Education and Social Work
ISSN Print: 3079-515X
ISSN Online: 3079-5168
https://doi.org/10.63313/ESW.9150

A Corpus-based Analysis of the Use of Cohesive Device in Senior High School English Letters of Request for Help

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How to cite this paper: Li, L., & He, H. (2026). A corpus-based analysis of the use of cohesive device in senior high school English letters of request for help. Education and Social Work, 5(1), 28–38. ISSN Print: 3079-515X, ISSN Online: 3079-5168.
https://doi.org/10.63313/ESW.9150
Published: 2026-07-08

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Abstract

This study investigates the use of cohesive devices in senior high school English letters of request for help, based on Halliday and Hasan's (1976) cohesion theory. From a corpus of 90 examination papers, 15 high-scoring and 15 low-scoring papers were selected for detailed analysis. The findings reveal that all 15 high-scoring papers (100%) demonstrated correct use of cohesive devices, while 13 out of 15 low-scoring papers (86.7%) were also free of cohesion-related problems. Only 2 low-scoring papers contained 3 conjunction errors, all involving conjunctions used as separate sentences. No problems were found in reference, substitution, ellipsis, or lexical cohesion in either group. These findings suggest that low-scoring students' difficulties cannot be primarily attributed to a lack of cohesive device knowledge; rather, their low scores are more likely due to weak basic language proficiency. Pedagogical implications for English writing instruction are discussed.

Keywords

Cohesive Devices; English Practical Writing; Letters of Request For Help; Senior High School English

1. Introduction

As a significant component of senior high school English teaching, English practical writing is a common question type in the college entrance examination. Among various practical writing genres, the letter of request for help requires students to clearly express difficulties and appropriately seek assistance, which places high demands on discourse cohesion and coherence. This aligns with what China's General Senior High School Curriculum Standards indicates. That is effective use of cohesive devices is key to ensuring discourse coherence and successful communication.

However, students' practical writing often suffers from grammatically correct but incoherent and stiff texts. Halliday and Hasan's (1976) cohesion theory provides a

systematic framework for analyzing discourse coherence, distinguishing five types of cohesive devices which are reference, substitution, ellipsis, conjunction, and lexical cohesion.

Guided by cohesion theory, this study conducts a comparative analysis of 30 senior high school English letters of request for help to explore the characteristics and differences in cohesive device use between high-scoring and low-scoring students, aiming to provide empirical evidence and practical suggestions for English writing instruction.

2. Literature Review

This part mainly includes some key concepts, specifically explains the classification of the textual cohesive devices, and presents the previous studies about textual cohesion and writing in English.

2.1. Cohesion and cohesion theory

Halliday and Hasan (1976) define cohesion as a semantic concept that occurs when the interpretation of one element in a text depends on another. Cohesion is realized through non-structural connections that compose the meaning of a text. As Huang Guowen (1988) notes, cohesion is a tangible system in the superficial structure of a text which are achieved through grammatical and lexical means. Hu Zhuanglin (1994) further argues that any linguistic means serving a communicative purpose can be considered cohesive. For a text to be logical and complete, cohesion plays a paramount role in constructing and organizing a text.

Halliday and Hasan (1976) classify cohesive devices into grammatical cohesion (reference, substitution, ellipsis, conjunction) and lexical cohesion (reiteration and collocation). Lexical cohesion is considered by Liu Chensheng (1999) as the most advanced way to achieve cohesion. For second language learners, mastery of cohesive devices is essential, as Reid (2001) argues that students need not only vocabulary and grammar but also knowledge of text cohesion.

2.2. The Relationship Between Cohesive Devices and Writing Quality

Research has investigated how cohesive devices relate to writing quality. Darweesh and Kadhim (2016) found that cohesive devices make writing more organized. Johnson (2017) reported that high-quality compositions tend to employ more cohesive devices. However, Connor (1984) found that mere quantity of cohesive devices does not directly predict writing performance. Instead, quality and appropriateness matter more.

Empirical studies have consistently confirmed the positive role of cohesive devices in writing quality. Bamberg (1983) found that good writing exhibits significantly stronger cohesion than poor writing. This is supported by Parsons (1990) who confirmed that direct instruction in cohesive devices improves writing skills. More

specifically, Alotaibi (2015) found that diversity of lexical cohesion types positively correlates with writing quality, while Danglli (2014) emphasized the importance of lexical cohesion and synonym use.

These studies confirm that cohesive devices play a crucial role in writing quality. However, most research has focused on argumentative essays and college-level writers, leaving a gap in the study of practical writing genres among senior high school students.

2.3. Research on Cohesive Devices in Chinese Students' English Writing

Research on cohesion theory in China began in the 1980s. Huang Guowen (1988) provided the first systematic introduction to text analysis. Hu Zhuanglin (1994) synthesized international research and adapted cohesion theory to the Chinese context.

