

The Role of Metacognitive Instruction through Pedagogical Cycle on Metacognitive Awareness of EFL Learners: Gender Difference Focus

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Abstract

Listening comprehension has always been a challenge for English as Second/Foreign Language (ESL/EFL) learners, in general. Therefore, the purpose of this study is particularly to investigate the role of metacognitive instruction through pedagogical cycle on the metacognitive awareness of EFL learners across genders. The participants in this study were 83 Iranian intermediate learners in four groups (two male and two female groups) chosen randomly out of 97 available EFL learners, ranging from 20 to 29 years old. The learners in the experimental groups (N = 60) were trained based on metacognitive instruction through pedagogical cycle for ten weeks over a semester, and participated in EFL listening tasks. However, the learners in the control groups (N = 23) underwent conventional instruction of listening strategies. All four groups were taught by the same teacher and listened to the same materials. The Metacognitive Awareness of Listening Question (MALQ) was used to collect data and to track changes in metacognitive awareness of learners across the genders before and after the intervention. The finding indicates that the experimental group outweighed the control group in terms of metacognitive awareness, but gender did not have any effect on metacognitive awareness of learners.

Key words: metacognitive instruction, metacognitive awareness, pedagogical cycle; gender

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-Received on:05/01/2016

Accepted on: 07/03/2016

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1. Introduction

Listening comprehension, a crucial language skill to develop, is at the heart of L2 learning, as the development of L2 listening can play a vital role in the development of other language skills (Vandergrift, 2007). This is because there is a close relationship between listening comprehension and the overall EFL performance (Bozorgian, 2012a). Despite its importance, listening comprehension is often regarded as a big challenge and a great source of frustration for second and foreign language learners (Graham, 2006), which lead not only to learners' poor performance but also to inadequate attention to listening instruction in the classroom (Lynch, 1988). The complexity of listening could be due to such external factors as speaker, text and content or it could be attributed to such reasons as the ephemeral nature of the listening input, the implicit nature of listening, and the difficulty in accessing the listening processes (Vandergrift, 2007). Besides, little attention has been given to the systematic practice in L2 listening (De Keyser, 2007), with its focus on listening process than listening product (Vandergrift, 2004), as second or foreign language learners are rarely taught how to listen effectively though they are aware of the importance of this skill (Berne, 2004; Mendelsohn, 2001; Vandergrift, 2007).

One way to deal with the complexity of listening comprehension is to use "metacognitive instruction" as a process-based approach to facilitate the process of listening for language learners (Goh, 2008). A quick look at the recent body of research on second or foreign listening instruction advocates the urgent need for effective metacognitive instruction to improve second language listening comprehension pedagogy (Cross, 2011; Goh, 2008; Vandergrift, 2007). Although there is a string of research shedding light on the effect of metacognitive instruction on the listening comprehension of learners in both ESL and EFL settings (Bozorgian 2012b; Bozorgian & Pillay, 2013; Cross, 2011; Fahim and Fakhri, 2014; Goh and Hu, 2013; Tabeei, Tabrizi & Ahmadi, 2013; Vandergrift & Tafaghodtari, 2010), the results are mostly inconclusive. We should consider other variables like their various methodological orientations, the nature and the model of the intervention programs they were informed by, the sample size, gender and above all the contexts in which these studies were carried out.

Considering the manner through which metacognitive strategies are orchestrated in textbooks dealing with listening in the EFL context in Iran, it can be realized that metacognitive instruction is not taught through pedagogical cycle though some strategies are taught through pre-listening, listening, and post-listening activities in the classroom. Despite all the efforts teachers make to provide learners with adequate support during listening activities in the classroom, the focus is still on listening product rather than

listening process. Therefore, the focus of this study is to explore the effect of metacognitive instruction through pedagogical cycle on metacognitive awareness and gender of EFL learners. In line with the previous research conducted in the area of listening comprehension development, this study leans toward socio-cultural theory of language teaching to boost learners' metacognitive awareness in listening comprehension.

1.1 Metacognition and Metacognitive Instruction

Flavell (1979) stated metacognition is "one's knowledge concerning one's own cognitive processes on anything related to them and the capacity for active monitoring and consequent regulation and orchestration of these processes in relation to the cognitive objects or data on which they bear, usually in the service of some concrete goals or objectives". Metacognitive instruction refers to any "pedagogical procedures that enable learners to increase awareness of the listening process by developing richer metacognitive knowledge about themselves as learners, the nature and demands of listening, and the strategies for listening" (Vandergrift & Goh, 2012, p. 97).

