The Contribution of Metacognitive Strategies to EFL Learners' Listening Comprehension Task Types

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Abstract

This study was an attempt to examine the contribution of metacognitive strategies to English as a Foreign Language (EFL) learners' listening comprehension performance and their metacognitive awareness. Fifty seven out of sixty eight EFL students were selected to participate in this study after their performance on Oxford Placement Test. The participants were then randomly assigned to the experimental and control groups. After signing a consent form, both groups sat for the Preliminary English Test as their pretest. After filling in the Metacognitive Awareness Listening Questionnaire (MALQ), the students in the experimental group received five sessions of listening practice and strategy training using The Cognitive Academic Language Learning Approach (CALLA) Model (1999). The students in the control group, however, did not receive any instruction about strategies. After the strategy training the learners in both groups took another version of the PET as their posttest, and the experimental group filled in the MALQ again. Two types of tasks, namely, selection and completion were used to measure the participants' listening comprehension after the treatment. Several paired samples t-tests and an ANCOVA were conducted. The results indicated that the experimental group outperformed the control group in the listening tasks. The experimental group's metacognitive awareness improved dramatically after the strategy training. Meanwhile, the students performed significantly better in the selection tasks than in the completion tasks. Teachers are advised to allocate part of their teaching time to strategy training. Material developers should also take into consideration using task types because the performance of students may vary in different task types.

Keywords: Listening comprehension, metacognitive strategies, task-based language teaching, task types

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1. Introduction

Among the four skills of listening, speaking, reading, and writing, the one that is undoubtedly the most basic is listening. Listening is the art of decoding meaningful parts of speech in order to understand them (Hariri, 2014). The listening skill is still one of the most critical skills although it has received a paucity of research in the field of language teaching and learning (Berne, 1998; Clement, 2007; Oxford, 1993; Rubin, 1994). For learners in their learning journey, the first encounter with the target language is through listening; thus, the first step to mastering listening comprehension is fully acquiring a second language or foreign language (Liu, 2009; Berne, 2004). Despite the importance of the listening skill, L2 learners are rarely taught how to listen effectively (Mendelsohn, 2001; Vandergrift, 2007). As developing the listening skill can lead to developing other skills it is necessary to conduct research in L2 listening to enlighten its pedagogy (Vandergrift, 2007).

Listening is the ability to comprehend spoken language. There is an ongoing debate about which of the four language skills is the most important for the learning of a second or foreign language. Oxford (1990) maintained that as listening develops faster than the other three skills; it can facilitate the emergence of the other skills.

In the early history of ESL and EFL fields, listening pedagogy and research was mainly centered on testing language learners' listening comprehension via comprehension questions. They were supposed to answer questions based on the information they heard without any instruction in skills or strategies to complete such tasks (Field, 1998). Until 1970s there were no books designed to instruct listening skills or strategies because it was assumed that learners would improve their listening ability while listening to

spoken language automatically through their exposure to oral discourse using repetition and imitation (Clement, 2007).

Over the last decades, one of the most essential areas in EFL and ESL research has been the use and development of language learning strategies. Some researchers have investigated learning strategies in developing listening skill (Berne, 2004; Carrier, 2003; Chamot, 2004; Clement, 2007; Goh, 2000; O'Malley, Chamot, Stewner-Manzanares, Kupper, & Russo, 1985; Oxford, 1990; Vandergrift, 1997, 2003).

Chamot (1987, p. 71) mentions that "learning strategies are techniques, approaches or deliberate actions that students take in order to facilitate the learning and recall of both linguistics and content area information". Oxford (1990) adds that strategies are like tools which are important for communicative competence and can be used for active and self-directed involvement. According to Vandergrift (1997), the growing interest in conducting research on listening strategies indicates the awareness that shows learners need to be more autonomous and effective.

One way to implement listening comprehension effectively is through task-based language teaching. This approach uses tasks as the core unit of instruction which embraces authentic language and deals with meaningful tasks by using the target language. According to Leow (2001), the benefit of this approach lies in its ability to engage learners in interacting with the task and help them use their prior knowledge by activating their schemata.

