A Corpus-Based Study on Chinese College Students’ Application ability of Conjunctive Adverbs in English Writing
Chunping Nan

Northeast Petroleum University, Daqing, China
*Corresponding author. Email: 71542312@qq.com

ABSTRACT
This paper aims to explore a data-driven teaching model based on massive information input and be suitable for students’ independent learning, then improve the situation of limited information resources in traditional English writing classes. In this paper, self-built text corpora and AntConc, a retrieval tool is used to compare and analyze the usage of conjunctive adverbs between English majors in Northeast Petroleum University and British college students with English as their mother tongue in English Writing so as to improve Chinese Students’ ability to apply conjunctive adverbs in writing. The results showed that the students of Northeast Petroleum University had a strong awareness of using different kinds of conjunctive adverbs to help realize the smooth connection of text content, especially the usage of conjunctive adverbs related to enumeration, addition, comparison, concession, results and inference. However, compared with British students, they utilized less conjunctive adverbs displaying appositive and transitional relationship but more summary conjunctive adverbs.

Keywords: corpus, English writing, conjunctive adverbs, English majors

1. INTRODUCTION
By far, Chinese college students have considered writing the most difficult one of the four basic language skills in English learning. They face kinds of problems in writing, including vocabulary, grammar, cohesion, etc. Some researches presented that among all kinds of problems, improper organizational cohesion seemed to be the biggest problem existing in senior writing of Chinese college students. A good essay lay not in simple sentence arrangement but in the cohesion between the sentences (Halliday & Hasan 2001:293). Guo Hong (2000) concluded the most difficult thing influencing students in their writing was how to make their articles well connected. Conjunctive adverbs play an important role in the contextual cohesion. In the field of linguistics, conjunctive adverbs, as an important cohesive link, have attracted extensive attention from linguists. In recent years, with the development of corpus computerization, the research on the differences between national English learners and native English speakers in using conjunctive adverbs has made great progress. In the research, Milton & Tsang (1993), Field & Yip (1992), Granger & Tyson (1996), and Luo (2001) discovered that English learners tended to overuse conjunctive adverbs. Whereas, Altenberg & Tapper (1998), Flowerdew (1997) and Pan & Feng (2004) found out compared with native English speakers, English learners did not make full use of conjunctive adverbs in English writing. In view of the problems that Chinese college students may encounter in using conjunctive adverbs in English writing, it is necessary to make a more in-depth study on college students’ use of conjunctive adverbs from a macroscopic perspective by using the corpuses.

Theoretically, this study is expected to provide a case study for the research of English conjunctive adverbs; in practice, first of all, in the writing teaching practice, especially in the CET- 4 training classes, this research will provide some useful enlightenment to teachers as to how to use conjunctive adverbs to achieve smooth cohesion of content in compositions. Secondly, the results of using conjunctive adverbs retrieved from the corpus can provide practical examples of typical problems in college students’ English writing, which provides reference for teachers and learners to understand the actual situation of native English speakers using conjunctive adverbs to help students have a deeper understanding of the English language so as to use English more accurately.

2. METHODOLOGY

2.1. Research Design

Research objectives: Looking for a new way to improve the ability of Chinese college students in using conjunctive adverbs in English writing; to explore a
data-driven teaching model based on massive information input that is suitable for students’ independent learning.

2.2. Research Problems

The specific issues studied in this paper are as follows:
(1) What are the similarities and differences in the use of conjunctive adverbs between English majors from Northeast Petroleum University and British university students whose native language is English?

(2) How to understand the similarities and differences in the use of English conjunctive adverbs and what are the reasons for causing the differences?

