

The Impact of Listening Strategy Training on the Meta-Cognitive Listening Strategies Awareness of Different Learner Types

Fatemeh Zarrabi¹

¹ School of Education, Monash University, Melbourne, Australia

Correspondence: Fatemeh Zarrabi, School of Education, Monash University, Melbourne, Australia. Tel: 61-399-052-831. E-mail: Fatemeh.zarrabi@monash.edu

Received: January 7, 2016 Accepted: April 12, 2016 Online Published: April 17, 2016

doi: 10.5539/elt.v9n5p154 URL: <http://dx.doi.org/10.5539/elt.v9n5p154>

Abstract

The present study investigated the effectiveness of listening strategy instruction on the metacognitive listening strategies awareness of different EFL learner types (LTs). To achieve this goal, 150 EFL students took part in the study and were taught based on a guided lesson plan regarding listening strategies and a pre-test/post-test design was applied. The degree of change occurring as a result of intervention was measured through one way ANOVA test. The results indicated that there was a significant improvement after the onset of the instruction, and that the intervention was effective. Although there were some differences between the four learner types (visual learners, auditory learners, kinaesthetic learners, and tactile learners) on the post test, the auditory learner type had the most significant improvement in metacognitive awareness of listening strategies (MALS). The finding of this quantitative research study led us to conclude that learners make noticeable progress in MALS via listening strategy instruction and that the level of improvement varies across the LTs with the auditory group improving most significantly.

Keywords: metacognitive listening strategies awareness, listening comprehension skill, listening strategy instruction, learner types

1. Introduction

In spite of wide range of areas investigated in metacognitive listening strategies awareness (Vandergrift & Tafaghodtari, 2010), there is lack of research on how effective listening strategy instruction is on the MALS of different LTs. There is still debate among EFL/ESL teachers and researchers on the ways to improve listening skill of EFL/ESL students through metacognition. In addition, many scholars have found positive relationship between the use of metacognitive strategies and other skills, such as reading and writing (Ahmadi, Ketabi, & Rabiee, 2012; Sen, 2009; Yuksel & Yuksel, 2011). However, most of these research studies have paid no attention to LTs. As EFL learners are human beings, they are of different types and they have their own strengths and weaknesses. Therefore, it is important to consider them individually to measure the effectiveness of an intervention. An understanding of whether listening strategy instruction has any impact on the MALS of different LTs, would seem vital for the teaching curriculum (listening in particular), improvement of EFL learners' listening, and course book designers.

2. Related Literature Review

2.1 Listening Comprehension Skill

Listening is probably the most difficult skill to learn since it seems to be the least explicit of the four language skills (Graham, Santos, & Francis-Brophy, 2014). According to Richards and Schmidt (2007), listening comprehension can be defined as the process of understanding speech in a first or second language which needs a conscious plan to deal with incoming speech problems due to incomplete understanding of the listener. It encompasses both 'bottom-up' processing, which are text-based strategies, and 'top-down' processing, which are listener based strategies (Celce-Murcia & Olshtain, 2000). Although listening plays an important role in language learning, it was not treated as a distinct part of the language curriculum until the 1970s (Rost, 2001; Sparks & Ganschow, 2001). In spite of abundant empirical research studies and theoretical discussions in the past 30 years or so, a strategy-based approach to teaching L2 listening has not been genuinely adopted by practitioners (Brown, 2006; Guan, 2014; Nunan, 2002; O'Malley, Chamot, & Walker, 1987; Oxford, 2011).

More recent approaches to L2 listening emphasize the role of listening in building up language competence and suggest that more attention should be paid to teaching listening in second or foreign language learning (Richards & Schmidt, 2007). Vandergrift (2004) puts forward a metacognitive approach to help learners integrate the implication of listening strategies while listening. Therefore, learners are encouraged to use strategies in the listening parts of their lesson to achieve successful comprehension through managing their comprehension. Besides, learners who are successful users of these strategies will not only improve their listening comprehension, but also experience an increase in motivation.

2.2 Listening Strategies Instruction

Many research studies have probed the important role of listening strategy instruction and metacognitive listening strategies awareness in students' learning and achievement in various fields (Ismail & Tawalbeh, 2015; Mokhtari & Reichard, 2002; Yuksel & Yuksel, 2011). Sen (2009), for instance, examined the relationship between metacognitive strategy use and reading comprehension and found a marked improvement in learners' achievement. A longitudinal research on listening comprehension and strategy use by Graham (2008) has demonstrated that the listeners need to be guided about strategies in order to apply them more effectively and appropriately. Zimmerman and Schunk (2001) have also examined the effectiveness of listening strategies and concluded that it has not only positive effect, but also help the learners become more independent and self-regulated (Eilam & Aharon, 2003).