2. Review of the Related Literature

Studies of the listening strategies of successful language learners have identified a number of strategies that L2/FL listeners use (DeFillipis 1980; Laviosa, 1991a, 1991b; Murphy, 1985; O'Malley, Chamot, & Kupper, 1989; Rost & Ross, 1991; Vandergrift, 1992). These strategies arise as responses to specific processing problems that learners encounter. Numerous mental

processes are involved in decoding the spoken language and giving meaning to what is known as listening comprehension strategies. Nunan (1999, p. 171) defined learning strategies as "the mental and communicative procedures learners use in order to learn and use language. Underlying every learning task is at least one strategy." Oxford (1990, p. 8) stated that "learning strategies are specific actions taken by the learner to make learning easier, faster, more enjoyable, more self-directed, more effective, and more transferable to new situations."

2.1 Studies on Learning Strategies

It can be claimed that learning strategies have considerable potential for enhancing the development of skills, especially oral skills, in English as a second language (O'Malley, Chamot, Stewner-Manzanares, Kupper, & Russo, 1985). Acknowledging these strategies and making students capable of using these strategies more efficiently would ease the comprehension process and would make listeners much more proficient and confident. According to Goh (2008), teaching students how to use strategies not only increases their sense of self confidence but also decreases their listening anxiety.

A plethora of studies have been conducted to investigate the effect of learning strategies on different language skills and components (Goh, 2008; Holden, 2004; Liu, 2008; Long & Richards, 1994; Martinez, 1996; Mendelsohn, 1995, 1998; Oxford, Lavine & Crookall, 1989; Vandergrift, 1997, 2004).

For example in the writing skill, Panahande and Esfandiari Asl (2014) investigated the effects of planning and monitoring skills as metacognitive strategies on Iranian intermediate EFL learners' argumentative writing accuracy. The experimental group received metacognitive strategies-based writing instruction whereas the control group received only the routine writing instruction (Product Approach). Before both groups were post-tested,

there were eight weeks of treatment. Data were submitted to the independent t-test analysis and the results showed that there was an improvement in the experimental group's writing performance.

In the reading skill, Beheshti Nasab and Pishdadi Motlagh (2015) investigated the relationship between cognitive, metacognitive, and social/affective strategies with EFL learners' reading comprehension. The participants were assigned into three experimental groups. Each group received instruction in 16 sessions about each type of strategies; the first group on cognitive strategies, the second group on metacognitive strategies and the third group on social/affective strategies. Three comprehensible reading passages were extracted from Longman TOEFL test. The data were analyzed, and the results demonstrated that the metacognitive group significantly outperformed the other groups, so metacognitive strategies contributed more to EFL learners' reading comprehension.

In grammar, Abbasian and Esmaeilifard (2013) carried out a study to investigate the effect of deliberate infusion of metacognitive strategy instruction in the enhancement of grammar achievement. Both the experimental and control groups were asked to fill in the 1999 English version of the Metacognitive Questionnaires by Item Type (MSQIT). Then the control group was exposed to conventional pure grammar instruction on the target grammar points selected from their textbook while the experimental one received instruction based on a synthetic approach; integration of grammar and metacognitive strategy instruction. The treatment lasted for 10 sessions. The last session was devoted to the evaluation of the experimental and control groups by the 2005 version of TOEFL's structure and written expression parts for 25 minutes. Next, the same Metacognitive Strategy Questionnaire by Item Type (MSQIT) was readministered for the metacognitive group. The analyzed

data revealed that, deliberate metacognitive strategy-based instruction was effective for the learners in strategy use.

In speaking instruction using learning strategies, a research was conducted by Oliva and Ayala (2015) to investigate the use of metacognitive learning strategies and their influence on speaking proficiency of third-year English teaching major students. The design of this study was correlational. The researchers just looked to see if there was any relationship between the variables under study. The researchers used a questionnaire (strategy inventory for language learning SILL) and an interview guide called spiral development to collect all the data to analyze. The participants were 330 male and female English students in their third-year from the English Teaching major. The results showed that, there was no influence of the metacognitive strategies on the development of the students' English speaking proficiency. The results showed that the English speaking proficiency did not depend on the use of these strategies.

2.2 Metacognitive Strategies in Listening Comprehension

With regard to the effect of metacognitive strategies in listening comprehension skill, a study about metacognitive listening strategies awareness and its relationship with listening comprehension was carried out by Al-Alwan, Asassfeh and Al-Shboul (2013). The participants for this study were 386 tenth-grade EFL learners. The results indicated that the students possessed a general moderate, satisfactory level of metacognitive awareness and that the participants had variability in using different strategies that contributed to their listening comprehension. Students' highest use of strategies was in association with problem solving, and the lowest was associated with personal knowledge.

