that match with its level of difficulty. These strategies include task examples, cohesion skills, coherence skills as well as recommended teaching-learning approaches.

B. Explanation

i. Bloom's Middle Levels

- Applying: Using knowledge and skills in new situations.
- Analyzing: Breaking down information into components and understanding their relationships.

Key Considerations:

- Move beyond basic description: Tasks should encourage applying knowledge to analyze similarities and differences, not just list them.
- Incorporate basic reasoning: Require students to explain their observations and justify their comparisons/contrasts.
- Consider multiple perspectives: Encourage consideration of different viewpoints or interpretations when comparing/contrasting.
- Emphasize clear and logical structure: Maintain a well-organized flow of ideas supported by evidence and reasoning.

Cohesion/Coherence:

- Cohesion: Builds upon lower-level skills, ensuring complex sentences with varied vocabulary and appropriate referencing.
- Coherence: Demonstrates deeper understanding by logically connecting ideas, using evidence/examples, and providing clear transitions.

Bloom's Level	Middle / Applying and Analyzing			
Task Examples	Applying learned concepts to real world:			
	Two government policies			
	• Two historical figures from different periods, focusing on their contributions and leadership styles			
	• A review of two similar products, highlighting their strengths and weaknesses for a specific audience			
	Analyzing textual evidence to identify specific similarities and differences			
	Literary characters' motivations and actions			
	Two scientific theories explaining the same phenomenon, analyzing their evidence and limitations			
	The impact of two different social movements on a specific historical event			
Cohesion Skills	More complex conjunctions/ transition words (e.g., "conversely," "on the other hand")			
	Complex, clear referencing			
	• Varied sentence structure using ellipsis and substitution (Halliday & Hasan, 1976)			
	Precise vocabulary (e.g., reiteration, collocation) (Derewianka, 2020).			
	Specific terminology			
Coherence	Building arguments based on evidence (Toulmin,1958)			
Skills	Using signal phrases to connect points of comparison/ contrast (e.g., "for instance," "in addition")			
	Organizing information into paragraphs with clear topic sentences and logical transitions between them (Grabe & Kaplan, 2014).			

Pedagogical Strategies

- Text analysis: Exploring literary texts, historical documents, or news articles (Langer & Applebee, 2013) to identify how authors use specific cohesive devices and coherence strategies to achieve their aims.
- Debate and argumentation: Engaging in structured debates or writing persuasive essays (Toulmin, 1958) that require students to critically compare and contrast positions, using evidence and counter-arguments for strong coherence.
- Sentence variety and sophistication: Using transitional phrases, parallelism, and varied sentence structures (Meyer, 2014) to enhance fluency and emphasize key points.
- Graphic organizers and concept maps: Using visual tools to map out relationships between ideas (Glaubke, 2007), identify cause-and-effect connections, and plan cohesive paragraphs and essays.

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