Most of literature on L2 listening focuses on the use of strategies for listening comprehension (Ahmadi & Pourhossein, 2011). Many studies put the emphasis on L2 learner's application of metacognitive strategies in coping with obstacles and facilitating comprehension (Goh, 1998; Mareschal, 2002; O'Malley & Chamot, 1990; Sun, 2013; Vandergrift, 2003). Learners' metacognitive knowledge and cognitive appraisal have also been the chief subject in listening strategy research (Vandergrift, Goh, Mareschal, & Tafaghodtari, 2006). The efficiency of metacognitive strategies awareness on learning has been explored in many research studies (Kummin & Rahman, 2010; Rahimi & Katal, 2012). Some scholars found that more skilled listeners show a higher degree of awareness of their listening problems (Goh, 2000; Zimmerman & Schunk, 2001; Mokhtari & Reichard, 2002; Goh, 2008). Vandergrift (2005) investigated the relationship between listening proficiency, motivation and metacognition and reported the use of metacognitive strategies among French EFL learners. In addition, Vandergrift (2007) identified a causal relationship between significant improvement in listening comprehension and metacognitive instruction. Furthermore, a great deal of research studies in the EFL context, have revealed the relationship between metacognitive listening strategies awareness and second language listeners (Vandergrift et al., 2006; Goh, 2008; Bozorgian, 2014), motivation orientation and proficiency in L2 listening (Vandergrift, 2005), learning style (Bidabadi & Yamat, 2011), gender (Rahimi & Katal, 2011), EFL learners' listening sub-skills (Dousti & Abolfathiasl, 2013), and motivation (Rahimirad & Shams, 2014).

2.3 Metacognitive Listening Strategies Awareness

Metacognition is described as a construct which refers to the ability of a human to be widely aware of his/her mental processes or thinking about one's thinking (Nelson, 1996; Vandergrift, 2004). Goh (2008) believes that metacognition is both a system of associated opinions and an abstraction of a learner's experience which are relatively steady. She also describes it as knowledge about learning that is a part of a learner's stored knowledge which has been obtained through years. Metacognition is also defined as a form of cognition which is a high level thinking process and consists of active control over cognitive processes (Cross, 2010).

As noted in Brown (2007), metacognitive strategies are general skills by which learners regulate learning activities, handle, manage, and pilot their learning. Connecting new to old information, selecting conscious thinking strategies, organizing, observing, and assessing thinking processes are fundamental metacognitive strategies (Oxford, 2002; Oxford, 2013). Therefore, metacognitive strategies are mental characteristics which are known as the 'seventh sense' and are used by successful learners (Birjandi, Mirhassani, & Abbasian, 2006; Chari, Samavi, & Kordestani, 2010). Actually, successful learners are aware of their learning process and the implication of various strategies which meet the requirements of different situations and learning tasks (Goh, 2008; Rezaei & Hashim, 2013). Based on the literature review, metacognitive strategy awareness is of utmost importance in English language learning.

2.4 Learner Types

Learners perform differently in learning activities, even though they are presented with the same material via the same teaching method and teacher (Razavi, 2014; Reid, 1998). Undoubtedly, one factor, among others, that has a vital role in learning is the preference of learners which forms their LTs (Mackey, Gass, & McDonough, 2000). LT refers to the concept that every human being learns differently due to various types of behaviour that have

been formed within personal framework of learning (Kumaravadivelu, 2006; Maggioli, 1996). Research shows that learners of different types perform differently while they are engaged in various learning situations (Lee & Kim, 2014; Rubin, 2011). Reid (1995) has proposed three major learning styles as cognitive, sensory, and personality. Each of these has been classified into different subcategories. For example sensory learning style includes perceptual and environmental learning styles. In which, perceptual learning style involves four learner types as auditory, visual, tactile, and kinaesthetic learners which is the subject of the current study.

In addition, there are considerable number of studies which explored the relationship between LTs, individual differences, second language proficiency, and other EFL/ESL related factors. For example, one research study investigated the effect of teaching and learner styles on the students' reflection for ubiquitous learning which came to a conclusion that appropriate teaching style matched with learner styles can significantly improve the learners' reflection for ubiquitous learning (Hsieh, Jang, Hwang, & Chen, 2011). Soureshjani and Naseri (2012) have examined the relationship between EFL LTs and their second language proficiency and concluded that LT has a significant impact on learners' L2 proficiency. The result of their research is in line with others such as Shaw (2012), and Sahragard and Mallahi (2014) which all confirm that a single method of teaching would have various results on different learner types. However, lack of research can be seen on the relationship between MALS and listening strategy instruction to different LTs (auditory, kinaesthetic, tactile, and visual).

3. Methodology

According to the literature, there are numerous research studies on LT, listening strategy instruction, and metacognitive awareness of listening strategies, individually. However, there is a dearth of research on the impact of listening strategy instruction on the metacognitive listening strategies awareness of different learner types. Thus, the current study sought to examine how explicit teaching of listening strategies influences metacognitive listening strategies awareness of different learner types.

3.1 Design

A pre-test/post-test design was selected for this quantitative study, and 150 participants were chosen through non-random selection. There were four variables in this research, namely as: dependent, independent, moderator, and control variables. The dependent variable was listening strategies awareness. The independent variable was the treatment which is explicit teaching of listening strategies and learner types was considered as the moderator variable. Furthermore, language proficiency level and gender were control variables of the study as the participants were all female and at the intermediate level. The participants were homogenized by taking FCE exam and brought down the number of participants to 135. Then, the 135 participants had a MALQ pre-test and in the succeeding sessions, they went through the training sessions. After that, a MALQ post-test was administered in the last session. By the end of the training period, the difference between the mean scores of the pre-test and post-test of different learner types was subjected to a test of statistical significance, paired samples t-test.

3.2 Participants

The participants were level four (high-intermediate) EFL students in 14 classes of a private English language institute for women in Iran. Subjects were trained in listening strategies through different listening tasks beside the listening tasks of their current curriculum (English Result Intermediate). Each class had approximately the same number of students (12 students per class), 150 students in total. Fifteen subjects were disqualified for not having participated in either the pre-test or the post-test, or after being homogenized which brought the total number of the subjects down to 135. They were all female learners aged 15 to 40 and mostly speak Persian as their L1.