Bozorgian (2012) also conducted a research about the impact of metacognitive instruction on the learners' listening comprehension. Each of

the four listening lessons was 70 minutes long and involved a strategy-based approach. The instrument to assess the listeners' listening performance in the pretest and posttest was practice IELTS listening tests. By comparing the pretest and post test results, skilled and less skilled listeners were identified. The results of this small-scale study showed that although the more-skilled listeners made progress slightly during the study, their progress was not as much as the less-skilled listeners during the study. This indicated that in comparison with the less-skilled listeners, the more-skilled listeners took more advantage of strategy instruction.

Li (2013) conducted a research to investigate non English majors' metacognitive awareness in English listening and the relationship between metacognitive awareness and listening comprehension performance. A listening comprehension test was administered before the students completed the questionnaire. The Metacognitive Awareness Listening Questionnaire (MALQ) developed by Vandergrift (2006) was used in this study. In order to ensure full understanding, the researcher used its Chinese version translated by Chans Le (2008). After analyzing the data, the results revealed that these nonEnglish majors did not show high level of metacognitive awareness and there was also a weak correlation between metacognitive awareness and listening comprehension. The participants were identified as high-score group and the low-score group who showed significant differences in metacognitive awareness. Among those five categories, the difference in planning-evaluation and directed attention was significant.

In another study, Amirian and Ratebi (2013) aimed to investigate the types of metacognitive strategies used by Iranian university students majoring in English, and the differences in the use of these strategies between listeners across two levels of high and low proficiency. Based on the raw scores in the test, the students were divided into two groups of high proficient and low

proficient listeners. The MALQ questionnaire was administered immediately after the test to the participants in both groups. In this way, they were engaged in an authentic listening activity. It was found that more proficient listeners used metacognitive strategies more frequently than less proficient listeners, and there was a significant difference in the use of 'person-knowledge strategies' between high and low proficient listeners.

A study of metacognitive strategies employed by English listeners in an EFL setting was carried out by Yang (2009). The participants were divided into three groups. The top group included thirty-six participants with the highest scores. The bottom group included thirty-five participants with the lowest scores and there was also a control group. The study defined the top group as successful listeners and the bottom group as unsuccessful listeners with the purpose of comparing the differences in the use of metacognitive strategies. The questionnaire included two sections: the first section was about students' background knowledge and the second section was about use of metacognitive strategies. The results revealed that in the category of metacognitive strategies, directed attention, selective attention and self-management were frequently used and also there were differences between successful and unsuccessful listeners in the use of metacognitive strategies. The differences lied in the use of directed attention, functional planning and self-management.

Goh (2018) maintains that teachers should consider metacognitive strategies to make the teaching and learning of listening explicit. These strategies help learners to reflect on, analyze, critique, and evaluate cognitive, social, and affective processes in second language listening. The components of knowledge, strategy, and experience within the construct of metacognition offers teachers an all-inclusive approach to planning listening lessons and helping learners in their listening development. Along the same lines, Cross

and Vandergrift (2018) indicated that listening comprehension can be improved through metacognitive strategies, and they further provided some instructional approaches to develop knowledge and use of metacognitive strategies. They also recommended that learners' awareness of metacognitive strategies be raised.

Taguchi (2017) conducted a quasi-experimental study to investigate whether teaching metacognitive listening strategies enhances learners' listening performance on a test. Both the experimental and the control groups showed improvement in their listening test scores. In other words, the participants who did not receive strategy instruction also raised their listening test scores. This indicates that the learners' higher test scores at the post-treatment stage was not necessarily due to the strategy instruction. He also explored what strategies are more frequently used by better listeners through quantitative and qualitative investigation.

In another study, Bozorgian and Alamdari (2018) explored the effect of metacognitive instruction through dialogic interaction in a joint activity on (EFL) learners' multimedia listening and their metacognitive awareness in listening comprehension. The results indicated that metacognitive instruction through dialogic interaction improved both the advanced learners' multimedia listening comprehension and their metacognitive awareness in listening.

Sedhu, Ali, and Harun (2017) conducted a qualitative study on the use of metacognitive strategies. The findings suggest that metacognitive strategies provide a practical solution for acquiring appropriate skills in the listening skill. The study also showed that the learners with greater metacognitive abilities tend to be more successful in their cognitive endeavors.

2.3 Teaching Listening through Tasks

Regarding the importance of integrating tasks into teaching listening comprehension, Khoshsima (2013, p. 6) states that "there are strong barriers that interfere in students' listening comprehension. The primary problem appears to be how to prepare efficient listeners to be able to handle the real-world listening properly". One of the important features of a task is to represent a real-world communication setting, and it should be designed in a way to engage learners in achieving the targeted features of communication (Feez, 1998). According to Ellis (2003), listening tasks can be developed in order to help learners to acquire the desired features in communication.