1.2 Metacognitive Awareness and Pedagogical Cycle

Metacognitive awareness is a comprehensive metacognitive approach that not only addresses strategies but also enhances learners' metacognition of themselves as L2 learners and the mental and social processes of listening (Goh, 2008).

Vandergrift (2007) proposed a new model of metacognitive instruction, known as "Pedagogical Cycle". This model, which provides learners with ample opportunities to exploit peer interactions in negotiating metacognitive strategies, is informed by socio-cultural perspectives of learning, which merges two aspects of learning: "learning as an individual cognitive enterprise and learning as a social enterprise" (Vandergrift & Goh, 2012, p. 93). Within this process-based approach, peer interactions, along with the activities learners participate in contribute to the overall learning and success of each individual in the interaction. The model can further provide learners with opportunities to enrich individual learning through peer dialogs and cooperation.

2. Literature Review

Some empirical studies have focused on the effect of metacognitive instruction on listening comprehension of the learners and their level of metacognitive awareness (Bozorgian, 2014; Cross, 2011; Rahimirad, 2014; Vandergrift & Tafaghodtari, 2010).

Vandergrift and Tafaghodtari (2010) investigated the effects of a metacognitive approach on the listening performance of 106 students of

French. The experimental group received metacognitive instruction through 4 phases of prediction, planning, monitoring, evaluation and problem solving as they listened to a variety of texts while the control group received no metacognitive instruction through the same listening task. The findings indicated that the treatment group significantly outperformed the control group in listening comprehension post-test and less skilled listeners in the treatment group improved more than more skilled ones.

There are also a few socioculturally-informed studies investigating the effect of metacognitive instruction considering peer interactions on the listening performance of EFL learners. Cross (2009), for instance, investigated the development of metacognition in advanced Japanese learners and demonstrated how these listeners used collaborative dialogue to develop greater awareness of the metacognitive processes involved in listening. In another study, Cross (2010) explored metacognitive awareness in second language listening on six pairs of advanced Japanese, EFL learners, and concluded that through dialogue, learners could afford and exploit opportunities to enhance their metacognitive awareness of L2 listening. Cross (2011b) also conducted a small-scale study involving six pairs of Japanese EFL learners. The pairs completed dialogic recalls pertaining to their use of strategies to comprehend news videotexts. The results revealed that dialogic recalls can be used as a tool for classroom-based listening strategies research.

In his recent study Bozorgian (2014) investigated the impact of metacognitive instruction on the listening skill, and metacognitive knowledge of EFL learners. To this end, 30 high-intermediate EFL male learners ranging from 18 to 24 years of age participated in the study. The participants received a guided lesson plan in metacognition (planning, monitoring, and evaluation) through a pedagogical cycle approach over a semester (eight weeks). IELTS listening tests were also used to track the participants' listening performance. Participants also completed a MALQ, which examined their use of metacognitive awareness when engaged in listening tasks. Results indicated that the students improved their listening skill after being taught about metacognition; however, no significant use of metacognitive awareness was reported.

In another study Rahimirad (2014), investigated the effect of activating metacognitive strategies on the listening performance of EFL university students and explored the impacts of such strategies on increasing the students' metacognitive awareness of listening task. The participants were 50 students of English literature that were assigned randomly to experimental and control groups. The experimental group (n=25) received metacognitive instruction while the control group (n=25) received no metacognitive instruction. The listening module of IELTS was utilized to evaluate the listening performance of the participants in both groups before and after the

intervention and the MALQ instrument was applied to measure the metacognitive awareness of the experimental group before and after the intervention. The results of IELTS test revealed that the experimental group significantly outperformed the control group on the post-test and according to the analysis of the MALQ instrument; there was a significant improvement in the students' level of metacognitive awareness after metacognitive instruction.

However, literature suggests a few studies on the differential effect that gender difference might have on the process of metacognitive instruction, listening comprehension and metacognitive awareness through peer interaction.

Oxford and Green (1995) intended to identify the relationship amongst learning strategies, gender and L2 proficiency. In a large scale quantitative thesis (169 males and 178 females), using the Strategy Inventory for Language Learning (SILL) developed by Oxford (1990), they investigated the language learning strategies used by male and female learners at the university of Puerto Rico, at Mayaguez. The participants were assigned into three different groups based on their scores on English as a Second Language Achievement Test. The results indicated that language proficiency and gender have a considerable consequence on learners' performance. Women and men were using different approaches to language learning. Researchers believed that this could be related to their underlying learning style, motivation and attitude. There was a greater use of learning strategies among more successful learners and a higher level of strategy use by females than males.

