

## The Instruction of Meta-Cognitive Listening Strategies and Its Impact on Listening Performance of High and Low-Test-Anxious Intermediate Learners

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**Abstract.** Although decisions or inferences we make based on test scores depend both on characteristics of test-takers and of testing situations, there is just little research which has been undertaken on the effects of these characteristics on test performance (e.g., In'nami, 2006). The effect of listening strategies on listening performance is also undeniable (Vandergrift, 1997). Thus, considering these two issues is the intention of the present study. This study not only investigates the effect of one of the personal characteristics of test-takers, namely test anxiety on listening test performance, but also attempts to find the relationship between instruction of listening strategies and test performance. At last, it focuses on meta-cognitive listening strategies (Vandergrift, 1997) instruction and its impact on test-anxiety. This study was conducted with 98 students who were selected from Aryanpour Institute in Tehran. After the pre-test, which was also considered as a proficiency test, the participants were instructed for 4 hours. The post-test was administered and the analysis of data revealed that there is a significant relationship between test anxiety and listening performance among Iranian EFL intermediate learners and also there is a significant relationship between meta-cognitive listening strategies and listening proficiency among Iranian EFL intermediate learners but meta-cognitive listening strategies have no differential effect on high- and low-test-anxious

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Iranian EFL intermediate learners. It is to say that both groups of high- and low-test-anxious learners benefit the same from meta-cognitive listening strategies instruction. These findings emphasize the importance of lowering test anxiety in exam sessions as well as the importance of instructing meta-cognitive listening strategies in EFL classes.

**Keywords:** Meta-cognitive listening strategies, test anxiety

## 1. Introduction

As defined by Oxford (1993, p.206), “listening is a complex, problem solving skill” and it is “more than just perception of sounds. Listening includes comprehension of meaning bearing words, phrases, clauses, sentences and connected discourse”. She also points out that listening is usually a hard skill to master in one’s own language, let alone in another language. As O’Malley *et al.* (1986) mentioned “listening comprehension is viewed theoretically as an active process in which individuals focus on selected aspects of aural input, construct meaning from passages, and relate what they hear to existing knowledge” (p. 418).

It is also described as “an active process in which listeners select and interpret information that comes from auditory and visual clues in order to define what is going on and what the speakers are trying to express” (Thompson & Rubin, 1996, p. 331).

As it is shown in these two definitions, listening is a skill that needs active participation of a listener. Thus, how to overcome listeners’ problems is a concern of all teachers.

In addition, something which is not inevitable in any test especially listening is test anxiety. Test anxiety is one of the test-taker characteristics that influences test performance and “is a special case of general anxiety consisting of phenomenological, physiological, and behavioral responses related to fear of failure and to the experience of evaluation or testing” (Sieber, 1980, p.18).

One of the solutions to these problems is using listening strategies. It is believed that listening, besides speaking, is the most anxiety-causing skill, and there are some pieces of research on the effect of foreign language anxiety on language learning as a whole (Aida, 1994; Horwitz, 1996).

Therefore, this study will discover the implication of meta-cognitive listening strategies on listening proficiency and examine the effect of these strategies on different anxiety levels.

## **2. Research Questions**

- 1-Is there any significant relationship between test anxiety and listening performance among Iranian EFL intermediate learners?
- 2-Does teaching meta-cognitive listening strategies have any effect on listening proficiency among Iranian EFL intermediate learners?
- 3-Does teaching meta-cognitive listening strategies have any different effect on listening proficiency of high- and low-test-anxious Iranian EFL intermediate learners?

## **3. Review of the Related Literature**

### **3.1 The cinderella skill**

According to Nunan (1999), “listening is the Cinderella skill in second language learning. All too often, it has been overlooked by its elder sister, speaking” (p.199). Although it is generally recognized that listening plays a significant role in language learning, listening comprehension remains a “young field” that merits greater research attention (Oxford, 1993; Rubin, 1994). But nowadays, the importance of listening is inevitable and nobody can deny it. “We listen twice as much as we speak, four times as much as we read, and five times as much as we write” (Celce-Murcia, 1995. p.363). This shows its vitality in human life. Therefore, new decades can be called listening blooming decades because its importance has been felt all over the world by ELT researchers and practitioners. The ‘input hypothesis’ by Krashen (1985) puts listening into the spotlight.

