

An Empirical Research on Application of Mind Mapping to Business Comprehensive English Course

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Abstract: This research is to explore the effectiveness of applying Mind Mapping to the course of business comprehensive English for students at Sichuan University of Arts and Science. In addition, this research collects students' feedback on the administration and further application of mind mapping. A total of seven assignments of mind maps were submitted to Xuexitong (an online app) in the teaching practice of the course named Business Comprehensive English by students from two classes of business English major in one academic year. Then, a questionnaire was distributed online, and 72 students responded to the questionnaire. Analyses Findings were based on the 72 respondents' feedback. The findings show that the vast majority of students hold a positive attitude towards the application of the mind mapping, for it has proved to be an effective way to facilitate their understanding of the structure and main idea of articles. Meanwhile, what needs to be improved is the guidance the teacher gave them about how to apply mind mapping in their studies. Recommendations on the application of mind mapping to other courses of English major and future research are put forward in the end.

Keywords: Mind Mapping; Empirical Study; Business English Courses; Effectiveness.

1. Introduction

Up to 2020, there are 403 colleges with the major of Business English. Different from general English Majors, students need to learn not only English grammar, vocabulary, and pronunciation, but also English business knowledge. In order to achieve this objective, the Ministry of Education of China has issued *The Teaching Guide of Business English Major in Higher Education*, which stipulates that business English Majors should acquire knowledge and skills in English language, business, cross-cultural communication and humanity.

At present, the core course aiming at cultivating these abilities is the comprehensive English courses for business English Major. The textbook chosen for this course emphasizes English basic skills, business literacy and humanistic literacy, so those articles are very different from those in the high school textbook, showing the following characteristics: a. they are extracted from books and newspapers and have not been adapted; b. they are quite long, and have a coherent logical relationship internally; c. they are full of long and complicated sentences and a lot of new words. That is why students are intimidated when they first see these articles. The results from the questionnaire survey show that 54.2% students think those articles are challenging, 44.4% students think those articles is moderate, and only 1.39% students think those articles are simple and easy to understand.

Therefore, the urgent task for teachers is to find ways to make it easier for students to understand those articles. With the aim to solve those problems, the teacher decides to introduce mind mapping into the pre-class preparation, in-class explanation and after-class review.

2. Literature Review

Mind mapping, also known as brain mapping, mental mapping and concept mapping, is a tool of image-based thinking and an auxiliary tool of image-based thinking. It came into being in the 1960s, and was widely used as an

effective thinking radiation tool in the classroom teaching reform. In foreign countries, mind mapping, as an important ability of students, is highly valued. Many researchers have conducted a series of experiments on the application of mind mappings in writing teaching. Graves (1978) thought that mind mappings was an effective learning strategy. Piswanto and Putra (2012) believed that mind mapping can cultivate students' critical thinking ability, and thus improve their writing ability. Alamas Prim Nurlaila (2013) proposed that mind mapping can improve students' writing ability in a way that students are willing to accept. Buran Annan and Andrey Filyukov (2015) argued that mind mapping should be introduced into language teaching and become an effective learning tool for both teachers and students.

Mind mapping was introduced into China in the 1990s, and many scholars conducted a series of experiments on its application. Cui Beibei (2013) pointed out that mind mapping can stimulate students' interest in writing, so it should be applied to writing class teaching. Huang Rongwei (2023) conducted an empirical experiment on the advantage of mind mapping and the characteristics of English teaching, and revealed the practicability and effectiveness of applying mind mapping to writing. According to the researches abroad and at home, mind mapping has been proved to be an effective tool to cultivate middle school students' writing ability.

However, so far, the number of empirical studies on applying mind mapping to the other university courses (such as reading) is limited. Therefore, it is necessary to conduct research on the application of mind mapping in this course and explore its effectiveness in helping students grasp the structure and logical relationship within those articles.

3. Research Mythologies

3.1. Research Purpose

The research focuses on the following four questions:

A. Is mind mapping an effective tool for helping students grasp the structure and logical relationships within those articles from the textbook of Comprehensive Business

English?

B. Is mind mapping an effective tool for helping students understand the idea of those articles from the textbook of Comprehensive business English?

C. What is students' feedback on the application of mind mapping, such as the frequency of assignments?

D. What are students' suggestions for future applications of mind mapping?

3.2. Participants

This research involves the students in grade two, class 6 and class 7 majoring in Business English. They take Comprehensive English Course in the academic year 2023-2024 at Sichuan University of Arts and Science. The students taking this course were 77, and 72 of them responded to the questionnaire, which was distributed through Wenjuanxing (one website platform for questionnaire surveys) in June of 2024. The response rate is 93.5%.