Platsidou and Sipitanon (2015) investigated the relationship between grade levels, gender and language proficiency in strategy use of EFL learners. Data was gathered from 1302 primary and secondary school learners in the region of northern Greece. 615 were males and 677 females. The age range of sample was 9 to 16 years. The subjects were categorized into six groups based on their school grade; in each grade the two genders were almost equally distributed; then the Strategy Inventory for Language Learning (SILL) was administered to them. The result of this quantitative thesis indicated that the most preferred category of strategy was the metacognitive, and in relation to gender, female learners used significantly higher levels of strategy compared to males in all learning strategies and all grades except for the compensation.

Grounded in socio-cultural theory, this study aimed to focus on gender difference in metacognitive instruction through pedagogical cycle on learners' metacognitive awareness. Hence, this study was an attempt to investigate the following research questions:

1. Does metacognitive instruction through the pedagogical cycle have any effect on EFL intermediate learners' metacognitive awareness?

2. Does gender have any effect on metacognitive awareness for learners receiving metacognitive instruction through pedagogical cycle?

3. Method

3.1 Participants

A total number of 83 intermediate EFL learners attending a Language Institute in Iran and majoring in different fields at BSc and MSc level participated in this study. The sample, screened through listening test of English, was chosen out of 97 available EFL male/female learners, ranging from 20 to 29 years old. To consider the homogeneity of the groups, those learners whose scores on the language proficiency test fell within ± 1 standard deviations of the mean score were recognized as the eligible participants for this study. Then, based on the simple random sampling method, the researchers randomly assigned the learners to an experimental (31 female and 29 male learners) and a control group of 23 learners (14 female and 9 male learners). The purpose of the participants attending this language institute is to learn English so that they would be able to take part high stake exams such as IELTS and TOEFL. Passing these exams is a key for them to continue their higher education or to work in an English country. All the participants were given informed consent forms and were clarified regarding the nature and purpose of the current study. After that they approved the consent form to participate in this study. The intermediate level of language proficiency was approximately equal to IELTS 4.5.

3.2 Instrumentation

A Metacognitive Awareness Listening Questionnaire (MALQ) was used in this study to investigate the effect of metacognitive instruction on learners' metacognitive awareness (Vandergrift et al., 2006). MALQ is a recently developed questionnaire, which is used to assess the learners' awareness of the processes and strategies required for successful L2 listening comprehension (see Appendix A). Items in this twenty-one item questionnaire were sequenced by content (strategies used before, during, and after listening to an oral text). To sustain respondents' attention though some items were randomly interwoven with others. Furthermore, some items were negatively worded so that the respondents would not choose a special pattern in answering (Vandergrift et al., 2006).

MALQ comprises five factors:

1. Problem solving (inferencing on what is not understood and monitoring those inferences);
2. Planning and evaluation (how listeners prepare themselves for listening and evaluate the results of their listening efforts);

3. Mental translation (the ability to use mental translation shortly);
4. Person knowledge (learner perceptions concerning how they learn best, the difficulty presented by L2 listening, and their self-efficacy in L2 listening); and
5. Directed attention (how listeners concentrate, stay on task, and focus on their listening efforts).

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Furthermore, some items were negatively worded so that the respondents would not choose a special pattern in answering (Vandergrift et al., 2006). This questionnaire is an appropriate tool to adopt for this thesis since it has been validated through meticulous statistical processes; moreover, it has high internal reliability and at the same time is easy for language learners to understand and use. The MALQ can also be used as a teaching tool for raising learners' awareness about L2 listening.

3.3 Data Collection Procedure

The participants in this quasi-experimental design study were randomly assigned into four groups (two experimental and two control groups) of male and female EFL learners. The purpose of the participants attending this language institute is to learn English so that they would be able to take part high stake exams such as IELTS and TOEFL. Passing these exams is a key for them to continue their higher education or to work in an English country. All the participants were given informed consent forms and were clarified regarding the nature and purpose of the current study. After that they approved the consent form to participate in this thesis. The intermediate level of language proficiency was approximately equal to IELTS 4.5.

The participants in the experimental groups attended a ten-week intervention program which involved the linear instruction of ten metacognitive strategies, allowing the participants to learn one metacognitive strategy at a time. The intervention program through pedagogical cycle was adopted from Vandergrift and Goh (2012). The participants attended the intervention program twice a week, each lasting for about 30 minutes. They listened to a different oral text, covering a variety of such daily topics as conversations, lectures, and interviews every session aligned with the content of listening comprehension tests.

