

Metacognitive Listening Strategy Training to Iranian English Majors

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Abstract

This study aims to investigate the effect of metacognitive strategy training on the listening performance of a group of pre-intermediate English majors at Islamic Azad University, Malayer Branch. This study had an intact group, pretest-posttest, experimental design. The subjects were already assigned to groups by the university. Thus, two classes were selected for the study and were randomly assigned into a control group (n=21: 13 female & 8 male), and an experimental group (n=22: 15 female & 7 male). To be assured about the homogeneity of listening proficiency of both groups a pre-test was administered and the results were analyzed using Independent Samples T-test and One-way ANOVA which revealed no significant difference between the two groups and between male and female students of each group. Next, the experimental group received 10 weeks of metacognitive strategy training embedded into a speaking & listening course, while the control group received no metacognitive strategy training. At the end of the training, two different listening post-tests were administered to the groups. The results were analyzed using Independent Samples T-test and One-way ANOVA which showed that the experimental group outdid the control group significantly and that there was no significant difference between male and female learners of each group. This suggested that metacognitive strategy training facilitated the listening process and listening performance of Iranian EFL majors.

Keywords: metacognitive strategy, person knowledge, task knowledge, prediction, monitoring, evaluation, problem solving

I. INTRODUCTION

When asked about the most problematic skill in learning a language, most beginning and intermediate learners usually complain that they have difficulty developing their listening skill. They argue that they face great burden trying to figure out what the speakers are going to convey or they may not fully grasp the message. Furthermore, some argue that their peers with the same listening proficiency have a much better comprehension. But how can these learners be assisted? The answer to this question lies in research on what “good listeners” do during the *process of listening* comprehension. One should know what proficient listeners do during the process of listening comprehension and use the same process-oriented approach for less proficient listeners.

Research has shown that more successful listeners use some listening strategies which facilitate the process of listening comprehension for them and make them be superior listeners to others (e.g., Goh, 1997, 1998, 2000, 2002; Goh & Taib, 2006; O'Malley, Chamot & Küpper, 1989; Oxford & Crookall, 1989; Vandergrift, 1997, 1999, 2003, 2004; Vandergrift & Tafaghodtari, 2010).

What follows is a brief elaboration on language learning strategies, in general, and listening strategies, in particular, which seems to help develop a clearer understanding of listening strategies.

A. Language Learning Strategies

Researchers have given some definitions for language learning strategies (e.g., Brown, 2001; Goh, 1998; O'Malley et al., 1989; Oxford, 1990). What all definitions on language learning strategies have in common is that language learning strategies are some kind of problem-solving activities through which learners try to enhance learning, comprehension, and retention of the incoming information. Yet, the most comprehensive definition is provided by Oxford (1990). She defined language learning strategies as “*specific actions taken by the learner to make learning easier, faster, more enjoyable, more self-directed, more effective, and more transferable to new situations.*”

B. Types of Language Learning Strategies

Two main views have been proposed on the types of language learning strategies. One was proposed by O'Malley, Chamot, Stewner-Manzanares, Küpper & Russo (1985), and the other one was proposed by Oxford (1990).

1. O'Malley et al.'s Inventory

O'Malley et al. (1985) proposed a three-category classification for language learning strategies: cognitive, metacognitive and socio-affective strategies.

Cognitive strategies are some form of problem-solving skills which are directly related to the learning task and involve the manipulation or processing of the incoming input. Goh (1998) says that the main job of the cognitive strategies is to help learners “process, store and recall” the incoming input (p.126). Richards & Schmidt (2002) define cognitive strategies as the “learning strategies that operate directly on incoming information in ways that enhance learning.” What most of the definitions of cognitive strategies have in common is that they directly operate on incoming input so as to make its processing/understanding and storing/learning and in turn recalling easier. Inferencing, elaboration, summarization, translation, repetition, note-taking, deduction and recombination are among the most important cognitive strategies.

Metacognitive strategies are general skills which are not directly related to the processing, storing and recalling information; rather, they control the learning process; in more precise terms, metacognitive strategies involve reflecting on the way the incoming information can or should be processed and stored. Also they are concerned with “taking appropriate steps to manage and regulate...cognitive processes” (Goh, 1998). Advanced organization, directed attention, selective attention, self-management, self-monitoring, self-evaluation, and problem identification are some of the most important metacognitive strategies.

