Research on the Application of Mind Mapping in English Teaching in Primary Schools

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Abstract: This study discusses the application of mind mapping in English teaching in primary schools. Through literature review and case analysis, it is found that mind mapping plays an important role in improving the effect of English teaching in primary schools and students' interest in learning. Specifically, mind mapping can be applied to vocabulary, grammar, reading and writing teaching, which can help students improve their English listening, speaking, reading and writing ability, stimulate their interest in learning and cultivate their autonomous learning ability. Through the rational use of mind mapping, teachers can help students better master basic knowledge such as vocabulary and grammar, and improve their reading and writing abilities. At the same time, mind mapping can also cultivate students' thinking ability, autonomous learning ability and creativity. Therefore, in actual teaching, teachers should flexibly use mind maps to assist teaching according to the teaching content and the actual situation of students, so as to improve the effect and quality of English teaching in primary schools. Generally speaking, mind mapping has a broad application prospect in primary school English teaching, which is of great significance to improve the quality of primary school English teaching and students' English application ability. This study has extensive application value.

Keywords: Mind Mapping; Primary School; English Teaching; Quality of Teaching.

1. Introduction

With the deepening of globalization, the importance of English as an international language has become increasingly prominent. In response to the national policy on English education, improving the efficiency and quality of English teaching in primary schools has become a top priority [1]. In recent years, more and more researches pay attention to the application of mind mapping in English teaching in primary schools [2]. As a visual thinking tool, mind map has been widely used in English teaching in primary and secondary schools. Mind mapping visualizes knowledge through graphics, words, colors and other elements, which helps to stimulate students' interest and enthusiasm in learning and cultivate their autonomous learning ability [3]. In addition, mind mapping can help students better understand and remember English knowledge and improve their English application ability and comprehensive quality [4]. However, there are still many problems in primary school English teaching, such as single teaching content, outdated teaching methods and insufficient teaching resources [5]. These problems limit the further application of mind mapping in English teaching in primary schools.

The purpose of this study is to explore the application strategies and practical methods of mind mapping in English teaching in primary schools, with a view to improving students' English application ability and comprehensive quality. Specifically, this study will explore the application effect of mind mapping in primary school English vocabulary, grammar, reading and writing teaching through case study. It is of great significance to improve the efficiency and quality of English teaching in primary schools. First of all, through the application of mind mapping, students' interest and enthusiasm in learning can be stimulated and their autonomous learning ability can be cultivated; Secondly, mind mapping can help students better understand and remember English knowledge, improve their English application ability and comprehensive quality, so as to promote the reform and development of English teaching in primary schools.

2. Definition and Characteristics of Mind Map

Mind mapping is a tool to express thinking in a graphical and visual way [6]. It shows the thinking process and knowledge structure in an intuitive way by using various elements such as graphics, marks and lines, helping people to better understand and remember knowledge. The characteristics of mind map are as follows: (1) Graphical: Mind map presents knowledge in a graphical way, which is helpful for students to transform abstract thinking into visual perception of images and improve the effect of understanding and memory. (2) Visualization: Mind mapping visualizes knowledge through various marks, colors, shapes and sizes, helping students to understand the internal relations and logical structure of knowledge more intuitively [7]. (3) Systematization: Mind mapping takes the central theme as the core, organically links all knowledge points together, and forms a complete knowledge system to help students master knowledge comprehensively and systematically. (4) Individualization: Each student or teacher has different ways of thinking and characteristics. Mind maps can be individually designed to meet the learning needs of different individuals. (5) Dynamic: Mind mapping is a dynamic presentation, which can be adjusted and modified at any time according to the learning progress and needs, so as to keep its synchronization with the teaching practice.
3. Analysis of the Applicability of Mind Map in Primary School English Teaching

3.1. Characteristics of English Subject

As a language discipline, English has the following characteristics: (1) Comprehensiveness and practicality of language skills: English focuses on cultivating students' language skills in listening, speaking, reading, writing and translation, which are interrelated and mutually reinforcing. Students need to master the basic knowledge and skills of English language gradually through a large number of language practice activities. (2) The accumulation and development of language knowledge: English subjects require students to master a large number of basic knowledge such as vocabulary, phrases, grammar and sentence patterns, and also need students to understand the culture, history, society and technology of English-speaking countries [8]. Students need to constantly learn and accumulate, and gradually expand and improve their English knowledge. (3) Diversity and flexibility of language learning: There are many ways to learn English, including classroom learning, extracurricular reading, listening training and oral communication. Students can learn English from different angles and aspects through different learning methods to improve their learning effect and interest. (4) Objectivity and subjectivity of language evaluation: The evaluation of English subjects includes both objective standardized tests and subjective oral and writing evaluations. This evaluation method can comprehensively evaluate students' English knowledge and skills, and also promote students' autonomous learning and personalized development.