This study is quantitative research. It is based on the actual survey data, which is primarily collected from the field survey and information, quantitative processing, and analysis of the feedbacks of respondents.

3.3. Research Design

The teaching objective of the Comprehensive English Course is to enable students to grasp the structure and idea of those articles adapted foreign newspapers or magazines, understand the logical relationships within paragraphs, and retell the story in their own order. In the academic year 2023-2024, eight units from Comprehensive English Course One and Two were instructed in the class, and eight assignments of drawing Mind mappings were submitted to Xuexitong. Each assignment was designed to check students' understanding and grasp of those articles.

As for assignment, students need to submit one mind map to show their understanding of that article. Teacher will post the assignment in Xuexitong before the learning of each unit. Students need to preview the article, draw the mind map, and submit it online. The teacher will score their mind maps range from 0-100 points. Then, the teacher chooses the assignment with the highest score and presents it to the class to show the strengths and weaknesses, which will help students improve their next assignment.

4. Analysis of Questionnaire

There are fourteen closed questions in the questionnaire. These questions are categorized into four parts, namely, students' demographic information, their attitude towards mind mapping, the effectiveness of mind mapping, and their suggestions on future applications of mind mapping.

4.1. Students' Demographic Information

Table 1. Respondents' Gender

Gender	Simple Size	Percentage
Male	64	88.9%
Female	8	11.2%
Total	72	100%

In accordance with Table 1, the results show that 64 female students and 8 male students responded to the online

questionnaire. The gender distribution is relatively imbalanced, and more of them are female. However, it is normal and excusable. Because the gender distribution is always imbalanced in nearly all Schools of Foreign Languages in China, with more female students.

4.2. Students' Attitude towards Mind Mapping

Table 2. Two Frequency of Applying Mind Mapping in Preview

Frequency	Simple Size	Percentage
Always	9	12.5%
Sometimes	41	56.94%
Seldom	22	30.56%

In terms of the frequency of applying Mind mapping to preview articles, Table 2 reveals that after the introduction of Mind mapping into this course, 50.94% of them sometimes apply Mind mapping to the preview of article, 12.5% always apply Mind mapping in their preview, and another 30.56% of them seldom use Mind Mapping to preview the article. The data demonstrates that more than half of the students have a positive attitude towards Mind mapping, and only a small portion of them are reluctant to use it. The main reason is that most students find Mind mapping can promote their understanding of the article after applying it to their study. Thus, it is natural and understandable for them to hold a positive attitude towards Mind mapping. As for those who did not use it to preview, partly because it is difficult for them to learn how to use mind mapping to summarize the structure and logical relationship within the article.

Table 3. Frequency of submitting assignments

Frequency	Simple Size	Percentage
Eight times	40	55.56%
Seven times	10	13.89%
Six times	17	23.61%
Five times	4	5.56%
Four times	1	1.39%

With regard to the frequency of submitting assignments, Table 3 demonstrates that 55.56% have submitted eight times online (there are altogether eight assignments in one academic year), 13.89% have submitted seven times, and only 1.39% have submitted less than half of all assignments. It can be inferred that more than 90% of students hold a positive attitude towards Mind mapping. Although some of them think it is hard to draw mind map, they still spend a lot of time managing to finish assignment. However, 1.39% have a negative attitude toward class and skip classes occasionally, so they ignore some of the assignments.

Table 4. Propensity for recommendation

Recommendation	Simple Size	Percentage
Yes	51	70.83%
Not Sure	19	26.39%
No	17	2.78%

As for students' propensity for recommending mind mapping for future use in the next academic year, Table 4 reveals that 70.83% of them strongly recommend mind mapping for future use, and only 2.78% of them refuse to recommend it. This indicates that most students agree that mind mapping play positive role in their understanding of the structure and logical relationships within those articles, and they recognize its effectiveness.

4.3. The Effectiveness of Mind Mapping

With regard to the effectiveness of Mind mapping, five questions are designed to probe into the students' attitude.

Table 5. Attitude towards its role in understanding idea and structure

Attitude	Simple Size	Percentage
Yes	59	82%
Not sure	13	18%
No	0	0%

In respect of its role in helping understand the idea and structure, Table 5 reveals that 82% of students agree that mind mapping has a positive attitude in helping them obtain the main idea and structure of those articles, and only 18% are not sure of its role. The data indicates that a vast majority of students recognize its effectiveness.