3.3.1 Ten-Week Program of Metacognitive Instruction

Table 1 shows that the teacher followed the sequence of the listening tasks through a cycle of five stages: planning/predicting, first verification, second verification, final verification, and reflection. The detailed description of the ten-week lesson plan is provided below:

Table 1
Listening Instruction Stages and Related Metacognitive Strategies

<i>Stages of listening instruction</i>	<i>Related metacognitive strategies</i>
<p>Planning/predicting stage Once listeners know topic and the text type, they predict types of information and possible words they may hear.</p>	Planning and directed attention
<p>First verification stage Listeners verify initial hypotheses, correct as required, and note additional information understood. Listeners compare what they have written with their peers, modify as required, establish what needs resolution and decide on details that still need special attention.</p>	Monitoring Monitoring, planning, selective attention
<p>Second verification stage Listeners verify points of disagreement, make corrections, and write down additional details understood.</p>	Monitoring and problem solving
<p>Class discussion in which all contribute to reconstruction of the text's main points and most pertinent details, interspersed with reflections on how listeners arrived at the meaning of certain words or parts of the text.</p>	Monitoring and evaluation
<p>Final verification stage Listeners listen for information that they could not decipher earlier in the class Discussion</p>	Selective attention and monitoring
<p>Reflective stage Based on discussion of strategies used to compensate for what was not understood, listeners write goals for next listening activities.</p>	Evaluation

(Vandergrift, 2012)

Week one was designed for the implementation of the lesson plan; the first week focused on *planning*. It elaborated on the definition and the concept of *planning*, and presented *advanced organizers* through some relevant explanations and examples. Then the teacher reminded the importance of planning and advance organization in a real life context, and emphasized that learners should always set the scene before attending to the oral input. The teacher also emphasized the notion that attending to all the

available information could help learners make predictions about what they might hear when dealing with listening input.

Week two dealt with the second subcategory of planning, which was *directed attention*. Here, the teacher advised the learners to focus on what they were listening to and guided them to ignore any irrelevant distracters while dealing with a listening task. The teacher also emphasized that the learners had to maintain attention through listening task to what was being said. The learners were also advised to pay attention to the familiar words in order to associate ideas with the guesses they had already made, and helped them deal with the oral input before attending to it.

Week three focused on another subcategory of planning, which was *selective attention*. The researcher, here, asked the learners to focus on the topic and think of the key words in the listening input before listening to. The learners were also advised to pay close attention to the relationship between the interlocutors through the tone of voice addressing each other. The teacher, then, emphasized the essential role the key words play in dealing with the demand of the listening task, which helped the learners deal with the oral input with less difficulty.

Week four dealt with the last subcategory of planning, which was *learning management*. This strategy encouraged the learners to manage and adapt themselves to the new conditions while listening. In this stage, the teacher advised the learners to put everything aside and try to concentrate on what the speakers were saying. Moreover, the researcher guided the learners to frame their mind to comprehend the audio input with less difficulty, and gave the learners ample confidence in managing their learning and listening skill.

Week five focused in unpacking the concept of *monitoring* which covered three subcategories: *comprehension*, *auditory*, and *double-checking monitoring*. The comprehension monitoring was practiced in fifth week. Here the learners were encouraged to translate any unfamiliar words to see if they sounded correct in that particular context. They were also advised to put everything together, as understanding one thing could lead to the understanding of another. Then, the researcher had the learners listen to the audio text and asked them to monitor their comprehension while they approached the same listening topic.

Week six elaborated on the concept of *auditory monitoring* that focused on how sounds made sense. Then, the teacher explained the function of auditory monitoring, and advised the learners to use their L1 knowledge of sound system in order to associate them to other words they knew. The learners were also asked to discover a sound link in their native language for further understanding.

Week seven dealt with double-check monitoring, which focused on checking comprehension during listening. Here, the teacher introduced the

concept of *double-check monitoring* to the participants and recommended that they could benefit from it to check their understanding again during the listening task. The teacher also reminded the learners that through double-check monitoring they could increase the accuracy of their understanding in listening.

Week eight was concerned with clarifying the concept of *evaluation*, which comprised three sub-categories: *performance evaluation*, *strategy evaluation*, and *problem identification*. In this stage performance evaluation was practiced. Therefore, the teacher reminded the learners of the power of evaluation in the light of the listening activities in the classroom, and emphasized that through performance evaluation, they could compensate their lack of understanding in listening. Then the teacher encouraged the learners to have negotiation with their peers to fill out what they missed through listening task.

