

Research on Using Mind Maps to Enhance Reading and Writing Skills: A Case Study of the "Working the Land" Reading and Writing Lesson

Xuemin Zhang

School of Foreign Languages, Liaocheng University, Liaocheng, Shandong, China

Abstract: The General High School English Curriculum Standards (2017 Edition, Revised in 2020) outline new objectives for high school English education, emphasizing the cultivation of core competencies in English. Additionally, recent trends in college entrance examination questions indicate a shift toward "less focus on grammar, more on discourse." In this context, students' discourse reading and comprehension skills have gained increasing attention, and how to effectively improve their reading and writing abilities has become a key research topic for educators and researchers. Based on domestic and international educational psychology research and empirical studies, this research explores the role of mind maps in enhancing students' reading and writing skills. Through theoretical analysis and lesson design, it examines how to appropriately use mind maps in reading and writing lessons as an effective tool for discourse analysis and writing.

Keywords: Mind Map; Senior High School; Reading; Writing

1. Introduction

According to the General High School English Curriculum Standards (2017 Edition, Revised in 2020), high school students are expected to develop core competencies in English, including language proficiency, cultural awareness, thinking skills, and learning abilities. Language proficiency encompasses the ability to understand and express meaning through listening, speaking, reading, writing, and viewing. Among these, reading and writing, as the most frequently assessed skills, play a significant role in students' language development and academic performance. Under the core competency of learning ability,

students are expected to master certain English learning strategies to improve efficiency.

At a micro level, the curriculum standards emphasize discourse-based teaching, requiring teachers to guide students in fully utilizing discourse knowledge to effectively acquire and convey information, express opinions and attitudes, and achieve the goal of using language to communicate with others. These requirements ultimately manifest in students' abilities to comprehend English discourse and organize their writing. In practical teaching, educators often observe that high school students struggle with reading comprehension, such as "failing to grasp key points," and exhibit a tendency toward "translation-based writing." For example, students may read English texts word-for-word, seeking direct Chinese equivalents, understanding each sentence but missing the main idea and implied attitudes. In writing, they often compose in Chinese first and then translate it into English. These habits lead to issues such as "understanding the words but misinterpreting the meaning" in reading and "Chinglish" or rigid expressions in writing, hindering the development of English thinking and language proficiency. Moreover, high school students often approach English reading and writing with a utilitarian mindset, prioritizing "scoring high" or "using advanced vocabulary and sentence structures" over genuine emotional expression or deep reflection on the text, which impedes the cultivation of critical thinking and independent learning skills. Mind maps, as a visual thinking tool, use graphics, colors, and codes to present the process and results of thinking, making the thought process more intuitive and understandable. Applying this tool to English reading can help students grasp the overall structure of a text, filter and extract key information, and understand the

organizational logic and central ideas. In writing, mind maps can assist students in brainstorming around a theme, forming clear and logical thought chains, strengthening coherence within the text, and enhancing its overall quality, thereby improving both reading and writing skills and divergent thinking.

2. Literature Review

2.1 The Concept and Theoretical Basis of Mind Maps

Mind maps, also known as "brain maps" or "mental maps," were proposed by British psychologist and educator Tony Buzan in the 1960s as a thinking tool. This method combines graphics and text, engaging both hemispheres of the brain. It organizes themes hierarchically in a "center-to-periphery" manner to clarify logical relationships and visualize thinking. The design and use of mind maps align with the constructivist view of students, learning, and teaching, acknowledging students' prior knowledge and experiences as foundations for new knowledge construction, affirming their central role in learning, and positioning teachers as guides and facilitators.

2.2 Previous Research on Mind Maps in English Reading and Writing Instruction

In English reading, Chinese scholars Liu and Li (2017) proposed principles for applying mind maps in high school English reading instruction, emphasizing student autonomy before class, teacher-student interaction during class, and consolidation after class. They also conducted a semester-long experimental study, demonstrating that mind maps significantly improved students' academic performance.[1]Teacher Lan (2018) highlighted the role of mind maps in helping students extract main ideas, categorize information, and review language knowledge.[2]Scholar Sun (2018) proposed strategies for cultivating high school students' English reading thinking skills, noting the benefits of mind maps in enhancing comprehension, memory, and engagement with the author.[3]Advanced teacher Zeng (2019) pointed out that mind maps help students better grasp text genres, structures, and contexts.[4]

In English writing, scholar Li (2013) outlined principles for creating mind maps in English teaching: "clarify the center, highlight key points; use association to diverge thinking; ensure clarity and hierarchy; adapt to personal style." She suggested a three-step process for using mind maps in high school English writing: (1) establish a theme based on the topic and create an outline mind map; (2) select appropriate viewpoints, words, and sentences; (3) teach students to use common linking words or phrases naturally in their writing.[5] Advanced teacher Han (2013) conducted a semester-long experiment, concluding that mind maps greatly stimulate students' interest and improve their English learning abilities.[6] Scholars Chen and Ma (2017) found through empirical research that mind maps positively enhance students' English writing skills and recommended their widespread use in writing, reading, and vocabulary instruction.[7] Scholar Yao (2019) emphasized the role of mind maps in fostering divergent thinking, constructing logical writing structures, and optimizing classroom interaction.[8] Scholars Zhang and Wang (2020) highlighted the advantages of mind maps in innovating teaching design, enhancing thinking skills, and stimulating writing interest, proposing strategies such as thorough student orientation, controlled classroom pacing, and post-activity reflection. [9] Scholar Zhao (2023) analyzed the application of mind maps in English writing instruction using the 2021 New College Entrance Examination English Paper I as an example, discussing their strengths and limitations. [10]

3. Lesson Design

Based on the above theoretical and practical research, combined with specific student and classroom conditions, the following teaching process and activities are designed to incorporate mind maps into the classroom as Table 1.

