Applying Metacognitive Strategies in Teaching Listening Comprehension to Advanced Program Students at Thai Nguyen University of Technology

Hoang Thi Tham
Thai Nguyen University of Technology, Thai Nguyen 250000, Vietnam

Abstract

The objective of the study is to find out whether teaching metacognitive strategies improves AP students listening comprehension. The participants were the students from two classes of the Advanced program at Thai Nguyen University of Technology in Vietnam. The metacognitive strategy training was applied to the experimental group within the whole fifteen-week semester. The application covered preparing and planning, selecting and using learning strategies, monitoring, orchestrating and evaluating. The post-test scores of the experimental group were significantly higher than those of the control group, which proves that metacognitive strategy training improves students' listening performance. Some suggestions have been reported such as the necessity of raising teachers and students' metacognitive awareness and teaching students how to use metacognitive strategies more effectively in listening.

Keywords

listening, metacognitive awareness, listening comprehension, listening strategies, metacognitive strategies

I. INTRODUCTION

It is unquestionable that listening plays a signifcant role in language learning. Surprisingly, in communication, listening takes up 45-50% of the total time whereas speaking, 25-30%, reading, 11-16 and writing, about 9% [1]. With similar ideas, Morley and Rost consider listening the most important skill for language learning as it can be mostly used in normal daily life. They add that it develops faster than the other language skills [2]. Also, according to Richards, listening is an essential aspect of communicative competence, and listening skill has been used the most frequently[3] .

However, not much attention has been paid on listening as its role. The teaching of listening comprehension has long been-somewhat neglected and poorly taught aspect of English in many EFL programs [1]. According to Hamouda, listening and speaking skills are not considered important parts of many course books or curricula. EFL learners have serious problems in listening comprehension because universities pay attention to grammar, reading, and vocabulary [4]. On the other hand, listening has been considered "one of the least understood processes" [5], and listening skills are "least researched of all four language skills" [6].

Those mentioned limitations have probably contributed to the present situation of language learning in which listening has still been one of the most difficult skills for both learning and teaching. Teachers should understand students' listening difficulties and instruct effective listening strategies to help students solve their listening difficulties [4].

II. LISTENING STRATEGIES

According to Vandergrift [7], the development of strategy is significant for the training of listening and learners can guide and assess their own understanding and answers. Goh said that it is very important to teach listening strategies to students and before doing this, teachers should increase learners' knowledge of vocabulary, grammar, and phonology [8] .

O'Malley and Chamot [9] claimed two main types of strategies: metacognitive and cognitive strategies. Social strategies are mentioned as the one less often used by language leaners. Metacognitive strategies involve knowing about learning and controlling learning through planning, monitoring, and evaluating the learning activity. Cognitive strategies, however, manipulate the material to be learned or apply a specific technique to the learning task.

Oxford [10] reported six dimensions of strategy classification for the Strategy Inventory for Language Learning (SILL) including cognitive strategies, metacognitive strategies, memory strategies, compensatory strategies, affective strategies, and social strategies. According to Anderson language learning strategies are categorized into seven major groups including cognitive strategies, metacognitive strategies, mnemonic or memory related strategies, compensatory strategies, affective strategies, social strategies, and self-motivating strategies [11].

III. METACOGNITIVE LISTENING STRATEGIES

A) Metacognition

Wenden defined metacognition as the learners' "knowledge about learning" [12]. Flavell and Wellman believed metacognitive knowledge is the comparatively unchangeable information people have about their own cognitive processes and those of others [13]. Metacognitive knowledge has been classified by Flavell and Wellman into three categories as person, task and strategic knowledge [13].

B) Metacognitive Listening Strategies

Metacognitive strategies are general skills through which learners manage, direct, regulate, guide their learning, i e planning, monitoring and evaluating [12]. According to Vandergrift [14], the effective use of metacognitive listening strategies plays a large role in successful listening comprehension. Metacognition not only enables learners to take an active part in controling and managing their own learning, but also provides a personal perspective on individual learning styles and abilities [15]. In addition, Vandergrift states that learners with high degrees of metacognitive awareness are able to handle and store new information better, and to find the best ways to practice and reinforce what they have learned. Thus it is esential for teachers to teach students how to listen and to develop students' metacognitive awareness of listening strategies [15].

