

The effect of metacognitive listening strategy training on listening comprehension in Iranian EFL context

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Abstract

Listening can be regarded as a very important skill in academic worlds. Ongoing debates about listening strategy instruction, as well as a lack of methodological consistency in previous language studies, make it particularly difficult for EFL teachers to know how to implement listening strategy instruction in their classrooms. Therefore, the current was designed to examine the effect of metacognitive listening strategies training on EFL learners' listening comprehension. The participants in the study were selected from six intact classes consisting of 120 intermediate students studying English in Zabansara English Institute in Gorgan, Iran. A listening comprehension test, pre-test and post-test standardized measures of listening comprehension, and metacognitive listening strategy questionnaire were administered to the experimental and control group. The training program period was hold for experimental group within one week after pretest. The instructor taught the metacognitive listening strategies included in Metacognitive Awareness Listening Questionnaire based on CALLA instructional model. Paired-sample T-test was utilized for the purpose of data analysis. The results of this study showed that metacognitive strategy training can advance Iranian EFL learners from the beginning level to a higher level of listening comprehension. If teachers in both contexts modify learning strategies to fit students' special needs and adapt these listening strategies to facilitate academic learning, the

learners will elevate their language proficiency levels and develop much higher listening achievement. In sum, Iranian EFL participants benefited in numerous ways from listening strategies instruction.

Keywords: metacognition, metacognitive listening strategy, Listening comprehension, CALLA.

Introduction

Listening comprehension can be regarded as an important language skill to develop. Language learners are interested in understanding target language (L2) speakers and they want to be able to access the rich variety of aural and visual L2 texts available via network-based multimedia. In addition, as some scholars believe, listening comprehension is at the heart of L2 learning and the development of L2 listening skills can play a significant role in developing other language skills (e.g. Dunkel 1991; Rost 2002, as cited in Vandergrift, 2007). By considering the above-mentioned importance, it is important to develop L2 listening competence; however, second language learners are rarely taught how to listen effectively although they are aware of the importance of this skill (e.g. Mendelsohn 2001, 2006; Berne 2004; LeLoup & Pontiero 2007, as cited in Vandergrift, 2007).

Furthermore, listening is an effective skill which can develop faster in comparison to the speaking skill and often can have an effect in the development of reading and writing abilities in

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learning a new language (Scarcella and Oxford, 1992; Oxford, 1993). According to them, the main reason is that one receives input through listening to instructions or explanations prior to responding orally or in writing. Listening is not an easy skill to acquire because it requires listeners to make meaning from the oral input by drawing upon their background knowledge of the world and of the second language (Nagle & Sanders, 1986; Young, 1997) and produce information in their long term memory and make their own interpretations of the spoken passages (Mendelsohn, 1994; Young, 1997). In other words, listeners need to be active processors of information (Young, 1997). Meanwhile, Vandergrift (1996, 1997, and 2003) asserts that listening is a complex, active process of interpretation in which listeners try to suit what they hear with their prior knowledge. According to Richards (1983), this process is more complex for second language learners who have limited memory capacity of the target language. Therefore, it is necessary for them to utilize various listening strategies.

As most English teachers in Iran believe, although we may know a lot about the nature of listening and the role of listening inside and outside the classroom, L2 listening has been considered to be an overlooked skill in comparison to three other language skills. As Vandergrift (2007) believes, it may be related to some reasons such as its implicit nature, the ephemeral nature of the acoustic input and the difficulty in accessing the processes. She also pointed out that students who learn to control their listening processes can enhance their comprehension; this, in turn, affects the development of other skills and overall success in L2 learning.

Statement of Problem

Listening comprehension may seem relatively straightforward to native language (L1) speakers but it is often a source of frustration for second and foreign language (L2) learners (e.g., Graham, 2006). Further, little attention has been focused on systematic practice in L2 listening (see DeKeyser, 2007) i.e., on the integrated instruction of a sequential repertoire of strategies to help L2 learners develop comprehension skills for real-life listening (Berne, 2004; Mendelsohn, 1994; Vandergrift, 2004).

On the other hand, when we study the recent research on second or foreign listening instruction, most of them have emphasized the need for assessing the effectiveness of metacognitive strategy training in order to improve second language

listening comprehension. Further, it is worth mentioning that new approaches for developing an effective L2 listening have focused their attention on real-life authentic listening by making use of top-down approaches and analyzing the processes taking place during the instruction (e.g. Goh, 2008; Richards, 2002; Vandergrift, 2007).

Nowadays, as Goh (2008) states, top-down approaches have attracted more attention in comparison to bottom-up approaches. Also, some believe in listening processes than listening product (Vandergrift, 2004). Among the different approaches stated about L2 listening, metacognitive listening strategy training has been emphasized more (Goh, 2008; Vandergrift, 2007).