Week nine focused on the concept of *strategy evaluation*, and the teacher elaborated on the definition of strategy evaluation. Here, the teacher put more emphasis on the use of learning strategies before and during listening, and reiterated the fact that strategy evaluation in listening could help learners develop the use of listening strategies when the need arises. The learners also had the opportunity to discuss their personal experiences they had through listening task with their peers.

Week ten presented the last subcategory of evaluation, *problem identification strategy*, to the learners. Through this strategy, the groups or pairs of learners were recommended to identify their source of difficulties and expressed their personal reflection in the listening process. Then they were asked to choose the most suitable strategies considering task and person factor for the next listening task. After implementing this intervention, the teacher administered the post-test to the participants in the experimental group to explore the probable effect(s) of the intervention.

4. Results and Discussion

To respond to the two research questions, the researchers used Statistical Package for the Social Science (SPSS 18.0) to analyze the MALQ performance of the learners through an independent samples t-test and a two-way ANOVA. This fact implies that an independent samples t-test can be used for the first research question that seek the possible difference between the experimental and control group in terms of any possible changes which occurred in the participants' metacognitive awareness due to the intervention. Moreover, a two-way ANOVA is utilized to investigate the second research question which seeks the possible effect of gender on the changes which occurred in learners' metacognitive awareness.

4.1 Research Question 1

The first research question was “Does metacognitive instruction through the pedagogical cycle have any effect on EFL intermediate learners’ metacognitive awareness?”

MALQ was administered before and after receiving the intervention. As shown in Table 2 the results obtained from pre and post MALQ administration demonstrated a significant difference in overall learners’ metacognitive awareness ($M = 36.79$, $SD = 9.51$; $M = 42.07$, $SD = 10.50$, respectively). Moreover, the results obtained from an independent sample t-test revealed that $t(82) = -1.66$, ($p < .01$). Thus, the null hypothesis can be rejected with 95 percent confidence. According to the statistics obtained above, the metacognitive instruction through pedagogical cycle group outperformed the control group. This finding suggests that metacognitive instruction had a positive impact on the overall metacognitive awareness of the learners.

Table 2

The Pre and Post MALQ Overall t-Test and Five-Factor Performance (N = 83)

<i>MALQ Five Factors</i>	<i>Pre- test</i>		<i>Post- test</i>	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Planning and evaluation	7.11	2.04	9.56	2.02
Problem solving	7.71	1.97	8.70	2.15
Directed attention	7.58	1.95	8.75	2.01
Mental translation	6.94	1.62	5.28	1.54
Person knowledge	7.45	1.93	9.78	2.78
Overall	36.79	9.51	42.07	10.50
df			82	
P- value			.01	
t- value			-1.66	

4.2 Research Question 2

The second research question investigated the plausible effect of gender and asked “Does gender have any effect on metacognitive awareness for learners receiving metacognitive instruction through pedagogical cycle?”

To answer this question the researcher utilized a two-way ANOVA inferential statistics test. The results are shown in Table 3. The obtained results are rounded to 2 decimal digits. As can be seen in Table 3, the obtained F value is equal to 4.75, ($p > .05$). It suggests that, considering the mixed effect of metacognitive instruction through pedagogical cycle and gender on metacognitive awareness, it seems that the intervention applied in this study has similar effects on both male and female participants.

The full description of learners' performance (males and females), on MALQ administration before and after the implementation of intervention program is provided in Table 3.

4.3 Factor 1: Planning and Evaluation

There were five items (1, 10, 14, 20, and 21) in the factor including planning and evaluation strategies in MALQ. In terms of planning and evaluation strategies as shown in Table 3, both groups are at high rate with fairly similar standard deviations (item 1 [(M (m) = 3.68 SD (m)= .89, M (f) =3.84, SD (f)= .81]; item 10 [(M (m) = 4.12,SD(m)= 1.23, M (f) = 4.34, SD(f)=1.26]; item 14 [M(m) = 3.34,SD(m)= 1.14, M(f) = 3.26, SD(f)= 1.15]; item 20 [M(m) = 3.88, SD (m)= 1.09, M(F) = 3.68, SD (f)= .76]; item 21 [M(m) = 3.62, SD(m)= .94,M(f) = 4.18), SD (f)= 1.13]). As you can see in Table 3, the obtained means and standard deviation from post MALQ administration suggest that participants benefitted from the metacognitive instruction during the intervention program; consequently they became fairly skilled in terms of planning and evaluation strategy (item 1 [(M (m)= 4.22, SD (m) = 1.45, M (f)= 4.77, SD (f)= 1.17]; item 10 [M (m)= 5.66, SD (m)= .71, M (f)=5.33, SD (f)= .86]; item 14 [M (m)= 4.82, SD (m)= .86, M (f)= 4.89, SD (f)= .91]; item 20 [(M (m)= 4.12, SD (m)= 1.14, M (f)= 4.61, SD (f)= .93]; item 21 [M(m)= 5.28, SD (m)= .78, M(f)= 5.21, SD (f)= 1.33]).