Several studies have applied cohesion theory to high school writing instruction. Lei Qing (2000) classified cohesive device errors in junior high school students' writing. Li Jinxuan (2021) proposed practical strategies such as memorizing model texts, conducting text analysis, and using peer revision. Wang Nan (2022) found that improving students' awareness of text cohesion also reduces writing anxiety. Liu Xinzi (2016) explored the cultivation of text awareness in paragraph writing.

2.4. Summary

Despite these contributions, several gaps remain. First, most studies focus on college students. Senior high school students are underrepresented. Second, research has examined argumentative or narrative writing, while letters of request for help have received little attention. Third, relatively few studies have compared high-scoring and low-scoring students in cohesive device use. To address these gaps, the present study collects writing samples from senior high school students, focuses on letters of request for help, and compares cohesive device use between the two groups.

3. Research Design

This chapter involves the design of research. Firstly, the research questions will be raised, followed by an explanation of the research participants, then followed by an introduction to the research instruments and data collection, and finally, the specific research process will be elaborated.

3.1. Research questions

This research aims to investigate the use of cohesive devices in different students' practical writing and find out the possible reasons why some errors occur. To achieve the above objectives, the research questions in this paper are as follows:

(1) What are the overall characteristics of the use of cohesive devices in senior high school students' English letters of request for help?

(2) What differences exist between high-scoring and low-scoring students in their use of cohesive devices?
(3) How can senior high school English writing instruction be targeted to improve students' ability to use cohesive devices?

3.2. Research participants

The participants of this study were letters of request for help from the mid-term examination of a senior high school, totaling 90 papers. The writing prompt was as follows:
Suppose you are Li Hua. Your class is going to hold an activity themed "Classic English Poems Sharing" next week. You have encountered some difficulties while preparing for this activity and wish to seek help from your foreign teacher, Mr. Smith. Please write him a letter of request for help, including the following: (1) informing him of your difficulties; (2) seeking help; (3) expressing gratitude. (no less than 80 words)
All 90 papers were completed by first-year senior high school students. The scores ranged from 0 to 15, with a mean score of 9.2 and a standard deviation of 3.1.

3.3. Grouping and sampling

After ranking the 90 papers by score, the extreme grouping method (Kelly, 1939) was adopted. Nineteen papers scored 12 or above designated as the high-scoring group, from which 15 were randomly selected. Fifteen papers scored 7 or below designated as the low-scoring group, all included in analysis. The remaining 56 papers (8-11 points) were not included. The final analytical sample consisted of 30 papers (15 high-scoring, 15 low-scoring).

3.4. Criteria for evaluating cohesive devices

To ensure the objectivity of the analysis, this study adopts a strict set of criteria to evaluate the use of the five types of cohesive devices. Only problems meeting the criteria described below are counted as errors. The detailed criteria are presented in Table 3.1.

Table 3.1. Criteria for Evaluating Cohesive Devices

Cohesive devices	Criterion
Reference	The pronoun has two or more possible referents, causing unclear reference.
Conjunction	The logical relation signaled by the connective is completely wrong.
Substitution	The substitute word (one, do, so) is used incorrectly.
Ellipsis	The omitted content cannot be accurately recovered by the reader.
Lexical cohesion	The same key word appears five times or more in a single text without any substitution (e.g., synonym, pronoun)

3.5. Analytical Procedure

This research procedures in this study are divided into four stages.

The first stage is the text input and organization. The 30 writing samples were transcribed and organized to ensure the accuracy of the original texts.

The second stage is sentence-by-sentence analysis and identification. Each text was read sentence by sentence. Following the criteria in Table 3.1, problems in the use of cohesive devices were identified and annotated.

The third stage is problem counting and recording. For each text, the number of problems in each of the five categories was counted. Typical examples of errors were also excerpted to build a problem database.

The last stage is data collection and comparison. The total number of cohesion-related problems in the high-scoring group (15 papers) and the low-scoring group (15 papers) was calculated separately. The accuracy rate for each group was then computed, and a comparative analysis between the two groups was conducted.

4. Results and discussion

4.1. Overall Distribution of Problems in Cohesive Device Use

After a sentence-by-sentence analysis of the 30 writing samples (15 high-scoring, 15 low-scoring) based on the strict criteria established in Chapter 3, the distribution of problems in the use of cohesive devices between the two groups is presented in Table 4.1.

Table. 4.1. Distribution of Problems

Group	Number of papers	Papers with problems	Accuracy rate	Total problems
High-scoring	15	0	100%	0
Low-scoring	15	2	86.7%	3

As shown in Table 4.1, all 15 high-scoring papers (100%) demonstrated correct use of cohesive devices. Among low-scoring papers, 13 out of 15 (86.7%) were free of cohesion-related problems. Only 2 low-scoring papers contained 3 problems. No problems were found in reference, substitution, ellipsis, or lexical cohesion.

