

The Impact of Corpus-Based Back-Translation Research on Enhancing English Writing Skills in High Schools

--The Economist as an Example

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Abstract: Currently, under the background of the new curriculum reform of the college entrance examination, the requirement of students' ability in the practical use of the English language is more and more emphasized, but the students' writing ability has not improved synchronously, and low-level errors and unorthodox expressions are often found in test writing. In order to analyze the inappropriate expressions in students' writing and improve their writing ability, the author introduces "back-translation" in the field of translation as a teaching method. Back-translation training is conducted with a focus on 30 selected students. These students are exposed to moderately challenging statements extracted from foreign magazines, designed to resemble the content found in high school students' test writing. Subsequently, a corpus of these students' translations is compiled for analysis. This analysis involves a comparison of their translated work with the original language used in the foreign magazines. This process serves to evaluate the writing proficiency of the students. Through the comparison with the original language of the foreign journals, this study analyzed the inappropriate aspects of the students' vocabulary to improve the accuracy of vocabulary expression to improve the writing ability and avoid the expression of "Chinese English". The study shows that the bilingual frequent interaction back-translation teaching method can help students understand the differences between Chinese and English expressions, and it can enhance students' subjective initiative in English writing and increase their active vocabulary compared with the mechanized template teaching.

Keywords: Back translation, corpus, high school English writing, The Economist

1. Introduction

Against the background of implementing the new curriculum reform of the college entrance examination, students' comprehensive English language proficiency has been emphasized as never before, and the score value of the writing section in the college entrance examination paper in English has gradually increased. The importance of writing is becoming more and more prominent. However, the English writing level of high school students has not improved accordingly, and they mostly passively accept vocabulary and seldom actively output vocabulary [1]. The first reason can be attributed to the prevailing educational environment. To adapt to the current educational system,

classroom instruction is predominantly test-oriented. While the outcome-based teaching approach yields immediate results, it fails to genuinely enhance writing proficiency. Rather, it encourages rote memorization of model essays and merely using provided vocabulary to compose an essay. The second reason pertains to the limited opportunities for students to express themselves in English [2]. In countries where English is not the native language, students often lack exposure to English in their daily lives and experience limited English communication and interaction within the classroom. Consequently, students may feel unfamiliar with English expressions, leading to apprehension. This apprehension can result in reluctance and even avoidance of writing in English, causing a dearth of English output and perpetuating a detrimental cycle.

The back-translation teaching method has been implemented in some universities, but the actual popularity of this teaching method is low. At present, this teaching method mainly focuses on the comparative analysis of the original text and the back-translated text, such as the "analogy-contrast" strategy proposed by Jarvie for constructing and applying the back-translation teaching method in high school English assignments. This strategy can improve students' writing language accuracy by analyzing the differences between the two. This paper conducts a comparative analysis by examining various phrases. The Collins Corpus is employed for this analysis, enabling students to distinguish disparities between Chinese and English. Consequently, it mitigates the adverse influence of native language interference on writing in bilingual intertwined teaching.

However, the current back-translation teaching method focuses more on the comparative analysis of individual word chunks and lacks the categorization of the overall word chunks and the subsequent drawing of deeper conclusions. In this paper, based on the comparative analysis of back-translation teaching, based on analyzing the differences between Chinese and English expressions, we use the way of building a corpus to analyze the whole and classify them into passive vocabulary and active vocabulary, aiming at maximizing the conversion of passive vocabulary mastered by students into active vocabulary that can be flexibly used in writing, and improving vocabulary richness to enhance the ability to write in English.

2. Theoretical Framework and Key Definitions

2.1. Back-translation Theory

Back-translation, according to Mark Shuttleworth and Moira Cowie, "back-translation is the process of re-translating a text that has been translated into a particular language into the source language (SL)" [3]. Back-translation, as a finishing translation strategy, can help teachers understand in depth the problems of students' writing in terms of diction, grammar, structure and more. The back-translation method has a long history in foreign countries. For example, Edward Gibbon, a famous British historian, mentioned in his autobiography that he used back translation as a learning method to learn Latin. First, he translated Cicero's masterpiece into French. After a while, when he had pretty much forgotten the grammar and structure of the French translation, he back-translated it into Latin. He greatly approved of this approach because it helped him study Cicero's works and increased his interest in learning Latin. For most scholars in the West, back-translation is seen more as a method of study or a self-checking tool. "Back-translation can also help students with writing exercises and self-checking sentences" [4].

