

# The Construction of Mobile Wisdom in English Teaching Based on Mind Mapping

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**ABSTRACT.** *Mind mapping is an effective graphical thinking tool for expressing divergent thinking. The scaffolding teaching mode of mind map will strengthen the connection between semantic knowledge and image knowledge in listening, speaking, reading and writing in the overall English teaching process. It promotes the cognitive structure of learners and enables them in a active status. It help them acquire new knowledge with old ones and promote their the methods of learning with the methods teaching. What's more, it also help learners achieve constructive learning, cumulative learning, collaborative learning and reflective learning, and finally achieve the real and meaningful language learning.*

**Keywords:** *mind map, construction, English teaching*

## 1. Introduction

Cognitive theory holds that learners are the subject of information processing and information processors that use various strategies to store and extract knowledge[1]. The learner actively construct the meaning of knowledge based on the existing cognitive structure and under the interaction with the external environment[2]. The learning process of English learners is the meaning construction of linguistic knowledge. The teaching model of constructivism emphasizes the teacher as the organizer, the instructor, the helper and facilitator of the teaching process[3]. In the process of designing the teaching activities, it is vital to take the students as the center, the cognitive structure of the students as the starting point, students' self-construct of a good cognitive structure as the end point. The measurement of teaching quality lies in the improvement of the learner's ability to construct meaning, rather than the ability to demonstrate the teachers' thinking process[4].

Mind mapping is a tool for organizing and expounding the expression of knowledge with diagrams. It is also a graphical representation of the process of knowledge and thinking[5]. It usually puts the relevant concepts of a topic into symbols such as circles

or boxes, and connects the related concepts with links, and links the meanings between the two concepts. The chart structure of the mind map includes nodes, lines, and conjunctions[6]. A node is a concept placed in a circle or box. A line indicates the meaning connection between concepts, and a conjunction is a text label associated with an expression node[7]. Using mind mapping to express knowledge is a deductive teaching method that stimulates the brain's potential. It uses the words, logic, numbers from the left brain, and it also uses the color, image, symbol, spatial consciousness from the right brain, etc[8]. Different diagrams provide different visual representations of the knowledge structure.

In the process of English teaching, this paper uses the mind map to improve the efficiency of English learning, improve the initiative of students to learn English, and improve their independent English learning ability. In the end, the English teaching method and the method of students' self-learning can be better improved, as well as the English teaching can be constructed based on the mind map to form a systematic theory and guidance method.

## **2. Mind map and its theoretical basis**

The mind map is essentially the natural expression process of thinking. It presents the invisible and intangible thinking structure and path in a graphical way, making people's thinking process clear and visible. It is a more productive expression than words. The mind map is derived from the image interpretation of the text, which in turn affects people's understanding of the text, which makes up for the lack of individual expression of words and images, and combines the two to make learning a creative thinking activity.

### **2.1. Elements of the mind map**

#### **(1) Image**

The mind map itself is an image. The image is more expressive than the text. The so-called "one picture is worth a thousand words" because the image uses a variety of brain skills such as color, line, vision, and dimension. If you can add a picture to the text when expressing or remembering the same thing, the information capacity will increase much more than just using words. Therefore, when making a mind map, you can use the image as much as possible.

#### **(2) Keywords**

The so-called keywords should be specific, meaningful, and able to express the core content of the word. Each keyword is relatively independent, because a single word

makes the mind map more flexible and more conducive to creating novel ideas, while phrases and sentences can easily stifle such sparks. Therefore, Tony Bozan has repeatedly emphasized that when making mind maps, try to avoid a lot of words. It is best to use keywords instead of sentences,, summarize the largest amount of information that is easy to recall with the least words.

### (3) Branch

Each branch of the mind map is like the main branch of a big tree, and it gradually spreads more complex sub-trees related to itself, each branch representing a set of content related to the central theme. This divergent tree structure makes the presented things more three-dimensional. The number of branches also shows the amount of knowledge reserves, the strength of cognitive ability, and the strength of imagination.