To come up with a homogenous group of participants, the 150 female intermediate English language learners were given the FCE proficiency test. The rationale behind the administration of the FCE test of proficiency was to screen the participants with nearly the same language proficiency level, therefore, they participated in an intermediate proficiency test (FCE). According to the scores obtained from the FCE test, 135 participants, whose scores were one standard deviation below and above the mean, were chosen.

3.3 Instrumentation

In order to conduct this study, two sets of materials were applied: firstly, for the purpose of the instruction procedure, and secondly, for measuring participants' abilities.

3.3.1 Instructional Materials

Beside the application of tests for the purpose of homogenizing the participants and measuring the independent

variables of the study, listening strategy instructions were designed and implemented throughout 10 sessions within course requirements to cover the text book.

- *Course book*

All the subjects in this study received the same instruction based on “English Result Series” intermediate level by Mark Hancock and Annie McDonald (2009) as their course book. The package contains a student’s book, a workbook, related CDs and story books suitable to their levels. Furthermore, “Q Skills for Success 4 (Listening and Speaking)” by Freire and Jones (2011), “Open Forum 2 (Academic listening and speaking)” by Blackwell and Naber (2006), and “Tactics for listening (Advanced)” by Richards (2011) were the sources from which the listening tasks were selected and applied in training in listening strategies. These books are designed for the listening of intermediate EFL learners.

High-interest, authentic listening extracts with a variety of genres (News report, radio interview, conversation among friends, and lectures) were gathered from well-respected sources.

- *Listening Strategies*

Many students study English in preparation for standardized English tests or to study at a foreign university. Therefore, mastering listening, as a key skill, is vital for these students. Regarding the above mentioned fact, listening is a skill which should be taught and is not something that is gained naturally (Nunan, 2002). Berman (2003) believes that listening strategy consists of three main steps which are: (a) pre-listening strategies, (b) while listening strategies, and (c) post-listening strategies. In addition to aforementioned strategies, other researchers’ listening strategies like O’Malley, Chamot and Kupper (1989) and Young (1997) were implemented in the study as the bases of instruction and were taught to brush up the listening strategy knowledge of the participants.

3.3.2 Tests

Four sets of test were applied: FCE test, MALQ questionnaire (pre-test and post-test), and Reid’s learner type questionnaire. The primary instruments used in this study were a pre-test and a post-test used to verify the participants’ knowledge of the listening strategies in the study. Furthermore, the tests were performed to examine if explicit teaching of listening strategies had any effect on the metacognitive listening strategy awareness of different learner types. The tests had four parts to test listening for details and listening for main ideas. Each of these tests is discussed in more detail below.

- *FCE test*

A language proficiency FCE (First Certificate in English) test is used for homogenizing the subjects in the current study. The FCE is designed to evaluate the students’ listening, speaking, reading, and writing in English language. The FCE proficiency test in this study consisted of four main sections including three-part reading with 30 items, two-part writing, four-part use of English with 42 items, and listening with 30 items. The recommended time for the test was 225 minutes. Firstly, prior to its main administration, the test was piloted with a group of 26 participants similar to those of the target sample. The IF (Item Facility) and CD (Choice Distribution) of the items were calculated. The items with the appropriate range of IF and CD were selected. The other items which violated the required range as either too easy or too difficult were deleted.

- *Reid’s perceptual learning style preference questionnaire*

The Reid questionnaire (1995) which consists of 30 items served as the means to identify learners’ preferred medium of learning. In this questionnaire, every item is followed by five options including: SA = Strongly Agree, A = Agree, U = Undecided, D = Disagree, and SD = Strongly Disagree. The participants were asked to fill out this questionnaire at the first session of their class. This questionnaire identified the learners’ preferred learning channel among four different learning styles including visual, auditory, tactile/haptic, and kinaesthetic.

- *Meta-cognitive Listening Strategy Awareness (MALQ) (2006)*

The MALQ questionnaire (2006) by Vandergrift *et al.*, includes 21 items evaluating the students’ meta-cognitive awareness of the listening strategy. It explores how much a person is or is not aware of listening strategies. In this questionnaire every item is followed by 6 options including strongly disagree, disagree, slightly disagree, partly agree, agree, and strongly agree. In order to give meaning to testee’s performance on meta-cognitive awareness of listening strategies, every scale was given a value. Therefore, the choices are as follows: Strongly disagree = 1, disagree = 2, slightly agree = 3, partly agree = 4, agree = 5, and strongly agree = 6. As a result each testee’s score could range from 21 to 126. MALQ questionnaire was given to the learners at both pre and post stages to measure the subjects’ metacognitive awareness of listening strategies prior and following the treatment

procedure to see whether meaningful changes happened to their awareness of listening strategies as a result of the treatment.

3.4 Procedure

The focus of this study was to investigate the impact of listening strategy instruction on the metacognitive listening strategies awareness of different learner types. Firstly, the researcher included all the available 150 participants in the first phase of the study to homogenize the participants. Prior to the study, the researcher explained the focus of the study to the subjects.