Table 3
The Pre and Post MALQ Administration Considering Gender Difference (N =83)

MALQ Five Factors	Pre –test				Post-test			
	male		female		male		female	
	M	SD	M	SD	M	SD	M	SD
Planning and evaluation	3.72	1.02	3.84	1.02	4.82	.98	4.74	1.04
Problem solving	3.44	.97	4.27	1.0	4.14	1.16	4.56	.99
Directed attention	3.75	.75	3.83	1.20	4.30	.95	4.45	1.06
Mental translation	3.27	.68	3.67	.94	2.67	.76	2.61	.78
Person knowledge	3.42	1.03	4.03	.90	4.57	1.92	5.21	.88
Overall MALQ	17.60	4.45	19.64	5.06	20.50	5.77	21.57	4.73
p- value							.05	
F							4.75	
Sig							.17	

4.4 Factor 2: Problem Solving

Problem solving was measured by six items (5, 7, 9, 13, 17 and 19). Table 3, shows the obtained means and standard deviations for the items 5[(M=4.28, SD=0.83)], 7[(M=4.83, SD=0.83)], 9 [(M=3.96, SD=1.23)], 13 [(M=4.66, SD=0.83)], 17 [(M=5.26, SD=0.94)], and 19 [(M=4.48, SD=0.87)] before the implementation of intervention program. Comparing the results obtained from post-test with those in pre-test revealed that both experimental and

control groups' performance have improved in terms of using problem solving strategies. However, the experimental groups have made the greater improvement item 5 [$M(m)= 4.28$, $SD(m)= .83$, $M(f)= 5.15$, $SD(f)= .95$]; item 7 [$M(m)= 4.83$, $SD(m)= .83$, $M(f)= 5.51$, $SD(f)= .88$]; item 9 [$M(m)= 3.96$, $SD(m)= 1.23$, $M(f)= 5.18$, $SD(f)= .87$]; item 13 [$M(m)= 4.66$, $SD(m)= .83$, $M(f)= 4.78$, $SD(f)= 0.86$]; item 17 [$M(m)= 5.56$, $SD(m)= .94$, $M(f)= 5.87$, $SD(f)= .81$]; item 19 [$M(m)= 4.48$, $SD(m)= .87$, $M(f)= 4.87$, $SD(f)= .81$]. These results suggest that metacognitive instruction helped listeners in monitoring their listening performance and become aware of their listening processes. Moreover, problem solving strategies encouraged the learners to solve the problems that arise during the task completion and become prepared to overcome those similar situations that may occur in EFL listening context.

4.5 Factor 3: Directed Attention

Four items (2, 6, 12, and 16) were employed in directed attention strategies. As shown in Table 3, the means and standard deviations of the items 2 [$M=5.68$, $SD=.77$], 6 [$M=4.52$, $SD=1.95$], 12 [$M=3.91$, $SD=1.03$], and 16 [$M=2.18$, $SD=.89$] reflect a relatively high skill for directed attention strategies for the male participants. Furthermore, the means obtained from the female participants, which used to be to some extent different and higher, is now to a greater extent similar to those of the male participants. That is, the means and standard deviations of the two groups show that the female participants are approximately as skillful at directing their attention to the task as the male ones. The average mean scores and standard deviation for male and female learners increased from 3.75 ($SD= .75$) and 3.83 ($SD= 1.20$), before the intervention program, to 4.30 ($SD= .95$) and 4.45 ($SD= 1.06$) respectively after the intervention. These results support claims that metacognitive instruction can help the learners to improve their use of directed attention strategies in listening.