According to O'Malley and Chamot's [16] meta-cognitive strategies involve knowing about learning and controlling learning through planning, monitoring and evaluating the learning activity. Anderson argues that metacognition can be categorized into five major components, including preparing and planning for learning, selecting and using learning strategies, monitoring strategy use, orchestrating various strategies and evaluating strategy use and learning [17].

C) Training Models of Language Learning Strategies

A number of training models for learning strategies have been developed such as Chamot et al. [16], [18]–[20].

Cohen's Styles and Strategies-Based Instruction Model is a learner-centered approach, which includes both explicit and implicit integration of strategies into the course content [19]. In the model, the teachers usually play the roles of diagnostician, language learner, learner trainer, coordinator, and coach.

The Cognitive Academic Language Learning Approach (CALLA) is investigated by Chamot and O'Malley. The CALLA model [18], [21] is composed of six steps, including Preparation, Presentation, Practice, Evaluation, Expansion activities, and Assessment.

In Anderson's model [17], metacognitive strategy training is divided into five primary components which are: (1) preparing and planning for learning; (2) selecting and using learning strategies; (3) monitoring strategy use; (4) orchestrating various strategies; (5) evaluating strategy use and learning.

a) Preparing and Planning for Learning. Regarding a learning goal, students think about what they need or want to achieve and how they are going to achieve it.

***b) Selecting and Using Learning Strategies*:** In this process learners can think and choose the most appropriate strategy to apply. A variety of learning strategies should be taught to students and when to use them as well.

***c) Monitoring Strategy Use*:** In this step, students should be able to keep themselves on track to meet their learning goals. They need to ask themselves periodically to see if they are still using those strategies as planned.

***d) Orchestrating Various Strategies*:** Students are expected to know how to ochestrate the use of more than one strategy. They should be able to coordinate, organize, and make associations among the various strategies available to them.

e) Evaluating Strategy Use and Learning: Students try to evaluate the effectiveness of what they are doing. Teachers can help by asking them to respond to the following questions: (1) What am I trying to accomplish? **(2)** What strategies am I using? (3) How well am I using them? (4)What else could I do?

A review of strategy training models mentioned above shows that the components of this model are well-constructed and comprehensible.

D) Need for the study

At Thai Nguyen university of Technology, English has been taught to Advanced program students since 2008. The students learn English for one year before starting their major courses in English in the second year. Apparently, they need to be able to use English with all language skills. However, the students often find English listening difficult to master. Different attempts have been made to help with teaching and learning listening. In 2012, Trinh and Doan [22] conducted a survey on listening strategies use of advanced students at Thai Nguyen University of Technology. Forty students who had finished their first year of learning English were divided in two groups: higher listening competence and lower listening competence.The participants were asked to complete a 29 – item quetionnaire about using metacognitive, cognitive, social and affective strategies. It was found that the higher listening competence students tended to use more listening strategies. However, the students of both groups

reported to use some of the strategies at limited frequencies.

In 2016, Hoang [23] carried out an investigation into metacognitive awareness in listening held by the students from two AP classes. The results indicated that the students' metacognitive awareness of some categories such as "planning an evaluation, directed attention" strategies was relatively positive, while their metacognitive awareness of "mental translation" was negative. Specifically, a number of listening strategies were not applied appropriately. Also, it has been shown that a number of the students experience listening anxiety. Noticeably, students' metacognitive awareness needs to be developed. It is essential for teacher to teach and train their students in metacognitive strategies as metacognition is the essential skill that teachers should develop both in themselves and their students [24].

Although, there have been numerous studies on metacognitive strategies in language learning, God [25] pointed out that more research is needed to investigate the role of metacognition in listening performance in different contexts. Moreover, there have not been studies on applying metacognitive strategies to teaching lisening comprehension at Thai Nguyen University of Technology so far. This study, thus focuses on identifying whether teaching metacognitive strategies improves AP students' listening comprehension. To fulfill the study's purpose, the following research question was addressed:

Does teaching metacognitive strategies improve the AP students' listening comprehension?