In general, comprehension historically has received only minimal treatment in the teaching of English as a Second Language (ESL), but it is, in fact, one of the most important skills a second language (L2) learner must master to succeed in academic studies (Jung, 2003). For learners to become proficient in listening comprehension, they must «receive comprehensible input» (Vandergrift, 1997, p. 495) as well as have ample opportunity to practice using, or producing, the language. In second language acquisition, listening comprehension used to be considered a passive activity; thus, it did not merit researchers' attention (Jung, 2003; Vandergrift, 2004). It had been assumed that a learner's ability to comprehend spoken language would develop entirely on its own in an inductive way through repetition and imitation. As recently as the 1970s there were no textbooks devoted to teaching the skill of listening in a second language. It was assumed that the ability to comprehend spoken language would automatically improve because learners with exposure to the oral discourse would learn through practice.

Listening texts are a relatively recent addition to the ESL or ESL curricula; the focus of earlier second or foreign language learning texts which included a focus on listening comprehension was primarily on testing students' ability to listen to oral discourse and then answer comprehension questions based upon the information (Carrier, 2003; Field, 1998). Today, however, a growing body of research indicates that the focus has shifted to actively and intentionally teaching strategies for «learning how to process, comprehend, and respond to spoken language with greater facility, competence, and confidence» (Rost, 2007).

Despite, recognizing the importance of listening strategies for the development of foreign lan-

guage proficiency, very limited studies have been performed in Iran concerning the strategies employed by Iranian EFL learners in relation to listening proficiency levels. Therefore, the purpose of this study is to determine how strategies training may benefit L2 learners in their development of listening comprehension.

Significance of the Study

The current study addresses the need for further research in the area of systematic teaching of listening strategies. According to Carrier (2003), for L2 learners, the ability to use strategies effectively in their academic listening is crucial (Carrier, 2003). She believed that learners need to be able to actively and selectively choose the strategies most applicable for a given listening situation and evaluate strategy effectiveness in their everyday learning tasks. As Carrier (ibid) indicated in her study, students can benefit from instruction in strategies for academic listening in a variety of settings and incorporating many types of media.

This study adds to the growing body of research of how adult EFL students pursuing academic study may benefit from explicit, systematic teaching of listening strategies. Doing this research contributes a method to introduce and model L2 listening strategies. Results of the study provide insight into participants' self-perceptions of their use of listening strategies both before and after systematic classroom instruction.

Research Questions

The following research questions formed the basis of the study:

1. Does explicit listening comprehension strategy training based on CALLA instructional model increase Iranian EFL learners' listening comprehension?
2. Is there any significant difference in using metacognitive listening strategies, based on Metacognitive Awareness Listening Questionnaire (MALQ), by Iranian EFL learners before and after metacognitive training program?

Research Hypotheses

Based on the above questions, the following hypotheses were estimated:

1. Explicit listening comprehension strategy training based on CALLA instructional model cannot play any role in increasing Iranian EFL learners' listening comprehension.

2. There is no significant difference in using metacognitive listening strategies, based on Metacognitive Awareness Listening Questionnaire (MALQ) by Iranian EFL learners before and after metacognitive training program.

Models of Listening Comprehension

In bottom-up processing, the learner analyzes the various morphosyntactic elements of the discourse, from the phonemes of the language to the syllables, words, phrases and sentences that make up the discourse. These activities require processing of all of the linguistic structures of the target language. In bottom-up processing, the learner uses sound input to guess what a word might be, based on matching initial sounds to his known lexicon. As more sounds occur, the listener can eliminate more and more possibilities until he arrives at the single, most accurate match to the input sounds. This matching may occur before all of the sounds have been heard because of the elimination process.

The second model for listening is top-down processing, in which the learner draws upon background knowledge and expectations on what will follow next in the discourse and then infers what the intentions of the speaker may have been. Inferring is an important part of the process, and it is important to note that the reader or listener, through the process of inferring meaning, may or may not correctly interpret the meaning of the written or spoken text (Rost, 2005).

Finally, Vandergrift (2003) discussed the need for well-designed listening activities that actually provide the learning in listening strategies that texts claim but do not always deliver. He proposed that «students ... be taught how to listen without the pressure of 'getting it right' so that they learn to use effective listening strategies that are also applicable outside the classroom» (2003, p. 426). It is widely understood that listeners use top-down processing when they activate their own background knowledge, and they rely on bottom-up to help them decode the sounds and grammatical patterns of English. Citing Rost (2002), Vandergrift wrote that «listening comprehension is not either top-down or bottom-up processing, but an interactive, interpretive process where listeners use both prior knowledge and linguistic knowledge in understanding messages. ...The degree to which listeners use the one process or the other will depend on their knowledge of the language, familiarity with the topic, or the purpose for listening» (p. 427).

The Interactive Process model (Park, 2004) shows how it takes both top-down processing coupled with bottom-up processing for comprehension to take place. Bottom-up requires linguistic knowledge and top-down occurs when background knowledge comes into play. If one or the other is missing, there can be compensation, though comprehension best takes place through the interaction of both. Top-down processing is particularly useful for lower-level learners to fill in the gaps in their bottom-up understanding of an oral text, for example when they lack proficiency in vocabulary or syntax of the L2 (Field, 1999).