Ellis (2003, p. 37) argues that "listening tasks can also provide an appropriate means to measure whether learners have acquired features in question." Previous studies in this regard have hardly dealt with applying the different kinds of tasks and addressing problems associated with tasks in listening comprehension (Ellis, 2003; Littlewood, 2004; Long & Crooks, 1993; Nunan, 2004; Willis, 1996). Jordan (1997, p. 72) summarizes the main problems which are neglected in using tasks as a way of improving the listening comprehension skill. He refers to the problems as "decoding, namely recognizing what has been said; and comprehending, namely understanding the main and subsidiary points."

Some studies have intended to investigate the importance of using metacognitive strategies to L2 listening (Chamot, 2005a, b; Goh, 2002; O'Malley & Chamot, 1990; Vandergrift, 2003). However, research on using different listening task types is scarce. Therefore, the effect of the different forms of listening comprehension task types is not reported (Berne, 1995; Chang, 2005; Chang & Read, 2006, 2007; Chung; 1999; Elkhafaifi, 2005; Herron et al., 1998; Ruhe, 1996; Teichert, 1996).

A quick glance at the reviewed studies suggests that few researchers investigated all of the language learning strategies in teaching listening skill and L2 listening ability. Moreover, current approaches to teaching listening comprehension have overlooked these learning strategies and strategy use. Also, the applicability and effectiveness of metacognitive strategies have not been thoroughly explored in the Iranian context. Due to the importance of listening comprehension and lack of research in the realm of strategies, the purpose of this study is to investigate the contribution of metacognitive strategies to EFL learners' listening comprehension within the framework of task based language teaching. To this end, the following research questions are formulated:

1) To what extent can strategy training improve EFL learners' awareness of metacognitive strategies?
2) To what extent can teaching metacognitive strategies improve EFL learners' listening comprehension?
3) To what extent can different task-types affect EFL learners' listening comprehension differently?

3. Methodology
3.1 Participants
The total number of the participants for this study was 68 male and female intermediate EFL learners studying in a language institute in Qazvin. They ranged in age from 16 to 20 years. The participants were native speakers of Persian and were chosen nonrandomly based on convenient sampling due to manageability and availability reasons. Fifty seven participants, whose scores were within one standard deviation from the mean, were chosen after administering *Oxford Placement Test 2* (Allan, 2004). Thirty participants were randomly assigned to the experimental group and the remaining 27 participants were assigned to the control group.

3.2 Instruments

To collect data for the study and to answer the research questions, the following instruments were utilized.

3.2.1 Oxford Placement Test

The Oxford Placement Test (Allan, 2004) was administered as a proficiency test. The OPT consists of two sections. The listening section consists of 35 items. The listeners were required to listen to the listening part and choose between two choices for each item. The test is derived from the corpus of several hundred examples of 'slips of the ear'. Buck (2001) called this type of test a 'phonemic discrimination task' in which the test-takers' task is to distinguish two words which differ by one phoneme.

The other section of OPT is grammar section which also contains 50 written multiple choice items. Twenty-five minutes were allotted for the test. The test-takers were asked to read the stem with a blank and to choose one of the three options for the blank (Purpura, 2004). The reliability of the OPT was reported to be about 0.809, which is acceptable (Wistner, Hideki, & Mariko, 2008). The reliability of the OPT in this study is reported in Table 1.

Table 1
Reliability Statistics for OPT

Cronbach's Alpha	Number of Items
.75	35 (listening section)
.78	50 (grammar section)

3.2.2 Preliminary English Test (PET)

Preliminary English Test (PET) is an English language examination provided by Cambridge English Language Assessment (previously known as University of Cambridge ESOL examinations). PET is an intermediate level test. Two samples of (PET) were extracted from Preliminary English Test 5 of Cambridge ESOL Examinations published by Cambridge University Press (2008) and used in this study, one for the pretest and the other for the posttest (see Appendix 2). Only the listening part was chosen for this study. This

section consists of four parts; part one has seven multiple choice questions (seven points), part two includes six multiple choice questions (six points), part three has six fill in the gap questions (six points) and part four consists of five yes/no questions (five points). The listening part, therefore, has 25 points overall. The reliability of the listening part of the PET was estimated using Cronbach's Alpha and is shown in Tables 2 and 3.