3.2. The Relationship between Mind Mapping and English Learning

As an effective learning tool, mind mapping plays an important role in English learning [9]. It can organize complex knowledge in an intuitive and orderly way, help students better understand and remember knowledge, and improve English learning effect. This paper discusses the relationship between mind mapping and English learning from the following aspects:

(1) Mind mapping helps to improve English vocabulary learning

In English learning, vocabulary is the foundation and an important part of learning English. However, for primary school students, the vocabulary is large, the similarity is high, and the memory is difficult. Mind mapping can help students understand words from multiple angles and enhance the memory effect by organically combining words with their related meanings and usages. For example, when memorizing the words on the theme of "animals", students can be guided to use mind maps to connect various animals with their corresponding pronunciations, spellings and pictures to form a network diagram, which is convenient for students to study and remember systematically.

(2) Mind mapping helps to sort out English grammar knowledge

English grammar is another important link in English learning. However, for primary school students, grammar knowledge points are complicated and abstract, and it is difficult to learn. Mind map can classify and sort out grammar knowledge points through graphics, colors and other elements, and present complex knowledge points to students in an intuitive way to help students better understand and remember grammar rules. For example, when sorting out the grammatical knowledge point of "tense", students can be guided to use mind map to connect various tenses and their related usage and composition to form a tree diagram, so that students can see at a glance and deepen their understanding and memory of the knowledge point.

(3) Mind mapping helps to improve English reading comprehension

English reading is an important way to cultivate students' language literacy and one of the important goals of English learning. However, for primary school students, the length of reading materials is long, there are many new words, and it is difficult to understand. Mind mapping can be presented to students in the form of charts by extracting key information and key words from reading materials, which can help students better understand the theme and details of reading materials. At the same time, mind map can also guide students to analyze and solve problems according to the logical structure of the article, and improve students' reading comprehension ability and reading speed.

(4) Mind mapping helps to improve students' English writing ability

English writing is the highest level of English learning and a skill that students must master. However, for primary school students, writing is difficult, and many students lack ideas and materials when writing. Mind mapping can help students expand their writing ideas and accumulate writing materials by presenting writing themes, main points and common expressions. At the same time, mind map can also guide students to arrange writing order and organize language according to the logical structure of mind map, so as to improve the organization and readability of writing.

3.3. Advantages of Mind Mapping in Primary School English Teaching

As a visual thinking tool, mind mapping has the following advantages in English teaching in primary schools:

(1) Improve students' memory effect

Mind mapping organically combines English knowledge in the form of figures, words and colors. This combination of "images+words+colors" can help students better remember English knowledge. At the same time, the mind map presents the relationship between knowledge points in an intuitive way, so that students can better understand the connections and differences between knowledge, so as to better master and remember English knowledge.

(2) Help students master knowledge systematically

Mind mapping takes the theme as the core, classifies and combs English knowledge points according to different themes, and forms a complete knowledge system. Students can clearly understand what knowledge points are contained in each topic through mind mapping, as well as the connections and differences between various knowledge points. This can help students form a clear knowledge structure in their minds and master English knowledge better.

(3) Improve students' thinking ability

Mind mapping can not only help students remember English knowledge, but also improve their thinking ability. By using mind map, students need to summarize, analyze and compare English knowledge points, which requires students to actively think and analyze problems. This positive thinking process can help students improve their thinking ability and
better understand and master English knowledge.

(4) Enhance students' interest in learning
The production and use of mind maps need students' active participation, and they can express their thinking and creativity through various graphics, colors and marks. This kind of interactivity and fun can enhance students' interest and motivation in learning, make students more willing to learn English knowledge and improve learning effect.

4. The Application of Mind Mapping in English Teaching in Primary Schools

Table 1. The use of mind maps in different teaching contents

<table>
<thead>
<tr>
<th>Content of courses</th>
<th>Usage of mind map description</th>
<th>Usage time (minutes)</th>
<th>Student participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vocabulary</td>
<td>For vocabulary learning, students design their own maps.</td>
<td>15</td>
<td>High</td>
</tr>
<tr>
<td>Grammar</td>
<td>Used for learning tenses and sentence patterns, students construct their own concept maps.</td>
<td>20</td>
<td>High</td>
</tr>
<tr>
<td>Read</td>
<td>Used for text structure analysis, students draw paragraph structure diagram.</td>
<td>10</td>
<td>intermediate</td>
</tr>
<tr>
<td>Writing</td>
<td>Used for writing ideas, students draw mind maps and write.</td>
<td>15</td>
<td>High</td>
</tr>
</tbody>
</table>

Table 2. Comparison of students' English learning before and after using mind mapping

<table>
<thead>
<tr>
<th>Learning situation</th>
<th>Before use</th>
<th>After use</th>
<th>Increase range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vocabulary size</td>
<td>100 words on average</td>
<td>200 words on average</td>
<td>+100%</td>
</tr>
<tr>
<td>Grammar application ability</td>
<td>Can basically use common sentence patterns.</td>
<td>Can use a variety of tenses and sentence patterns to express thoughts and feelings more accurately</td>
<td>+50%</td>
</tr>
<tr>
<td>Reading comprehension ability</td>
<td>Reading speed is slow and understanding ability is weak.</td>
<td>Reading speed is accelerated and comprehension ability is improved.</td>
<td>+30%</td>
</tr>
<tr>
<td>Writing ability</td>
<td>The writing content is empty, the logic is unclear, and there are many grammatical errors.</td>
<td>The writing is rich in content, clear in logic and less in grammatical errors.</td>
<td>+20%</td>
</tr>
</tbody>
</table>

As an international language, the importance of English is self-evident. However, due to the immature development of primary school students' cognitive ability and language ability, it is often difficult for them to understand and master the laws and skills of English. Therefore, how to improve the effectiveness and efficiency of English teaching in primary schools has become one of the urgent problems in the field of education. In recent years, mind mapping has been gradually applied to English teaching in primary schools and achieved remarkable results. This section will discuss the application of mind mapping in English teaching in primary schools. Table 1 shows the use of mind map in different teaching contents, and Table 2 shows the comparison of students' English learning before and after using mind map.