Significance of Metacognitive Strategies

Metacognition refers to the knowledge and control that we have over our cognitive processes. With regard to reading, it is common to talk about metacognitive awareness (what we know) and metacognitive regulation or control (knowing when, where, and how to use strategies, that is, what we can do). On a general level, metacognition includes awareness and control of planning, monitoring, repairing, revising, summarizing, and evaluating. Essentially, we learn awareness of our comprehension processing. More specifically, we learn strategies that support our comprehension (our awareness of strategies) and we learn how to carry out these strategies effectively (our control of strategies) (Baker, 2002, 2008).

There are no distinct metacognitive strategies as opposed to cognitive strategies. Instead, strategies are used for more metacognitively aware purposes (Baker, *ibid*). In contrasting metacognitive and cognitive strategies, O'Malley *et al.* (1985) posit that:

Metacognitive strategies involve thinking about the learning process, planning for learning, monitoring of comprehension or production while it is taking place, as self-evaluation of learning after the learning activity is completed. In contrast, cognitive strategies are more directly related to individual learning tasks and entail direct manipulation or transformation of the learning materials (p.560).

One reason metacognition is significant is that if learners are not aware of when comprehension is breaking down and what they can do about it, strategies introduced by the teacher will fail. As O'Malley *et al.* (1985) have pointed out: «students without metacognitive approaches are essentially learners without direction or opportunity to review their progress, accomplishments, and future directions» (p.561). Further, Pressley *et al.* (1987) suggest

that metacognition helps students to be consciously aware of what they have learned, recognize situations in which it would be useful, and progress involving in using it.

The impact of learning strategy instruction on listening comprehension

Lots of researches have been done on the effect of strategy instruction on both language learning, in general and on listening comprehension, in particular. In one hand, some studies concluded that development in strategic knowledge can pave the way for language performance (Annevirta *et al.*, 2007). They drew their conclusion from the high correlation between improvement in meta-knowledge and better language performance. Enhanced metacognitive knowledge was suggested to be a good predictor of learning (Wang *et al.*, 1990), a compensation for one's cognitive and intellectual limitations (Veenman *et al.*, 2006), and an effective tool for successful listening (Zhang & Goh, 2006).

On the other hand, there was a general suggestion that knowledge and use of metacognitive strategies can enhance L2 listening comprehension (Annevirta *et al.*, 2007; Beasley *et al.*, 2008; Chen, 2007; Derwing, 2008; Field, 2008; Goh, 2000; 2002; 2008; Graham *et al.*, 2008; Hasan, 2000; Liu & Goh, 2006; Macaro *et al.*, 2007; Mareschal, 2002, as cited in Lee, 2010). Goh (2008) believes that there are three benefits for listening strategy training: 1) it is more motivating and less anxious, 2) there is an advantage in listening performance, and 3) there is more benefit to weak listeners.

Teaching Listening Strategies

Until recently, most research focused on discovering and categorizing the types of learning strategies used in language learning or the differences between strategy use in successful language learners as compared to those of less successful learners (Chamot, 2005). The focus has shifted to research into ways to teach effective strategy use. Information that has been gathered from descriptive studies is now being used to «measure relationships between strategy use and language proficiency, metacognition, motivation, and self-efficacy» (Chamot, *ibid*, p. 115). Guidelines offered for structuring an intervention study included randomizing the assignment of participants to treatment and control groups, standardizing the instruction--other than the intervention training-- within groups, pre- and post-testing participants on instruments that have been

tested for both validity and reliability to «identify not only knowledge about and use of the innovation (e.g. learning strategies), but also measure other factors deemed important in learning, such as achievement/proficiency, motivation, attitude and/or self-efficacy» (Chamot, *ibid*, p. 116). Because many of this type of study take place in a regular classroom setting, it is very difficult or impossible to meet all the guidelines for researching strategies intervention.

Researchers disagree on whether or not learning and listening strategies should be actively taught to L2 learners. Several researchers believe that the research is, in fact, inconclusive as to whether instruction in strategies really produces any positive effect for learners (Chamot, 1995) though it should be noted that this type of research is very difficult to conduct and results may not be clear. For example, in a study of student success in developing and using learning strategies (Thompson & Rubin, 1996), it was found that L2 students did show some improvement in their use of strategies. However, the study did not show a positive correlation between strategy instruction and learner performance. In addition, no distinction was made between those strategies intended to assist in extracting meaning and those intended for learning a new language. A study of how raising awareness of the strategies L2 speakers can use showed that those learners who were given instruction in strategies for oral communication realized greater improvement in their speaking abilities than did the control group, which did not receive strategies instruction (Nakatani, 2005). Other studies have also shown that intervention, the teaching of strategies, has been beneficial for L2 learners (McGruddy, 1998; O'Malley & Chamot, 1990; Thompson & Rubin, 1996).

Some researchers believe that teaching sub-skills rather than listening strategies provides better outcomes for L2 learners. Teaching sub-skills (Field, 1998) as opposed to listening strategies can be helpful for learners. The concept of sub-skills has been in the literature since the early 1980s (Richards, 1983), but it appears that syllabus designers and teachers have not been actively using sub-skills as a basis for teaching listening comprehension. Sub-skills fall into three target areas. The first is the type of listening required for a certain task. For example, students are called upon to listen for overall meaning-or gist-or for specific pieces of information. The second involves listening for various discourse markers, for example, transitional phrases like «Let's move on

now to...» The third is the sub-skill of techniques the listener might use to decipher discourse, such as predicting what information might follow or using intonation patterns to assist in comprehension.