Table 2
Reliability Statistics for PET (pretest)

Cronbach's Alpha	Number of Items
.77	25

Table 3
Reliability Statistics for PET (posttest)

Cronbach's Alpha	Number of Items
.79	25

3.2.3. Metacognitive Awareness Listening Questionnaire (MALQ)

To assess the learners' metacognitive awareness and perceived use of strategies in listening comprehension, MALQ developed by Vandergrift et al. (2006, p. 432) was used in this study. The questionnaire contains 21 items, each item is rated on a six point Likert scale ranging from 1 (strongly disagree) to 6 (strongly agree) without a neutral point so that respondents could not hedge. The reliability coefficient of MALQ in this study was estimated to be .87, reported in Table 4.

Table 4
Reliability Statistics for MALQ

Cronbach's Alpha	Number of Items
.87	21

MALQ consists of five factors including problem solving (6 items), planning and evaluation (5 items), mental translation (4 items), person knowledge (3 items) and directed attention (4 items). The description of the factors are reported in Table 5.

Table 5
The Description of the Factors and the Items in MALQ Vandergrift et al.
(2006, p. 462)

Factors	The description of the factors	Strategy or belief/perception (The statements in the questionnaire)
Planning-evaluation	the strategies listeners use to prepare themselves for listening, and to evaluate the results of their listening efforts	1. Before I start to listen, I have a plan in my head for how I am going to listen.
		10. Before listening, I think of similar texts that I may have listened to.
		14. After listening, I think back to how I listened, and about what I might do differently next time.
		20. As I listen, I periodically ask myself if I am satisfied with my level of comprehension.
		21. I have a goal in mind as I listen.
Directed attention	Strategies that listeners use to concentrate and to stay on task.	2. I focus harder on the text when I have trouble understanding.
		6. When my mind wanders, I recover my concentration right away.
		12. I try to get back on track when I lose concentration.
		16. When I have difficulty understanding what I hear, I give up and stop listening.
Person knowledge	listeners' perceptions concerning the difficulty presented by L2 listening and their self-efficacy in L2 listening	3. I find that listening in English is more difficult than reading, speaking, or writing in English.
		8. I feel that listening comprehension in English is a challenge for me.
		15. I don't feel nervous when I listen to English.
Mental translation	the online mental translation strategy	4. I translate in my head as I listen.
		11. I translate key words as I listen.
		18. I translate word by word, as I listen.
Problem-solving	strategies used by listeners to inference (guess at what they do not understand) and to monitor these inferences	5. I use the words I understand to guess the meaning of the words I don't understand.
		7. As I listen, I compare what I understand with what I know about the topic.
		9. I use my experience and knowledge to help me understand.
		13. As I listen, I quickly adjust my interpretation if I realize that it is not correct.
		17. I use the general idea of the text to help me guess the meaning of the words that I don't understand.
		19. When I guess the meaning of a word, I think back to everything else that I have heard, to see if my guess makes sense.

3.2.4 Task Types

The researchers chose two pedagogical closed tasks for practice and assessment in this research. Two kinds of tasks (completion and selection) were chosen for this study from Richard's Expanding Tactics for Listening (Oxford University Press, 2010) to work on in the treatment sessions. In both pretest and posttest (PET), these kinds of tasks were also assessed. According to Willis' classification of tasks (1996), completion tasks are the best example of problem solving tasks in which the learners predict the ending or use given clues to guess the answer. In the selection task, the students were required to choose from among 3 choices in each item. In order to do so, the learners should derive new information from the information which was given to them before. Completion tasks and multiple choices (true samples of problem solving and reasoning gap tasks) were used in both pretest, posttest and in treatment sessions.

3.3 Procedure

The initial number of the participants was 68 male and female intermediate EFL learners studying in a language institute in Qazvin from which 57 were selected based on their performance on the OPT. Thirty learners were assigned to the experimental group and the remaining 27 participants were assigned to the control group. Before initiating any procedures all of the participants were asked to sign a consent form to indicate their approval to participate in the study. Both groups sat for the first version of the PET as their pretest. The participants in the treatment group filled in the MALQ to determine their baseline familiarity with metacognitive strategies. Then, they received instruction on metacognitive strategies in five sessions while they were doing the listening tasks as their treatment. In their treatment sessions, the researchers instructed the learners how to use metacognitive strategies (based on O'Malley and Chamot's (1990-1995) classification of learning

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strategies) using CALLA model proposed by Chamot, Barnhardt, El-Dinary, & Robbins (1999).