### **3.2 How to overcome the difficulties in listening?**

Goh (2000) examined the comprehension problems of adult ESL listeners in an English as a foreign language setting, relating each problem to one of the phases of comprehension (perception, processing, and utilization). He added

During the perception phase, listeners identified the following problems: (a) not recognizing words they know; (b) neglecting the next part of a text when thinking about meaning; (c) not chunking streams of speech; (d) missing the beginning of texts; and (e) concentrating too hard or not being able to concentrate. During the parsing phase, listeners noted the following difficulties: (a) quickly forgetting what is heard; (b) not being able to form a mental representation from words they heard; and (c) not understanding subsequent parts because of earlier problems. Finally, during the utilization phase, listeners mentioned problems with (a) understanding words but not the message and (b) confusion about key ideas in the message. When these comprehension problems were examined according to listening ability, two of the problems were noted by a majority of both more skilled and less skilled listeners: (a) not recognizing words they know and (b) quickly forgetting what they heard. (Goh, 2000, cited in Vandergrift, 2003).

To solve these problems, there are different ways to approach them. One of these ways was introduced by Peterson (2001) as follows:

- Increase the amount of listening time in the second language class;
- Use listening before other activities;
- Include both global and selective listening;
- Activate top-level skills;
- Work towards automaticity in processing.

Brown (2001) mentioned some other ways as follows:

- Develop conscious listening strategies;
- Do not overlook the importance of techniques that specifically develop listening comprehension competence;
- Use techniques that are intrinsically motivating;
- Utilize authentic language and contexts;
- Carefully consider the form of listener's responses;
- Include both bottom-up and top-down listening techniques;
- Encourage the development of listening strategies. Most learners do not know how to listen. One of our duties as English teachers is to equip them with listening strategies that extend beyond the classroom.

The focus of this study is the use of strategies, which are as follows:

Looking for key words, looking for nonverbal cues to meaning, predicting a speaker's purpose by the content of the spoken discourse, associating information with one's existing cognitive structure (activating background information), guessing meanings, seeking clarification, listening for the general gist, various test-taking strategies for listening comprehension (Brown, 2001, p.259).

Strategies for effective listening can become a highly significant part of learners' chances for successful learning. As it was shown in both techniques, receiving help from listening strategies is one of the solutions not deniable by any expert. So, this study puts its focus on this issue.

### **3.3 Theoretical supports for listening strategies**

As Richards and Schmidt (2002) argue, "in listening comprehension, a conscious plan to deal with incoming speech, particularly when the listener experiences problems due to incomplete understanding, such as by using a clarification strategy is called listening strategies" (p. 313). However, one problem about strategies is that there is still some confusion over their definition, which has varied widely from broad, almost meaningless definitions that could have almost anything to do with language learning-such as that suggested by Wenden (1987), for example-to more specific characterizations, as provided by Oxford and Cohen (1992). As the latter point out, researchers often disagree about whether strategies are conscious or unconscious. Oxford and Cohen (1992) concluded that strategy use involves some degree of conscious awareness.

In a recent state-of-the-art article on learner strategies, McDonough (1999), among other recommendations, calls for further investigation into the relationship between proficiency and learning strategies in the skill areas (particularly listening and speaking) and a need to "flesh out" the concept of the skilled learner. It has been argued that awareness of strategies and other variables in learning can have positive influences on language learners' listening development (e.g., Bolitho *et al.*, 2003; Victori & Lockhart, 1995; Wilson, 2003). Murphy (1985) determined that more skilled listeners were open and flexible, using more strategies and a greater variety of different strategies. Less skilled listeners, on the other hand, either concentrated too much on the text or on