Related Studies on Listening Strategy Instructions

Numerous studies have done about the role of strategy training in enhancing listening comprehension. They concluded that strategies can be taught and that such teaching increases performance in the second language process (Chamot, 2004). However, it is also believed that strategies cannot be effective if learners are not able to use them. In general, the impact of instruction in strategy use is important. In order to make the strategy instruction effective, Macintyre (1994) proposed that one needed to know first under which condition the learner used the strategies well. He proposed the social-psychological variables to predict the learners' use of language strategies. The model suggested three factors determined the learners' use of strategies. They are knowledge of the strategy, having a reason to use it, and not having a reason not to use it. This model indicated that knowing a strategy well, perceiving its effectiveness, and not considering it to be difficult to use predict the majority of the variance in strategy use. As a result, training that simply demonstrates a particular strategy without showing when it will be most effective is less likely to produce high rates of use than training that also shows when to use it.

Several researchers have done numerous studies on the effectiveness of strategy instruction. First, Coskun (2010) investigated the effect of metacognitive listening strategy training on the listening performance of a group of beginner preparatory school students at a university in Turkey. Two beginner groups, a control group (n: 20) and an experimental group (n: 20), were chosen as the participants of the study. The experimental group received five weeks of metacognitive strategy training embedded into a listening course book, while the other group did not. At the end of the training, a listening test taken from the teacher's manual of the same course book was administered to both groups. The analysis of the test scores using t-test revealed that the experimental group did statistically better in the test. The implication of the study is that metacognitive strategy training should be incorporated into the regular listening teaching program to help students become more effective listeners.

O'Malley and Chamot (1990) conducted a lon-

gitudinal study to investigate the effectiveness of strategy training on ESL learners in classrooms. The purpose of this study was to explore the impact of strategy training on the performance in academic listening, speaking and vocabulary tasks. The 75 subjects, who were all ESL students at an intermediate level of English proficiency and attending three high schools in the United States, were randomly grouped into two experimental groups and a control group. The experimental groups consisted of a metacognitive group and a cognitive group respectively. These two groups received instruction in listening strategies for fifty minutes daily for eight days within a two-week period. The metacognitive group received instruction in «selective-attention», «note-taking», and «cooperation» while the cognitive group received instruction in «note-taking» and «cooperation». The listening materials included four five-minute videotapes that simulate lectures on academic subjects. Each lecture was accompanied by four daily tests. In addition, pretests and post-tests were conducted on the first and the last days out of a ten-day period.

O'Malley's study gave rise to many implications as to how listening strategy instruction may be more successful if we consider the time spent on instruction and practice. Spending a longer time on these two aspects was suggested. Also, the material selected for teaching and testing should reflect the students' current proficiency. Otherwise, students may still find it too hard to apply the instructed strategy and lose heart.

Clement (2007) investigated beliefs about strategy use for the improvement of second language listening comprehension. The study compared participants' self-reports of their strategy use prior to and after four electronically-delivered interventions consisting of explicit instruction and illustration of strategies that can assist in listening comprehension. Participants were 64 international students at intermediate to advanced level of language proficiency (as determined by the Michigan Listening Comprehension Exam (Upshur et al., 1972) studying English as a Second Language (ESL) at two universities in the Eastern United States. Data were collected using three instruments, the Strategies Inventory for Language Learning (SILL) (Oxford, 1990), researcher-designed post-intervention surveys, and a researcher-designed post-study survey. Investigated were four covariates: school attended level of instruction, native language, and proficiency level. Data were analyzed using descriptive anal-

yses, analyses of variance (ANOVA), and analysis of covariance (ANCOVA). A statistically significant difference was found for total scores from Pre- to Post SILL for participants' level of instruction. No differences were revealed for school attended, native language, or proficiency levels. ANCOVA revealed a difference in level of instruction for Part B of the SILL, representing cognitive strategies. Participants indicated high levels of approval of the web-based interventions and indicated a belief that this type of training would help them in future listening tasks.

Another study was done by Thompson and Rubin (1996). The purpose of this longitudinal, classroom-based study was to investigate whether systematic instruction in the use of a range of cognitive and metacognitive strategies would result in an improvement of listening comprehension performance in Russian. This study considered the importance of teachers' familiarity with learner strategies and also the role of vision via video in listening comprehension. The subjects were students enrolled in a required third-year Russian language course at George Washington University. Their speaking ability was in the ACTFL Novice High-Intermediate Low range at the beginning of the year. They were divided into an experimental group and a control group. The students were taught to apply both cognitive and metacognitive strategies. Cognitive strategies were taught for each genre in the study including that of a) Drama, with a focus on the story line, b) Interview, with a focus on question-and-answer sequences and, c) News, with a focus on who, what, where, when, and how. Metacognitive strategies included planning, defining goals, monitoring, and evaluating.