For the purpose of having participants with the same level of proficiency, they were initially tested using the FCE test to choose those who scored above the mean for this study. After that students with scores between one standard deviation above and below the mean were selected as the main participants of the study. Therefore, according to the result obtained, the number of participants decreased to 135. Prior to the test administration, the participants were informed about the importance of the test and were asked to attend the test as a part of their language learning program. Before launching the instructional procedure, the researcher briefed the participants on the importance of learning listening comprehension strategies. She further explained how it can be helpful for participants in their everyday life situations and in particular in their language learning environment.

In the next step, the participants were asked to fill in a Meta-cognitive Awareness Listening Questionnaire (MALQ) for the purpose of measuring their metacognitive listening strategies awareness before the onset of the treatment. After that, in order to gain information about the participants' learner types, they were asked to fill out the 30-item Reid's perceptual learning styles questionnaire.

Regarding the teaching of listening strategies, different researchers have developed various strategies (Berman, 2003; Celece-Murcia & Olshtain, 2000; O'Malley et al., 1989; Young, 1997). Therefore, the researcher adopted the mixed approach in teaching listening strategies, which was developed based on the aforementioned scholars' recommendations. All strategies were presented in the first session, and each strategy was taught again in each separate session. The participants received 10 sessions of instruction. However, in each session 20-30 minutes was devoted to teaching and presenting listening strategies. Each printout contained the definition of strategy and some easy to grasp examples. The researcher initiated the discussion by asking the subjects to trouble shoot their listening problems. After that she presented the listening strategies and then she went through the course book. The participants were asked to use the presented listening strategies in the listening parts. The rationale behind this was to get feedback from the participants to make sure they understood the objective of these listening strategies. The same procedure was implemented in the next nine following sessions, and in every session one of the listening strategies was highlighted. In the last session, the participants were asked to fill in the MALQ questionnaire again (as a post-test) to measure their listening strategies awareness after the intervention process. At the end, the obtained data was analysed to investigate the proposed research question of the study.

3.5 Data Analysis

A one-way ANOVA is run to investigate the effects of the learner types of auditory, kinaesthetic, tactile/haptic and visual on the proficiency test in order to prove that they enjoyed the same level of general language proficiency prior to the main study. A paired-samples t-test was run to compare the students' mean scores on the pre-test and post-test of MALQ in order to probe the effect of explicit instruction of listening strategies on the metacognitive listening strategies awareness of different learner types. Another one-way ANOVA was run to investigate the effect of learner type on the performance of the students on the post-test of MALQ.

Furthermore, Kuder-Richardson 21 (K-R21) was applied for estimating the reliability of pre-test and post-test of MALQ. KR21 was used because it was more practical and also because it is a better estimate of reliability when the items are measuring the same ability throughout the test (Hatch & Farhady, 1983). It is also important to mention that a factor analysis is run to probe the constructs of the tests administered in this study.

4. Results and Discussions

In order to test the null hypothesis of the study which is the explicit instruction of listening strategies does not have any statistically significant influence on the meta-cognitive listening strategy awareness of different intermediate learner types, the researcher needed to run a paired-samples t-test to compare the students' mean scores on the pre-test and post-test of MALQ. The results of the paired-samples t-test are presented in Table (1). As $t(134) = 72.23$, $P = 0.00 < 0.05$ and $R = 0.98$ a large effect size can be seen. Therefore, it is concluded that there is a noticeable difference between the mean scores of the students on the pre-test and post-test of MALQ. Thus, the null-hypothesis is rejected. It is worth mentioning that other studies (e.g., Coskun, 2010; Kummin & Rahman, 2010; Movahed, 2014; Bozorgian, 2014) prove the outcome of the current research in regards to the

effectiveness of listening strategy instruction on the MALS of learners.

Table 1. Paired-samples t-test pre-test and post-test of MALQ

Paired Differences					t	df	Sig. (2-tailed)
Mean	Std. Dev.	Std. Error Mean	95% Confidence Interval of the Difference				
			Lower	Upper			
50.12	8.06	0.69	48.74	51.49	72.23	134	0.00

The students after receiving explicit instruction of listening strategies demonstrated a higher mean score on the post-test ($M = 101.50$) than the pre-test ($M = 51.38$) (Table 2 and Figure 1).

Table 2. Descriptive statistics pre-test and post-test of MALQ

	Mean	N	Std. Deviation	Std. Error Mean
Posttest	101.50	135	7.117	0.613
Pretest	51.38	135	7.793	0.671

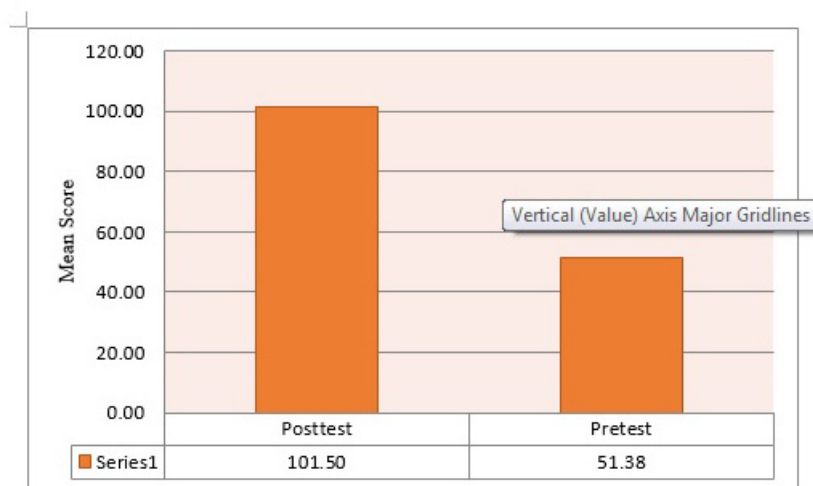


Figure 1. Pre-test and post-test of MALQ

A one-way ANOVA is run to investigate the effect of LT on the performance of the students on the post-test of MALQ. Before commenting on the results of the one-way ANOVA, it should be mentioned that the assumption of homogeneity of variances (Levene's $F = 2.326$, $P > 0.05$) is met (Table 3).