their own world knowledge. Several studies have sought to help language learners use strategies to increase their comprehension of oral texts. For example, Ross and Rost (1991) first identified the listening comprehension strategies used by higher proficiency students and then successfully taught these to lower proficiency students. Another study of listening comprehension was conducted over an entire academic year (Thompson & Rubin, 1996). Students receiving strategy instruction showed significant improvement on a video comprehension posttest compared to the students in the control group. In addition, students in the strategies group demonstrated meta-cognitive awareness through their ability to select and manage the strategies that would help them comprehend the videos. In another study, Carrier (2003) taught listening comprehension strategies to a small group of high school ESL students. This exploratory study focused on academic listening tasks during six weeks of instruction. The strategies included both bottom-up and top-down approaches to listening. The teacher modeled and defined the strategies, then provided practice opportunities for the students. Actual strategies taught included selective attention to various aspects of the text and note-taking. Pre-and post-tests on both discrete and overall listening comprehension showed that students had significantly improved both aspects of listening comprehension.

In a recent study of listening comprehension strategies, Vandergrift (2003) undertook a study of French as second language university students in which he sought to raise awareness of the listening process through tasks designed to develop effective listening strategies. Students' written reflections revealed positive reactions to the strategies, increased motivation, and understanding of their own thinking processes during listening tasks.

As stated earlier, "knowledge about listening comprehension strategies is still limited, because most research attention regarding language learning strategies has been devoted to those involved in reading, writing, and speaking" (Vandergrift, 2003, p.470 ). Although this problem exists, the research literature on such strategies discusses some useful findings for both content and methodology:

(a) Meta-cognitive strategies such as selective attention and comprehension monitoring are reported more frequently by more skilled listeners; (b) cognitive strategies such as elaboration and inferencing are used almost equally by all listeners but appear to be used in more effective combinations by more skilled listeners; (c) more skilled listeners appear to be more flexible in strategy use, combining strategies in effective combinations; (d) the three phases of the listening process (perceptual processing, parsing, utilization) can be identified in listener think-aloud protocols, as well as strategies associated with each phase; (e) a think-aloud procedure appears to be a productive methodology for studying on-line strategy use; and (f) a qualitative analysis of protocols, in addition to a quantitative analysis, appears to provide greater insight into the differences between more skilled and less skilled listeners (Vandergrift, 2003, pp. 470-471).

### **3.4 Cognitive and meta-cognitive listening strategies**

Vandergrift (1997) introduced listening strategies; they include two major strategies i.e. meta-cognitive strategies, cognitive strategies in which there are other minor strategies.

#### **3.4.1 Meta-cognitive strategies**

**1. Planning:** Developing an awareness of what needs to be done to accomplish a listening task, developing an appropriate action plan and/or appropriate contingency plans to overcome difficulties that may interfere with successful completion of the task.

1a. Advance organization: Clarifying the objectives of an anticipated listening task and/or proposing strategies for handling it.

1b. Directed attention: Deciding in advance to attend in general to the listening task and to ignore irrelevant distracters; maintaining attention while listening.

1c. Selective attention: Deciding to attend to specific aspects of language input or situational details that assist in understanding and/or task completion.

1d. Self-management: Understanding the conditions that help one successfully accomplish listening tasks and arranging for the presence of

those conditions.

**2. Monitoring:** Checking, verifying, or correcting one's comprehension or performance in the course of a listening task.

2a. Comprehension monitoring: Checking, verifying, or correcting one's understanding at the local level.

2b. Double-check monitoring: Checking, verifying, or correcting one's understanding across the task or during the second time through the oral text.

**3. Evaluation:** Checking the outcomes of one's listening comprehension against an internal measure of completeness and accuracy.

**4. Problem identification:** Explicitly identifying the central point needing resolution in a task or identifying an aspect of the task that hinders its successful completion.

### 3.5 Strategy training

Williams and Burden (1997) suggest that learners should be encouraged to use their meta-cognitive knowledge in a broad way to develop a sense of personal relevance or personal authenticity, discovering strategies that are significant and personally relevant to them. Ellis and Sinclair (1989) pointed out that the purpose of a learner-training course is for learners to start their own journeys towards self-knowledge and self-reliance. Oxford (1990) mentions three types of strategy training:

1. Awareness training, which is known as "consciousness raising".
2. One-time training, which involves learning and practicing one or more strategies with actual language tasks usually those found in the regular language learning program.
3. Long-term strategy training, which is very similar to one-time strategy training except that it is more prolonged and covers a great number of strategies.