The results confirmed that systematic instruction in the use of cognitive and metacognitive strategies did improve listening comprehension. The students in the experimental group showed at least a ten-percent improvement on the video comprehension post-test as compared to those in the control group. However, on the audio test the differences between the two groups were not significant. The reasons for this phenomenon were as follows: First, an ETS audio test, the format of the test the researchers selected to use, was not parallel to the type of instruction which the students had been given and which focused on giving students visual cues contained in the videos to facilitate their listening comprehension. Second, the items in the ETS audio were not related to the genres that the

researchers taught. In addition, the authentic materials employed in the classrooms may have been gone beyond the students' current level of listening proficiency.

In a study in which one group of L2 students received instruction in learning strategies while the other group did not, it was shown that teaching strategies (Anderson, 2002; Goh, 1998) was helpful to L2 learners. The researcher distinguished between strategies and tactics, with strategies being seen as more general and tactics the specific steps taken «to assist or enhance comprehension» (Goh, 1998, p. 125). It was found (Mendelsohn, 1995) that learners in a higher proficiency group used many more strategies as well as many more tactics than did students of lower proficiency.

Since there was no explicit training in the use of either tactics or strategies, it is believed (Macaro, 2006) that transfer of strategies from L1 occurs in such a way that learners use the very same strategies they have used in their L1. However, this does not explain the discrepancy between the high and low proficiency groups. It has been proposed that many learners are unable to accomplish the transfer from L1 to L2, and this might account for their inability to use tactics and strategies as they listen in L2. Raising metacognitive awareness may be a good way to assist learners in being able to transfer their strategies and tactics.

In another research study done by Vandergrift (2002), elementary-aged L2/FL learners were taught specific strategies, such as listening for key terms and focusing on the task at hand, and then asked to reflect on their performance on listening tasks. As far as the questionnaire in this study is concerned, they were asked questions about what had helped them to understand, and whether they had used certain strategies during the tasks. Students were encouraged to comment both on specific tasks and on the instruments used for each task. Results showed that even young students are aware of many of the strategies they use in L2 or FL listening. Vandergrift sorted student responses into three main types: metacognitive strategies involving planning, monitoring, and evaluation as well as knowledge of the required task and knowledge of self. It appeared that these young students' awareness had been raised enough for them to take responsibility for their own planning, monitoring and evaluation during listening activities and to be satisfied with their progress. Key to the metacognitive development is students' ability to take their knowledge of strategies and then transfer and use the strategies in other listening tasks.

A research study conducted in the People's Republic of China (Goh, 2002) reported on the importance of teaching listening strategies to students approaching their undergraduate studies or their working careers. Until very recently, listening and speaking skills received little attention, but with the current political and economic conditions in China, this situation has changed, with a shift to actively teaching English speaking and listening along with reading and writing so that Chinese students can realize global opportunities for study and employment. To add to the rather slight body of research in the area of teaching listening strategies in China, a questionnaire-based study was conducted with Chinese learners of English, with primary focus on identifying listening comprehension strategies. In addition, this study attempted to identify general learning strategies. Of interest also was whether there was any difference in strategy use by gender.

One hundred forty one students studying in an English listening class at a university in Singapore completed a listening strategies questionnaire, the Techniques for Learning to Listen (TELL) (Goh, 2002). After having been piloted, the questionnaire underwent revision and the version these students used had 52 items, each representing a tactic. The questionnaire was written and administered in English. Four main categories of strategies were covered, three aimed at comprehension: metacognitive (19 items), cognitive (18 items), and social/affective (5 items); and one aimed at learning (10 items). The answer scale was a Likert-type five-point scale.

Results of the study showed that all three categories of comprehension strategies were used at a moderate level, and learning strategies (which also fell into the categories of metacognitive, cognitive and social/affective) were used at relatively moderate to high levels. It was found that within each category of comprehension strategies, selected strategies tended to be used more than others. For example, within the entire range of comprehension strategies, «directed attention, inferencing, contextualization, elaboration and self-encouragement» (p. 54) tended to be used the most frequently. In addition to the analysis of strategy use, tactics to operationalize the strategies were analyzed qualitatively. No statistically significant differences were discovered for gender.

While research into listening strategy instruction in the FL context is important, of even greater importance may be research into instruction for ESL learners. For high school and college or uni-

versity students studying in an L2 environment, the need to be able to comprehend academic content is crucial if they are to succeed as students. They must be able to process huge amounts of information, often in subject areas for which they lack background knowledge, and they must be able to not only listen and comprehend but also to manipulate and reproduce what they have heard.

A small study was conducted by Carrier (2003) with seven high school students at intermediate ESL proficiency level in the U.S. Pre-tests were administered to test participants' level in discriminating English sounds and in processing information presented to them via video. Intervention training, which consisted of training in listening for discrete sounds, processing information delivered via video, and taking notes, a series of 15 lessons, was conducted over the course of six weeks. In each lesson, the strategies were defined and benefits of using the strategy explained. The instructor modeled the strategy using a think-aloud protocol during classroom instruction. Finally, participants practiced new strategies in similar tasks and applied them in academic settings.