Socio-affective strategies are said to be the strategies which are used in social interactions with others to make communication and, in turn, learning more effective, meaningful and easier. In other words, socio-affective strategies are used by learners to cooperate with others, to question others for clarification or to apply specific techniques to reduce their anxiety (Vandergrift, 1999). Cooperation and question for clarification are the main socio-affective strategies (Oxford, 1990).

2. Oxford's Inventory

Oxford (1990) proposed an inventory of six categories (three direct and three indirect categories): the direct strategies are memory (e.g. creating mental images), cognitive (e.g. practicing) and compensation strategies (e.g. guessing intelligibly), and the indirect strategies are metacognitive (e.g. evaluating your learning), affective (e.g. lowering your anxiety) and social strategies (cooperating with others). For a comprehensive elaboration see Oxford (1990).

C. The Scope of the Study

To investigate whether listening strategies can be instructed, some research has been done whose results support that listening strategy training facilitates the process of listening comprehension (e.g., O'Malley, 1987; Mendelsohn, 1994; Thompson & Rubin, 1996). But as Goh (2008) states, more research in different contexts is needed because "there are currently only a small number of studies that examine metacognitive instruction in L2 listening."

Also as Berne (2004) has noted there is a problem with those studies which reduces their generalizability and comparability. The problem is 'the lack of a common, standardized measure of listening proficiency.' To enhance the comparability and hence the generalizability of the study, the researcher uses the listening tests of the book *The Official Guide to the TOEFL iBT* (Educational Testing Service, 2009). This book is prepared by the same staff who design the real TOEFL Tests, thus its reliability and validity of the Listening Section are already proved (Sawaki & Nissan, 2009; ETS, 2011).

Moreover, in the present study, the researcher is not much concerned about all listening strategies. Rather, the focus is on developing the learners' metacognitive knowledge, and in turn, on the instruction of some metacognitive strategies and on assessing their effects.

1. Metacognitive Knowledge

Metacognition or metacognitive knowledge enables learners to know what they know and what they don't know, which enables them to progress beyond their present status of knowledge if it is paid enough attention. As classified by Flavell (1979), it is composed of three key categories:

Person Knowledge: everything about one's abilities and knowledge that can make one succeed

Task knowledge: everything about the goals, the demands, and the nature of learning tasks

Strategy knowledge: everything about what strategies are likely to make the learner successful in achieving his goals

If all these three factors of metacognitive knowledge are developed enough in language learners, they will be more effective learners, in general, and more effective listeners for the present study.

D. Research Questions

1. Does metacognitive listening strategy training lead to a better listening performance?
2. Is there a difference between male and female learners' performance after metacognitive listening strategy training?

II. METHODOLOGY

A. Participants

The study was carried out with 43 pre-intermediate undergraduate English Language Teaching majors at Islamic Azad University, Malayer Branch, Iran. The subjects were between the ages of 19 and 26. This study had an intact group, pretest-posttest, experimental design. The subjects were already assigned to groups by the university. Thus, two classes were selected for the study and were randomly assigned into a control group (n=21: 13 female & 8 male), and an experimental group (n=22: 15 female & 7 male). The subjects were taking a speaking-and-listening course. None of the subjects had lived in, studied in, or traveled to English-speaking countries before. All the subjects were sophomores who were taking their third course of "speaking-and-listening."

B. Measuring Instruments

For both the control group and the experimental group the same course book, *Interchange 3* (3rd edition) (Richards, Hull, & Proctor (2005), was used.

The measuring instruments used in this study were of a quantitative type. The measure used included a pre-test and two post-tests of listening comprehension performance. The pre-test and the second post-test were taken from the book *The Official Guide to the TOEFL iBT* (Educational Testing Service, 2009). This book is prepared by the same staff who design the real TOEFL Tests, thus its reliability and validity are already proved (Sawaki & Nissan, 2009; ETS, 2011). The reliability estimates for the Listening Section is relatively high (0.85) and the validity (ETS, 2011) and Sawaki & Nissan's study showed Pearson correlation coefficients ranging from 0.56 to 0.74 for the criterion-related validity of the test. The first post-test was taken from the Teacher's Edition of the course book.