As mentioned above, the review of strategy training models revealed that Anderson's model's components are well-constructed and comprehensible, therefore, this model has been selected to apply in the belief that it would best fit this study and could undoubtedly be applied to the strategy training of the AP students at TNUT.

IV. THE STUDY

A) Participants

The participants were 36 first-year AP students, 19 in the experimental group and 17 in the control group, at Thai Nguyen University of Technology. Those two classes were arranged by the university and they were learning their required English program. Hence, the researcher decided to assign the participants of one group the experimental group, and the other the control group. The two classes were instructed by the researcher, employing the same course book and content covering 27 sessions of instruction based on Longman Preparation Course for the TOEFL Test: The Paper Test, with Answer Key by Phillips (2001).

B) Instruments

In this study, the researcher employed two comprehension listening tests including a listening pretest and a listening posttest to determine their listening performance before and after the treatment period. The first test was adopted from the Diagnostic Pre-Test in Longman Preparation course for the TOEFL Test, and the second test was adopted from ETS Practice Test Volume 2. Each one has 50 four-option items.

C) Procedure

At the beginning, the listening pre-test was administered to all the participants. In the next step the test results were analyzed to determine the listening performance level of the students before training. The results were also used to identify whether the participants were homogeneous in terms of listening performance level. It was noticed that they were arranged into two classes by the administration. Anh their English were assumed at pre-intermediate level as they had finished pre-intermediate course.

Following this, the two classes were randomly assigned as an experimental group with 19 students and a control group with 17 students. All the participants were instructed employing the same material and the same amount of time. The difference was that the applying of Anderson's model was implemented only in the experimental group, and the students were informed about the training. The course lasted for 27 sessions in 75 class hours, extending over a period of fifteen weeks.

In the control group, the teacher applied a common teaching listening program meanwhile in the experimental group the metacognitive strategies training for listening based on Anderson's (2002) model was employed.

As mentioned above, the five components of metacognitive strategy in Anderson's model (2002) include:

(1) preparing and planning for learning
(2) selecting and using learning strategies
(3) monitoring strategy use
(4) orchestrating various strategies
(5) evaluating strategy use and learning.

At the end of the course the post-test was administered to find whether the metacognitive strategy training improved participants' listening performance in the experimental group.

V. RESULTS AND DISCUSSION

A) Pre-Test

As mentioned above, a listening pretest was administered to identify the parcipants's listening performance before starting the treatment phase. The test was adopted from the TOEFL Diagnostic Pre-test from Longman Preparation course for the TOEFL test, and the rating was done on the basis of the criteria stated in the rating scale of the book. The results are reported in Tables 1 and 2.

As shown in Table 1, the mean of the pre-test scores of group 1 was higher than that of group 2 (16.32 vs. 15.88). However, the results of running the independent samples t-test show that there was no significant difference in scores of the two groups (M = 16.32, SD = 6.89, and M = 15.88, SD = 8.44, p = .867>.05). It can be drawn that the participants were homogenous in terms of their listening performance at the beginning of the training. Thus, the researcher started to apply the metacognitive strategy training to one group but not to the other group. And group 1 was assigned as the experimental group, group 2 as the control group.

Table 1: Group statistics on pre-test

	Gr	N	Mean	Std. Deviation	Std. Error Mean
Pre-test	Gr 1	19	16.32	6.896	1.582
	Gr 2	17	15.88	8.448	2.049

B) Post-Test

It is reported from Table 3 that the mean scores of the experimental group were much higher than those of the control group (M = 21.11 vs. M = 16.06). The results of running the independent samples t-test (Table 4) showed that the difference was statistically significant (p = .008 <.05).

As reported above, the numbers of the participants in two groups were different (19 vs. 17). In case this difference might have effects on the results, the researcher decided to compare the results of pre-test and post-test within each group.

It is revealed from Table 5 that the mean scores of the listening post-test of the experimental group were obviously higher than those of the listening pre-test (M = 16.32, SD = 6.896 vs. M = 21.11, SD = 4.458). This difference was .013 (p < .05) as stated in Table 6. Thus, there was statistically significant difference between the listening tests within the experimental group.