An intervention study was conducted with ESL university students at advanced-level proficiency (McGruddy, 1998). Over the course of a semester, students in the experiment group were instructed for a total of five 100-minute sessions per week in use of three listening strategies: predicting, inferring, and selective attention. Two control groups did not receive explicit strategies training but met for listening class for the same amount of time. Several types of listening were addressed during the study, all tasks typical for academic listening. For example, short, video-taped excerpts from authentic academic lectures and interviews, news programs, and situation comedies were used to teach, practice, and test the specific listening strategies investigated by the study. Many of the instructional materials were designed by the researcher while others were extracted from published ESL listening texts.

Participants were first leveled for proficiency through use of a researcher-made video test in addition to the nationally normed and validated Michigan Listening Comprehension Test (Upshur *et al.*, 1972). Questionnaires were administered to all participants to gauge their beliefs about their own strategy use. Pre-treatment questionnaires were completed at the beginning of the term; then a second and third were completed at the end of the experiment, in an effort to determine students' self-per-

ception of their learning. In weeks seven and fifteen of the study, participants were videotaped while they were engaged in a listening task, and then they were asked to offer retrospective comments on strategies they had been using during the listening task. At various points during their instructional time, students also engaged in discussion about the strategies they had been practicing and the usefulness of those strategies.

Specifically, the researcher strove to determine whether explicit instruction in the three listening strategies had a positive effect on student learning, determined through comparison of pre- and post-aural proficiency tests and her self-designed listening comprehension video test. Her research design was based upon a combination of Schema Theory and Relevance Theory (Anderson, 1977; Nassaji, 2002; Rost, 1990).

Quantitative and qualitative analyses were conducted to determine test results. Results showed a statistically significant improvement in the strategy of selective attention for the treatment group; the strategies of predicting and inferring did not reach statistical significance, but participants did show improvement. The researcher posited that for strategies training to be effective, more instructional time may need to be devoted to explicitly teaching strategies for listening: «Given the cognitive demands placed on the L2 listener in a listening strategy training course, longer length of training may be needed» (McGruddy, 1998, p. 211). Lack of practice outside the academic classroom setting may also be a factor in the outcomes of the study. As the researcher noted, ESL students often spend their time outside of class with others of their own language background. Thus, gains in listening comprehension may occur very gradually.

To sum up, Vandergrift (2003), Teng (1997), and other researchers suggested a positive role for listening strategies and the importance of instruction. However, they focused only on the diagnosis of strategy use and left the instructional effects unexplored. Moreover, the subjects in the studies were college and senior high school students, with little attention being given to the use of listening strategies by junior high school students.

In all, the studies above focused on the effects of listening strategy instruction and thus use a cognitive approach to conduct the research quantitatively to investigate the effects of the instruction. Like all those traditions in psychology and linguistic, these studies treated strategy instruction as an input and

that language acquisition is basically a matter of information-processing process in which only the learner's ability to digest the input is concerned. In other words, the learner is regarded as an isolated figure and cognition is essentially individual phenomena isolated from the environment or the context in which the learning actually happens.

Methodology

Participants

The participants in the study were selected from six intact classes consisting of 120 intermediate students studying English in Zabansara English Institute in Gorgan, Iran. The participants were both male and female and had a mean age of 18 and had been studying English as a foreign language at least for four years. Their level of English proficiency was determined on the basis of their scores on the listening section of the book they were studying. In addition, some of the students were absent in one of the main stages of doing this study. Finally, the data of 111 students were taken into account for data analysis. The participants were randomly divided into one experimental and one control group.

Instruments

A Background Questionnaire: The background questionnaire was used to obtain information about the participants' gender, age, major, background of learning English, medium of instruction, years of studying English, purpose and attitude toward learning English.

Listening Proficiency Test: The listening proficiency test used for evaluating the participants' level of proficiency in English was based on the listening part of the students' book.

Metacognitive Awareness Listening Questionnaire (MALQ): This questionnaire consists of 21 randomly ordered items related to L2 listening comprehension. The items measure the perceived use of the strategies and processes underlying five factors related to the regulation of L2 listening comprehension. These five factors include Planning and Evaluation (how listeners prepare themselves for listening and evaluate the results of their listening efforts), Problem Solving (inferencing on what is not understood and monitoring those inferences), Directed Attention (how listeners concentrate, stay on task, and focus their listening efforts), Mental Translation (the ability to use mental translation parsimoniously), and Person Knowledge

(learner perceptions concerning how they learn best, the difficulty presented by L2 listening, and their self-efficacy in L2 listening).

Listening Texts: Given the inherent differences between oral and written discourse, it is imperative to investigate comprehension using listening passages that approximate natural speech (Schmidt-Rinehart, 1994). In light of this, the passages were not read aloud from a script, because listening passages should reflect the characteristics of oral-based discourse. The passages used for the study were elicited from Randall's ESL Cyber listening site. The listening texts were divided based on the level of difficulty in this site. By considering the level of the participants, four listening passages, along with their multiple-choice questions, were selected (see Appendix B). They were selected on the basis of potential interest and hypothesized unfamiliarity. The passages were about «Apartment», «Rent a car», «University Degree» and «College Major».