However, combining back-translation theory with teaching has not been widely popularized in China. Back-translation aims to encourage students to use their existing knowledge to creatively transform the text so as to deepen their understanding of the original knowledge, distinguish the difference between the old and new knowledge, and better utilize the English language [5]. At the same time, the back-translation method of teaching can increase the frequency of communication between teachers and students, increase students' enthusiasm and subjective initiative, and make

students realize the thinking of English expression in the back-translation and subsequent revision, so as to improve students' English writing ability compared with the teaching of writing by memorization. The English thinking cultivated by teaching based on the theory of back-translation does not require learners to adopt English cultural stereotypes completely but to take into account the characteristics of English when writing and translating in English to overcome the negative migration of the mother tongue and to consciously move closer to the English model [6].

2.2. Corpus

Corpus refers to a large-scale electronic text database that has been scientifically sampled and processed, with real language text as the research object, and a large number of corpus text features are retrieved and analyzed. Domestic corpus research predominantly centres on the creation of various corpus types, corpus-assisted English instruction, the utilization of corpus data for lexicography and textbook development, as well as language assessment and evaluation. Currently, corpus-based English teaching research is at the forefront, offering fresh insights and innovative methodologies for high school English instruction [7]. At the same time, the corpus can also be used with the help of corresponding computer software to count the commonly used vocabulary in the foreign language, and the frequency of vocabulary application can be accurately counted. In the application of the corpus learning process, students can be more clear vocabulary learning focus, so as to carry out targeted learning, to avoid wasting learning time. The introduction of the corpus in high school English writing teaching not only enriches the source of language materials and expands the means of language teaching but also enhances the students' motivation and flexibility in learning, mastering and utilizing the language to a certain extent.

Students can improve their active vocabulary by searching and learning from the corpus and then can master more authentic word combinations and local idioms. They can engage in collaborative inquiry and discovery learning, fostering cooperation and self-directed learning skills while continuously enhancing their cognitive breadth and discursive proficiency. This, in turn, elevates the quality of their written language output. As far as teachers are concerned, by referring to a large number of authentic English collocations and expressions in the corpus, teachers can provide targeted guidance to students on the variety and accuracy of words, phrases and sentences in the writing process so as to teach writing more efficiently; By guiding students in self-exploration and cooperation, teachers can provide targeted guidance in the use of diverse and accurate vocabulary, phrases, and sentence structures, thus enhancing the efficiency of writing instruction. Simultaneously, through this guidance, teachers gain a deeper understanding of students' weaknesses and needs, enabling them to promptly adapt their strategies in subsequent teaching processes for more effective instruction. This iterative process also leads to continual improvement in teachers' cognitive breadth and critical thinking, ultimately raising the quality of their teaching practices [8].

3. Method

To cater to the English vocabulary and language expression abilities of high school students, this paper's author has comprehensively considered content, language, and structure. Specifically, the author selected and modified ten sentences from "The Economist," aligning them with the general trends in college entrance exam essay topics. These selections aim to provide a differentiated assessment of students' writing and translation skills. Regarding structure, sentences of moderate length were chosen as essay samples with appropriate translation difficulty. Chinese annotations were added for proper nouns. Linguistically, phrases closely tied to English culture and accentuating English thought patterns were selected. This approach allows translators to experience the nuances of the English language up close, reducing the tendency towards Chinese-style English thinking.

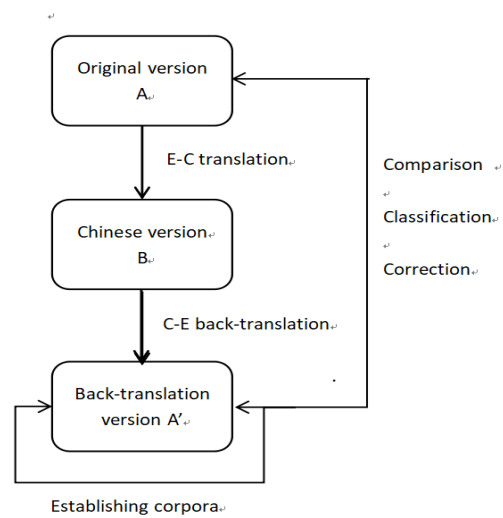


Figure 1: Process of back-translation teaching method

As shown in Figure 1, firstly, the selected sentence A of The Economist was translated into Chinese B by professional translators, and then 30 target students with the same level of ability were asked to translate Chinese B back into English. Then, a corpus is built for the 30 back-translated texts, and the number of occurrences and the frequency of words used are organized from the perspectives of tense, word block expression, morphology, and more, which are integrated and condensed into 10 sentences of the student version of the back-translated text A'. Then, A and A' are compared to analyze the differences between the original foreign publication and the translated text. The comparison process is not to test the accuracy of A', or how faithful it is to A, nor to simply take A to identify or judge the merits or errors of A', but to let the back-translators vividly feel the differences and similarities between Chinese and English through the act of translation, and to find an effective way of writing and translating in English in the process of comparing A' and A [5]. Finally, the inappropriate words in the student's translation A' and the corresponding words in the original A were input into the Collins Corpus to obtain the different usage scenarios of the original word blocks and the active word blocks used by the students, as well as to explore the cultural reasons behind them.

