to introducing the strategies to learners and make sure that they apply these strategies in their listening task thereby encouraging learner autonomy.

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Conclusion

The results indicated that strategy training was effective. It can be concluded that strategy training was very helpful in improving the listening comprehension of the participants. The students mentioned in the interview that the strategy training helped to regulate their thought processes, focus their attention, and monitor their own success. The strategies also helped the students become aware of their listening problems and learn how to overcome them. It can be concluded that they found strategy training a good contributor to their listening comprehension success.

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 contributed most to their listening comprehension success and made 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

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.

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

Discussion

No other qualitative study has attempted to investigate the role of strategies in listening comprehension in the literature. The qualitative investigation indicated the significant role cognitive and metacognitive strategies can play in improving the listening comprehension performance of the participants. This finding was corroborated by the findings of other studies (Bozorgian, 2012; Thompson, 1996). However, Li (2013) found a weak correlation between listening comprehension performance and metacognitive awareness. This weak correlation can be accounted for by the conditions of the study or 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; Jacobsen, 2015; Amirian & Ratebi, 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 did not show high level of metacognitive awareness. But she found a significant difference between high score and low score listeners in metacognitive awareness.

In this study it was found that the most frequently used cognitive strategy was 'translation'. This finding is in contrast to the findings of Al-Alwan, Asassfeh and Al-Shboul (2013) and Jacobsen (2015). This discrepancy in the findings of this study may lie in the importance Iranian students attach to translation as a routine 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 process. Also 'planning' and 'evaluation' were 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.

The frequency of the cognitive and metacognitive strategies was investigated in this study. It was found that 'advance organizer' and 'directed attention' were the most frequent metacognitive strategies and 'functional planning' was the least frequent strategy used by the learners. 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.

It was also found that 'translation' and 'inferencing' were the most frequent cognitive strategies used in this study. 'Grouping', 'deduction' and 'contextualization' were never used by the learners in this study. To date, to the best of the researchers' knowledge, no study has examined the contribution of cognitive strategies to listening comprehension, nor has a study investigated the frequency of the cognitive strategies used by learners in listening comprehension or any other skills.

As can be seen in the table 1, among all the metacognitive strategies, 'advance organizer' and 'directed attention' were the most frequently used strategies by the students with the average of 14.20 and 15.40, respectively. After that there is 'self-management' with the average of 8.10. 'Functional planning' is the least frequently used metacognitive strategy used by the participants in this study (M= .30). The other strategies are used fairly often with the average of approximately 2 to 4.

Table 2 provides the descriptive statistics of the cognitive strategies used by the participants in the treatment session. As the table 2 shows, the most frequently used cognitive strategies are 'translation' and 'inferencing' with the average of 22.60 and 21.80, respectively. 'Keyword' is the next frequently used cognitive strategy with the average of 9.40 followed by 'imagery' and 'elaboration' with the average of 7.60 and 6.40, respectively. 'Recombination' and 'resourcing' were very rarely used with the average of .80 and .90, respectively. Because 'grouping', 'deduction' and 'contextualization' were never used by the participants they are not reported in the table 2.

Table 2.
The Descriptive Statistics of the Cognitive Strategies Used in Treatment Sessions

strategies	Repetition	Resourcing	Translation	Imagery	Note-taking	Transfer	Elaboration	Recombination	Auditory presentation	Keyword	Inferencing
Mean	2.00	0.90	22.60	7.60	3.50	2.80	6.40	0.80	0.70	9.40	21.80
SD	3.68	1.37	12.04	6.94	7.66	3.85	5.56	1.13	1.63	6.20	6.06

memory and I could keep it longer. It helped me in answering the questions. In most of the completion questions I had to use inferencing because the information was not literally stated in the passage.

Note-taking helped the participants to remember the information given in the passage. Sara mentioned that she used her notes when she wanted to answer the questions. She also mentioned that she used "elaboration" to use her previous knowledge to understand the new information. She mentioned that:

Whenever I didn't understand a text, I tried to use my previous knowledge and experience to get the gist, and then I could integrate the new knowledge into my already established knowledge. This way I could expand my knowledge structure and improved my experience.

Maryam said that after the strategy training she had a better view towards listening comprehension. She used 'note-taking' and 'imagery' to compensate for her lack of memory, and mentioned that she became a better listener with the help of strategies. She said that:

Before strategy training, listening comprehension was a very difficult skill for me. I was always afraid of it. But now I think I enjoy listening comprehension, I have a better experience, and I understand more details.