Listening Comprehension Pretest and Posttest: After selecting four listening comprehension passages, by taking the level of difficulty into account as pretest, some questions were developed that fitted the purpose of the intervention program of this study.

Another criterion considered in this study for selecting the listening texts was the type of strategy which should be adopted by the students to respond to the questions in the posttest stage. The texts for pretest and posttest were the same.

Finally, a 25-item multiple-choice test was developed. This test was piloted with Iranian students studying English. Internal consistency for the instrument was estimated by computing Cronbach's alpha coefficients. The overall test Cronbach's alpha was .78.

Procedure

The six classes involved in the study were randomly chosen from intermediate students studying English in Zabansara English Institute in Gorgan, Iran. One hundred and twenty students were given the listening proficiency test, which was selected from among listening texts in the book they were studying, one week prior to listening to the main listening pretest selected for the purpose of this study. Then, the six intact classes were randomly assigned to three experimental groups and other classes were assigned to control group. Then, the pretest listening was given to all participants in three experimental and three control classes. The scores

obtained from this test were analyzed to see whether there is any significant difference between the two groups or not before intervention program. Immediately after answering the test, they were given Metacognitive Awareness Listening Questionnaire (MALQ) as pretest. This test was used to know the level of familiarity of the participants about listening strategies.

The training program period started for experimental group within one week after the pretest. It took 5 weeks of class sessions. The instructor taught the following metacognitive listening strategies included in Metacognitive Awareness Listening Questionnaire based on CALLA instructional model such as I translate word by word, as I listen- I translate in my head as I listen- As I listen, I compare what I understand with what I know about the topic. and I try to get back on track when I lose concentration . This model has five instruction phases as explained below (Chamot and O'Malley, 1994, as cited in Chamot, 1995):

1. Preparation: Students prepare for strategies instruction by identifying their prior knowledge about and the use of specific listening strategies. e.g. setting goals and objectives, identifying the purpose of a language task, over-viewing and linking with already known material;

2. Presentation: The teacher demonstrated the new listening strategy and explains how and when to use it. e.g.: Explaining the importance of the strategy, asking students when they use the strategy;

3. Practice: Students practiced using the strategy with regular class activities. e.g.: Asking questions, cooperating with others, seeking practice opportunities;

4. Evaluation: Students self-evaluated their use of the learning strategy and how well the strategy was working for them. e.g.: Self-monitoring, self-evaluating, evaluating their leaning;

5. Expansion: Students extended the usefulness of the learning strategy by applying it to their strategies to new tasks by combining strategies into clusters

After teaching the strategies, the same listening comprehension (posttest) was administered to see whether there is any difference between the participants' score before and after treatment.

Finally, they responded again to MALQ in order to see whether there is any significant difference between the students' use of metacognitive listening strategies before and after the training program.

As far as the control group in this study is con-

cerned, they were not taught any listening strategies. They answered only listening pretest and posttest, in addition to MALQ pre- and posttest.

Results and Discussion

By considering all the above-mentioned issues and to fulfill the purpose of this study, the following research questions were raised:

1. Does explicit listening comprehension strategy training have any effect on increasing Iranian EFL learners' listening comprehension?

Table 1. Descriptive Statistics for listening comprehension pre- and posttest for experimental and control group in Iran.

Group	Test	N	Mean	Std. Deviation	Std. Error
Control	Pretest	52	7.98	2.11	.29
	Posttest	52	8.04	1.78	.24
Experimental	Pretest	59	8.41	1.92	.25
	Posttest	59	12.25	2.13	.27

In order to find out whether there is any significant difference between participants in control and experimental group, paired t-test was used. Table 2 indicates the results of data analysis. As it is clear from this table, no significant difference was found between the control and experimental group before listening strategy training ($t=.95$; $P<.34$). Therefore, it can be argued that if there was any significant difference between these two groups after listening strategy intervention program, these results can be related to the effect of listening strategy training.

Now, in order to find out whether the listening strategy training has any effect on EFL listeners' comprehension, the pretest and posttest scores were compared using paired-sample t-test. As it is evident from Table 3, there is no significant difference between pre- and posttest in control group in Iranian EFL context ($t=.369$; $P<.714$) while with regard to the effect of teaching metacognitive strategy training on improving Iranian EFL learners' listening comprehension, there was a statistically significant difference between students' performance of experimental group in listening comprehension in pretest and posttest ($t= 16.259$; $P<.000$).

Table 2. Results of paired-sample t-test for mean pretest scores of samples in experimental and control group in Iran.

Group	N	Mean	Std. Deviation	Std. Error	df	N	Sig (2-tailed)
Control	52	7.98	2.11	.29	51	.95	.34
Experimental	59	8.33	1.89	.26	58		

Table 3. Paired sample test for pre- and posttest in experimental and control group.

Group	Pair	Mean	SD	Std. Error Mean	df	t	Sig (2-tailed)
Control	Pre- and posttest	.058	1.12	.15	51	.36	.71
Experimental	Pre- and posttest	3.84	1.81	.23	58	16.25	.000

According to Table 1, participants scored higher in posttest ($M=12.25$, $SD=2.13$), when they were taught some listening strategies, than pretest (without teaching any listening strategies) ($M=8.41$, $SD=1.92$). On the basis of the results, it can be argued that explicit listening comprehension strategy training based on CALLA instructional model could play a significant role in enhancing Iranian EFL learners' listening comprehension.