### (4) Color

Mind maps emphasize the use of color to distinguish between different content. "Different colors produce different signals on the optic nerve, which helps the brain distinguish between different information and process the information separately without interfering with each other." Flexible application of multiple colors is more impressive than only use just one color, avoiding visual fatigue caused by a single color system. Moreover, red, orange and other bright colors will make the mind map have a sense of vitality and jumping, greatly stimulate the brain, thereby improving creativity and memory.

## ***2.2. Characteristics of mind maps***

Tony Buzan believes that mind maps have four basic characteristics:

(1) The focus of attention is clearly concentrated on the central image. The central theme of the mind map is best represented by images, which attracts attention from the eyes and brain, trigger various associations, and establish a balance between visual and linguistic cortical skills.

(2) The backbone of the theme is distributed as a branch from the central theme to the surroundings. The mind map is similar to the form of brainstorming network. It gradually develops from the center of the a blank sheet of paper. With the extension of its own ideas and expansion to form a unique design, the open tree structure allows people to think outside the framework without limiting the generation of creative ideas. .

(3) The branch consists of a key image or keyword, and the less important topic is also represented in a branch form, which attached to a higher-level branch. The tree structure of the mind map not only clearly shows the hierarchical relationship between the central theme and other branch themes, but the multi-directional and divergent form

that conforms to the brain's radiological thinking rule, and does not hinder the brain's thinking.

(4) Each branch theme forms a node structure with each other to establish a memory link.

According to Tony Buzan's description of the mind map features, a mind map of the features the mind map is created, as shown in Figure 1:

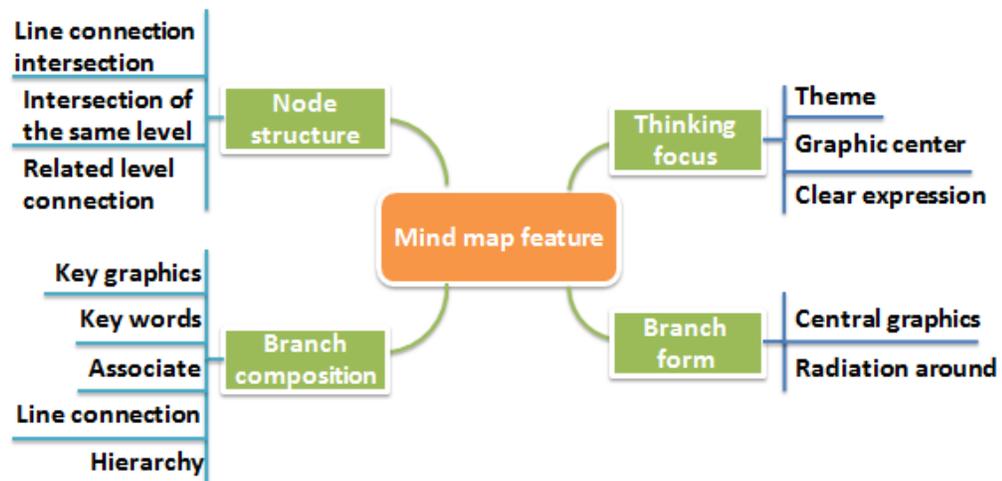


Figure.1 Characteristics of mind map

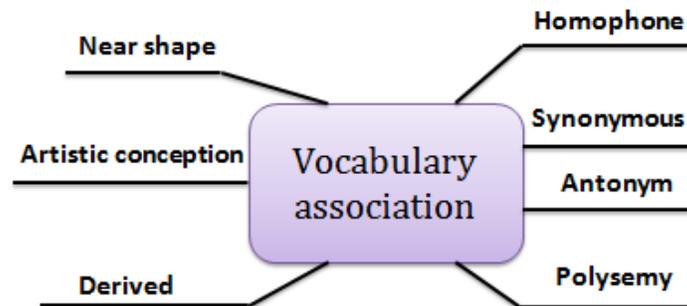
Tony Buzan believes that mind mapping is an existing visual and vivid cognitive feature model that explicitly and vividly reveals the hidden knowledge and thinking in the human brain and visualizes the current knowledge structure and guidance, so that learners can see the implicit and explicit connection between knowledge, form an information network in the mind, and finally become their own theoretical structure of knowledge through the internalization of the brain, and finally realize the so-called meaning construction in the course of our learning. .