C. Training Instruments

To raise the experimental group's awareness of metacognitive listening strategies the Metacognitive Awareness Listening Questionnaire (MALQ) which was constructed and validated by Vandergrift, Goh, Mareshal and Tafaghodtari (2006) was used but it was slightly modified to be compatible for Farsi-speaking learners of English – just the word French was replaced with English. Whenever the learners faced any difficulties understanding the questionnaire items, they were explained more. Also the learners were asked to answer either in English or in Farsi so that their language knowledge does not influence their answers.

Strategy-share discussions: In strategy-share discussions all the learners shared their strategies and were asked to write down their peers' strategies and try to use and evaluate them in their next listening task.

D. Design and Procedure

The study was structured to raise both the executive component and the knowledge-about-cognitive-states-and-processes component. The development of the former component was embedded in the latter and by having the learners provide their views on the MALQ.

1. Metacognitive Knowledge/Awareness Raising

Person Knowledge Raising: To raise the experimental group's awareness of their own metacognitive strategies and help them develop and test new strategies, the modified and translated version of the MALQ was given to them *before and after each listening phase*.

Task Knowledge Raising: To raise the experimental group's task knowledge clear instructions were given in their native language (i.e. in Farsi) and in each listening phase similar but various listening tasks were given to them. If the listening tasks differed from the previous ones, clear instructions for the new tasks were given so that the learners know what they were supposed to do with the tasks. Also there were some class discussions on how the learners tackled each task and the problems they faced after each listening phase which helped all the learners develop a better task knowledge.

Strategy Knowledge Raising: To raise the experimental group's strategy knowledge the modified and translated version of the MALQ was used and there were '*strategy-share discussions*' after every other listening phase. In strategy-share discussions all the learners shared their strategies and were asked to write down their peers' strategies and try to use and evaluate them in their next listening task.

2. A Fully Structured Metacognitive Strategy Training: The First Session

On the very first session, the teacher, the researcher himself, stated 'learners of the same age are all cognitively developed almost the same.' He further explained 'one of the most important factors that makes more effective/successful listeners different from less successful listeners is their ability to use appropriate metacognitive strategies for listening tasks.' The teacher introduced the *process-oriented listening* and mentioned four stages for it: prediction/planning, monitoring, evaluation, and problem-solving (Vandergrift's Model, 1997). Then he further explained what more successful listeners might do at every stage and he modeled the process through a think-aloud listening task.

2.1. The Process-Oriented Training

The Prediction Phase: At this phase, the learners were asked to read the listening instructions, look at the pictures (if there were any), read the question stem and the choices (if there were any

choices). Next, they were asked to work in *pairs* and make predictions on what they might hear and write down their predictions.

The Monitoring Phase: At this phase, the teacher had the learners listen to the recordings and asked them to verify or reject their predictions and listen for understanding.

The Evaluation Phase: At this stage, the learners were asked to evaluate their predictions and their answers in pairs and check their answers against the right answers provided by the teacher. Also they were asked to write down the problems and/or their misunderstandings.

The Problem-solving Phase: At his phase, the learners listened once more to the recordings and tried to solve their problems and clear up their misunderstandings.

In sum, the teacher first explained what more successful listeners do before, while and after listening. Then the MALQ was given to the learners to raise their metacognitive knowledge. Next, they wrote down their predictions of what they would hear. Later, they listened and rejected or verified their predictions and also listened for understanding. Further, they evaluated their predictions and wrote down their problems. After that, they listened again and tried to solve their problems and clear up their misunderstandings. Finally, the MALQ was given once more to the learners so that they could provide their strategies they used to tackle the listening task and so that they could write their strategies they used to improve their listening. Finally, they had strategy-share discussions to further develop their strategy repertoire and to see what strategies can be effective for each task and person.

III. RESULTS & DISCUSSION

As stated previously, to answer the research questions, the researcher applied both Independent-Samples T-Tests and one-way ANOVAs using SPSS (SPSS Inc., 2009) to analyze the probable differences between the experimental and control groups, and within the groups – to see if there is any significant within-group differences between male and female learners regarding their listening performance after the treatment.

The pre-test results, using Independent-Samples T-test and One-way ANOVA, revealed no significant difference between the two groups ($t=.260$; $p < .05$) and between male and female learners within each group, which seemed to mean that the groups were homogeneous regarding their level of listening performance before the treatment.