Table 3. Homogeneity of variances

Levene Statistic	df1	df2	Sig.
2.326	3	131	0.078

The results of the one-way ANOVA ($F(3, 131) = 5.54$, $P < 0.05$, $\omega^2 = 0.09$) represent a moderate to large effect size which indicate that the LT has a significant effect on the performance of the students on the post-test of MALQ (Table 4).

Table 4. One-Way ANOVA post-test of MALQ by learner types

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	764.945	3	254.982	5.546	0.001
Within Groups	6022.803	131	45.976		
Total	6787.748	134			

As displayed in Table (5) and Figure (2) the mean scores for the auditory, kinaesthetic, tactile and visual groups are 106.04, 101.32, 97.60 and 100.53, respectively.

Table 5. Descriptive statistics post-test of MALQ by learner types

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Auditory	24	106.04	8.917	1.820	102.28	109.81	90	125
Kinaesthetic	53	101.32	6.250	0.859	99.60	103.04	92	118
Tactile	15	97.60	4.748	1.226	94.97	100.23	90	106
Visual	43	100.53	6.631	1.011	98.49	102.58	90	120
Total	135	101.50	7.117	0.613	100.28	102.71	90	125

Although the F-value of 5.54 (Table 4) indicates significant differences between the mean scores on the post-test of MALQ, the post-hoc Scheffe's tests should be run to compare the groups two by two. Based on the results displayed in Table (5) and Figure (2), it can be concluded that there is a noticeable difference between the mean scores of the auditory ($M = 106.04$) and tactile ($M = 97.60$) on the post-test of MALQ ($MD = 8.44$, $P < 0.05$).

There is a difference between the mean scores of the auditory ($M = 106.04$) and visual ($M = 100.53$) on the post-test of MALQ ($MD = 5.50$, $P < 0.05$). There are not any significant differences between other learner types on the post-test of MALQ (Table 6 and Figure 2).

Table 6. Post-hoc scheffe's test post-test of MALQ by learner types

(I) Learner Type	(J) Learner Type	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Auditory	Kinaesthetic	4.721	1.668	0.050	0.00	9.45
	Tactile	8.442*	2.232	0.003	2.12	14.76
	Visual	5.507*	1.728	0.020	0.61	10.40
Kinaesthetic	Tactile	3.721	1.983	0.322	-1.90	9.34
	Visual	0.786	1.392	0.956	-3.16	4.73
Visual	Tactile	2.935	2.033	0.557	-2.82	8.69

*. The mean difference is significant at the 0.05 level.

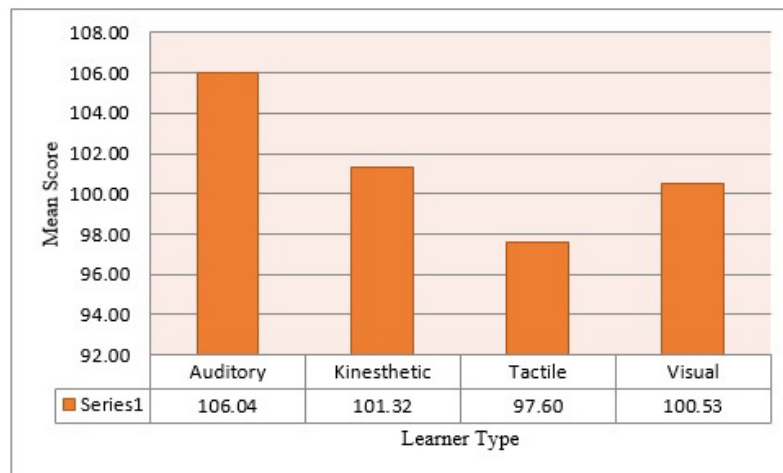


Figure 2. Post-test of MALQ by learner types

4.1 The Results of Reliability Indices

The SPSS software was used for calculation of the reliability indices. The K-R21 reliability indices for the proficiency and pre-test and post-test of MALQ are 0.78, 0.89 and 0.70, respectively (Table 7).

Table 7. K-R21 reliability indices

	N	Mean	Variance	K-R21
Proficiency	135	81.32	67.607	0.78
Pre-test MALQ	135	51.38	60.729	0.89
Post-test MALQ	135	101.50	50.655	0.70

4.2 The Result of Construct Validity

A factor analysis is run to probe the underlying constructs of the tests administered in this study. The SPSS has extracted two factors which account for 69.86% of the total variance (Table 8).

Table 8. Total variance explained

Component	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative % Total	Total	% of Variance	Cumulative % Total	Total	% of Variance	Cumulative %
1	2.084	41.678	41.678	2.084	41.678	41.678	2.073	41.456	41.456
2	1.409	28.189	69.867	1.409	28.189	69.867	1.421	28.411	69.867
3	0.597	11.945	81.812						
4	0.559	11.183	92.995						
5	0.350	7.005	100.000						

As displayed in Table 9 the FCE, which is the test of language ability, loads on the first factor. While, the pre-test and post-test of MALQ, load on the second factor. These results indicate that the tests enjoy construct validity.