4. Results and analysis

After building a corpus of back-translated texts from 30 target high school students and analyzing them in comparison with the source text, the authors counted the number of inappropriateness produced in the back-translation exercise in terms of tense, morphology and diction, as shown in Table 1.

Table1: Back-translation text analysis

Number	Tense error	Voice error	Improper phrases
1st	6	23	28
2nd	4	7	26
3rd	5	9	24
4th	9	7	20
5th	7	13	27
6th	3	9	18

Table 1: (continued).

7th	3	6	15
8th	4	6	19
9th	2	3	14
10th	7	10	21

The following is a detailed analysis of the five sentences selected for back-translation training
Sentence (1)

A: Subservience to hard facts, such as time and decay, seldom held Mrs Lauder back.

B: 即使要屈从于时间和衰老之类的残酷现实，她(Mrs Lauder)也不曾畏缩不前。

A': Even if she gave in to cruel realities such as time and ageing, Mrs Lauder never stepped back.

Comparing the two versions, there is a big difference in the translation of "even if she had to give in" (Sentence 1). The student's translation uses a gerund clause (even if she gave in), while the original text can express the same meaning with just one word, "subservience", i.e., replacing the verb phrase with a noun and expressing it in a simple sentence, which is more concise and reflects the "static" nature of the English language. This adverbial clause can be expressed the same meaning with only one word "subservience". This kind of redundancy is very common in students' writing.

Sentence (2)

A: Nvidia's chief advantage lies in its ability to package these up and create an attractive ecosystem.

B: 英伟达的主要优势在于它有能力将这些整合起来，创造一个有吸引力的生态系统。

A': Nvidia's main advantage lies in its ability to integrate these and create an attractive ecosystem.

In Sentence 2, the students' translated text A' is relatively similar to the original A, with only a few differences in wording, probably due to the relative simplicity of the sentence. In the second sentence, there is a slight difference between the word "main" in A' and the word "chief" in the original (A). In high school essays, the word "main" is frequently encountered and often misused. "Main" primarily denotes the principal part or significant element within a whole but is limited to being the most dominant within a specific domain.; chief is the first of its kind in every aspect, which is more emphatic and includes all the other advantages of main. In everyday high school composition exercises, the expression main reason often appears, and there are times when chief may be more appropriate. The fact that high school students cannot figure out how to use several words with similar meanings and choose to use them at random is a word problem that needs attention in high school writing and is also one of the characteristics of Chinglish writing.

Sentence (3):

A: The ballooning cost, in time and money, of training ever-larger DL systems had prompted worries that the technique was reaching its limits.

B: 深度学习系统的规模越来越大，为训练它而投入的时间和资金不断膨胀，令人担心这项技术已接近发展极限。

A': Deep learning systems have grown in size, and the time and money invested in training them has ballooned, raising concerns that the technology is nearing its limits.

In Sentence 3, the most prominent distinction between A and A' lies in the choice of subject. The student employs two subjects: "Deep learning systems" and "the time and money" connected by "and" in a parallel structure, rendering the sentence overly complex and lacking clear logical coherence. In contrast, the original text employs a single subject, "The ballooning cost," with the prepositional phrase "in time and money" to denote the logical relationship between them. This approach better emphasizes the central theme of the expression, with "The ballooning cost" serving as the subject that encompasses "in time and money." In their high school writing, students often think in Chinese and subsequently translate their thoughts into English. This practice contributes to the loose and illogical

nature of high school students' argumentative essays.

Sentence (4):

A: Ant's scale, innovation and drive mean it is well placed.

B: 蚂蚁金服规模庞大、富于创新且冲劲十足，因而处于有利地位。

A': Ant has a large scale and is innovative and strongly motivated, so it is at an advantage.