Among all the cognitive strategies, the participants maintained that they used 'translation' and 'inferencing' more frequently. For example, Mahshad used 'translation' 50 times during the treatment sessions, Kianoosh used it 27 times and Hosna used it 26 times. Mobina used 'inferencing' 28 times, and Kianoosh, Hosna, Mohammad, Mohanna and Mahshad used it 27 times. They reported that they used 'auditory representation' and 'recombination' very rarely, and they never used 'grouping', 'deduction' and 'contextualization'.

Investigating the second Research Question

To investigate the second research question, that is, the frequency of cognitive and metacognitive strategies, descriptive statistics and the relevant graphs are presented to provide a better image of the EFL learners' mind processes in listening comprehension. Table 1 presents the descriptive statistics of the frequency of the metacognitive strategies used by the learners during the treatment sessions.

Table 1.
The Descriptive Statistics of the Metacognitive Strategies Used in Treatment Sessions

strategies	Advance organizer	Self-monitoring	Selective attention	Directed attention	Self- management	Delayed production	Self-evaluation	Functional planning
Mean	14.20	4.00	3.50	15.40	8.10	3.90	2.70	0.30
SD	9.00	3.68	2.71	8.26	5.83	2.42	2.26	0.67

tasks at home, the TV was very loud and my mom was cooking, but I could manage myself not to get distracted and after the task I rechecked the answers.

In Mobina's interview, the use of the strategies 'self-monitoring', 'directed attention', 'selective attention', and 'delayed production' could be observed. Some of the students created special conditions for themselves on purpose to challenge themselves. For example, Mobina reported that "by making noise and listening to background music I tried to challenge myself and improve my concentration." She mentioned that "sometimes I lost track of the audio file and I had to listen several times, but it was nice to challenge myself." In this regard, Asal, one of the participants, mentioned that:

This challenge was very helpful to me because I always had my brothers' crying in the background. Before learning these strategies, I got frustrated very often, but now it's nice to know how to self-direct my attention. I learned how to listen selectively and not to get distracted by background noise.

The serious case of the use of 'selective attention' and 'directed attention' was reported by Mohammad. He said that he tried to challenge himself by doing a listening task while his father was drilling and his mother was vacuuming.

It was very nice to know that I could direct my attention to the listening task while everyone was making noise. The strategy instruction made me a better listener and a better learner. Now I can study everywhere and in every condition.

When the participants were asked which metacognitive strategies they used more frequently, most of them said that 'directed attention' and 'advance organizers'

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helped them to have better listening comprehension. For example, Mohammad used 'directed attention' 21 times, Amir Reza used it 31 times, and Kianoosh used it 19 times during the treatment sessions. Hosna used 'selective attention' 20 times, and Amir Reza and Mahshad used it 26 times. Very few participants used 'functional planning' in their treatment sessions.

With regard to cognitive strategies, the participants reported that these strategies helped them to comprehend the audio texts better. With the help of cognitive strategies such as 'translation', 'note-taking', 'auditory representation' and 'inferencing', the participants mentioned that they had a better grasp of the aural input. For example, Mohanna, one of the participants mentioned that:

When I used translation, I could hold more information in my short term

cognitive and metacognitive strategies and the way the learners thought these strategies could contribute to their listening comprehension success, a semi-structured interview consisting of six questions was devised and coducted.

Procedure

Ten EFL learners participated in this study. Before the start of data collection all of the participants were asked to sign a consent form to indicate their approval to participate in the study. Then, they received the instruction about cognitive and metacognitive strategies during the treatment sessions. In their treatment sessions, one of the researchers instructed the learners how to use cognitive and metacognitive strategies (based on O'Malley and Chamot's classification of learning strategies in their studies in 1990-1995) using CALLA model proposed by Chamot et al. (1999).

The learners were also asked to tally the Cognitive and Metacognitive Frequency List to indicate what kinds of strategies were used more frequently by them during the treatment sessions. Then, they were asked to participate in an interview to talk about their experiences using the strategies and how the strategies helped them to improve their listening comprehension.

Results

This section presents the results of data analysis the two research questions and the relevant discussion.

Investigating the First Research Question

In order to answer the first research question dealing with the contribution of cognitive and metacognitive strategies to the listening comprehension performance

of EFL learners, a semi-structured interview was conducted to gain more insights into the learners' minds and see how they actually thought these strategies helped them to perform better in listening comprehension tasks.

All the ten participants in the study participated in the interview. It took each of them 10 to15 minutes to answer the questions.