Table 9. Rotated factor matrix

	Component	
	1	2
FCE	0.821	
Post MLAQ		0.842
Pre MLAQ		0.841

5. Conclusions

Considering the obtained results, the students after receiving explicit instruction of listening strategies demonstrated a higher mean score on the post-test of MALQ ($M = 101.50$) than the pre-test of MALQ ($M = 51.38$). Therefore, it could be claimed that explicit instruction of listening strategies does have statistically significant influence on the meta-cognitive listening strategies awareness of different EFL learner types.

Furthermore, the results of the one-way ANOVA ($F(3, 131) = 5.54, P < 0.05, \omega^2 = 0.09$) indicated that the learner types have a significant impact on the performance of the students on the post-test of MALQ. The auditory, kinaesthetic, tactile and visual groups' mean score were 106.04, 101.32, 97.60 and 100.53 respectively. Thus the learner type does have significant effect on the meta-cognitive listening strategy awareness of students. The post-hoc Scheffé's tests was run and the groups were compared two by two. The outcome showed that there is a difference between the mean scores of the auditory ($M = 106.04$) and tactile ($M = 97.60$) on the post-test of MALQ ($MD = 8.44, P < 0.05$). There is also a tangible difference between the mean scores of the auditory ($M = 106.04$) and visual ($M = 100.53$) on the post-test of MALQ ($MD = 5.50, P < 0.05$). Apparently, various learner types may differ in degree of metacognitive listening strategy awareness. Teachers should consider such varieties while they use different listening tasks for students with different learning preferences.

As a result of the study it was concluded that explicit teaching of listening strategies impacted positively on the meta-cognitive listening strategies awareness of different EFL learner types. The outcome of the current empirical research provides useful information for the textbook designers, teachers, and EFL teaching academy.

References

- Ahmadi, K., Ketabi, S., & Rabiee, M. (2012). The effect of explicit instruction of metacognitive learning strategies on promoting Iranian intermediate language learners' writing skill. *Theory and Practice in Language Studies, 2*(5), 938-944. <http://dx.doi.org/10.4304/tpls.2.5.938-944>
- Ahmadi, M. R., & Pourhossein, A. (2011). A Study of Factors Affecting EFL Learners' English Listening Comprehension and the Strategies for Improvement. *Journal of Language Teaching and Research, 2*(5), 977-988.
- Berman, M. (2003). *Advanced Listening, Listening Strategy Guide*. DynEd International, Inc. January 2003.
- Bidabadi, F., & Yamat, H. (2011). The Relationship between Listening Strategies Used by Iranian EFL Freshman University Students and Their Listening Proficiency Levels. *English Language Teaching, 4*(1), 26-32. <http://dx.doi.org/10.5539/elt.v4n1p26>
- Birjandi, P., Mirhassani, A., & Abbasian, G. (2006). Setting-based metacognitive strategy use. *Journal of Faculty of Letters and Humanities, 49*(198), 39-87. A
- Bozorgian, H. (2014). The role of metacognition in the development of EFL learners' listening skill. *International Journal of Listening, 28*(3), 149-161. <http://dx.doi.org/10.1080/10904018.2013.861303>
- Brown, S. (2006). *Teaching Listening*. New York, NY: Cambridge University Press.
- Brown, D. H. (2007). *Principles of language learning & teaching* (5th eds.). Pearson: Longman.
- Celce-Murcia, M., & Olshtain, E. (2000). *Discourse and context in language teaching. A guide for language teachers*. Cambridge: Cambridge University Press.
- Chari, M., Samavi, A., & Kordestani, D. (2010). Investigating psychometric characteristics of metacognitive reading strategies scale among Iranian high-school students. *Psychiatry Studies, 6*, 1-22.
- Coşkun, A. (2010). The effect of metacognitive strategy training on the listening performance of beginner students. *Novitas-ROYAL (Research on Youth and Language), 4*(1), 35-50.