4.2. Cohesive Device Use in the High-Scoring Group

All 15 high-scoring papers (100%) demonstrated correct use of cohesive devices across all five categories. No problems were identified in reference, conjunction, substitution, ellipsis, or lexical cohesion. The high-scoring students exhibited the following characteristics in their use of cohesive devices.

4.2.1. Rich and Accurate Use of Connectives

High-scoring students flexibly used a variety of connectives according to semantic relations with clear logical relationships. In terms of cause and effect, they frequently used “so”, “therefore”, and “because” to link reasons with results. For contrast, they employed “but” and “however” to signal opposing ideas. To indicate

sequence, they used "firstly", "to begin with", "what's more", and "lastly" to organize their points in a logical order. The following examples illustrate these uses.

Example 1 (Cause and effect and contrast):

"I have encountered some difficulties while preparing for it, so I am writing to ask you for help."

Example 2 (Sequence and attributive clause):

"To begin with, I have issues selecting English poems properly, which makes me confused. What's worse, it's an obvious problem for Chinese like me to speak English without any pronunciation mistakes."

4.2.2. Clear Reference

High-scoring students correctly used pronouns with clear and unambiguous referents including personal pronouns, demonstrative pronouns and relative pronouns. In all cases, the referents were easily identifiable, and no instances of unclear or ambiguous reference were found.

Example 4 (Personal pronoun reference):

"Our class is going to hold an activity themed 'Classic English Poems Sharing'. I have encountered some difficulties while preparing for it."

Example 5 (Relative pronoun reference):

"I'm trapped in several problems which trouble me a lot."

Example 6 (Demonstrative pronoun reference):

"Faced with these problems, I have to ask you for help."

4.2.3. Natural Lexical Cohesion

It is demonstrated that the discourse awareness of high-scoring students is good in lexical cohesion. They avoided mechanical repetition of key words through synonym substitution and pronominal reference which contributes to maintaining textual coherence without unnecessary redundancy.

Example 7:

"Our class is going to hold an activity themed 'Classic English Poems Sharing'. I have encountered some difficulties while preparing for it."

In this example, the student uses the pronoun "it" in the second sentence to refer back to the noun "activity" mentioned in the first sentence, effectively avoiding the repetition of the same noun and creating a more natural and cohesive text.

4.3. Cohesive Device Use in the Low-Scoring Group

The 2 papers contained a total of 3 cohesion problems, all of which were classified as conjunction errors involving the use of conjunctions as separate sentences.

4.3.1. Absence of Cohesion Problems in Most Low-Scoring Papers

The majority of low-scoring students did not exhibit any cohesion problems under

the strict criteria. In terms of reference, they used personal pronouns such as "it" and "they" with generally clear referents. In terms of conjunction, they were able to use basic connectives such as "but", "so", "because", "first", and "second" correctly, although with less variety compared to the high-scoring group. In terms of lexical cohesion, they tended to repeat key words more often than high-scoring students but generally kept repetition within a reasonable range (four times or fewer per text), thus not violating the strict criteria. However, it should be noted that the absence of cohesion problems does not necessarily indicate the mastery of all five types of cohesive devices. Instead, it just indicates that the students did not produce errors that met the strict criteria.

4.3.2. Conjunction Problems in Two Low-Scoring Papers

Although the majority of low-scoring papers used cohesive devices correctly, two papers contained a total of three conjunction problems. Two types of problems were identified: the use of a because clause as a separate sentence, and the use of so as a separate sentence.

Problem Type 1: Because Clause as a Separate Sentence

This problem occurred twice in Low-scoring Paper 1 and Low-scoring Paper 15. In both cases, the student wrote a "because" clause as an independent sentence without attaching it to a main clause.

Example 1

"Second, I have problem in collecting good English poems. Because I need to prepare for ten English poems at last."

Problem Type 2: So as a Separate Sentence

This problem occurred once in Low-scoring Paper 15. The student used "so" as an independent sentence, creating a logical break between the cause and the result. In the same paper, this problem co-occurred with the because clause problem.

Example 2

"I'm writing to you to ask for some help. Because I meet some difficult in 'Classic English poems sharing'. So I want get you tips."

In this example, both the because clause and the so clause appear as separate sentences, resulting in a fragmented and incoherent presentation of the causal relationship.

4.4. Factors Contributing to the Differences Between the Two Groups

The analysis revealed two notable findings. Firstly, all high-scoring students used cohesive devices correctly.Secondly, the majority of low-scoring students also used cohesive devices correctly with only three conjunction problems identified in two papers. This may be different from the usual situation. Several factors may explain these findings.