It is recognized from Table 7 that the mean scores of the listening post-test of the control group were higher than those of the listening pre-test (M = 16.06, SD = 6.27 vs. M = 15.88, SD = 8.45). However, this difference was .882 (p > .05) as stated in Table 8. Thus, there was no statistically significant difference between the listening tests.

Consequently, it can be drawn that the experimental group gained better listening performance at the end of the training treatment. Therefore, it was concluded that teaching metacognitive strategies makes improvements in students' listening comprehension, which supports the results of the previous studies that metacognitive strategy training facilitated L2 listening comprehension [14], [16], [17], [26].

VI. CONCLUSIONS AND SUGGESTIONS

The study aimed at identifying whether teaching metacognitive strategies improve the AP students' listening comprehension. A training program based on Anderson's model was conducted withthin a regular fifteen week semester. At the end of the training, a listening post-test was administered to both control and experimental groups. It was found that the experimental group obtained higher results in listening performance than the control group, which means that teaching metacognitive strategies does improve students' listening performance.

However, it revealed some limitations such as the number of participants were restricted, both two groups belonged to the teacher-researcher, and the tests used for determining the homogeneity of the participants in experimental and control groups disclosed weaknesses in persuasiveness. In spite of this, the study was carried out in the context of a regular semester with regular classes, which confirms that the application of metacognitive strategies in teaching listening comprehension is practicable and it should be applied to a large number of students.

It is essential to raise both teachers and students' metacognitive awareness, and much attention should be paid on motivating students to use various listening strategies. In other words, teachers should be skilled not only at giving instruction but also at encouraging students to take part actively in using listening strategies. Also, to improve students' listening ability it is necessary for teachers to incorporate metacognitive strategy training into their lessons and materials, focusing on using relevant theories and activities that guide on how to train students in various listening strategies.

Moreover, teachers should guide students in practising study outside classroom. This should include planning, selecting atrategies, monitoring and evaluating. Through regular practice students can perceive the important role of metacognition and be willing to exploit metacognitive strategies. Moreover, when they obtain improvement they will gain more confidence in English listening, and leaner autonomy can be promoted, which is the ultimate objective of language teaching.

TABLE 2: INDEPENDENT SAMPLES T-TEST OF PRE-TEST

	Levene's Test for Equality of Variances		t-test for Equality of Means					
	F.	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the

									Difference	
									Lower	Upper
Pre-test	Equal variances assumed	0.001	0.972	.169	34	0.867	0.433	2.559	-4.767	5.634
	Equal variances not assumed			.167	30.980	0.868	0.433	2.589	-4.864	5.713

TABLE 3: GROUP STATISTICS ON POST-TEST

	Gr	N	Mean	Std. Deviation	Std. Error Mean
Post-test	Experimental group	19	21.11	4.458	1.023
	Control group	17	16.06	6.270	1.521

TABLE 4: INDEPENDENT SAMPLES T-TEST OF POST-TEST

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F.	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Post-test	Equal variances assumed	.438	.513	2.806	34	.008	5.046	1.798	1.391	8.701
	Equal variances not assumed			2.754	28.557	.010	5.046	1.833	1.296	8.797

TABLE 5: PAIRED SAMPLES STATISTICS ON EXPERMENTAL GROUP

		Mean	N	St. Devitation	St. Error mean
Pair 1 (experimental group)	Pre 1	16.32	19	6.896	1.582
	Post 1	21.11	19	4.458	1.032

TABLE 6: PAIRED SAMPLES TEST OF EXPERMENTAL GROUP

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1 (experimental group)	Pre1-Post1	-4.789	7.591	1.741	-8.448	-1.131	-2.750	18	0.13

TABLE 7: PAIRED SAMPLES STATISTICS ON CONTROL GROUP

		Mean	N	Std. Deviation	Std. Error Mean
Pair 2 (control group)	Pre2-Post2	15.88	17	8.448	2.049
		16.06	17	6.270	1.521

TABLE 8: PAIRED SAMPLES TEST OF CONTROL GROUP

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 2 (control group)	Pre2 - Post2	-.176	4.825	1.170	-2.657	2.304	-.151	16	.882

REFERENCES

[1] Mendelsohn, D.J. (1994). Learning to listen: A strategy-based approach for the second language learner. San Diego: Dominie Press.

