

# *An Empirical Study on the Effect of Metacognitive Strategy Training on English Vocabulary Teaching in Chinese Junior High Schools*

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**Abstract:** During English teaching in Chinese junior high schools, exploring the application of advanced teaching methods and teaching ideas can promote the reform and innovation of English vocabulary teaching and be conducive to cultivate students' ability of learning English vocabulary. This paper, by adopting quantitative methods, aims to explore the effect of metacognitive strategy training on junior middle school students' acquisition of English vocabulary. It explores to make a preliminary evaluation on the practical value of metacognitive strategy-training, trying to shed a light on the English vocabulary teaching reform in junior high schools.

## 1. Introduction

The proposal and implementation of the new curriculum standards put forward new requirements for the reform of English vocabulary teaching in junior high schools. In the process of conducting teaching activities, English teachers in junior high schools should accurately position the teaching organization mode according to the teaching needs and formulate reasonable teaching organization scheme according to the changes of English Teaching activities in the new era. By consciously enhancing students' English learning ability, teachers can play a facilitative role in helping students master the correct learning skills of English vocabulary knowledge so as to gradually improve the comprehensive learning effect of it. In view of this, in the process of comprehensive reform of junior high school English vocabulary teaching activities in the new period, we should systematically study the basic situation of English vocabulary teaching in Chinese junior high school, explore the rational application of metacognitive strategies and comprehensively promote the high-quality organization and implementation of junior high school English vocabulary teaching.

## 2. Connotation and Main Content of Metacognitive Strategy Training

The concept of metacognition was first put forward by FLAVEL in the 1970s, which can also be called reflective cognitive strategy. Metacognition is an individual's self-regulation and control ability in the cognitive process of his own actual situation. Metacognitive strategy is a typical type

of learning strategy, which is the process of students' cognition of themselves, involving cognitive results and effective monitoring strategies. By dividing the content of metacognitive strategy, it is easy to find that metacognitive strategy training can be divided into three important parts: planning, monitoring and evaluation.

First, the planning strategy is to design the activity plan before the activity organization starts according to the specific target set in the cognitive activity, and analyze the expected results of the activity, select corresponding strategies according to the actual development of the activity, explore specific methods to solve the problem and predict and analyze the effectiveness of the strategy. The main contents involved in the planning strategy include the design of learning objectives, the browsing and analysis of reading materials, the formation of questions to be answered and the systematic analysis of students' learning tasks.

Second, monitoring strategy refers to that in metacognitive activities, learners accurately locate their own problems according to their cognitive goals, cognitive evaluations, cognitive feedback, etc. And the implementation effect of various cognitive activities and cognitive strategies is systematically explored on the basis of the effectiveness standard evaluation. The basic content involves tracking attention and asking questions about materials during reading, analyzing the examination monitoring time and speed, the organization and implementation of metacognitive activities that have an important impact on the development of English vocabulary teaching activities and assist English vocabulary teaching to achieve scientific development goals [1].

Third, evaluation strategy specifically refers to making a systematic examination of the basic results of metacognitive activities according to the actual situation of cognitive activities. If problems are found, corresponding measures should be taken to remedy and adjust them, or according to the examination of the effect of cognitive strategy, we can revise and improve the cognitive strategy in time so that the formulated cognitive strategy can assist cognitive activities and provide important assistance for the formulation of learning strategies and the improvement of learning effects.

### **3. Application of Metacognitive Strategy Training in English Vocabulary Teaching in Chinese Junior High Schools**

In the practice of English vocabulary teaching in Chinese junior high schools, in order to give a full play to the role of metacognitive strategy training, it is necessary to analyze the development of English teaching activities in combination with the organization and implementation of metacognitive strategy training, integrating metacognitive strategy training with specific English vocabulary teaching closely. Active vocabulary teaching guidance should be provided for students so that students can gradually master correct vocabulary cognitive methods and learning methods, improving the comprehensive learning effect of English vocabulary knowledge [2].