Later when the treatment was finished, two post-tests were administered to the groups: post-test 1 was composed of question items taken from Teacher's Edition of the course book, and post-test 2 was taken from the book *The Official Guide to the TOEFL iBT* (ETS, 2009). Next, the results were analyzed using T-tests and ANOVAs: it can be inferred from the results of the Independent-Samples T-test of the post-test 1 that there is a significant difference between the two groups ($t=3.222$; $p<.05$) and the ANOVA analysis (see Appendix A: Table 6) revealed that the difference is just due to the treatment, not gender differences. Also, the results of the post-test 2, analyzed using the Independent-Samples T-test procedure, suggest that there is a significant difference between the two groups ($t= 2.908$; $p<.05$). To further investigate whether gender differences have any effect on the results an ANOVA analysis was conducted and the results suggested that the difference was due to the training, not gender differences (see Appendix A: Table 9).

The findings of the present study seems to support studies revealing that metacognitive listening strategy training facilitates listening performance (e.g., Coskun, 2010; Goh, 1997, 2008; Goh & Taib, 2006; Vandergrift, 1997, 2002, 2003, 2004; Vandergrift et al., 2006; Vandergrift & Tafaghodtari, 2010).

In a strategy-investigation study done by Ehrman & Oxford (1988), it was found that "women definitely report more use of strategies than men." Also, in another strategy-investigation study done by Bacon (1992) "Women reported using a significantly higher proportion of metacognitive strategies than did men." Moreover, Khalil (2005) conducted his strategy-investigation research with Palestinian Arab speakers in Bethlehem. He, as well, concluded that female learners used strategies more often than male learners. Though not reaching significance, the study by Oxford et al. (1993) showed a tendency for females' strategy use to be more frequent than that of males. Studies by Green (1991, cited in Young, 2006) and Noguchi (1991, cited in Young, 2006) confirmed the proposition that females use as least as many and usually more strategies, more often, than do males.

Although the findings of the present study seem to be in contrast with the literature, all the studies listed were strategy-investigation ones and no study has been found to be done specifically to determine the effect of metacognitive listening strategy training on male and female learners in contrast. More research is needed to investigate whether metacognitive listening strategy training makes a difference for male and female learners.

In sum, the analysis of both of the post-tests supports the inference that the experimental group outdid the control group and that the difference is only due to the experiment, not gender differences.

IV. CONCLUSION

Developing learners' listening performance in a second or foreign language is a rigorous task that takes time and needs teacher's attention and learners' conscious effort.

The present study was conducted with the aim to explore whether metacognitive listening strategy training leads to a better listening performance and whether there is a difference between male and female learners' listening performance after listening strategy training.

To achieve this end, two speaking-and-listening classes which totally consisted of 43 pre-intermediate students were chosen. One class was assigned as a control group (n=21: 13 female & 8 male), and another as an experimental group (n=22: 15 female & 7 male). To be assured about the homogeneity of listening proficiency of both groups a pre-test was administered and the results were analyzed using Independent Samples T-test and One-way ANOVA which revealed no significant difference between the two groups and between male and female students of each group. Next, the experimental group received 10 weeks of metacognitive strategy training embedded into a speaking & listening course, while the control group received no metacognitive strategy training. At the end of the training, two different listening post-tests were administered to the groups. The results were analyzed using Independent Samples T-test and One-way ANOVA which showed that the experimental group outdid the control group significantly and that there was no significant difference between male and female learners of each group. This suggested that metacognitive strategy training facilitated the listening process and listening performance.

After a 10-session-training period on using metacognitive listening strategies, the experimental-group students were able to use the strategies to promote their listening performance. Thus, having an awareness of the three areas of metacognitive knowledge(i.e. person knowledge, task knowledge and strategy knowledge), as inferred from the research, can be considered as one of the factors that can help students do significantly better on listening performance tasks.

A. Research Implications

The implications can be multifold. The first implication concerns materials developers and textbook designers. It is essential for materials developers and textbook designers to develop and design books in which enough attention is paid to developing an awareness of metacognitive knowledge.

The second implication concerns teachers' roles. Teachers are advised to develop their knowledge and skills in training students to develop metacognitive-knowledge awareness and skill. What teachers need to know is to be familiar with different models of the process-oriented approach, choose one model and raise learners' awareness of three areas of metacognitive knowledge: person knowledge, task knowledge and strategy knowledge.

