

Research Article

Application of Metacognitive Strategy Training into Listening Class

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Abstract: Metacognitive strategies involve thinking and actions learners use to control or regulate their cognition in learning process. In China, foreign language teaching still has a long way to go in transforming from the “teacher-centered” model to “learner-centered” model, because college students lack knowledge to control their learning. The research carried out metacognitive strategy training on a group of non-English majors in listening class in Shenyang Ligong University and investigated the effectiveness of the training.

Keywords: Metacognitive strategies, metacognitive strategies training, metacognition

INTRODUCTION

Metacognition can be described as awareness of how one learns; awareness of when one does and does not understand; knowledge of how to use available information to achieve a goal; ability to judge the cognitive demands of a particular task; knowledge of what strategies to use for what purposes; and assessment of one’s progress both during and after performance (Flavell, 1979).

Learners need to learn how to learn and the teachers need to know how to facilitate the learning process. Although learning is certainly part of the human condition, conscious skill in self-directed learning and in strategy use must be sharpened through training (Oxford, 1990). So strategy training is necessary in second language learning. Language learning requires learners’ actively joining in the whole learning process. They cannot be spoon-fed if they desire to reach an acceptable level of communicative competence.

Since the beginning of 1990 some works show great concern over the met cognitive strategy training of second language learners. Based on the assumption that learning strategies are teachable, some studies on learning strategy training focus on how to help less successful learners use appropriate combinations of learning strategies that enable them to take responsibility for their own learning. All of them conducted both cognitive strategies and metacognitive strategy training. In this way, language strategy-training can improve learners’ autonomy, independence and self-direction. But the results of the studies are partially positive.

In China, the study about metacognition and language learning is quite behind the English spoken countries. However, increasing attention is being paid to it. Qiufang (2003) has made the most comprehensive study of the training models so far in China. After the

classification, she further demonstrates three most popular training models-short-term training, long-term integrative training and individual instruction. Besides, strategy training should begin with metacognitive strategy training and take the formation of learner autonomy as the ultimate goal (Qiufang, 2004).As to the effectiveness of metacognitive strategy training, Qiufang (2003) concludes that “The predicative ability of strategies on proficiency is determined by learners’ English level.”Xiaohu and Peng (2002) made an experiment proving that in “the aspect of reading comprehension, the students’procedural knowledge of metacognition needs to be enhanced. And the study is rarely done concerning metacognitive strategy training in China.

THE STUDY METHOD

The study is to put forward a train model in listening class and to find out whether metacognitive strategies apply to English listening class.

The present training first makes use of Oxford’s eight-step model and O’Malley and Chamot (1990) strategy instructional model CALLA (Academic Language Learning Approach) to carry out the design of the overall program of metacognitive strategy training. 166 freshmen of non-English majors from Shenyang Technology University participated in the experiment. All the students participating in the research major in chemistry, mathematics and mechanics. None of the participants have received metacognitive strategy training before.

The 166 students are chosen randomly who belong to six natural classes. They are divides into two groups: the experimental group and the controlled group, 85 of them belonging to the experimental group in three classes and 81of them belonging to the control group in the other three classes. The experimental group will

receive one semester metacognitive strategy training in the English listening class, while the 81 students, as control group, do not receive the training program.

The data collected are students' pre-test and post-test scores. And the data are analyzed with SPSS10.0.

The training process: Following Oxford's eight-step model and taking the actual condition of the subjects into account, the overall program design for the present research is now presented, with some steps being stressed while some others being briefed. The teacher is responsible for the process of planning and preparation, which are included in the first five steps.