- Cross, J. (2010). Raising L2 listeners' metacognitive awareness: A sociocultural theory perspective. A National Institute of Education, English Language and Literature, Singapore. *Language Awareness*, 19(4), 281-297. <http://dx.doi.org/10.1080/09658416.2010.519033>
- Dousti, H., & Abolfathiasl, H. (2013). The effect of meta-cognitive listening strategy training on EFL learners' listening sub-skills performance. *International Journal of Applied Linguistics & English Literature*, 2(4), 50-55.
- Eilam, B., & Aharon, I. (2003). Students' planning in the process of self-regulated learning. *Contemporary Educational Psychology*, 28, 304-334. [http://dx.doi.org/10.1016/S0361-476X\(02\)00042-5](http://dx.doi.org/10.1016/S0361-476X(02)00042-5)
- Goh, C. (1998). How learners with different listening abilities use comprehension strategies and tactics. *Language Teaching Research*, 2, 124-147. <http://dx.doi.org/10.1191/136216898667461574>
- Goh, C. C. M. (2000). A cognitive perspective on language learners' listening comprehension problems. *System*, 28, 55-75. [http://dx.doi.org/10.1016/S0346-251X\(99\)00060-3](http://dx.doi.org/10.1016/S0346-251X(99)00060-3)
- Goh, C. (2008). *Metacognitive Instruction for Second Language Listening Development Theory, Practice and Research Implications*. National Institute of Education, Singapore. <http://dx.doi.org/10.1177/0033688208092184>
- Graham, S., Santos, D., & Vanderplank, R. (2008). Listening comprehension and strategy use: A longitudinal exploration. *System*, 36, 52-68. <http://dx.doi.org/10.1016/j.system.2007.11.001>
- Graham, S., Santos, D., & Francis-Brophy, E. (2014). Teacher beliefs about listening in a foreign language. *Teaching and Teacher Education, Elsevier*, 40, 44-60. <http://dx.doi.org/10.1016/j.tate.2014.01.007>
- Guan, Y. (2014). The Effects of Explicit Listening Strategy Instruction on the Listening Comprehension of English as Second Language (ESL) Community College Students. University of San Francisco, doctoral dissertation.
- Hatch, E., & Farhady, H. (1983). *Research design and statistics*. CA: New burry House.
- Hsieh, S. W., Jang, Y. R., Hwang, G. J., & Chen, N. S. (2011). Effects of teaching and learning styles on students' reflection levels for ubiquitous learning. *Computers and Education, Elsevier*, 57, 1194-1201. <http://dx.doi.org/10.1016/j.compedu.2011.01.004>
- Ismail, N. M., & Tawalbeh, T. I. (2015). Effectiveness of a metacognitive reading strategies program for improving low achieving EFL readers. *International Education Studies*, 8(1), 71-87.
- Kumaravadivelu, B. (2006). TESOL Methods: Changing tracks, challenging trends. *TESOL Quarterly*, 40, 59-81. <http://dx.doi.org/10.2307/40264511>
- Kummin, S., & Rahman, S. (2010). The relationship between the use of metacognitive strategies and achievement in English. *Procedia Social and Behavioural Sciences, Elsevier*, 7(C), 145-150. <http://dx.doi.org/10.1016/j.sbspro.2010.10.021>
- Lee, B., & Kim, H. (2014). What Can We Learn from Our Learners' Learning Styles? Hankuk University of Foreign Studies, Seoul, Korea. TESOL Department. <http://dx.doi.org/10.5539/elt.v7n9p118>
- Mackey, A., Gass, S., & McDonough, K. (2000). How do learners perceive interactional feedback? *Studies in Second Language Acquisition*, 22, 471-497. <http://dx.doi.org/10.1017/S0272263100004022>
- Maggioli, G. H. (1996). The good, the bad and the ugly: Learning preferences in EFL. *English Teaching Forum*, 34(2), 32-37.
- Mareschal, C. (2002). *A cognitive perspective of the listening comprehension strategies of second language learners in the intermediate grades*. Unpublished MA thesis, University of Ottawa, Canada.
- Mokhtari, K., & Reichard, C. (2002). Assessing students' metacognitive awareness of reading strategies. *Journal of Educational Psychology*, 94, 249-259. <http://dx.doi.org/10.1037/0022-0663.94.2.249>
- Movahed, R. (2014). The effect of metacognitive strategy instruction on listening performance, metacognitive awareness and listening anxiety of beginner Iranian EFL students. *International Journal of English Linguistics*, 4(2), 88-99. <http://dx.doi.org/10.5539/ijel.v4n2p88>
- Nelson, T. O. (1996). Consciousness and metacognition. *American Psychologist*, 51, 102-116. <http://dx.doi.org/10.1037/0003-066X.51.2.102>
- Nunan, D. (2002). Listening in language learning. In J. C. Richards, & W. A. Renandya (Eds.), *Methodology in*