### 3. Application of mind map in English teaching

As we all know, words are the king of English learning. The reason why many students are not good at English because of the lack of vocabulary. Word memory contains all-round memory of pronunciation, shapes, and meanings of words. The traditional method of memorizing words, that is, the rote memorization method, mostly

stays at the angle of identification and specific memory. The specific memory words refers to memory words according to the pronunciation of the word, that is, the phonetic symbol, and the form of the word. However, the splitting of words and the steps of remembering according to the characteristics of the words are hardly involved. Therefore, the associative memory method of words and the corresponding review suggestions are the kings of memory words.

The order of memory is the basis for building super memory. The use of the brain like the arrangement and application of file cabinets. By placing the information messages in their corresponding folders, the more regular and organized the information is placed, the easier it is to use it when needed. The orderly order can effectively help learners to regain information. The mind map is the tool used in the association analysis. It uses a variety of associations to help us put the knowledge together in an image, just like stringing pearls into a string of necklaces and storing them in a certain of the human brain for a quick extraction when needed in the future. Association is divided into some types of imagination of words, such as homonyms, synonyms, polysemy, antisense, likeness, artistic conception and derivation. Therefore, a lot of methods for memorizing words are derived. The most commonly used method are the shape-distinguishment method and homophonic associative memory method. As shown in Figure 2.



*Figure.2 Word memory method classification*

When learning English, most people often find that English vocabulary is so numerous and complex that it is difficult to know where to start and where to start classifying. According to the mind map series, the most effective way for a person to remember something is to think of it as an image, and then combine that image with what the learner already knows.

According to the introduction of the mind map, if the students feel the five senses and the movement, the more they perceive the things they want to recall, the more they can strengthen and improve the students' memory, and they can instantly find and retrieve information from the brain. The more a person moves, the more the brain develops, so exercise can strengthen the brain's ability and possibilities to remember things. In fact, any word is an image. Every word is placed in your brain. You can make it vivid through perceptual imagination. By marking words, you can make these images of the representative words move. Exercise can help the human brain to connect to the story, and it can make the order of the data characteristic so that it can be easily remembered by the learner. And they can remember the words through the Lenovo story.

Through the above identification, students do not feel dull when they remember words. Most importantly, they can improve their interest in remembering words. When students learn to draw mind maps by consonants and vowels, they can stimulate their interest in learning English words. Students also master the basic rules of pronunciation and spelling of English words. It is able to remember the words, that is, the words can be read, the listening can be written, thus breaking through the first major difficulty in English learning: the spelling of vocabulary.

All knowledge that is relevant to the word that needs to be remembered will be stored in the same location where the word is for future extraction. Take right for example (as shown in Figure 3).

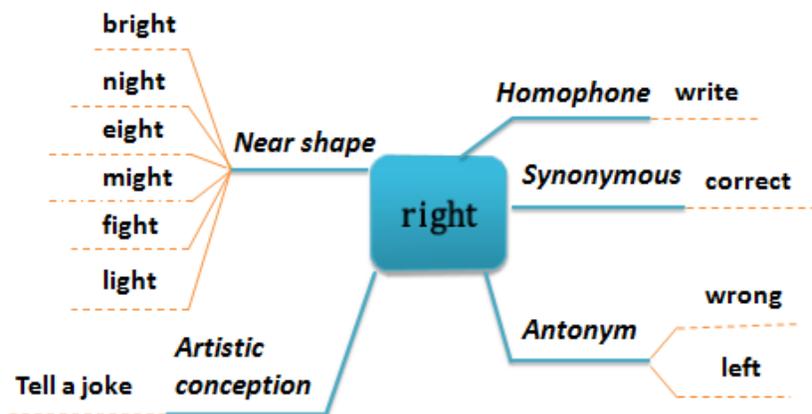


Figure.3 Mind map example

The homonym of right is write; the synonym is correct; the antonym here is two simple words wrong and left; the near-word is ending with ight, like bright, night, light, etc. The use of the word right needs to be transformed in different contexts and moods. To clearly and clearly analyze the correct and authentic usage of the word right in the sentence.