2.3. Theoretical Framework and Research Object

The theory of Biber et al. classifies and introduced conjunctive adverbs in English.

| Table 1 Classification of conjunctive adverbs (Biber et al. 2000) |
| Classification | Typical Words | Function |
|----------------|---------------|----------|
| Enumeration and Addition | first, second and the like | Enumeration and Addition |
| Summary | to sum up, to conclude, etc. | Summarize previous content or indicate the end of an article |
| Apposition | in other words, for example, etc. | Indicates that the following content of the article is consistent with the previous one. |
| Result and Inference | so, therefore, thus, etc. | To show that what follows is a statement or inference |
| Contrast and Concession | on the other hand, alternatively, etc. | Refers to the relationship between comparison and concession in the passage |
| Transition | now, incidentally, etc. | Indicate that the content later in the article is no longer closely related to the previous one. |

The research object of this paper, namely the conjunctive adverbs and phrases finally determined in the study mainly refers to the classification of conjunctive adverbs by Biber et al.

| Table 2 The conjunctive adverbs determined in this paper |
| Classification | Typical Words |
|----------------|---------------|
| Enumeration and Addition | first, second, in the first /second place, to begin with, next, in addition, similarly, furthermore |
| Summary | to sum up, to conclude, all in all, in conclusion, overall, to summarize |
| Apposition | in other words, for example, that is |
| Result and Inference | so, therefore, thus, consequently, then |
| Contrast and Concession | on the other hand, alternatively, though, anyway, yet |
| Transition | now, incidentally, by the way, meanwhile |

2.4. Creating Text Corpora

Corpus 1: The author built corpus 1 by selecting 600 simulated compositions of previous CET-4 non-English majors from Northeast Petroleum University (about 150 words per essay), which was equivalent in number of words to corpus 2. The CET-4 simulated compositions were chosen because the topics and requirements on the composition were in line with the requirement of the
CET-4 syllabus established by the College English Examination Committee.

Corpus 2: From the LOCNESS of native English compositions, the author selected the part of English argumentative essays of British college students and built a self-constructed corpus 2 with 95695 words. These articles belong to senior writing and are comparable to college English compositions in contents and English levels.

2.5. Research Methods and Procedures

First of all, according to Biber et al.’s classification of conjunctive adverb, the author selected 32 conjunctive adverbs and phrases as research objects. Next, the author built corpus 1 by selecting 600 simulated compositions of previous CET-4 non-English majors from Northeast Petroleum University (about 150 words per essay). The part of English argumentative essays of British college students from the LOCNESS of native English compositions was selected, and a self-constructed corpus 2 with 95695 words was built. The two corpora were comparable in contents and English levels. And then, the author used AntConc, a retrieval tool, retrieved the determined conjunctive adverbs to determine the use of the 32 conjunctive adverbs and phrases in the two self-built corpora, such as the frequency of their occurrence, their location in the sentences and the context in which they are located in different corpora. Furthermore, the author recorded, sorted out, compared and analyzed the obtained information, and studied the usage of conjunctive adverbs and phrases in the two corpora. In the end, the author designed a questionnaire to select 100 students from the current Northeast Petroleum University who participated in the CET-4 simulation test and conducted a questionnaire survey to understand the students’ understanding of conjunctive adverbs and their usage to know whether there are problems in English writing and teaching.

3. RESULTS AND DISCUSSION

Through the search of the determined conjunctive adverbs and phrases in corpus 1 and corpus 2, the frequency and percentage of their occurrence in the two corpora were obtained, as follows:

| Table 3 Total Frequency of Conjunctive Adverbs in the Two Corpora |
|-----------------|------------------|
|                  | Corpus 1         | Corpus 2         |
| Scale(total words) | 81326            | 95695            |
| Frequency of conjunctive adverbs | 2309            | 881              |
| Percentage | 2.84%            | 0.92%            |