#### **3.1 Application of Planning Strategies to Prepare for Vocabulary Teaching Before Cognitive Activities**

According to the teaching requirements of metacognitive strategy training, junior high school English teachers should do a good teaching planning on the basis of English teaching content in the process of conducting English teaching activities, which helps students accurately position in properly adopting English learning strategies and the innovative methods. It can make preparations for English vocabulary teaching activities, and students can find the appropriate learning direction in English vocabulary learning practice. It can also effectively improve the comprehensive learning effect of English vocabulary knowledge and lay a foundation for the cultivation of junior high school students' English knowledge learning ability [3].

Taking “have” English vocabulary teaching as an example, according to the teaching requirements of metacognitive strategy training, English teachers should first determine the basic objectives of students’ cognitive words in “have” word teaching, and preset learning tasks to help students explore methods and skills related to learning the word “have”. In specific English teaching guidance activities, on the basis of analyzing the teaching needs of “have”, teachers require students to master the pronunciation and spelling methods of words according to the teaching objectives and to be able to form an intuitive understanding of the application of words. Teachers can try to choose the teaching method of mind map in planning strategies to assist students in learning vocabulary knowledge. In the aspect of mind map design, “have” can be seen as a real verb; the present completion time and the past completion time are formed by using “have” as auxiliary verb; “have” and “to” come together as the modal verb; “have” is used in some idioms to indicate fixed meaning; the auxiliary verb “have” and the past participle of the verb constitute the present completion time and the past completion time; “have” is used in the structure of “modal verb + have + past word segmentation” to indicate the meaning of speculation and hypothesis, etc. Then, with the help of mind map, students are promoted to determine the key points of learning. While mastering the basic knowledge of words, they can form a new understanding of the application of words and the deep understanding of words. In this process, the setting of planned tasks can improve the English teaching situation, promote the optimization of English vocabulary teaching, and make English vocabulary teaching present a new development state [4].

### **3.2 Application of Monitoring Strategies to Ascertain Vocabulary Learning Problems in Cognitive Activities**

In the process of students’ participating in the cognitive activities of English words, the application of monitoring strategy can help students make objective evaluation and judgment on their independent learning of English words in a timely and effective manner, and find out their own problems in the process of English learning so as to provide corresponding reference for the follow-up problem solving. In the practice of English vocabulary teaching, teachers should pay attention to the accurate positioning based on the situation of English vocabulary learning, consciously guide students to analyze their own English vocabulary learning and training situation based on the application of monitoring strategy, to ensure that they can adjust and optimize their own English vocabulary learning situation, improve the teaching effect of vocabulary learning [5].

For example, in the learning practice of “have”, under the guidance of metacognitive strategy, students can find that the method of applying mind map in the process of analyzing their own English vocabulary learning situation can not only make objective judgment on the basic learning situation of vocabulary knowledge in vocabulary learning but also carry out associative memory of vocabulary knowledge content and master the comprehensive learning method of vocabulary knowledge according to teachers’ teaching requirements. However, the understanding of the practical application of vocabulary knowledge is not deep enough, and even with the assistance of Mind Map method, students cannot effectively participate in vocabulary sentence-making training and situational training; it will restrict students’ learning of vocabulary knowledge, and even in sentences “Great changes have taken place the last three years in a small town”, and “They said that the Italian had stolen their ceramics”, students cannot make accurate judgments on the usage of “have”, and the problem of insufficient ability of knowledge application is obvious [6]. Therefore, according to the monitoring results, in the process of reforming English vocabulary teaching in Chinese junior high schools in the new period, we need to focus on improving and innovating the application of mind map method, and construct a new teaching organization activity system, so as to carry out targeted training on students’ English vocabulary learning ability.

### 3.3 Application of Evaluation Strategies to Improve Vocabulary Learning Methods after Cognitive Activities

In junior high school English vocabulary teaching practice, under the guidance of metacognitive strategy, English teachers should not only encourage students to participate in the cognitive activity of English vocabulary knowledge but also pay attention to improving and innovating vocabulary teaching strategies by referring to the effect of the cognitive activity, introducing new vocabulary teaching methods, and assisting the optimization of vocabulary teaching. Thus diversified training for students can be implemented to promote the realization of the expected goals in vocabulary teaching. Therefore, with the reference to the unsatisfactory situation of vocabulary teaching revealed in the monitoring strategy, it is necessary to improve and innovate vocabulary learning methods based on the formulation of evaluation strategies and thus form a new vocabulary knowledge application system in English vocabulary teaching activities.[7].