The control group did not receive any instruction about strategies. They were instructed only in the institute's conventional way of teaching the listening skill. At the end, both groups sat for another version of the PET as their post-test to show how much they have improved. The participants in the treatment group also filled in the MALQ after the treatment sessions to see if their familiarity with the strategies had improved.

4. Results and Discussion
4.1 Investigating Research Question 1
In order to answer the first research question regarding the contribution of strategy training to EFL learners' metacognitive strategies awareness, both descriptive and inferential statistics are reported. The descriptive statistics of the five factors included in the MALQ before and after the treatment sessions is provided in Table 6.

Table 6
The Descriptive Statistics of the Five Factors Included in the MALQ before and after the Treatment

factors	# of items	Pretest		Posttest	
		Mean	SD	Mean	SD
Planning-evaluation	5	3.79	.55	4.74	.61
Directed attention	4	3.90	.45	4.75	.60
Person knowledge	3	3.46	.57	4.80	.70
Mental translation	3	3.98	.71	5.13	.74
Problem-solving	6	4.16	.47	4.93	.51

As it can be seen in Table 6, the learners' metacognitive awareness improved from the pretest to the posttest in all the factors. Overall, the table shows an improvement in the students' awareness regarding metacognitive strategies after the treatment sessions in all five factors. In the pretest, the participants got the highest score in problem-solving (4.16) and the lowest score in person knowledge (3.46). Problem-solving strategies represent "the problem-solving processes, the knowledge retrieval processes, and the

accompanying verification (monitoring) processes" (Vandergrift, 2006, p. 462). The students utilized their knowledge to help them to interpret the text, make use of the clues in the text to guess the meaning of unknown words, and check the accuracy of their inferences with the process of interpretation. In the posttest, however, the students received the highest score in mental translation (5.13), and the second highest score was problem-solving (4.93). This shows that problem-solving strategies helped the learners improve their listening comprehension more than the other strategies. The participants got the lowest scores in planning-evaluation (4.74) and directed attention (4.75), indicating that these strategies made the least contribution to their listening comprehension development.

In order to investigate whether or not the improvement of the students' metacognitive awareness in the five factors from the pretest to the posttest was statistically significant, five paired samples t-test procedures were run. The results are reported in Table 7.

Table 7
Paired samples T-Test of the Pretest and Posttest Scores for the Five Factors in the MALQ

Pairs		Paired Differences		t	df	Sig. (2-tailed)
		Mean	Std. Deviation			
Pair 1	Pre problem-solving – post problem-solving	-.7716	.53523	-4.5	29	.001
Pair 2	Pre planning-evaluation – post planning-evaluation	-.9450	.60711	-4.9	29	.001
Pair 3	Pre mental translation – post mental translation	-1.144	.94418	-3.8	29	.004
Pair 4	Pre person knowledge – post person knowledge	-1.343	.98787	-4.3	29	.002
Pair 5	Pre directed attention – post directed attention	-.8500	.85959	-3.1	29	.012

As the Table shows all the paired samples t-test results are statistically significant. This shows that the participants found the strategy training useful and the improvement in the students' metacognitive awareness from the

pretest to the posttest scores can be seen in all the factors of problem-solving, planning-evaluation, mental translation, person knowledge, and directed attention. The most significant improvement was observed in planning evaluation [t (29) = 4.92, $p<.001$, eta squared= .45] and the least significant improvement can be observed in directed attention [t (29) = 3.12, p< .05, eta squared= .25].

4.2 Investigating Research Question 2

In order to answer the second research question reworded as the contribution of teaching metacognitive strategies to EFL learners' listening comprehension, descriptive and inferential statistics are presented. The descriptive statistics of the pretest and posttest listening comprehension of the participants in the experimental and control groups are presented in Table 8.

Table 8
The Descriptive Statistics of the Pretest and Posttest Listening Comprehension

groups	Pretest		Posttest	
	Mean	SD	Mean	SD
Experimental	60.66	7.74	76.33	7.06
Control	62.59	4.86	71.11	7.37

As Table 8 shows, the performance of both groups in the pretest was close. But there is a large difference between the two groups' performance in the post test. Another point that can be observed in the table is the difference between the improvements of the two groups from the pretest to the posttest. The mean score of the experimental group rose from 60.66 to 76.33. However, the improvement that can be seen in the control group from the pretest to the post test (from 62.59 to 71.11) is not that significant. In order to investigate whether the differences between the control and experimental groups were statistically significant, a one way analysis of covariance was run.