Oxford (1990, p.204) enumerates eight steps, which are important in strategy training:



1. Determine the learners' needs and time available;
2. Select strategies well;
3. Consider integration of strategy training;
4. Consider motivational issues;
5. Prepare materials and activities;
6. Conduct "completely informed training";
7. Evaluate the strategy training;
8. Revise the strategy training;

Additionally, Finch (2000) mentions five benefits gained from learner training, among which are the following:

1. Strategy training can be used to enhance learner autonomy and linguistic autonomy.
2. Learning can be more effective when learners take control of their own learning and learn what they are ready to learn.
3. Strategies can help students to handle different task types and learning situations with confidence.
4. Unlike most other learner characteristics (e.g., aptitude, attitude, motivation, and general cognitive style), learning strategies are readily teachable.
5. Use of appropriate strategies enables students to take responsibility for learning by enhancing learner autonomy, independence, and self-direction.

Considering the above-mentioned issues, the importance of strategy training is undeniable. But listening strategies have not received due attention by scholars. This study considers meta-cognitive listening strategies training. Because of limitations of the study and lack of time, the approach used in this article is awareness training, which is known as consciousness raising

### **3.6 Anxiety**

Learner-centered models of language teaching are based on the notion that learning begins with learner, because s/he is responsible for thinking and storing the new information as well as trying to retrieve it later. But human beings are not machines which are made of mechanical parts and

are without emotions. Learners as human beings have feelings. Teachers in second or foreign language classrooms should consider this fact and not only think about materials and sources but should take learners feelings into consideration. Affective variables, such as motivation, attitudes, anxiety, etc. have been found to influence second and foreign language learning. Among different variables, anxiety has received considerable attention but it is not enough.

Anxiety undoubtedly affects L2 performance. Most of us have had the experience that in an anxiety-provoking climate, our L2 knowledge often deteriorates. We forget things that we did know and make silly mistakes. In fact, most scholars would agree with Arnold and Brown's (1999, p. 8) conclusion that "anxiety is quite possibly the affective factor that most pervasively obstructs the learning process." For this reason, anxiety has been in the spotlight of L2 research for decades (for reviews, see MacIntyre, 1999; Oxford, 1999; Young, 1999) and there are several published research instruments available in the field which have been used extensively in research studies (e.g., Ely, 1986; Gardner, 1985; Horwitz, Horwitz, & Cope, 1986; MacIntyre & Gardner, 1991, 1994; Young, 1999). There is an overall uncertainty about its basic category: Is it a motivational component, a personality trait, or an emotion? Furthermore, anxiety is usually not seen as a unitary factor but a complex made up of constituents that have different characteristics.

### **3.7 Test anxiety in foreign language anxiety**

Foreign language anxiety as defined by Richards and Rodgers (2001) is considered as subjective feelings of apprehension and fear associated with language learning and use. Foreign language anxiety may be a situation-specific anxiety, similar in that respect to public speaking anxiety. Issues in the study of language anxiety include whether anxiety is a cause or an effect of poor achievement, anxiety under specific instructional conditions, and the relationship of general language anxiety to more specific kinds of anxiety associated with speaking, reading, or examinations. In a seminal paper in 1986, Horwitz et al. conceptualized a situation-specific anxiety construct that they called foreign language anxiety, stemming from the inherent linguistic deficit of L2 learners. As

MacIntyre (1999) defines it, language anxiety involves the "worry and negative emotional reaction aroused when learning or using a second language."