- **Determine the learners' needs and the time available:** The learners who will receive the training in the research are freshmen from Shenyang Technology University. As for the college students they are required to learn new things by themselves and in college the teaching object is different from that in middle school, especially in foreign language class. In middle school most students see passing the exam as their learning goal which is totally different from that in college. In college English teaching the students are required to improve their language abilities such as listening, reading, speaking and writing skills. Also the students are eager to improve their English study, but they can not adjust themselves to the news learning task. Without the teachers' instruction they have no efficient methods to control their learning and they do not know their goals in learning. Based on the results of the questionnaire, they are using all the metacognitive strategy categories, but their use frequency is very low. As for the time span, the training program lasts a whole semester
- **Select strategies well:** According to the results of the survey, the teacher selects the metacognitive strategies related to the needs and characteristics of the learners. After the selection, the teacher decides to center on the training of the 6 strategy categories while performing instruction of other strategy groups at the same time
- **Consider integration of strategy training:** "Learners sometimes rebel against strategy training that is not sufficiently linked with their language learning." (Oxford, 1990). In order to make the learners better understand how the strategies can be used in a meaningful context, the teacher integrates strategy training into learning tasks and materials concerning listening, reading and vocabulary
- **Consider motivational issues:** In the phase the teacher consider the motivation integrated into the training program. After the students have gone through the strategy assessment phrase their motivation is high because they want to be efficient learners and, they are interested in participating in the training

- **Prepare materials and activities:** In the training, the teacher integrates the training into the English class. As for the reading class the students are divided into groups with 3-5 persons in each group. The teacher has the students join in the process of teaching. The students work in the study groups preparing for the lecture for the class and teaching in the class. At the same time they are required to write down their learning strategies when they are preparing for the lectures. The materials reflect the typical kinds of learning tasks that are included in the program. In addition, these materials include strategy training, practice and reinforcement activities
- **Conduct completely informed training:** In the process of training, at first the students try to do a language task without any training about the target strategy and they comment on their strategy they used to do the task. Then the teacher explains and demonstrates the new strategies and informs the learners as completely as possible what strategies they are being taught, the value and purpose of employing these strategies and ways that they can transfer the strategies to other learning tasks. After the learners have gained some awareness of and control over their patterns of strategy use, they are provided with strategy-based tasks
- **Evaluate the strategy training:** In the process of the training, when finishing a task the students comment on their strategy and explore the reason why the strategies help. These self-assessments help to practice the strategies of self-monitoring and self-evaluating
- **Revise the strategy training:** The evaluation in Step 7 will suggest revision for the material. Based on the students' feedback this may lead back to Step 1, in which learners' need and characteristics will be reconsidered. (Oxford, 1990)

Actual CALLA (Cognitive Academic Language Learning Approach) practice is part of the whole training program. O'Malley and Chamot (1990) CALLA procedure is integrated in Step 5 and Step 6 of Oxford's eight-step model.

The CALLA lesson plan includes learning strategy instruction, content area topics and language development activities. It includes both teacher-directed and learner-centered activities. The lesson is divided into five phases: preparation, presentation, practice, evaluation and expansion activities. The teaching goals are: content objectives, language objective and strategy objective.

- **Preparation:** In the phase of preparation, the teacher finds out what the students already know about the concepts in the subject area to be presented and practiced, what gaps in prior knowledge need to be addressed and the way the students have been taught to fulfill a learning activity

- **Presentation:** In the phase of presentation, new information is presented and explained by the teacher. The process is teacher-centered, during which the teacher presents the learning strategies which are to be practiced by students
- **Practice:** In the phase of practice, the lesson is learner-centered, as the students engage in the learning activities to practice the new learning strategies presented in preparation and the presentation phases. The teacher acts as a facilitator to help students assimilate the new information. In the phase the students cooperate in their learning the students work together in small groups to clarify their understanding of the information previously presented and new material and the way to apply the learning strategies to their learning
- **Evaluation:** In the phase of evaluation, the students check the level of their performance so that they can understand what they have learned and what they need to review. In the phase the teacher helps to assess the students' learning production, the teacher focuses on the meaning of the students' answers. The learning strategies practiced in the phase are self-evaluation
- **Expansion activities:** In the phase of expansion, students are given opportunities to think about the new skills they have gained, apply them to their new learning tasks. In the phase the strategies presented and practiced in the former phases are discussed and practiced again. (O'Malley and Chamot, 1990)

DATA ANALYSIS

The data collected are students' pre-test and post-test scores. And the data are analyzed with SPSS10.0.

Table 1 shows that before training, the average score of the experimental group is 25.95 and the average score of the control group is 25.11. It shows that there is no difference between the two groups in reading.