4. Conclusion

Based on the current state of English learning among Chinese high school students and the characteristics of mind maps, we can affirm the role of mind maps as an auxiliary learning tool in enhancing students' reading and writing abilities. However, during the implementation of teaching, educators must pay attention to

the following aspects:

Table 1. "Working the Land" Reading and Writing Lesson Plan

Aims (core competencies)	At the end of the section, students will be able to: Analyze and identify the advantages and disadvantages of “green food” referred in the passage; Apply learning strategies such as mind map and brainstorm to develop writing; Persuade customers to buy “green food” by using sentence structures “You need to...” “It’s better to...” ,etc.	
Textbook analysis	Topic of Unit2:Working the Land This period mainly deals with reading and writing, students are expected to know how to analyze and express the advantages of “green food” and learn to persuade customers to buy them. The teacher is expected to enable students to master some writing skills of persuading.	
Students analysis	Students are in Grade 2, Senior High School. Most of them have learned about 1000 words and they have learned some sentence structures to comment on things in the former periods, therefore it is not hard for them to comprehend the passage. But their writing should be improved by organizing the structures and expressions.	
Teaching resources	Teaching methods: Situation Language Teaching Learning methods: Mind map and Brainstorm Materials: Textbook, video and powerpoint.	
Key points	To improve the reading and writing skills; To know how to advertise your own product.	
Difficult points	To learn how to deal with others query and persuade them.	
Teaching process		
Teaching links	Activities	Purpose
Lead-in	Step 1:Greeting Step2: Play some food advertisements videos in English.	Attract Ss’ attention and inspire their different viewpoints towards advertisements.
Pre-reading	Create a situation: If you are a farmer eager to sell your product.	Create the situation to involve Ss’ emotion in and arouse their interest.
While-reading	Ask Ss to find out the advantages and disadvantages of “green food” and draw a mind map.	Ss learn to recognize and analyze the advantages and disadvantages of the product by drawing mind maps.
Post-reading	The teacher choose a kind of “green food” as her own product and persuade Ss to buy it according to the mind map she drew.	Learn what aspects should be taken into mind map and some persuasive skills.
Pre-writing	Create a situation : Teamwork: Every team chooses a kind of green food as their product and they should discuss and draw the mind map to advertise their green food and persuade customers; The other Ss are customers and they can query other team’s product ,finally they will vote for the product; The team who wins most votes will be the biggest supplier.	To involve Ss’ emotion in the writing; Ss learn to write recommend and argument with the help of mind map.
While-writing	Step1: Every student write about the recommendation of the “green food” their team chose. Step2: Peer editing between team members.	Lead Ss to produce the writing work and improve the skill of self-revising.

First, teachers should guide students to familiarize themselves with mind maps as a learning aid and encourage them to actively connect the tool itself, as well as the new

knowledge embedded within the mind maps, with their existing experiences and knowledge. Otherwise, students may struggle to skillfully use mind maps as a "ladder" for reading and

writing.

Second, teachers need to provide students with a certain degree of autonomous learning space, allowing them to choose mind maps that suit their thinking patterns and personal characteristics. They should also permit students to create personalized mind maps.

Third, in the process of using mind maps for reading and writing training, it is essential to emphasize communication and interaction between teachers and students, as well as among students themselves. Additionally, self-assessment and peer evaluation should be conducted based on whether the mind maps cover complete information and whether their logical hierarchy is clear. Continuous reflection and improvement are necessary to ultimately maximize the effectiveness of mind maps in enhancing reading and writing skills.

References

- [1] Liu Lina, Li Hongmei. Research on the Application of Mind Maps in High School English Reading Teaching. *Theoretical Observation*, 2017, (04): 142-144.
- [2] Lan Xiang. High School English Reading Lesson Based on the Cultivation of Thinking Skills. *Basic Foreign Language Education*, 2018, 20(04): 63-68+110.
- [3] Sun Jing. Strategies for Cultivating High School Students' English Reading Thinking Skills from the Perspective of Core Competencies. *Educational Theory and Practice*, 2018, 38(32): 51-53.
- [4] Zeng Donghong. The Application of Mind Maps in the Interpretation of High School English Reading Texts. *Journal of Fujian Education Institute*, 2019, 20(12): 43-44.
- [5] Li Yueyao. The Application of Mind Maps in High School English Writing Teaching. *Education and Teaching Forum*, 2013, (50): 226-227.
- [6] Han Ying, Bao Jiping, Wu Aihua. Experimental Research on the Promotion of High School English Writing Teaching by Mind Maps. *Value Engineering*, 2013, 32(30):266-268.DOI:10.14018/j.cnki.cn13-1085/n.2013.30.083.
- [7] Chen Xue, Ma Dan. The Application and Enlightenment of Mind Maps in High School English Writing Teaching. *Journal of Heilongjiang College of Education*, 2017, 36(11): 78-80.
- [8] Yao Haiyan. The Application of Mind Maps Based on Constructivism in High School English Writing Teaching. *Journal of the Chinese Society of Education*, 2019, (S2): 78-79+84.
- [9] Zhang Ying, Wang Xiaoping. Exploration of the Application of Mind Maps in High School English Writing Teaching. *Southern Journal*, 2020, (03): 97-99.
- [10] Zhao Xuanyan. The Application of Mind Maps in High School English Writing Teaching: Taking the 2021 New College Entrance Examination English Paper I as an Example. *English Square*, 2024, (16): 124-128.DOI:10.16723/j.cnki.yygc.2024.16.031.