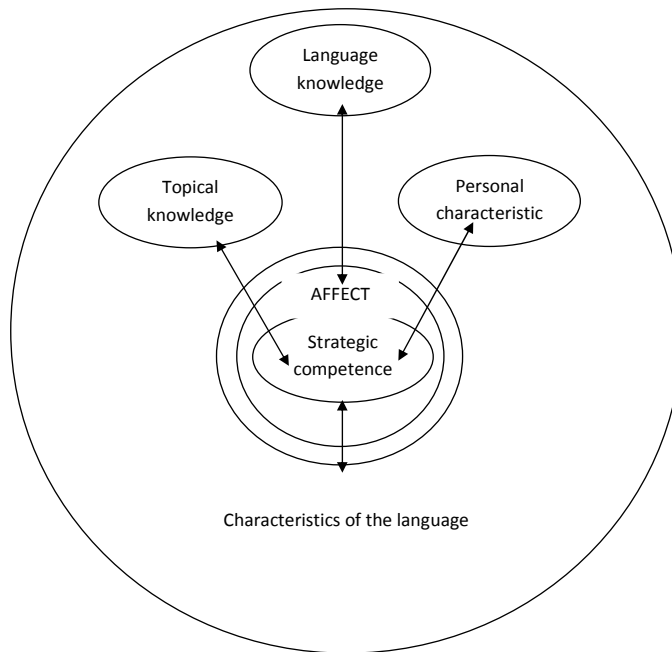
In an important experimental study investigating the causal relationship between anxiety and academic performance, MacIntyre and Gardner (1994) intentionally aroused anxiety in language learners by introducing a video camera at various points in a vocabulary learning task. Seventy-one students of French were randomly assigned to one of four groups, the first three experiencing the 'camera condition' at different phases of task completion (input, processing, and output stages), while the fourth control group was not exposed to the camera. Significant increases in state anxiety were reported in all three groups when the video camera was introduced, and concomitant deficits in vocabulary acquisition were observed. This demonstrated conclusively that anxiety arousal can play a causal role and lead to performance deficit, which implies that language anxiety is not merely a function of poor performance due to insufficient cognitive skills and abilities. Foreign language anxiety, as proposed by Horwitz, Horwitz, and Cope (1986), is a type of anxiety specific to learning another language. They speculated that foreign language anxiety was partially responsible for the negative emotional reaction some students experienced in attempting to learn a foreign language (Sparks & Ganschow, 2007). Horwitz et al. (1986) hypothesized that anxiety specific to foreign language learning parallels three related performance anxieties: communication apprehension, fear of negative evaluation, and test anxiety.

### **3.8 Test anxiety in test-taker characteristics**

Two important parts of tests that have canonical effect on test performance, according to Bachman and Palmer (1996), are test-task characteristics and test-taker characteristics. According to them, the test-taker characteristics that should be considered are personal characteristics, topical knowledge, linguistic knowledge, strategic competence, and affective schemata (Figure 1).

As it can be seen in the illustration, one of the test-taker characteristics is personal characteristics such as age, sex, native language, level

of general education, and amount and type of preparation for or prior experience with a given test (Bachman & palmer, 1996, p.112) which has an effect on test performance. One of them which is not considered in research is test anxiety which is the keystone of this study.



**Figure 1.** Some components of language use and language test performance (Bachman & Palmer, 1996)

### 3.9 Relationship between test anxiety and strategy training

Tobias (1980) hypothesized that strategy training can enable students to organize tasks so that they require less cognitive attention than those needed by students with poor study habits. Good strategies enable students to reduce the cognitive demands of a task, and they can improve performance by permitting tasks to fit into the available processing capacity. Paulman and Kennelly (1984) provided support for this cognitive capacity model. Their findings suggested that as processing demands increase, test anxiety becomes more devastating due to task demands absorbed by test anxiety which exceeds available processing.

Culler and Holahan (1980) provided support for the strategy training deficit model of test anxiety. They found that strategy training was a good predictor of grade point averages. Similarly, Culler and Holahan found that students with low anxiety had better study skills than students with high anxiety. Moreover, Culler and Holahan contradicted the common scenario of a highly anxious student who knows the subject matter but freezes on the examination. Their findings indicate that highly test anxious students reported spending more time studying than their less test anxious counterparts; however, as an examination approaches, high test anxious students report concentration difficulties and actually study less during the final stages of study (Most & Zeidner, 1995; Vagg & Papsdorf, 1995) Although there are some researches regarding relationship between test anxiety and strategy training, it is a young issue and no specific study has considered meta-cognitive listening strategies and test anxiety together. So, this study deals with this new area.