From the comparisons, we can see that there is not a significant difference between the scores of listening of the two groups. So we can conclude that both of the experimental group and the control group stay at the same level in language proficiency.

Z test is used to compare the scores of the experimental group and the control group on the post-test to detect whether the metacognitive strategy training has positive effects on the experimental group and the control group.

The scores of post-test are analyzed with SPSS and the result is shown in Table 2.

In the test 166 samples are tested and the $df > 29$, so there is very little difference between values of t and z.

- μ_1 = The mean score for the control students
- μ_2 = The mean score for the experiment group students

Table 1: Group statistics of listening pre-test

GROUP	NUMBER	MEAN
Experiment	85	14.37
Control	81	14.57

Table 2: Samples of post-test on listening

	t-test for Equality of Means		
	t	df	Sig. (2-tailed)
Equal variances assumed	2.516	164	0.013
Equal variances not assumed	2.511	162	0.013

This kind of test is one tailed and the null and alternative hypotheses, in terms of the parameters are specified as follows.

Null hypothesis: $\mu_1 = \mu_2$ (There is no difference between the mean scores for both groups)

Alternative hypothesis: $\mu_1 < \mu_2$ (The mean score of control group students is less than that of the experimental group students)

The significance level in language studies is $\alpha = 0.05$ and the critical value $z_0 = 1.645$.

Table 2 shows that the calculated critical value $t = 2.516$ is equal to z value, which shows $t > z_0$. So we can reject the null hypothesis and accept the alternative hypothesis that the mean score of the experimental group is better than the mean of the control group. It can be concluded that the metacognitive strategy training has positive effects on listening.

CONCLUSION

Based on the above findings and the actual implementation of metacognitive strategy training, the researcher discusses the effects of the training program and suggests a number of practical methods of teaching and learning in listening class.

Metacognitive strategies play a very important role in the learning process by fostering learner autonomy and self-direction. According to the findings of the present research, metacognitive strategy training can enhance strategy use frequency and language proficiency. So students should be informed of the importance of metacognitive strategies. It is the teacher's responsibility to raise the students' awareness of metacognitive strategy use and provide them with the opportunity to assess and utilize metacognitive strategies in appropriate contexts.

In metacognitive strategies awareness training, some knowledge about the functions of language should be delivered so that students might have a better understanding of the nature of language and the functions of language. This kind of training has been recognized as an inseparable part of learner training because it can provide some criteria for choosing language learning strategies. Some knowledge about how language learning takes place should also be

provided and some incorrect ideas about language learning should be dismissed, because these incorrect ideas may constrain the use of some strategies that are essential in language learning. Besides, students should be offered opportunities to assess what their own linguistic proficiency is and what kind of learning concepts they are holding, that is, to learn about themselves.

Preparation and planning are important metacognitive skills that can improve student learning. By engaging in preparation and planning in relation to a learning goal, students are thinking about what their goals are and how they will go about accomplishing them. Students, with the help of the teacher, can set a realistic goal within a set time for accomplishing that goal. Setting clear, challenging and realistic goals can help students see their own progress and hopefully, by becoming consciously aware of their progress, the students' motivation for learning would be increased. Teachers can promote this reflection by being explicit about the particular learning goals they have set for the class and guiding the students in setting their own learning goals. The more clearly articulated the goal is, the easier it will be for the learners to measure their progress.

The metacognitive ability to select and use particular strategies in a given context for a specific purpose means that learners can think and make conscious decisions about the learning process. Thus, metacognitive instruction should explicitly teach students a variety of learning strategies and also, to be effective, when to use them and how to use them. Students should be instructed on how to choose the best and most appropriate strategy in a given situation.

Knowing how to orchestrate the use of more than one strategy is an important metacognitive skill. The ability to coordinate, organize and make associations among the various strategies available is a major distinction between strong and weak second language learners. Teachers can assist students by making them aware of multiple strategies available to them, for example, by teaching them how to use both word analysis and context clues to determine the meaning of an unfamiliar word. The teacher also needs to show students how to recognize when one strategy isn't working and how to move on to another.

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