Also learners should consciously try to know themselves, understand the tasks they are doing and develop listening strategies that help them be more successful listeners. Learners are urged to practice using different metacognitive listening strategies to find the strategies which suit them best, to facilitate the listening tasks, and to gain a better listening performance.

Therefore, in order to raise learners' metacognitive knowledge, special attention should be paid to textbook design, lesson planning and classroom activity.

B. Suggestions for Further Research

As pointed out at the beginning of the study, further research is required to explore how the development of metacognitive knowledge can facilitate listening performance (Goh, 2008; Berne, 2004). This study adds to our current repertoire of knowledge about facilitating listening performance by providing empirical evidence of developing learners' metacognitive knowledge of person, task and language strategies, applying Vandergrift's four-stage process-oriented model (1997) and Vandergrift et al.'s questionnaire of metacognitive knowledge awareness (2006) to raise metacognitive strategies' knowledge.

However, there are still some issues that can be investigated further and more rigorously. Suggestions for further research can be categorized as suggestions to manipulate the procedure of each stage of the above-mentioned model and suggestions to transfer the model and metacognitive knowledge and skills to reading comprehension. Thus, researchers are suggested to explore whether (a) individual planning results in a better listening performance as compared to pair planning and brainstorming planning, (b) learner planning results in a better listening performance as compared

to teacher-structured planning, (c) Vandergrift's model (1997) results in a better listening performance as compared to other models of metacognitive strategy training, and (d) students are able to transfer the metacognitive knowledge and skills they acquired to their work in reading comprehension.

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Appendix A

Table 1

Pre-Test Results: Using Independent Samples T-Test on Group Differences

Group Statistics

	Group	N	Mean	Std. Deviation	Std. Error Mean
Pre-Test	Experimental	22	12.86	3.681	.785
	Control	21	12.57	3.696	.806

Table 2
Independent Samples T-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	.007	.932	.260	41	.796	.292	1.125	-1.980	2.565
	Equal variances not assumed			.260	40.891	.796	.292	1.125	-1.981	2.565

The mean difference is **not** significant at the 0.05 level.

Table 3
Pre-Test Results: Within Group Differences using One-way ANOVA

(I) Group and Gender	(J) Group and Gender	Mean Difference (I-J)	Std. Error	Sig.
Experimental Group: Male	Experimental Group: Female	-.429	1.712	.994
Control Group: Male	Control Group: Female	.929	1.936	.963

The mean difference is **not** significant at the 0.05 level.

Table 4
Post-Test 1 Results: Using Independent Samples T-Test on Group Differences

Group Statistics

	Group	N	Mean	Std. Deviation	Std. Error Mean
Post-Test 1	Experimental	22	19.27	3.548	.756
	Control	21	16.00	3.082	.673

Table 5
Independent Samples T-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	.677	.415	3.222	41	.002	3.273	1.016	1.222	5.324
	Equal variances not assumed			3.233	40.651	.002	3.273	1.012	1.228	5.317

* The mean difference is significant at the 0.05 level.

Table 6
Post-Test 1 Results: Within Group Differences using One-way ANOVA

(I) Group and Gender	(J) Group and Gender	Mean Difference (I-J)	Std. Error	Sig.
Experimental Group: Male	Experimental Group: Female	-.610	1.542	.979
Control Group: Male	Control Group: Female	-1.982	1.744	.669

The mean difference is **not** significant at the 0.05 level.

Table 7
Post-Test 2 Results: Using Independent Samples T-Test on Group Differences

Group Statistics

	Group	N	Mean	Std. Deviation	Std. Error Mean
Post-Test 1	Experimental	22	17.50	3.306	.705
	Control	21	14.62	3.186	.695

Table 8
Independent Samples T-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	.143	.707	2.908	41	.006	2.881	.991	.880	4.882
	Equal variances not assumed			2.910	40.995	.006	2.881	.990	.882	4.880

* The mean difference is significant at the 0.05 level.

Table 9
Post-Test 2 Results: Within Group Differences using One-way ANOVA

(I) Group and Gender	(J) Group and Gender	Mean Difference (I-J)	Std. Error	Sig.
Experimental Group: Male	Experimental Group: Female	-.314	1.494	.997
Control Group: Male	Control Group: Female	-1.536	1.689	.800

The mean difference is **not** significant at the 0.05 level.