## **4. Methodology**

### **4.1 Participants**

Ninety-eight intermediate EFL learners participated in this study. The sample was chosen from Aryanpour Institute in Tehran. The participants attended a language course three times a week. The course book was American Headway (Soars & Soars, 2001) with a focus on listening, reading, speaking, and writing. The participants comprised both male and female learners, and their age ranged between 18 and 30. The subjects were divided into two groups i.e. experimental and control group with 55 and 43 participants respectively. The experimental group had two levels called high test-anxious and low test-anxious each including 28 and 27 subjects respectively. They were members of several intact classes who were chosen based on administered tests of proficiency and a questionnaire measuring learners' test anxiety.

### **4.2 Instrumentation**

A number of instruments were used in the present study: Test Anxiety Questionnaire (TAS, Sarason, 1975), MALQ (Meta-cognitive Awareness

Listening Questionnaire, Vandergrift et al., 2006), a proficiency test, pre-test and post-test.

### **4.3 Procedures**

Ten intermediate classes, each consisting of 10 to 12 students were selected. A Test Anxiety Scale (TAS) was given to them in the session before the mid-term exam. The questionnaire was translated to Persian in order for students to understand it better, and it was answered in the presence of the researcher and any related questions were replied. According to TAS, students in the experimental group were divided into two groups i.e. high-test-anxious and low-test-anxious. The criterion for this division was the score of 92 which is the mean of the questionnaire.

The session after presenting the questionnaire which was a quiz day, IELTS exam was used to determine the participants' real level of proficiency. It took about 30 minutes. It was administered in the quiz session and as a part of the quiz to measure anxiety in a real situation. Four sessions after the mid-term exam, the treatment was performed. It took four hours to teach meta-cognitive listening strategies which consisted of "planning, monitoring, evaluation, problem identification" as well as their minor strategies.

After four hours of treatment to the experimental group, a post-test which was another IELTS exam from the book 'The New Prepare for IELTS' (Practice Test 5) was held as a part of final exam for both groups i.e. control and experimental and thirty minutes was assigned for this exam.

At the end of the exam and immediately after the quiz MALQ (Meta-cognitive Awareness Listening Questionnaire) developed by Vandergrift (2006) was administered instead of think-aloud procedure to be more precise. Because intermediate students are not professional enough to write their strategies, this Likert scale questionnaire is more valid for our purpose.

## **5. Results**

### **5.1 Homogeneity of the groups**

An independent *t*-test was run to compare the mean scores of the instructed and uninstructed students i.e. experimental and control on the

pretest of listening performance. The  $t$ -observed value is .51 (Table 1). According to Table 1 below, it can be concluded that there was not any significant difference between the mean scores of the instructed and uninstructed students or experimental and control groups on the pretest of listening performance. That is to say, the two groups were homogeneous in terms of their listening proficiency prior to the administration of the treatment to the instructed group.

**Table 1.** Independent  $t$ -test pretest of listening proficiency by groups

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	.000	.99	.51	96	.6	.46	.9	-1.3	2.2
Equal variances not assumed			.513	90.2	.609	.46	.907	-1.33	2.26

Table 2 displays the descriptive statistics for the two groups on the pretest of listening proficiency.

**Table 2.** Descriptive statistics pretest of listening proficiency

Instruction	N	Mean	Std. Deviation	Std. Error Mean
Instructed	55	16.37	4.45	.60
Uninstructed	43	15.90	4.46	.68

It should be noted that the two groups were homogenous in terms of their variances on the pretest. That is to say, the two groups were selected from the same population with no marked difference between their distributions. The results of Levene's test of homogeneity of variances ( $F = 0; P = .996 > .05$ ) (Table 1) indicate that the two groups enjoy homogeneity of variances.

