The Influence of Meta-Cognitive Strategies on Individual's Vocabulary Learning

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Abstract

Meta-cognitive learning strategy is the essential learning strategy for second language learning, and students who have good meta-cognitive learning strategy, who is better at second language learning. For Chinese students, second language vocabulary learning is very important and quite difficult. This paper mainly uses confirmatory research to investigate the influence of meta-cognitive learning strategies on the individual at the aspect of second language vocabulary learning and proposes further suggestion to the second language teaching.

Key words: Meta-cognitive learning strategies; Vocabulary learning; Individual; Confirmatory research

INTRODUCTION

Vocabulary plays an important role in second language learning. The most pressing need of people learning another language is vocabulary (Laufer & Sim, 1985). For Chinese students, as the second language learners, vocabulary learning is one of the difficult part of language learning for them. Different students have different vocabulary learning strategies, and the same student also has different vocabulary learning approaches in different period. As for second language learning strategies, there has cognitive learning strategy, meta-cognitive learning strategy, social/affective strategy. This paper mainly analyzes how meta-cognitive learning strategy influence second language learners' vocabulary learning proficiency, and the development of meta-cognitive learning strategies in the process of becoming a good language vocabulary learner from a beginning language learner. Then it proposes the suggestions for second language teachers to promote students' vocabulary learning effect in second language teaching.

1. META-COGNITIVE LEARNING STRATEGIES

The American psychologist John H.Flavell in 1976 proposed the concept of meta-cognition which includes meta-cognitive knowledge, meta-cognitive experience and meta-cognitive monitoring. Meta-cognitive knowledge refers to the individual's realization about the mission and strategies. And meta-cognitive experience means the conscious cognitive experience or affection produced in the process of cognitive activity, and it includes positive and negative experience. Meta-cognitive monitoring refers the individual has positive monitoring for their cognitive activity and had corresponding adjustment, then obtain the intended subject. And these three parts of influences each other and all these three parts together promote people's cognition (John H. Flavell, Patricia H, Miller & Scott A. Miller, 2005).

Meta-cognition is the individuals' cognition of their cognitive activities. Meta-cognition is always coordinated with cognitive activities, and they are both people's cognitive and conceptual work. However, there also have some differences between meta-cognition and cognition. The object of meta-cognition is intrinsic and abstract, and that of meta-cognition is extrinsic and specific. Ant the cognition analyzes individuals' intelligence and it directly effects on people's cognition of the activities. In contrast, the meta-cognition focuses on the activity and it

indirectly effects on people's realization of the process of the activity.

Meta-cognitive learning strategies is one of the basic learning strategies which refers to the management steps taken by the individuals to control their cognitive process, which includes designing learning plan, monitoring learning process and evaluating learning effect, which means meta-cognitive learning strategies includes planning strategy, monitoring strategy and evaluating strategy. Planning strategy aims to confirm their learning tasks, and monitoring strategy is to monitoring learners' learning process and then adjusts their learning strategy to learn language better, which is the evaluating learning strategy. For example, "I classify the words according to their meaning" is the cognitive learning strategies, and "I think that classify the words according to their meaning is beneficial to our remember" is a kind of meta-cognitive learning strategies.

Malley & Chomat in 1990 proposed the vocabulary cognitive strategies which have rehearsal strategies, encoding strategies, imagery strategies, form-analysis strategies, aviation strategies and contextual strategies. As for the beginning language vocabulary learners, they usually use rehearsal strategies and form-analysis strategies. And the advanced language learners, they are more likely to apply the imagery strategies, aviation strategies and contextual strategies. The second language learners in different learning period will use different meta-cognitive learning strategics in different degree. The advanced language learners will be better at planning and managing the learning process and have the better learning effect. And this paper selects a freshman and a senior student in Shan Dong University to investigate the development of their meta-cognitive learning strategies and the effect that have produced.

2. RESEARCH METHOD

2.1 Research Design
According to the questionnaire designed by Wen Qiufang (Wen Qiufang & Wang Haixiao, 1996), this paper designs a questionnaire aiming at investigating the different vocabulary learning effect caused by different degree of meta-cognitive learning strategies used by the senior student and the fresh student. And this experiment mainly wants to prove that the advanced language learners are better at using meta-cognitive learning strategies and they have better learning effect. This study takes confirmatory research which is contrastive to the naturalistic research. In nature, it is a kind of interventionist behavior, that means, in confirmatory research, investigators try to control the studying environment and other key factors. The confirmatory research is usually taken in the form of experiment, and collects the data from the study then analyzes it in the form of quantification.