To be certain of the robustness and accuracy of the results, the researchers checked the assumptions of ANCOVA. It was crucial to make sure that there was no violation of assumption of normality, linearity, homogeneity of variances, homogeneity of regression slopes, and reliable measurement of the covariate.

The pretest scores of the participants were considered the covariate and it was measured prior to the treatment. The researcher checked for the internal consistency of the covariate which is a form of reliability of the scale was estimated by Cronbach's alpha. As in this study there was just one covariate, the assumption of the correlations among the covariates was not examined. The researchers also examined the linear relationship between the posttest and the pretest of the groups. Levene's test of equality of error variances indicated that the error variance of the dependent variable is equal across groups. There was no violation of the homogeneity in regression slopes assumption.

To find out the influence of the treatment on the listening comprehension of the participants in the experimental and control groups while adjusting for differences on the covariate, a one-way ANCOVA was performed. Table 9 shows the result.

Table 9
Tests of Between-Subjects Effects

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	1442.444[a]	2	721.222	56.572	.000	.677
Intercept	645.697	1	645.697	50.648	.000	.484
pretest	1054.900	1	1054.900	82.745	.000	.605
grouping	589.359	1	589.359	46.229	.000	.461
Error	688.433	54	12.749			
Total	313080.000	57				
Corrected Total	2130.877	56				

Considering the influence of the pretest, there was a significant difference between the experimental and control groups on listening comprehension test scores [F (1, 54) = 46.23, $p<.0005$, partial eta squared=.46]. The corresponding partial eta squared value which is equal to .46 is considered as the effect size. The mentioned value shows how much of the variance in the dependent variable (posttest score) is explained by the independent variable, metacognitive awareness treatment. In this investigation, it is equal to 46 per cent of the variance which is a big effect size according to Cohen's (1988) guidelines. This shows that the treatment, metacognitive awareness, significantly improved the participants' listening comprehension performance.

It is also possible to get the influence of the pretest from the Table, to see whether there is a significant relationship between the pretest and posttest. As the table shows, there is a significant relationship between the pretest and posttest (partial eta squared = .61). In other words, it shows that the covariate is significant.

4.3 Investigating Research Question 3

In order to investigate the third research question reworded as the effect of different task-types on EFL learners' listening comprehension performance, a paired samples t-test was conducted. Two tasks of completion and selection were used in the posttest to investigate how the students would perform in them. The results are shown in Table 10.

Table 10

Paired Samples T-Test for the Performance of the Experimental Group in Selection and Completion Tasks

	Paired Differences		t	df	Sig. (2-tailed)
	Mean	Std. Deviation			
completion - selection	-2.60000	1.42984	-5.750	29	.000

Table 10 shows that the participants in the experimental group performed better in the selection task (M = 10.30, SD = 1.05) than in the completion task [M = 12.90, SD = .74; t (29) = 5.75, p<.0005, eta squared = .53]. The eta squared, based on Cohen's (1988) guidelines, indicates a large effect size.

4.4 Discussion

This study was aimed at investigating the contribution of cognitive and metacognitive strategies to EFL learners' task-based listening comprehension in Iran. This study also aimed to examine the effect of strategy training on metacognitive awareness of the participants.

One of the findings of the study is that the students' awareness of metacognitive strategies was raised as a result of strategy training. This was shown by their better performance in the MALQ questionnaire after the treatment sessions. This finding is in line with a number of studies (Al-Alwan, Asassfeh & Al-Shboul, 2013; Bozorgian & Alamdari, 2018; Jacobsen, 2015; Ratebi & Amirian, 2013). For example, Al-Alwan, Asassfeh and Al-Shboul's (2013) results indicated that the students possessed a general moderate, satisfactory level of metacognitive awareness. However, the findings are in contrast with Li's (2013) findings. She found non-English majors do not show high level of metacognitive awareness. But she found that there was a significant difference between high score and low score listeners in metacognitive awareness.