The first research question addressed in this study was whether explicit listening comprehension strategy training based on CALLA instructional model can play any role in increasing Iranian EFL learners' listening comprehension or not. The results of data analysis showed that there is a statistically significant difference between students' performance in listening comprehension in pretest and posttest. Therefore, we concluded that explicit listening comprehension strategy training based on CALLA instructional model could play a significant role in enhancing Iranian EFL learners' listening comprehension.

The result of this study can be a support to the study done by Coskun (2010). He investigated the effect of metacognitive listening strategy training on the listening performance of a group of beginner preparatory school students at a university in Turkey. The experimental group received five weeks of metacognitive strategy training embedded into a listening course book, while the other group did not. At the end of the training, a listening test taken from the teacher's manual of the same course book was administered to both groups. The analysis of the test scores using t-test revealed that the experimental group did statistically better in the test.

In addition, the result of this study can confirm what Birjandi and Rahimi (2012) did in this regard. They explore the effect of metacognitive strategy instruction on the listening performance of EFL university students. The experimental group received the strategy training, while the control group received no instruction. The results revealed that experimental group significantly outperformed the control group on the post test measure.

Conclusions

Metacognition is a mode of instruction that focuses on «the interactive nature of reading», rather than a passive way of receiving information from the text through word identification and task analytic learning (Rumelhart & Ortony, 1977, p. 241, as cited in Dole et al., 1991). It contains a number of components that help students construct their learning styles from a dependent to an independent way with planning, monitoring, motivation, organization and self-regulation. Students profit from this effective, meaningful and self-regulated learning. According to Ormrod (1990), if students have self-regulated concepts, they will know what they want to accomplish when they read or listen. They will bind their goals with a specific learning to advance their longer-term goals. They will show self-discipline, put work before pleasure, diligently complete assigned homework in class or at home. They will use a variety of strategies to keep themselves on task.

In addition, metacognitive strategies help students «outline logical organization of a text, whether

written or oral», distinguish a relationship between cause and effect, understand the problem and solution, and make comparisons (Hughes, 1989, p. 139). Like this, students can become aware of and develop good listening processes to improve their comprehension. If students' reading comprehension in an EFL context like Iran can be improved by putting metacognitive strategies into practice in the context of listening, they will mostly benefit from meaningful learning and be propelled into multidimensional application in any realm of the educational field.

In sum, as the results of this study showed, metacognitive strategies can advance Iranian EFL learners from the beginning level to a higher level of listening comprehension. If teachers in both contexts modify learning strategies to fit students' special needs and adapt these listening strategies to facilitate academic learning, the learners will elevate their language proficiency levels and develop much higher listening achievement.

Theoretical and pedagogical implication

The findings of this study suggest a number of implications and extensions for the classroom. Firstly, a strong point of this study is that it was conducted in a college situation under the normal constraints of classroom teaching. The study has shown that incorporating strategy instruction into the curriculum without requiring extensive curriculum rewriting is possible and can be successful. The instruction of all listening strategies included in this study was incorporated into the curriculum without disrupting the course syllabus or content.

Second, there are implications for instruction in the use of instructional strategies in teaching the learners. Research has shown that some of the difficulties in strategy training programs may be avoidable by the use of appropriate instructional strategies (e.g. Bassok & Holyoak, 1989; Gagne et al., 1993). For example, it is important that the strategy training program allow for varied practice on materials as advocated by Salomon and Perkins (1989). Varied practice includes the range of materials the learners are exposed to as well as the contexts for use.

Regarding the pedagogical implications of this study, the findings from the present study support important implications in several aspects of listening strategy instruction. With respect to the general beneficial effects of strategy instruction as demonstrated by the findings of this study and previous research, the following discussions present gener-

al guidelines for effectively implementing reading strategy instruction in EFL and ESL educational context.

First, extending from understanding the suggested ways of instruction for L2 listening, researchers and teachers might have to further figure out whether and how to apply the findings to Iranian English classrooms. Teachers and researchers need to seek for ways to adapt and make listening inputs more comprehensible and meaningful to English learners (Krashen, 2008; Field, 2002).

Second, for any metacognitive listening strategy instruction program to be effective, it is important to design effective listening tasks and activities that not only are interesting, but they should also be meaningful and relevant to the objectives of the course.

Finally, it is necessary for instructors to provide the essential motivation for learning to listen and being a good listener. Engagement in listening depends on a complex combination of both intrinsic and extrinsic factors. Intrinsic factors include curiosity, aesthetic involvement, challenge, feeling of competence, and enjoyment. Extrinsic motivation includes recognition and performance. Motivation can be created from many sources including positive views about texts and the need for development in listening, students' interest in tasks and content involved, the level of challenge offered by tasks and materials, the quality of amount of feedback given to students with regard to their work, the supports and scaffolds available to the learners, and the nature of learning context.

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