Table 6. Whether Mind Mapping can shorten the time of preview

Attitude	Simple Size	Percentage
Yes	44	61.1%
Not sure	24	33.3%
No	4	5.6%

The data of question 6 reveals that 68.06% of students need one hour to preview one article, 6.94% need two hours and 1.39% need three hours. Table 6 demonstrates that 61.1% of students hold that mind mapping can shorten the time of preview, and 33.3% are not sure of it. The data shows that a vast majority of students agree that Mind mapping can facilitate their understanding of those articles and thus shorten the time of preview.

Table 7. Whether Mind Mapping facilitate you to understand the logical relationships

Attitude	Simple Size	Percentage
Yes	64	88.9%
Not sure	7	9.72%
No	1	1.39%

Table 7 reveals that 88.9% of students agree that Mind mapping can facilitate their understanding of the logical relationships between paragraphs; 9.72% are not sure, and only 1.39% hold a negative attitude towards its effectiveness.

4.4. Students' Suggestions on Optimizing Mind Mapping for Future Study

As for students' suggestions on optimizing mind mapping for future use, two questions are designed to obtain their

opinions.

Table 8. Whether or not to apply Mind Mapping in the next academic year

Attitude	Simple Size	Percentage
Yes	51	70.8%
Not sure	19	26.4%
No	2	2.78%

Table 8 shows that 70.8% of students recommend applying Mind mapping in the next academic year, and only 2.78% of them refuse to use it. The data demonstrate that more than half of the students benefit from Mind mapping, so it is understandable that they are willing to use it in the future.

Table 9. Whether or not to apply mind mapping in course of writing

Attitude	Simple Size	Percentage
Yes	46	63.89%
Not sure	22	30.56%
No	4	5.56%

Table 9 reveals that 63.89% students are willing to apply mind mapping to the writing course, while only 5.56% students are unwilling to do so. The reason for their willingness to use it is that if they can grasp the structure and logical relationships of those articles, they can organize their own writing reasonably.

5. Findings

The analysis of the questionnaire shows that the application of Mind mapping in Comprehensive English Course is effective on the whole. The vast majority of the respondents hold a positive attitude towards Mind mapping, so they apply Mind mapping to their preview and submit all the assignments. At the same time, more than half of the students are willing to apply Mind mapping to the next academic year and writing courses. They all agree that the application of Mind mapping can help them understand the logical relationships between paragraphs, grasp the structure and the idea that the author wants to express, thus shorten the preview time.

However, some problems are also reflected in the analysis process. First, some participants are reluctant to apply Mind Mapping to their preview, because it is very difficult for them as beginner, and they hope that the teacher can guide them to master it step by step. Second, because those articles are different from those, they are familiar with, there is a coherent logical relationships in the paragraphs. It would be better if the teacher could explain the structure before giving them assignments.

6. Recommendations

6.1. Recommendations on the Application of Mind Mapping to other courses

As is shown in the date of this research, Mind Mapping is effective in helping students grasp the structure and logical relationship within paragraphs, and understand the idea

hidden in the article. Therefore, it is suggested that Mind Mapping should be applied to other English courses for business English majors, such as reading and business writing. As for the reading course, it contains a large number of challenging articles of 7-10 pages long, which require students to have a high reading ability. The course of Business writing requires students to write articles with coherent logical relations in order to be convincing. Through Mind Mapping, the teacher can achieve his teaching objectives, and students can master the skills of completing the tasks assigned by teacher.

Mind Mapping can also be applied to courses for general English majors, such as Linguistics, Stylistics, and Literature courses. Because these courses contain a great deal of information, students to find the logic within them. With the help of Mind mapping, students can better acquire the knowledge of these courses.

6.2. Recommendations on Future Research on Application of Mind Mapping

In view of the fact that this empirical research has only been conducted for one academic year, it is strongly recommended that empirical research on Mind mapping to English teaching should be applied for a long period.

In addition, diversified research methods can also be introduced to this research. For example, both qualitative and quantitative methods can be used, such as interview and group survey. In this way, more data on the effectiveness of the application of Mind Mapping can be obtain and enrich this research field.

6.3. Recommendations for Teachers with regard to the Application of Mind Mapping

As for the teachers aiming to conduct this research, the first step is that they should spend a lot of time training students to acquire the basic skills of drawing Mind Mapping.

In addition, for the first and the second assignment, the

teacher should explain the structure of the article first, and guide them to draw mind Map in class. When they finish their drawing, the teacher divides the class into several groups, compares their maps with others and learns from each other. When students obtain the steps of drawing mind map, the teacher can make them finish the assignment out of class. Finally, it is up to teachers and students to decide which article to choose from the textbook to draw the mind map. If students can get involved in making decisions, their initiative can be stimulated and more efforts can be devoted to this application.

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