In the Sentence 4, the students' integrated back-translation text expresses the complete meaning but is not as concise as the original in the choice of sentence structure. For example, in the word "规模庞大" in Chinese, the students' first reaction is usually to have a large scale, while in English the word scale is used directly. Similarly, "be very innovative" and "be strongly motivated" are commonly used in Chinese, whereas only one word is used: innovation and drive. In contrast, "drive" is more concise and less ambiguous. As for the word "drive", the target students understand that it means "to drive", but in this case, it is used as a noun to mean "determination and energy to succeed", i.e. "determination and energy to make a success", i.e. "to drive", i.e. "to drive". However, in this case, it is used as a noun to mean "determination and energy to succeed", i.e., "vigor, drive". When composing for high school students, it is essential to prioritize the utilization of "common vocabulary." This approach frequently enhances lexical diversity and lends a more genuine quality to the expression.

Sentence (5):

A: South-East Asia soon emerged as the pre-eminent destination for foreign waste. Unfortunately, the region's recycling industry is much smaller than China's; its processing plants were quickly overwhelmed.

B: 很快，东南亚成为外国垃圾的首选目的地。不幸的是，该地区回收产业的规模远不如中国产业规模；其处理工厂很快就不堪重负。

A': Soon, South-East Asia became the chief destination for foreign garbage. Unfortunately, the region's recycling industry is much smaller than China's industry; its processing factories soon couldn't bear more.

The fifth example (Sentence 5) is a common problem in high school writing: repetition. High school students' acceptance of active vocabulary is often limited to the fact that a Chinese paraphrase corresponds to an English word, and there is a lack of awareness of synonymous substitution, which reduces vocabulary richness. In A' text, the expression soon is used twice between the upper and lower sentences, which should be taken as "quickly", "soon" and other diversified expressions in the original text. Meanwhile, in the face of the translation of four-letter words, the original text uses only one word "overwhelmed" instead of the expression "could not bear more", which is more concise. In general, English tends to use a large number of nouns, gerunds, participles, and prepositional phrases to express action concepts; whereas the use of verbs and adjectives in Chinese is very mundane [9].

5. Suggestion

Through the back-translation training, many students feel that the back-translation exercise enhances their desire and motivation to "read in detail"; simultaneously, the interpreter keeps going back and forth between the two languages, enhancing the sensitivity to the differences between them. The purpose of back-translation is to make the students think out of the Chinese language. The combination of bilingual interweaving and self-evaluation and revision can prevent students from using Chinese thinking to construct English writing in the writing process and can strengthen the analysis of the differences between Chinese and English corresponding vocabulary, especially the different contexts of use between near-synonyms. At the same time, it can effectively enhance students' initiative in translation and writing and reduce the sense of intimidation by letting students take a longer time and a larger length of the test writing and implement it into the practice of

translating back to the Chinese language every day. Initiative and reduce the sense of fear. In the future, high school English teachers should refocus their writing instruction efforts towards nurturing students' linguistic and cultural concepts, as well as honing their translation strategies. This approach aims to foster students' self-inquiry skills within the realm of language translation. Furthermore, it involves guiding students in constructing their own language corpora, all with the ultimate goal of enabling them to independently discover knowledge through active participation in real-life professional translation activities within a learner-centered environment [10].

6. Conclusion

This work introduces back-translation teaching to a process-oriented new high school writing teaching technique, which encourages students to pay active attention to the writing process rather than the result-oriented template teaching style now in vogue for high school exam writing. This paper concludes a comparative analysis of back-translated and source language text corpora, highlighting a key characteristic of high school students' writing: the prevalent use of "word-for-word translation". Students often think in Chinese and then directly translate their thoughts into English during this process. This mode of high correspondence translation underscores a fundamental issue in high school students' English writing. Chinese relies on word order to convey meaning, while English adheres to a logical word order. Consequently, these two languages cannot be seamlessly interchanged via word-for-word translation. To address this, the paper introduces a novel teaching approach, back-translation, which combines corpus development and teaching methods. This method aims to comprehensively analyze students' language deficiencies, facilitating more efficient improvements in their writing skills.

However, it's important to note that the scarcity of text data limits the corpus establishment. Thirty samples cannot encompass the full spectrum of writing proficiency among domestic high school students. Additionally, the selection of ten sentences from *The Economist* fails to fully represent all the techniques and methods required for high school test writing. The focus here is on linguistic expression, and the examples presented emphasize the need for extensive language acquisition and application. High school students must engage in extensive reading to accumulate passive vocabulary and transform it into active vocabulary.

Furthermore, English writing in college entrance examinations emphasizes content enrichment and linguistic precision. Students should prioritize a solid foundation of knowledge before enhancing the richness of their language and vocabulary accuracy. This approach is expected to improve the current state of writing education in China. In the future, the scope of writing education should extend beyond the traditional teacher-student relationship. Peer education should be encouraged, with collaborative back-translation correction as a means of mutual improvement. This cooperative approach will help students identify and rectify each other's writing issues, fostering a shared goal of progress.

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