Of course, there are a lot of words that we can find out the meaning of words by using the method of form division. Such as adept, adopt, adapt. These three words are very similar, but the difference lies in the three letters, e, o, a, so we only need to distinguish the three letter, which we can distinguish these three words. The letter e is very similar to the diver standing on the diving board. We think of the famous diving athlete Guo Jingjing. She is very skilled, so the word adept means Skilled. As for o in adopt, we can think of a cute look like a child's beeping mouth. Everyone wants to adopt a cute child . So the meaning of adopt has the meaning of adoption. Finally, a in adapt can be imagined as a small tadpole, and its living ability to adapt is particularly strong. This word has the meaning of adaptation. Of course, the above difference method is only the author's own association, learners can remember more words through their rich thoughts. This is distinguishment the memory method that uses the left and right brains to fully memorize words.

The homophonic associative memory method is also a full advantage of the functional advantage of the learner's right brain. For example, the word ponderous ,whose pronunciation like a fat man very hard to read. Since a person is fat enough to walk, he must be inflexible and cumbersome. So the meaning of this word is cumbersome as a adjective. Another example is the word boff, which sounds like a rich man. If a person gets rich overnight, he must be very happy. This word is a noun meaning laugh.

Mind mapping is the ultimate thinking tool for organizing work. According to the needs of reading itself, the mind map can outline different types of schemas. It is mainly used in the following areas:

- ① A comparison of people, time, place, events, opinions, narratives, and other areas, which is integrated them into the brain like a movie.
- ② Describe the central ideas, concepts of knowledge materials and the knowledge information in association knowledge and memory.
- ③ Around the central words or main concepts, extract and describe adjectives that about the nature of people, opinions, time, etc., and expand the readings to further visualize the reading.
- ④ Analyze the structure of the article according to the left-to-right layering, and clarify the relationship between the main structure of the object and the various hierarchical structures.

⑤ Sort the complicated information to understand the relationship between the main level and the secondary level of the things, such as the sequence of events, related data, occurrence process, main steps, and so on.

⑥ Make an analogy of the more complex readings content level.

⑦ Taking the event as the central point, in-depth analysis of the cause of the event and the certain impact of the event, so as to understand the cause of the occurrence of the event and the relationship between the results, to help identify the right and wrong of things.

⑧ Conduct a classification of emissions for different things and opinions.

In the process of teaching practice, everyone believes that there is a common connection between the characteristic nature of mind mapping and the reading comprehension part of English namely image and visual visibility. In theory, mind mapping is a natural structure that diverges from the reading center and completes the process that conform with language in the brain. It is also a rule that follows simple and clear and is easily accepted by the brain. In terms of image, it is a chart with high organizational ability drawn by lines, symbols, words and images. Reading can accelerate the learners' intuitive understanding and cognition of the content of the reading content by adopting a form of drawing a map schema, that is, understanding of hierarchy and extensibility.

#### **4. Conclusion**

In English teaching, guided by teachers, the teaching method of mind mapping is student-centered, which is a teaching mode centering on students' learning. Teachers are no longer the masters in the classes, and students can give full play to their subjective initiative. The atmosphere of classes should be relaxed and harmonious, and free and smooth communication between teachers and students or among students can be achieved. This kind of teacher-student cooperation in the construction of the concept of dimensional maps can fully understand the knowledge. Teachers and students are a close-knit whole. Teachers and students express their opinions and understand the knowledge from different angles to develop the cognitive aspects of learners. It also proves that learning is essentially a process of knowledge construction, and it is proactive rather than passive. Students are the subject of learning. The process of acquiring knowledge is not passive to reflect the objective world, but an active construction process in coordination development with the environment based on the knowledge that they have learned by themselves.

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