The participants all pointed out that the strategy training was extremely useful for them. They believed that metacognitive strategies helped them regulate their listening process more efficiently. They all reported that their evaluation skills improved and they could manage their listening ability in a more directed way. For example, Mahshad, one of the participants said:

In all the sections, I could manage myself well despite the noise in the institute, I could listen to the details. Using the pictures, first I tried to make a guess, and then I evaluated my guess and rechecked my answer. I could easily manage and observe myself during the listening.

This excerpt from Mahshad's interview indicates that the strategies helped her to have better control over her thought processes and direct her attention to the required task at hand. This was actually an example of 'directed attention' and 'self-monitoring'. As a result of strategy instruction, some students could control and direct their attention to the task. Another example of the strategies used by the learners was 'delayed production'. For example, Mobina reported that:

Before the listening task, I decided to listen to details and prepare myself in advance. I considered all the alternatives and then I chose the correct answers. When I listened to the

awareness in terms of metacognitive strategies (Mendelsohn, 2006). Also, applying metacognitive strategies through a process approach can enhance listening comprehension (Vandergrift, 2007). However, most of the previous studies have focused on the use of

> With regard to the effect of cognitive and metacognitive strategies in listening comprehension skill a research was conducted by Boroujeni, Hesabi, and Serri (2015) to explore the relationship between learners' listening strategy use, cognitive, metacognitive, and social/affective strategies, while they listened to the texts

metacognitive strategies in L2 listening comprehension through a quantitative approach (Metcalfe & Shimamura, 1994; Nisbet & Shucksmith, 1986; Vandergrift & Tafaghodtari, 2010).Referring to this gap, Goh (2008) suggests that more research should be conducted in order to investigate the role of metacognitive listening strategies in improving learners' listening comprehension.

In line with the points mentioned above, scarcity of research on how metacognitive strategies can contribute to better performance of EFL learners' listening comprehension on the one hand, and lack of sufficient research on how listening ability can be influenced by different listening tasks on the other hand, justify this study which aimed at investigating the impact of cognitive and

metacognitive strategies on listening and also the identification of the most frequent strategies used by learners through a qualitative method.

This study was conducted through a qualitative method in order to gain better insights into EFL learners' minds in terms of listening comprehension processes involved. To the best of the researchers' knowledge, few studies have delved into EFL learners' mind to examine the effectiveness of using cognitive and metacognitive strategies to improve listening comprehension through a qualitative approach. The following questions the present study:

1. To what extent do cognitive and metacognitive strategies contribute to better performance of EFL learners in listening comprehension?
2. What cognitive and metacognitive strategies are used most frequently by EFL learners in a listening task?

Methodology
Participants
The total number of the participants for this study were *10* male and female intermediate EFL learners studying in a language institute in Qazvin, Iran. They ranged in age from 16 to 20 years. The participants were native speakers of Persian and were chosen non-randomly based on convenient sampling. They had passed 8 terms in the institute and were approximately homogeneous.

Instruments
To collect data for the present study and to answer the research questions, the following instruments were utilized.
A Semi-structured Interview
In order to ellicit the participants' perspectives and understanding of the
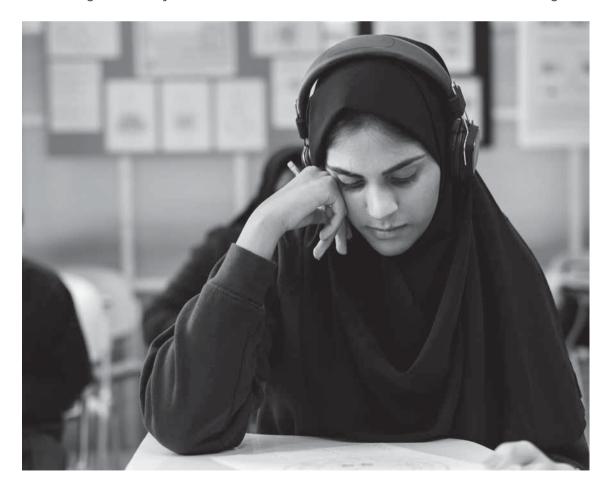
With regard to the effect of cognitive and metacognitive strategies in listening comprehension skill a research was conducted by Boroujeni, Hesabi, and Serri (2015) to explore the relationship between learners' listening strategy use, cognitive, metacognitive, and social/affective strategies, while they listened to the texts. The results suggested that there was a significant relationship between the level of motivation and the listening strategies.