2.2 Object of Study
This study selects two students in Shan Dong University, one is the freshman, and another is the senior student. As for the limitation of time and some requirement of this class, I just select two students in different language learning degree. Why I choose the freshman and the senior student? Because the freshman do not has the obvious consciousness of meta-cognitive language learning strategies and the senior student, the advanced language learner, has his own object and is better at applying the meta-cognitive learning strategies. Only in a long period, can we see the different meta-cognitive learning strategies used by the same individual, so because of the limitation of time, I did not only select one individual, instead, I choose two language learners in different language learning degree.

2.3 Tool of Study
Based on Wen Qiufang's learning strategies questionnaire, I design a questionnaire for these two students. And the questionnaire includes two parts, fifty questions in total. The first part of the questionnaire aims to investigate students' learning beliefs. If students do not have good learning beliefs, they can not apply good meta-cognitive learning strategies. In order to minimize the variate of research, I design the first part of the questionnaire in order to prove that the two students that I choose both have good learning beliefs. The first part has twenty questions, and at the beginning of the first part, I give four degrees of answer, and students only need to write the sequence number of the answer. And the answers from 1 to 5 are: 1. I would never agree with it; 2. I disagree with it; 3. I am not sure about this question; 4. I agree with it; 5. I definitely agree with it.

And the second part is used to investigate students' meta-cognitive learning strategies, which has thirty questions and it aims to claim that second language learners who have good meta-cognitive learning strategies, who are better at second language learning, and they have better autonomous learning ability. Similar with the first part, at the beginning of the questionnaire, there have four answers. They are: 1. It is totally or almost not suitable for me; 2. It is usually not suitable for me; 3. Sometimes it is suitable for me; 4. It is totally or almost suitable for me.

In the third part, I give the two students several different words. The difficult level of each group words is consistent with their current English level. And this part mainly wants to testify how they learn difficult words through the correction of the words.

2.4 Data Collection and Analyze
From the first part of the questionnaire, we can see that both the two students have good learning beliefs. For the twenty questions, their answers are mainly 4 or 5. But there has an obviously different answer for the question "usually think back to my language learning methods and then adjust it for better learning". The senior student's answer is 5, that is,

I definitely agree with it. However, the freshman's answer is 3 that I am not sure about this question. It shows that the senior students have obvious learning plan and he usually evaluates it. To be honest, because the senior student has learnt English for longer time than the freshman, it is no doubt that the senior student has better learning beliefs than the freshman. But, in general, they both have good language learning beliefs. We can see the two students' English learning beliefs in the following Table 1.

Table 1

Level Students	The Freshman	The Senior
Learning Beliefs	3	4
Learning Emotion	4	4
Social Learning Strategies	3	4

Note: 1-5 refers to the level, 1 stands for the lowest level and 5 is the highest level.

The second part of questionnaire also includes the questions investigating the influence of cognitive learning strategies, for example, "when I meet unfamiliar or unknown vocabulary, I will check it in the dictionary", "I usually learn the vocabulary by context" and " I think rehearse is an useful way to learn vocabulary" and other questions. In different learning period, language learners have different cognitive learning strategies. Just like what we have mentioned in the beginning, the new language learners are more likely to use the rehearsal learning strategies and the advanced language learners are better at applying contextual learning strategies. It is also the disadvantage of this study, because I choose two different language learners who have different language level, their cognitive study strategies are definitely different. But it also reflects the common situation for Chinese students to learn English. Every advanced language learners are developed from the beginner. So, the freshman can also see as the portrayal of the senior in the starting period of learning second language.

Coming back to the investigation of meta-cognitive learning strategies used by second language learners, I design 30 questions for them. And from their answers, we can see they have different meta-cognitive learning strategies and the senior student is more motivated in learning English. Table 2 shows their learning strategies in answers in detail and I will analyze it specifically.

Table 2

Level Students	The Freshman	The Senior
4	3	11
3	17	11
2	10	8
1	0	0

We can see that the freshman only has three answers being choice 4. And two of them are about learning emotion, which means that the freshman has good learning emotion for the English learning study and it is same with the

senior. And another one is the question 44----when I have unknown words, I would check it in the dictionary; it shows that the freshman relies much on dictionary. And most of the freshman's answer is 3 and 2. It shows that the freshman's meta-cognitive is developing and it has not been matured. And the teachers should pay attention to cultivate their meta-cognitive learning strategies in the following studies. As for the senior student, we can see from the Table, the senior student's answers are almost about 4 or 3. It means that the senior student has good meta-cognitive vocabulary learning strategies. He has 8 questions' answers which are 2. The figure is not small, but when we look back to the data specifically, we can find that the result is positive. As these questions are about bad vocabulary learning methods, such as 42--- when I meet unknown words, I just find the meaning which related to the text. Therefore, the senior students can monitor his own learning process; he knows what he wants learn from the vocabulary and has a long term for second language vocabulary learning.