4.1. The Application of Mind Mapping in Vocabulary Teaching

Improve the effect of vocabulary memory: Using mind map, words and their related meanings and usages can be organically combined to form a network diagram, which is convenient for students to learn and remember systematically. For example, when memorizing words with the theme of "animals", students can be guided to use mind maps to connect various animals with their corresponding pronunciations, spellings, pictures, etc., so as to form a mind map and improve students' memory effect.

Building a word network: Mind mapping can help students build a word network, link old and new words together, and form a meaningful knowledge structure. For example, when learning new vocabulary, students can be guided to use mind map to connect new vocabulary with the vocabulary they have learned, forming a logically related vocabulary network. Improve vocabulary use ability: Through the context and semantic information of mind map, students can better understand and use vocabulary. For example, when using the verb "get", students can be guided to use mind maps to connect different uses of "get" with the context, which can help students better understand and use the vocabulary.

4.2. The Application of Mind Map in Grammar Teaching

Sorting out grammar knowledge: Using mind map, grammar knowledge points can be classified and sorted, and complex knowledge points can be presented to students in an intuitive way. For example, when sorting out the grammatical knowledge of "tense", students can be guided to use mind map to connect various tenses and their related usage and composition to form a tree diagram, which is convenient for students to understand grammatical rules at a glance. Understanding the structure of grammar: through the hierarchical display of mind map, students can understand the hierarchical relationship of grammar structure. For example, when explaining the composition of sentences, students can be guided to use mind maps to link sentence components with hierarchical relationships, which can help students better understand the structure of sentences. Using grammar rules: Through the context and semantic information of mind map, students can be helped to use grammar rules better. For example, when using the general present tense, students can be guided to use mind maps to connect different uses of the general present tense with the context, thus helping students to make better use of the tense.

4.3. The Application of Mind Map in Reading Teaching

Extract key information: Using mind map, we can extract...
key information and key words from reading materials and present them to students in the form of charts. For example, when reading a short passage about animals, students can be guided to use mind maps to extract the information about various animals, their characteristics and living habits involved in the article, so as to help students better understand the main idea and details of the reading materials. Sort out the structure of the article: through the hierarchical display of mind map, students can help sort out the structure of reading materials. For example, when reading an article with multiple paragraphs, students can be guided to use mind map to link the hierarchical relationship between each paragraph of the article and the theme, which can help students better understand the structure of the article. Improve reading speed: The generalization and summary of mind map can help students improve their reading speed. For example, when reading a long article, students can be guided to use mind map to summarize the main content and structure of the article, which can help students understand the main idea and content of the article faster.

4.4. The Application of Mind Mapping in Writing Teaching

Expanding writing ideas: Using mind mapping can present writing themes, main points and common expressions, and help students expand their writing ideas and accumulate writing materials. For example, when writing a composition about weekend activities, students can be guided to use mind maps to connect various activities and their related expressions, helping students to better organize writing materials and ideas. Arranging writing order and organizing language: Through the logical structure and hierarchical display of mind map, students can be helped to arrange writing content in a certain order and structure and organize appropriate language expression. For example, when writing an article introducing one's hometown, students can be guided to use mind maps to connect the theme, paragraph structure and related language expressions of the article, thus helping students to better arrange the writing order and organize the language. Improving writing quality: The generalization and summary of mind map can help students improve their writing quality. For example, when writing a composition, students can be guided to use mind map to summarize the main points, structure and related language expressions of the composition, so as to help students better check and correct the writing content and improve the writing quality.

5. Conclusion

Mind mapping has a wide application prospect in primary school English teaching, which is of great significance to improve the quality of primary school English teaching and students' English application ability. Through the research on the application of mind mapping in primary school English teaching, this study draws the following conclusions: First, as a visual thinking tool, mind mapping plays an important role in primary school English teaching. Secondly, mind mapping can effectively improve the effect of English teaching in primary schools and students' interest in learning. For example, in vocabulary teaching, mind map can organically combine words with their meanings and usages through graphics, colors and other ways to help students remember words and improve their memory effect. In grammar teaching, mind map can classify and sort out grammar knowledge points and help students understand and master grammar rules. In the teaching of reading and writing, mind mapping can help students to clear up their thinking about articles or writing and improve their reading and writing ability. In addition, mind mapping can also cultivate students' thinking ability and autonomous learning ability. In the future, we can further explore the application of mind mapping in English vocabulary teaching and improve the teaching effect of mind mapping.

References