In another study, Jacobsen (2015) attempted to investigate the impact of listening strategy instruction on learning English and an additional foreign language. The results showed that the highest scoring metacognitive factors were Planning and Evaluation, Directed Attention, and Problem Solving strategies.

In this regard, a study was conducted by Liu (2008) to find out about the interrelationship between learners' listening strategy use across listening abilities, and learning styles. The results suggested that there was a statistically significant difference between the strategy use and the attainment levels. It was also indicated that listening strategy use was significantly associated with learning styles.

Vandergrift (2003) conducted a study on listening strategy application. The participants were 36 grade 7 students who were learning French. Significant differences were found in the use of the category of metacognitive strategies as well as in the individual strategies for comprehension monitoring, questioning for elaboration, and translation.

Researchers have advocated raising

Abstract

This study was an attempt to examine the contribution of cognitive and metacognitive strategies to EFL learners' listening comprehension performance. Ten EFL students participated in this study and received five sessions of listening practice and strategy training based on O'Malley and Chamot's (1990-1995) classification of learning strategies using CALLA model proposed by Chamot et al. (1999). After strategy training, the learners were interviewed to gain insights into their mind as to the contribution of strategies to raise their awareness and improve their listening comprehension. They reported that cognitive and metacognitive strategies helped them regulate their listening process more efficiently. They also mentioned that their evaluation skills improved and they could manage their listening ability in a more directed way. The strategies also helped the students to become aware of their listening problems and to learn how to overcome them. The most frequent and the least frequent cognitive and metacognitive strategies are presented and discussed. Pedagogical implications for teachers, language learners, and material developers are presented in the end.

Key Words: listening comprehension, cognitive strategies, metacognitive strategies, qualitative method

Introduction

Listening comprehension is a keystone in language acquisition and instruction; it is also known as the main prerequisite for language acquisition and instruction. It may play a dominant role in determining whether a person will ultimately succeed in mastering a foreign language. As mentioned by Morley (1991, P. 82) "We can expect to listen twice as much as we speak, four times more than we read, and five times more than we write." . 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).

A plethora of studies have indicated that listening is the most important skill for language learning, because it is the most widely used language skill in normal daily life (Dunkel, 1986; Harmer, 2007; Morley, 2001; Richards, 2008; Rost, 2001). According to Nunan (2003), among the four major communication skills, i.e., listening, speaking, reading, and writing, the one that is the most essential is listening.

Literature Review

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

> **Listening comprehension is a keystone in language acquisition and instruction; it is also known as the main prerequisite for language acquisition and instruction. It may play a dominant role in determining whether a person will ultimately succeed in mastering a foreign language**

A Qualitative Study of the Impact of Cognitive and Metacognitive Strategies on EFL Learners' Listening Comprehension

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چکیده

در این مطالعۀ کیفی، تأثیر راهبردهای شناختی و فراشناختی بر درک شنیداری زبان‌آموزان بررسی شده است. نخست ده دانش‌آموز انتخاب شدند و طی پنج جلسه تمرین مهارت شنیداری به آن‌ها راهبردها آموزش داده شد. این آموزش براساس مدل CALLA اومالی و دیگران (۱۹۹۹) انجام گرفت. پس از جلسات آموزشی، جهت پیدا کردن میزان افزایش سطح آگاهی دانش‌آموزان نسبت به راهبردها و پیشرفت سطح دانش شنیداری آنان، از آن‌ها مصاحبه به عمل آمد. دانش‌آموزان اظهار داشتند که یادگیری راهبردهای شناختی و فراشناختی به‌طور مؤثری در کنترل فرایند شنیداری به آن‌ها کمک کرده است. دانش‌آموزان همچنین ذکر کردند که مهارت‌های ارزشیابی آن‌ها بهبود پیدا کرده و بهتر می‌توانند توانایی شنیداری خود را مدیریت کنند. در واقع، راهبردها دانش‌آموزان را نسبت به مشکلات شنیداری‌شان آگاه کرده و به آن‌ها آموخت که چگونه بر مشکلاتشان غلبه کنند. رایج‌ترین و کم استفاده‌ترین راهبردهای شناختی و فراشناختی هم مورد بحث قرار گرفت. اینک کاربردهای آموزشی این مطالعه برای معلمان، دانش‌آموزان و تولیدکنندگان محتوا ارائه می‌شود.

کلیدواژه‌ها: درک شنیداری، راهبردهای شناختی، راهبردهای فراشناختی، روش کیفی