4.6 Factor 4: Mental Translation

Mental translation strategy was investigated by three items (4, 11, and 18). As can be seen in Table 3, learners' scores increased significantly from the pre administration of MALQ [item 4 ($M(m)= 3.18$, $SD(m)= .44$, $M(f)= 4.21$, $SD(f)= .91$); item 11 [$M(m)= 3.42$, $SD(m)= .89$, $M(f)= 3.11$, $SD(f)= 1.05$]; item 18 [$M(m)= 3.20$, $SD(m)=.70$, $M(f)= 3.68$, $SD(f)= .87$], to the post administration [item 4 $M(m)= 2.27$, $SD(m)= .73$, $M(f)= 2.53$, $SD(f)= .84$]; item 11 [$M(m)= 2.84$, $SD(m)= .89$, $M(f)= 2.68$, $SD(f)= .85$]; item 18 [$M(m)= 2.52$, $SD(m)= .66$, $M(f)= 2.62$, $SD(f)= .93$].

4.7 Factor 5: Person knowledge

Three MALQ items measured person knowledge strategy (3, 8, and 15). As shown in Table 3, the learners' overall performance increased significantly

from $M (m) = 3.42$, $SD (M) = 1.03$; $M (f) = 4.03$, $SD (f) = .90$ for males and females in pre MALQ administration to $M (m) = 4.57$, $SD (m) = 1.92$, $M (f) = 5.21$, $SD (f) = .88$) after the implementation the intervention program. The means and standard deviations of post MALQ administration show that both male and female groups had moderate anxiety when facing a listening comprehension task and considered this skill a little challenging (items 3 [$M=3.36$, $SD=1$], 8 [$M=4.82$, $SD=0.72$], and 15[$M=4.72$, $SD=1.14$]). As shown in Table 4, this is similar to what it used to be before the intervention program [item 3 $M(m)= 3.88$, $SD (m)= 0.83$, $M(f)= 5.11$, $SD (f)= 1.73$]; item 11 [$M(m)= 3.42$, $SD (m)= .89$, $M(f)= 3.11$, $SD (f)= 1.05$]; item 15[$M (m)= 3.96$, $SS (m)= .89$, $M (f)= 3.24$, $SD (f)= .75$].

5. Conclusions and Implications

This study utilized a process-based approach to promote learners' metacognitive awareness and their listening comprehension. The results of this study suggest that metacognitive instruction through the pedagogical cycle increased learners' knowledge about themselves and their listening process and at the same time it could enhance their listening comprehension scores. However, the results demonstrate that there is no statistically significant difference in terms of the mixed effects of metacognitive instruction through pedagogical cycle and gender on the participants' metacognitive awareness. The findings of this study are consistent with those of previous studies (Bozorgian, 2014; Cross, 2010, Vandergrift, 2002, 2003; Vandergrift & Tafaghodtari, 2010), providing further empirical support for the positive effect of metacognitive instruction on listening comprehension.

Although, as it was mentioned earlier there are different ways to teach strategies to English learners, the model used in this study, that is, Vandergrift and Goh's model seems to be effective with foreign language learners, especially in Iranian context. Moreover, the findings of the study confirm the theoretical background of the study, sociocultural theory, in terms of enhancing listening comprehension skills. The findings of the present study recommend the use of more social and cooperative techniques in the EFL listening activities and tasks. And among many different techniques, asking learners the related questions, telling them the related experiences or stories, and letting them have some discussion with their peers and/or teachers are effective scaffolding techniques which reduce the learners' stress due to their interactive nature and also help them become independent learners (Cross, 2011; Goh & Taib, 2006; Vandergrift & Tafaghodtari, 2010).

Although the listening tasks and activities are often worked on with no or little help or assistance of the teacher or peer in the traditional listening comprehension classrooms, the result of this study proved that the EFL

learners' listening comprehension could be remarkably improved by the peer-scaffolding. As such, one of the reasons why the Iranian EFL students' listening skill doesn't improve with an acceptable rate might be the lack of social, cooperative and collaborative techniques of teaching and learning. However, since listening comprehension is the most basic skill for language learning, it should be paid much more attention to be learned in the class. The findings of the present study recommend the use of more social and cooperative techniques in the EFL listening activities and tasks. And among many different techniques, asking students the related questions, telling them the related experiences or stories, and letting them have some discussion with their peers and/or also with their teacher are effective scaffolding ones which their interactive characteristics cause the learners to reduce their stress and also become independent students. These scaffolding activities can help the teachers act within the learners' zone of proximal development (ZPD) and provide the learners with comprehensible input. The learning strategies the students get familiar with as they are doing these activities are the best ladders that make the learning process much more facilitated and easier particularly if they are introduced, explained and emphasized by the teacher. As such, these mentioned factors could be other important causes of higher information processing in the EFL listening tasks.