## 5.2 First research question

To obtain the answers to the first and the second research questions, a two-way ANOVA was run to investigate the effect of instruction, anxiety level and the interaction between them on the performance of the subjects on the posttest of listening proficiency. The F-observed value for the effect of the instruction is 10.54 (Table 3). This amount of F-value at 1 and 76 degrees of freedom is higher than the critical value of F, i.e. 3.96.

**Table3.** Two-way ANOVA listening proficiency by instruction and anxiety

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Instruction	211.00	1	211.006	10.54	.002
TAS	17.046	1	17.046	.851	.359
Instruction * TAS	9.380	1	9.380	.469	.496
Error	1521.4	76	20.019		
Total	28306.000	80			

Based on these results, it can be concluded that there is a statistically significant difference between the instructed and uninstructed groups' mean scores on the posttest of listening proficiency. As displayed in Table 4, the instructed group with a mean score of 19.27 outperformed the uninstructed group on the posttest of listening proficiency.



**Table 4.** Descriptive statistics listening proficiency by groups (posttest)

Instruction	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Instructed	19.275	.603	18.073	20.477
Uninstructed	15.670	.932	13.814	17.527

Thus, the first null-hypothesis, namely there is no significant relationship between meta-cognitive listening strategies and listening proficiency among Iranian EFL intermediate learners, is rejected. That is to say, the instructed group who received meta-cognitive listening strategies performed better than the uninstructed group on the posttest of listening proficiency.

### 5.3 Second research question

The F-observed value for comparing the low and high anxiety groups' mean scores on the listening proficiency test is .85 (Table 3). This amount of F-value at 1 and 76 degrees of freedom is lower than the critical value of F, i.e. 3.96. Based on these results, it can be concluded that there is no significant difference between the low and high anxiety groups' mean scores on the listening proficiency test. Thus there is no significant relationship between test anxiety and listening performance among Iranian EFL intermediate learners in post-test. As displayed in Table 5, the low and high anxiety groups mean scores on the listening proficiency are 17.98 and 16.96 respectively.

**Table 5.** Descriptive statistics (Listening proficiency by anxiety)

TAS	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
High test anxious	16.96	.857	15.25	18.6
Low test anxious	17.98	.706	16.57	19.3

On the other hand, a Pearson correlation was run to probe the relationship between the anxiety and the listening tests (pre-test). As displayed in Table 6, the Pearson correlation coefficient between the anxiety test and the pretest of listening is  $-.30$  ( $P=.005$ ;  $.05$ ). Based on these results, it can be concluded that there is a significant but negative relationship between test anxiety and pretest of listening and there is a non-significant relationship between anxiety test and posttest of listening.

**Table 6.** Descriptive statistics (Anxiety and listening)

		PRELC	POSTLC
Anxiety	Pearson Correlation	$-.308^{**}$	.011
	Sig. (2-tailed)	.005	.921
	N	80	80
** . Correlation is significant at the 0.01 level (2-tailed).			

Based on these results, it can be concluded that the second null hypothesis is rejected but in a case that students get familiar with meta-cognitive listening strategies the effect of test anxiety disappeared.

#### 5.4 Third research question

The F-observed value for interaction between meta-cognitive listening strategies and anxiety is  $.46$  (Table 3). This amount of F-value at 1 and 76 degrees of freedom is lower than the critical value of F, i.e.  $3.96$ . Based on these results, it can be concluded that there is no significant interaction between meta-cognitive listening strategies and anxiety in the post-test. Thus the third null-hypothesis (There is no significant interaction between meta-cognitive listening strategies and anxiety) is supported.

Table 7 displays the descriptive statistics for the instructed and uninstructed groups by anxiety levels.