[2] Morley, J. (1999). Current perspectives on improving aural comprehension. ESL Magazine, 2(1), 16-19.

[3] Richards, J.C. (2008). Teaching Listening and Speaking. Cambridge, England: Cambridge University Press.

[4] Hamouda, A. (2013). An Investigation of Listening Comprehension Problems Encountered by Saudi Students in the EL Listening Classroom. International Journal of Academic Research in Progressive Education and Development, Vol. 2, No. 2.

[5] Osada, N. (2004). Listening Comprehension Research: A Brief Review of the Last Thirty Years. Dialogue, Vol. 3, pp. 53-56.

[6] Vandergrift, L. (2007). Recent developments in second and foreign language listening comprehension research. Language Teaching, 40(3), 191-210.

[7] Vandergrift, L. (1999). Facilitating second language listening comprehension: acquiring successful strategies. ELT Journal, 53/3, pp. 168-176.

[8] Goh, C. (2000). A cognitive perspective on language learners' listening comprehension problems. System, 28, 55-75.

[9] O'Malley, J. M. & Chamot, A. U. (1989). Listening comprehension strategies in second language acquisition. AppliedLinguistics, 10(4): 418-437.

[10] Oxford, R.L., 1990: Language Learning Strategies: What Every Teacher Should Know. Boston: Heinle & Heinle

[11] Anderson, N. J. (2003). Metacognitive reading strategies increase L2 performance. The Language Teacher, 27, 20-22.

[12] Wenden, A. L. (1998). Metacognitive Knowledge and Language Learning. Applied Linguistics 19/4, pp. 515-537.

[13] Flawell, J. H and H. M. Wellmann. (1977). 'Metamemory' in R. V. Kail, Jr and J W Hagen (eds). Perspectives on the development of Memory and cognition. Hillsdale NJ Lawrence Erlbaun Associates.

[14] Vandergrift, L. (2003). Orchestrating Strategy Use: Toward a Model of the Skilled Second Language Listener. Language Learning 53:3, pp. 463–496.

[15] Vandergrift et al. (2006). The Metacognitive Awareness Listening Questionnaire: Development and Validation. Language Learning 56:3, September 2006, pp. 431–462.

[16] O'Malley, J. M. & A. U. Chamot. (1990). Learning strategies in Second Language Acqusition. Cambridge: cambridge University Press.

[17] Anderson, N. J. (2002). The role of metacognition in second language teaching and learning. ERIC Digest, EDO. Washington, DC: ERIC Clearinghouse on Languages and Linguistics.

[18] Chamot, A.U. & EI-Dniary, P.B. (1999). Children's learning strategies in immersion classrooms. The ModernLanguage Journal, 83(3), 319-341.

[19] Cohen, A. D. (1998) Startegies in Learning and Using a Second Language. Addison Wesley Longman Limited.

[20] Grenfell, M. & Harris, V. (1999). Modern languages and learning strategies: In theoriy and practice. London: Routledge.

[21] Chamot, A.U. (2005). The Cognitive Academic Language Learning Approach (CALLA): An update. In P.A.

[22] Trinh D. T. & Doan, V. C. (2012). A study on learning strategies for listening skills of advanced students at Thai Nguyen University of Techonlogy. University level research project. Unpublished paper.

[23] Hoang, T. T (2016). A study on Metacognitive Awareness in English Listening of Advanced program students at Thai Nguyen University of Technology. Journal of Science and Technology, 167(07), pp.61-65.

[24] Anderson, N.J. (2005). L2 strategy research. In E. Hinkel (Ed.), Hanbook of research in second language teaching and learning (pp. 757-772). Mahwah, NJ: Lawrence Erlbaum Associates.

[25] Goh, C. (2008). Metacognitive instruction for second language listening development: Theory, practice and research implications. RELS Journal, 39, 188-213.

[26] Vandergrift, L. (1997). The comprehension strategies of second language (French) listeners: A descriptive approach. Foreign Language Annals, 30 (3) pp. 387-409.