This study has highlighted the importance of metacognitive instruction and the potential of using the MALQ to improve metacognitive awareness of the learners. To do this end it examined the efficacy of metacognitive instruction through pedagogical cycle on the learners' metacognitive awareness in the EFL context with regard to gender differences. The results provide some empirical support for the notion that metacognitive instruction presented through a well-designed intervention program can be beneficial to learners and help them develop their metacognitive awareness. The findings of this study can provide some guidelines for both teachers and teacher educators on how to promote learners' metacognitive listening strategies through process-based approaches to listening. One important way to raise learners' metacognitive awareness is to incorporate the principles of instruction through socio-cultural frameworks in designing EFL instructional materials and activities. This is particularly important because most of the teaching materials and course books in EFL contexts do not adequately cover activities related to learning strategies. Thus, it is crucial to call for fundamental changes in the design of EFL syllabi and teaching materials. In doing so, teachers will have ample opportunities to make learners familiar with the concept of language learning strategies, which can help them have better insights into listening tasks and listening strategies which may facilitate the listening process.

Teachers are also suggested to broaden their understanding of strategy-based instruction so as to be able to equip their learners with

knowledge of strategies to be used in different tasks inside and outside of the classroom contexts. The findings of this study can also remind teachers of the notion that there is a need for a shift in traditional listening instruction where the focus is on the listening product rather than the listening process. Therefore, teachers need to put greater emphasis on how to listen and even how to engage learners directly in improving their listening comprehension through metacognitive instruction so that they can manage and regulate their own learning.

Peer interactions in socio-cultural context, as discussed in the socio-cultural framework, can also help learners move from other-regulation to self-regulation. This can further provide some empirical support for the notion that metacognitive instruction through peer interaction as a part of pedagogical cycle can be particularly helpful to guide and assist learners in developing their listening comprehension, and help them regulate their own learning.

As it was mentioned earlier, there are a number of studies dealing with the issue of metacognitive strategies instruction to EFL/ESL learners. However, few numbers of these studies rely on socio-cultural frameworks on the one hand and teaching listening comprehension on the other hand. Due to the limited number of efforts for probing the issue, this field seems to be a fruitful area of research on teaching English to the speakers of other languages. The following directions of research may reflect a number of the possible lines of research in this area.

First, there is an urgent need for further research to examine the effectiveness of metacognitive instruction with more learners in various contexts, through longer intervention programs and across different proficiency levels.

Second, there is also a need for more research to examine the effect of various instructional models on the listening performance of learners in various settings, as the comparative study of the effect of such models on the listening performance of learners is still rare in both ESL and EFL contexts. Thus, it is highly recommended to use different strategy instruction models to come to sound conclusions.

Third, in adopting ZPD framework, there are different possible methods of instruction for raising learners' metacognitive awareness. It is worth comparing different scaffolding methods, for example, peer-interaction versus teacher-interaction.

Fourth, regarding the adaption of socio-cultural theory in foreign language teaching, there are other frameworks rather than ZPD that need to be studied; for instance, dynamic assessment provides a fruitful area of research that can be incorporated in comparison with the dialogic or interactional frameworks, similar to one used in this study.

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Appendix A
Metacognitive Awareness Listening Questionnaire (MALQ)
(Vandergrift et al., 2006)

For each item, write the number that shows what you think:

1	2	3	4	5	6
Strongly disagree	Disagree	Partially disagree	Partially agree	Agree	Strongly agree
1. Before I start to listen, I have a plan in my head for how I am going to listen.					
2. I focus heavily on the text when I have to understand it.					
3. I find that listening in English is more difficult than reading.					
4. I translate in my head as I listen.					
5. I use the words I understand to guess the meaning of words I do not understand.					
6. When my mind wanders, I recover my concentration right away.					
7. As I listen, I compare what I understand with what I know about the topic.					
8. I feel that listening comprehension in English is a challenge for me.					
9. I use my experience and knowledge to help me understand.					
10. Before listening, I think of similar texts that I may have listened to.					
11. I translate key words as I listen.					
12. I try to get back on track when I lose concentration.					
13. As I listen, I quickly adjust my interpretation if I realize that it is not correct.					
14. After listening, I think back to how I listened, and about what I might do differently next time.					
15. I do not feel nervous when I listen to English.					
16. When I have difficulty understanding what I hear, I give up and stop listening.					
17. I use the general idea of the text to help me guess the meaning of the words that I do not understand.					
18. I translate word by word as I listen.					
19. When I guess the meaning of a word, I think back to everything else that I have heard, to see my guess makes sense.					
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.					