4.4.1. Language Foundation as a Key Differentiator

Low-scoring students' primary weakness lies in basic language proficiency like grammar, spelling, vocabulary, content completeness, rather than cohesive device use. Low-scoring papers showed errors like "I has been worried," "I will very approach," while high-scoring students demonstrated stronger language control. This indicates that basic language proficiency and cohesive device use are relatively independent dimensions.

4.4.2. Cohesive Device Use: Similar Accuracy but Different Diversity

Both groups achieved high accuracy, but high-scoring students used advanced connectives (however, therefore, what's more, in addition, not only...but also), while low-scoring students used basic ones. Low-scoring students used fewer devices as a safer strategy, but most still used basic devices correctly. Their low scores stem from weaknesses in grammar, vocabulary, and content, not cohesive device knowledge.

4.4.3. Native Language Transfer

The because/so as separate sentence errors may result from Chinese transfer, where causal clauses can stand alone in informal speech. The finding in low-scoring students is consistent with observations reported in earlier L2 writing research. Celce-Murcia and Larsen-Freeman (1999) noted causal conjunctions are difficult for ESL learners because rules vary across languages. Biber et al. (1999) observed that while "so" can begin a sentence in informal spoken English, it is less acceptable in formal writing.

4.5. Pedagogical Implications

The findings of this study may have several implications for English writing instruction in senior high schools.

First, teachers should distinguish between cohesive device use and basic language proficiency. The majority of low-scoring students (86.7%) used cohesive devices correctly, suggesting that their low scores are not primarily due to an inability to use cohesive devices, but rather to weaknesses in basic language proficiency, including grammatical accuracy, spelling, vocabulary range, and content completeness. Therefore, instructional priority for low-scoring students should be given to strengthening language fundamentals, such as subject-verb agreement and sentence completeness, before shifting attention to enriching cohesive device diversity.

Second, teachers should provide targeted training on the use of conjunctions as separate sentences. The conjunction problems identified in this study all involved the use of conjunctions as separate sentences (e.g., a because clause standing alone or so written as an independent sentence). Teachers should provide explicit instruction emphasizing that a "because" clause cannot stand alone and that "so" should be attached to the preceding clause. Contrastive analysis of Chinese and

English causal structures may help students recognize and overcome native language transfer.

Third, teachers should help students enrich their repertoire of cohesive devices. High-scoring students demonstrated a wider range of connectives than low-scoring students, using advanced options such as "however, therefore, what's more, and in addition". This finding aligns with Crossley and McNamara (2012), who found that high-quality essays contained a greater variety of connectives. After mastering basic connectives, students should be encouraged to expand their repertoire. Teachers can provide categorized lists of connectives (e.g., addition, contrast, cause and effect, sequence) and use model text analysis to help students observe how advanced connectives are used in authentic discourse. As Schleppegrell (2013) suggest, teaching language features within meaningful contexts is more effective than isolated grammar exercises. Regular practice in meaningful writing tasks can help students internalize these devices.

5. Conclusion

This study investigated the use of cohesive devices in 30 senior high school English letters of request for help (15 high-scoring, 15 low-scoring) based on Halliday and Hasan's (1976) cohesion theory. Three major findings were obtained. First, all 15 high-scoring papers demonstrated correct use of cohesive devices across all five categories with no problems. Second, the majority of low-scoring papers were also free of cohesion-related problems. Only 2 papers contained a total of 3 cohesion problems, all of which were conjunction errors involving the use of conjunctions as separate sentences. Third, the findings suggest that low-scoring students' difficulties in English writing cannot be primarily attributed to a lack of ability to use cohesive devices. Rather, their low scores are more likely due to weak basic language proficiency, including grammatical accuracy, spelling, vocabulary range, and content completeness.

Based on major findings, there are several implications for English practical writing instruction. First, teachers should distinguish between cohesive device use and basic language proficiency, prioritizing basic language skills for low-scoring students. Second, targeted training should be provided on the use of conjunctions as separate sentences. In their daily teaching, they can add some targeted practice and training. Third, students should be encouraged to expand their repertoire of cohesive devices to include more advanced options after mastering basic connectives.

This study has several limitations. For example, the sample size is relatively small and all papers were collected from a single school, limiting the generalizability of the findings. Besides, the study focused only on letters of request for help, so the findings may not apply to other practical writing genres. In addition, no interviews or think-aloud protocols were employed to explore students' cognitive processes.

Therefore, future research could expand the sample size and include participants

from multiple schools, investigate other practical writing genres, employ qualitative methods such as interviews to gain deeper insights into students' cognitive processes and to examine the effectiveness of explicit instruction on cohesive devices.

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