Taking the usage of “have” in the relevant idioms as an example, teachers can apply mind map to induce students to learn vocabulary knowledge, and then, by referring to the usage, the corresponding situation can be created to guide students to master the application skills of vocabulary knowledge and effectively promote the systematic training of students’ English vocabulary learning ability in junior high schools. In the adjustment strategy, according to the fact that “have” is used in some idioms to express a fixed meaning, teachers can classify “have a word (a few words) with sb” and “have nothing (something) to do with” for classified learning, and make a differentiation between “saying one or more sentences with someone” and “having (or not) relationship with... “And then based on the creation of the situation, teachers can use specific sentences as examples to make students perceive the application of English vocabulary knowledge, such as “where’s penny? I so want to have a word with her. / Most of calculation had nothing to do with lessons from the Chinese teacher”, Students’ English vocabulary-learning ability will be effectively cultivated and improved as well [8].

### 4. An Empirical Analysis of the Effect of Three Metacognitive Strategies on English Vocabulary Acquisition of Students in Junior High School

Based on the systematic argumentation of the application of metacognitive strategy training, this paper makes a comparative analysis of the students’ interest in English vocabulary learning, English vocabulary learning ability, English vocabulary size, English vocabulary application ability, the depth of English vocabulary knowledge, English vocabulary learning ability before and after the implementation of metacognitive strategy training in junior high school English vocabulary teaching. In terms of processing English vocabulary exercise, the results of data analysis show that, after the implementation of metacognitive strategy training, junior high school students’ vocabulary learning ability has been significantly improved and students have strong interest in learning and can take the initiative to carry out systematic exploration of English vocabulary knowledge. Giving full play to the role of metacognitive strategy training is helpful to facilitate the reasonable training of students’ acquisition of English vocabulary knowledge. As is shown in Table 1, in the evaluation of junior high school English vocabulary teaching, students’ interest in English vocabulary learning, English vocabulary learning ability, English vocabulary size, English vocabulary application ability, the depth of English vocabulary knowledge, English vocabulary exercise processing ability and other related data have significantly improved after the implementation of metacognitive strategy training. And after using statistical methods for analysis, it was found that the score  $P < 0.05$ , was statistically significant, and the effect of metacognitive strategy training was obvious to see.

The application of metacognitive strategy training in junior high school English vocabulary teaching can produce many positive effects that the application of metacognitive strategy training

can help stimulate students' interest in English vocabulary learning and enable students to actively explore English vocabulary knowledge; The application of metacognitive strategy training can fully mobilize students' subjective initiative, promote students' autonomous learning of English vocabulary knowledge, and master reasonable learning methods and skills of English vocabulary knowledge; it also helps to train students' application ability of English vocabulary knowledge, promote students to master the skills of doing vocabulary exercise, participate in English cross-cultural communication and exchange and form good English comprehensive quality [9].

*Table 1 Comparison of Junior High School English Vocabulary*

group	Numberpe ople(n)	Interes t in vocabu lary learnin g	Vocab ulary learnin g ability	vocabu lary	Vocabulary ability	Depth of vocabulary knowledge	Ability to deal with vocabulary exercises
Before metacog nitive strategy training	152	84.23± 3.20	79.62± 2.11	85.36± 4.69	81.23±3.02	86.39±4.12	85.23±4.24
After metacog nitive strategy training	152	94.23± 5.56	93.16± 4.14	98.25± 4.97	92.75±4.61	95.69±4.74	94.25±4.39
P		<0.05					

## 5. Conclusion

To sum up, in the process of systematic reform of junior high school English vocabulary teaching, teachers' conscious exploration of the rational application of metacognitive strategy training can exert a positive impact on students' systematic learning of English vocabulary knowledge. It helps to promote the comprehensive innovation of English vocabulary teaching reform, thus improving the comprehensive influence of English vocabulary teaching and providing a positive guidance for junior high school students to explore English vocabulary knowledge system. Therefore, in the new era of English teaching practice, according to the actual needs of English vocabulary teaching, we should systematically interpret the application of metacognitive strategy training, and further formulate a reasonable metacognitive strategy training application scheme so as to shed light on the reform of English Vocabulary Teaching in junior middle school and the overall improvement of English vocabulary teaching quality in junior middle schools.

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