To see whether the good meta-cognitive learning strategies would be beneficial to their word learning levels, I give them the vocabulary practice to test their words levels. In the following part, I would analyze the two students' vocabulary practice. At the beginning I give them the same time to learn the words and then give them the same time to do the words practice. Because the two students vocabulary ability is different at the beginning, I give them different words to learn, for the freshman, the words' difficulty is medium, it is similar to the level of CET-4, and for the senior students, the words are more difficult which is like to the level of CET-6. And in the end of the paper, we can see the words examination. To further see the influence of meta-cognitive learning strategies on students. I give the same words practice for them after one week.

Table 3
Quick Practice

Students	The Freshman	The Senior
Words Difficult Level	medium	high
Correction Rate	50%	70%

Table 4
One Week Later Practice

Students	The Freshman	The Senior
Words Difficult Level	medium	high
Correction Rate	40%	100%

In the two practices, the senior student is better than the freshman. In the first practice, the score of the two students are not very different, but after one week, the senior student makes a significant progress, however, the freshman falls behind. According to the second part of the questionnaire, it is not very difficult for us to notice that the freshman mainly use rehearse to remember the words, and this method is belong to the cognitive learning strategies. And the senior

student, he has good meta-cognitive learning strategies, after the first practice, he finds the disadvantages of his learning method and make correction. He can play and regulate the whole progress of vocabulary learning. It also proves that meta-cognitive leaning strategies is beneficial to students' vocabulary learning.

All in all, the advanced second language learners have are better at applying meta-cognitive learning strategies, in turn, the meta-cognitive learning strategies promote students' English levels.

3. IMPLICATION FOR SECOND LANGUAGE TEACHING

Meta-cognitive learning strategies play an important role in second language learning. Teachers should cultivate students' meta-cognitive learning strategies. Help students design their learning plans and have an outlook for their language learning. During students' language learning process, teachers should monitor their learning process and provide relevant suggestions for them. And then evaluating the learning process and make the students have more obvious realization about their learning strategies and design better learning strategies. And teachers should teach students to use meta-cognitive learning strategies in the beginning, and they can apply it better when they become the advanced learners. Teachers can encourage students to use self-questioning method, ask question for other classmates, reflect and make a conclusion in study process to practice their meta-cognitive ability.

4. CRITICISM

This study also has many disadvantages. Firstly, there are only two participants; the result does not have too much persuasion. This research should choose two groups, and each group has at least ten students, and general English level of the two group students should similar. Secondly, this paper mainly wants to investigate the influence of meta-cognitive learning strategies on the same individual. However, it chooses two participants in different English level. Different people have different meta-cognitive learning strategies. Although Chinese students have common features in English learning, there still have some differences. We cannot replicate the learning characteristics of the freshman to the senior students when he was the freshman. Lastly, the factors which influence English learning not only include meta-cognitive learning strategies, but also include other learning strategies, like cognitive learning strategies, affective learning strategies, social strategies, and so on, and age, sex, attitude and other aspects. There is no doubt that we cannot exclude the effect of other factors. And another thing I want to notice is that, because I choose two non-English major as my study participants, my questionnaire is in Chinese.

And it will be attached in the end of the paper. As there has only several weeks for me to write this paper, we cannot anticipate one changes his or her English level too much in such a short term. So I choose two students in same university, studying the same major and with different English level. In the following study, I would select on Chinese English learner and trace the learner's study for at least one semester.

CONCLUSION

Vocabulary is the central part in second language learning ans it is one of the most difficult part for Chinese students in learning English. For Chinese students, English consists of listening, speaking, reading and writing. No matter which part of the English learning, vocabulary pays a central role. Without knowing vocabulary, you cannot learn anything. And for most Chinese English learners, they learn English by rehearse, repeating it again and again until they remember it.

The forgetting curve shows how information is lost over time when there is no attempt to retain it. A related concept is the strength of memory that refers to the durability that memory traces in the brain. The stronger the memory, the longer period of time that a person is able to recall it. A typical graph of the forgetting curve purports to show that humans tend to halve their memory of newly learned knowledge in a matter of days or weeks unless they consciously review the learned material. The forgetting curve supports one of the seven kinds of memory failures: transience, which is the process of forgetting that occurs with the passage of time (Wen Qiufang & Wang Haixiao, 1996). And the forgetting curve has short term memory and long term memory, by rehearsing, we can only remember vocabulary in short term. And a good language learner should learn language by himself or herself. He or she should improve self-studying ability. They should have a long term plan for their study, why they learn English and what kind of English level they should reach. They should often look back to their language learning strategies and rethink that why they are not successful. And they should find the reason then correct it, and make a great progress in the following study.

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