Table 3 shows that, in corpus 1 with a scale of 81326 words, the frequency of linking adverbs and phrases is 2309 times, accounting for 2.84%. However, they occur 881 times in corpus 2 with a scale of 95695 words, accounting for 0.92%. It can be seen that conjunctive adverbs are commonly used as conjunctive symbols in two corpora and play an important role in discourse cohesion. Whereas, the frequency of occurrence of conjunctive adverbs in corpus 1 is 2.84%, which is higher than that in corpus 2 (0.92%), indicating that Chinese college students had a strong sense of using conjunctive adverbs in their writing. The author further calculated the frequency of different types of conjunctive adverbs in the two corpora, as is shown in Table 4:

| Table 4 Frequency and Percentage of Different Types of Conjunctive Adverbs in the Two Corpora |
|---|---|
| Classification | Corpus 1 | Corpus 2 |
|                | Frequency of conjunctive adverbs | Percentage | Frequency of conjunctive adverbs | Percentage |
| Enumeration and Addition | 759 | 32.87% | 229 | 25.99% |
| Summary | 467 | 20.23% | 216 | 24.52% |
| Apposition | 432 | 18.71% | 178 | 20.20% |
| Result and Inference | 126 | 5.44% | 98 | 11.13% |
| Contrast and Concession | 106 | 4.61% | 120 | 13.62% |
| Transition | 419 | 18.15% | 40 | 4.53% |
As is shown in the table, the three categories of the most commonly used conjunctive adverbs in both corpora are the same. They represent enumeration and addition, comparison and concession, results and inferences, respectively. The three semantic categories of conjunctive adverbs account for almost the same proportion in the two corpora, and the frequency appearing in the two corpora accounts for about 71% of the total frequency of conjunctive adverbs. Compared with the frequency of other adverbs in corpus 2, the frequency of conjunctive adverbs in corpus 1 is lower, but those representing summary relationships are used more frequently. The results show that the students in Northeast Petroleum University have a strong awareness of using different kinds of conjunctive adverbs to help them realize the smooth connection of text content, especially in the use of enumeration, addition, comparison, concession, results and inferences. However, compared with British students, the frequency of using apposition and transitional conjunctive adverbs is insufficient, and the frequency of summary conjunctive adverbs is too frequent. This result is consistent with the previous research results to some extent. Altenberg & Tapper (1998) found that Swedish English learners use the most conjunctive adverbs in contrastive and inferential relations, but the least in appositional and transitional relations.

In order to understand students’ use of conjunctive adverbs and the function of guidance from teachers and instruction manuals, we conducted a questionnaire survey. This questionnaire consists of four parts. Before coming to different sections, the introduction includes the purpose of this study and a direction of how to fill in the questionnaire. The purpose of the first part is to understand the personal information of the subjects. The second part is composed of part A and part B. In part A, the subjects were asked to write down the Chinese meaning of determined conjunctive adverbs, so as to test their vocabulary. Part B aims to investigate students’ understanding of some special styles. It was designed as a table with two options for each question. The third part aims to understand students’ use of conjunctive adverbs in CET-4 English simulation writing. Subjects need to mark the actual use of each conjunctive adverb. The last part aims at understanding students’ views on English writing learning and teaching, consisting of 20 short questions, each with four options. There were 100 students who took part in the questionnaire, only 94 questionnaires valid. The students majored in computer science, communication engineering, tourism management, network engineering and so on.

The results of the survey present that about 16% of the students will pay attention to cohesion problems in the CET-4 simulation test, especially paying attention to the use of conjunctive adverbs. And about 40% of the students sometimes pay attention to cohesion and the use of conjunctive adverbs. They accounted for about 56% of all the students, which shows that students have a strong sense of using conjunctive adverbs to achieve cohesion in English writing. Meanwhile, from the survey, we know that 14% of the students admit that their teachers often teach and emphasize how to improve the cohesion of a composition by using conjunctive adverbs in class. 57% students talked their teachers sometimes did this, and the number of students in these two items makes up 71% of the total number. When asked whether they use writing manuals in CET-4 composition writing exercises, a total of 59% of the students often use or sometimes use them, and they also cover the use of conjunctive adverbs in the tutorial books. The above data show that both teachers and writing manuals teach students how to use conjunctive adverbs to write good compositions. Teachers’ guidance is an important reason for students to consciously use conjunctive adverbs to obtain effective cohesion in CET-4 compositions.