Another finding of the study was that in the MALQ, among the five factors of 'planning-evaluation', 'directed attention', 'mental translation', 'person knowledge' and 'problem solving' the highest score was 'mental translation' and the second highest score belonged to 'problem solving' and the lowest score was for 'planning-evaluation'. However, this finding is not in accord with other studies. For example, Alwan, Asassfeh and Al-Shboul (2013) found that 'problem solving' was the most frequent metacognitive

strategy and 'person knowledge' was the least frequent strategy used by the learners. Jacobsen (2015) maintained that the highest scoring metacognitive factors were for 'planning-evaluation', 'directed attention' and 'problem solving'. In Li's (2013) research, the participants received the highest score in 'problem solving' and the lowest score in 'person knowledge'. Yang (2009) also found that 'directed attention', 'selective attention' and 'self-management' were the most frequent metacognitive strategies used by the participants in his study. The components of knowledge, strategy, and experience within the construct of metacognition offers teachers were raised in Goh's (2018) study.

This discrepancy in the findings of this study may lie in the importance Iranian students attach to translation as their everyday activity. Iranian students use translation in their English classes a lot. If the students always engage in translating the information into their mother tongue, the speed of processing information will be very slow. Consequently, they will miss a lot of information and fail to comprehend the listening texts completely (Li, 2013). Apparently, these participants still rely a lot on their mother-tongue, which should be overcome in their English learning. Also, 'planning-evaluation' was the least frequent factor used by the students in this study. This can also be attributed to Iranian students' lack of planning for their studies and tasks.

Another finding of this study was the significant effect of strategy training on the listening comprehension performance of the participants. This finding was corroborated by the findings of other studies (Bozorgian, 2012; Coşkun, 2010; Thompson, 1996). However, Li (2013) found a weak correlation between listening comprehension performance and metacognitive awareness. Also, in Taguchi's (2017) study, the participants who did not receive strategy instruction also raised their listening test scores. This indicates that the learners' higher test scores was not necessarily due to the strategy instruction.

There was also a significant difference between the task types used in the study. That is, the students performed significantly better in the selection tasks in comparison with the completion tasks in the treatment sessions. This difference found in the task types is in line with the other studies which used different task types in listening comprehension (Khoshsima & Sadighi, 2014; Swain & Lapkin, 2001; Tabrizi & Rezaei, 2016).

5. Conclusions and Implications

This study was an attempt to explore the impact of metacognitive strategies on EFL learners' listening comprehension performance. The findings showed that the performance of the participants improved dramatically after the treatment sessions in which they were taught how to apply metacognitive strategies in their listening tasks. It was also found that strategy training was extremely effective in improving the metacognitive awareness of the students. The study also investigated the effect of using different task types on the performance of the participants in listening comprehension. It was found that completion tasks were more difficult for them than selection tasks. In the selection tasks, the participants only needed to choose the option from among the other alternatives. But in the completion tasks, they had to provide the answer based on their understanding which was a rather more difficult task for them.

The performance of the experimental group, in which metacognitive strategies were taught, was significantly better than the performance of the control group, in which the participants received no strategy training. It can be concluded that strategy training was very helpful to improve the participants' listening comprehension as well as their awareness regarding metacognitive strategies. The students had a significantly higher score in the five factors of planning-evaluation, directed attention, person knowledge, mental translation, and problem-solving in the posttest of MALQ in

comparison with their pretest scores. Therefore, it can be concluded that strategy training was helpful in raising the awareness of the participants regarding the use of the strategies.

Regarding the task types used in the study, it can be mentioned that the students found the completion tasks significantly more difficult than the selection tasks. It can be concluded that task type is a factor in the students' performance in listening comprehension.

With the significant effect of strategy training on EFL learners' listening comprehension performance and their awareness regarding the use of metacognitive strategies, the implications for learners, curriculum designers and instructors are discussed.

Learners can take advantage of the findings of the study and try to improve their listening comprehension by building up their own strategies. They can find the most effective strategies that contribute most to their listening comprehension success and make a list of the best suited strategies to help them self-monitor, self-manage, and self-evaluate their own learning process.

Curriculum designers and material developers can also make use of the findings in this study and design English courses with due attention to cognitive and metacognitive strategies. They should include some sections in the course books to familiarize students with the effectiveness of these strategies in developing the listening comprehension skill. According to Yang (2009), material developers should design activities where listeners are given opportunities to practice these strategies. Material developers should also take into consideration using task types because the performance of students may vary in different task types. In addition, task variety makes the lessons more interesting and enjoyable for learners and prepares them for a variety of situations they may encounter in the real world.

The findings of this study can also be significant for English teachers. Teachers should familiarize students with these strategies and help them to build their own repertoire of strategies. They should attempt to allocate a part of the class time to introducing the strategies to learners and make sure that they apply these strategies in their listening task thereby encouraging learner autonomy. They should also try to apply different task types in teaching and testing sessions to accommodate task variety and encourage learners.

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