**Table 7.** Descriptive statistics (Interaction between M.C.L.S. and anxiety)

Instruction	TAS	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Instructed	High test anxious	19.1	.846	17.4	20.8
	Low test anxious	19.4	.861	17.6	21.1
Uninstructed	High test anxious	14.7	1.4	11.8	17.7
	Low test anxious	16.5	1.1	14.3	18.7

### 5.5 Strategy use

To find out if the strategies were used by participants or not, MALQ (Meta-cognitive Awareness Listening Questionnaire) was administered. It should be noted that statements 3,4,8,11,16, and 18 in Table 7 are negatively constructed which means should be considered conversely in our analysis. All the questions were answered by 55 students who were in the experimental group. The mean of all positive answers is 34.57, which means 62.85% of all answers were positive. The highest percentage belongs to statement 17 which considers ‘problem-solving’ meta-cognitive strategy or ‘problem identification’ with 48 positive answers i.e. 87% of all answers. In contrast to the highest percentage, statement 3 contains just 14 positive answers or 25.45% of all answers. This statement considers ‘person knowledge’ meta-cognitive strategy or, according to Vandergrift (1997), “self-management”. All in all, as Table 8 shows, students made use of meta-cognitive strategies in a satisfactory manner.

**Table 8.** Descriptive statistics (MALQ)

	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
1	1	4	7	10	12	21
2	0	5	5	8	25	12
3	3	6	5	4	11	26
4	6	12	6	13	10	8
5	3	4	3	11	18	17
6	5	10	12	12	10	5
7	0	5	4	14	21	11
8	5	1	10	12	13	14
9	0	1	9	14	21	10
10	7	11	6	12	12	7
11	7	4	9	8	17	10
12	1	5	7	14	17	11
13	4	9	14	12	12	4
14	2	6	6	11	21	10
15	2	8	10	13	13	10
16	5	6	9	11	20	4
17	0	1	6	13	24	11
18	16	12	12	8	7	0
19	2	3	12	14	18	6
20	4	12	5	14	13	7
21	4	7	4	12	16	12

## 6. Summary and Conclusion

The present study was an attempt to investigate the effect of instruction of listening strategies on different levels of test anxiety. At the onset, 98 students were taken from 10 classes and test anxiety questionnaire was distributed among 80 of them. Thirty eight of them were in the high test anxiety category and 42 of them were in the low test anxiety category in a case that 92-the mean of questionnaire-was a division point. The pre-test, which was an IELTS listening section, was administered. Fifty-five subjects participated in the instruction which was administered in 4 hours. Among them, 28 were high-test-anxious and the rest, i.e. 27 were low-test-anxious.

After analyzing the data, it was revealed that the first research hypothesis which dealt with the relationship between test anxiety and listening performance among Iranian EFL intermediate learners was supported because the Pearson correlation coefficient between the anxiety test and the pretest of listening is  $-.30 (P = .005 < .05)$ . Considering the second research question i.e. does teaching meta-cognitive listening strategies have any effect on listening proficiency among Iranian EFL intermediate learners, the experimental group with a mean score of 19.27 outperformed the control group on the posttest of listening proficiency. The last null hypothesis, which dealt with interaction between meta-cognitive listening strategies and anxiety, is supported. Based on the results, it can be concluded that there is no significant interaction between meta-cognitive listening strategies and anxiety.

## 7. Pedagogical Implications

The findings of this study are in line with those conducted earlier (O'Malley et al., 1989; Vandergrift, 1997; Bacon, 1992). Furthermore, no one can ignore the effect of foreign language anxiety or more specifically one of its components i.e. test anxiety on listening performance. According to this study, there was a significant negative relationship between test anxiety and listening performance among intermediate learners. Although no significant relationship was found between different levels of test anxiety and implication of listening strategies, reducing test anxiety in the classroom is unquestionable. Considering the above-mentioned reasons, practicing teachers are recommended to provide an addition to their teaching repertoire. Because of the proof of the effectiveness of meta-cognitive listening strategies, they will be able to make use of it in their class. Students can benefit more when their teachers are familiar with these strategies and can perform them in their classrooms. According to the relationship proved between test anxiety and listening performance, it is advisable to reduce anxiety or more precisely test anxiety in classrooms and make a stress-free situation especially in the exam sessions. Furthermore, the absence of relationship between different levels of test anxiety and implication of listening strategies indicates that both groups of test anxiety benefit from the instruction the same.

Therefore, teachers can take it into consideration and use these two strategies for all students.

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