To sum up, the results show that students in Northeast Petroleum University and British College students use conjunctive adverbs almost in the same degree to indicate enumeration and addition, comparison and concession, and result and inference relations respectively. However, our Chinese college students use too many summary type of conjunctive adverbs, but too few conjunctive adverbs that express appositional and transitional relationship, which makes the context of the article not so natural, and the content not closely related. The reasons are as follows: first of all, under the guidance of teachers and writing books, students have formed a fixed writing pattern in their mind that is easy to learn about how to achieve the coherence of an article. In the process of learning how to write a CET-4 composition, teachers often require students to pay more attention to the connection between this sentence and the next sentence so as to achieve overall coherence. The writing manual will also give students the impression that conjunctive adverbs are an important tool to achieve coherence. The more conjunctive adverbs are used, the more coherent their English writing and the higher their CET-4 writing score will be. Secondly, students are not familiar with the use of real language and other writing modes and cohesive devices favored by native English speakers due to the limited input in methods and content in class. As a result, students in Northeastern Petroleum University tend to use their most familiar and limited conjunctive adverbs.

**4. CONCLUSION**

Through the self-built corpora, this study compared and analyzed the usage of conjunctive adverbs in English writing between Non-English majors in Northeast Petroleum University and British college students, and the differences in the comparison results provided some enlightenment for Chinese students’ English learning and teachers’ teaching. First of all, Teachers should help students understand writing standards correctly and avoid overemphasizing the importance of conjunctive adverbs. To improve the coherence of English writing, teachers may
encourage students to correctly use conjunctive adverbs or other cohesive devices, such as reference, substitution, ellipsis and lexical cohesion. Secondly, when teachers compile or select textbooks and writing manuals, they should choose more authentic materials. They can also use native English corpus as resources to help students understand how native English writers construct their own compositions in various form and guide students to learn to use conjunctive adverbs in a native way to achieve successful cohesion. Thirdly, students should be aware that using familiar and limited conjunctive adverbs can only promote the coherence of English writing to a certain extent, and learning native English writing habits is inseparable from learning English writing. Therefore, learners should have a better understanding of English writing habits and thinking patterns, and are expected to deal with a topic, connect sentences, and form paragraphs in an English way. Finally, students can make use of learner corpus, native language corpus and the retrieval software used in this study as a supplement to the learning materials. By reading a lot of real corpus, students can improve their English vocabulary and master their idiomatic usage to improve their writing level.

REFERENCES

[1] Altenberg, B. Tapper, M. 1998. The use of adverbial connectors in advanced Swedish learners’ written English. In: Granger, S. (Ed.) Learner English on Computer. Addison Wesley Longman, London and New York, pp. 80-93.

[2] Biber, D.et al. 1999. Longman Grammar of Spoken and Written English [M]. London: Addition Wesley Publishing Company.

[3] Halliday, M.A.K., Hasan, R. 1976. Cohesion in English. Longman, London.

[4] Milton, J., Tsang, E. S. C. 1993. A corpus-based study of logical connectors in EFL students writing: directions for future research. In Pemberton, R., Tsang, E. S. C. (Ed.) Studies in Lexis. University of Science and Technology Language Center: Hong Kong, pp. 215-246.

[5] Lan Yang. 2018. The Diagnostic Significance of Conjunctive Adverbs in the Analysis of Textual Structure in English Writing [J]. Journal of East China University of Science and Technology. 2018 (2): 110～117.

[6] Xiao Xitong & Zhang Danxia. The Usage of Conjunctive Adverb therefore: A Study Based on Corpus [J]. Campus English, 2020, (19): 225～227.

[7] Zhang Mei. Comparative Study of Contrastive/Concession Conjunctive Adverbs Based on Learner Corpus [J]. Journal of Yan’an Vocational and Technical College. 2019(2):64～70