- language teaching* (pp. 238-41). Cambridge: Cambridge University Press. <http://dx.doi.org/10.1017/CBO9780511667190.032>
- O'Malley, J. M., & Chamot, A. U. (1990). *Learning strategies in second language acquisition*. Cambridge: Cambridge University Press. <http://dx.doi.org/10.1017/CBO9781139524490>
- O'Malley, J. M., Chamot, A. U., & Kupper, L. (1989). Listening comprehension strategies in second language acquisition. *Applied Linguistics*, 10(4), 418-437. <http://dx.doi.org/10.1093/applin/10.4.418>
- O'Malley, J. M., Chamot, A. U., & Walker, C. (1987). Some applications of cognitive theory to second language acquisition. *Studies in Second Language Acquisition*, 9, 287-306.
- Oxford, R. L. (2002). Language learning strategies in a nutshell: update and ESL suggestions. In J. C. Richards, & W. A. Renandya (Eds.), *Methodology in language teaching* (pp. 124-32). Cambridge: Cambridge University Press.
- Oxford, R. L. (2011). *Teaching and researching language learning strategies*. Essex, UK: Pearson Longman.
- Oxford, R. L. (2013). Individual differences. In P. Robinson (Ed.), *Routledge encyclopaedia of second language acquisition* (2nd ed.). London: Routledge.
- Rahimi, M., & Katal, M. (2011). Metacognitive listening strategies awareness in learning English as a foreign language: a comparison between university and high-school students. *Journal of Social and Behavioral Sciences*, 31, 82-89.
- Rahimi, M., & Katal, M. (2012). The role of metacognitive listening strategies awareness and podcast-use readiness in using podcasting for learning English as a foreign language. *Computers in Human Behaviour, Elsevier*, 28, 1153-1161. <http://dx.doi.org/10.1016/j.chb.2012.01.025>
- Rahimirad, M., & Shams, M. R. (2014). The Effect of Activating Metacognitive Strategies on the Listening Performance and Metacognitive Awareness of EFL Students. *International Journal of Listening*, 28(3), 162-176. <http://dx.doi.org/10.1080/10904018.2014.902315>
- Razavi, A. R. (2014). Learning styles and teaching; University of Nottingham.
- Reid, J. (1995). The learning style preferences of ESL students. *TESOL Quarterly*, 21, 87-111. <http://dx.doi.org/10.2307/3586356>
- Reid, J. (1998). Affect in the classroom: problems, politics and pragmatics. In J. Arnold (Ed.), *Affect in Language Learning*. Cambridge: Cambridge University Press.
- Rezaei, A., & Hashim, F. (2013). Impact of Awareness Raising about Listening Micro-skills on the Listening Comprehension Enhancement: An Exploration of the Listening Micro-skills in EFL Classes. *Australian Journal of Teacher Education*, 38(8), 1-15. <http://dx.doi.org/10.14221/ajte.2013v38n8.4>
- Richards, J. C., & Schmidt, R. (Eds.). (2007). *Longman dictionary of language teaching and applied linguistics* (3rd ed.). London: Longman.
- Rost, M. (2001). Listening. In R. Carter & D. Nunan (Eds.), *The Cambridge guide to teaching English to speakers of other languages* (pp. 7-13). Cambridge: Cambridge University Press. <http://dx.doi.org/10.1017/CBO9780511667206.002>
- Rubin, J. (2011). The study of cognitive process in the second language learning. *Applied Linguistics*, 2, 117-131. <http://dx.doi.org/10.1093/applin/2.2.117>
- Sahragard, R., & Mallahi, O. (2014). Relationship between Iranian EFL learners' language learning styles, writing proficiency and self-assessment. *Procedia-Social and Behavioural Sciences* 98, 1611-1620. <http://dx.doi.org/10.1016/j.sbspro.2014.03.585>
- Sen, H. S. (2009). The relationship between the use of metacognitive strategies and reading comprehension. *Procedia Social and Behavioural Sciences, Elsevier*, 1, 2301-2305. <http://dx.doi.org/10.1016/j.sbspro.2009.01.404>
- Shaw, R. S. (2012). A study of the relationships among learning styles, participation types, and performance in programming language learning supported by online forums. *Computers and Education, Elsevier*, 58, 111-120. <http://dx.doi.org/10.1016/j.compedu.2011.08.013>
- Soureshjani, K. H., & Naseri, N. (2012). Perceptual learning-style preferences of Iranian EFL learners in relation to their proficiency level. *American Journal of Linguistics*, 1(4), 70-74. <http://dx.doi.org/10.5923/j.linguistics.20120104.01>

- Sparks, R., & Ganschow, L. (2001). Aptitude for learning a foreign language. *Annual Review of Applied Linguistics*, 21, 90-112. <http://dx.doi.org/10.1017/S026719050100006x>
- Sun, L. (2013). The effect of metacognitive learning strategies on English learning. *Theory and Practice in Language Studies*, 3(11), 2004-2009. <http://dx.doi.org/10.4304/tpls.3.11.2004-2009>
- Vandergrift, L. (2003). Orchestrating strategy use: Toward a model of the skilled second language listener. *Language Learning*, 53(3), 463-496. <http://dx.doi.org/10.1111/1467-9922.00232>
- Vandergrift, L. (2004). Listening to learn or learning to listen? *Annual Review of Applied Linguistics*, 24, 3-25. <http://dx.doi.org/10.1017/S0267190504000017>
- Vandergrift, L. (2005). Relationships among motivation orientations, metacognitive awareness and proficiency in L2 listening. *Applied Linguistics*, 26, 70-89. <http://dx.doi.org/10.1093/applin/amh039>
- Vandergrift, L. (2007). Recent developments in second and foreign language listening comprehension research. Institute of Official Languages and Bilingualism, University of Ottawa, Canada, *Language Teaching*, 40(3), 191-210. Cambridge University Press. <http://dx.doi.org/10.1017/S0261444807004338>
- Vandergrift, L., Goh, C., Mareschal, C., & Tafaghodtari, M. H. (2006). The Meta-cognitive Awareness Listening Questionnaire (MALQ): Development and validation. *Language Learning*, 56(3), 431-462. <http://dx.doi.org/10.1111/j.1467-9922.2006.00373.x>
- Vandergrift, L., & Tafaghodtari, M. (2010). Teaching L2 learners how to listen does make a difference: An empirical study. *Language Learning*, 60, 467-470. <http://dx.doi.org/10.1111/j.1467-9922.2009.00559.x>
- Young, N. (1997). Teaching students how to learn: A language learning project. *Papers from the 13th conference on English teaching and learning in R.O.C.* (pp. 195-204). Taipei: The Crane Publishing Co.
- Yuksel, I., & Yuksel, I. (2012). Metacognitive awareness of academic reading strategies. *Procedia- Social and Behavioural Sciences, Elsevier*, 31, 894-898. <http://dx.doi.org/10.1016/j.sbspro.2011.12.164>
- Zimmerman, B. J., & Schunk, D. H. (2001). *Self-regulated learning and academic achievement*. Mahwah, NJ: Erlbaum.

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/3.0/>).