The Relationship between Iranian EFL Learners' Multiple Intelligence and Listening Strategies

FARROKHLAGHA HEIDARI
University of Sistan and Baluchestan, Iran

ESSA PANAHANDEH
University of Sistan and Baluchestan, Iran
e.panahandeh641@gmail.com

ABSTRACT

The purpose of the current study was to identify the most and the least frequently used types of multiple intelligences (MIs) and listening strategies of the Iranian EFL learners, to examine the relationship between multiple intelligences types as a whole factor and listening strategies, and to investigate the effect of gender on the use of different types of multiple intelligences and listening strategies. To this end, a 90-item multiple intelligence questionnaire and a 23-item listening strategy questionnaire were distributed among 120 Iranian male and female EFL learners from the universities of Sistan and Baluchestan, Iranshahr, and Yasuj. Descriptive statistics (mean and standard deviation), and inferential statistics (correlation and independent t-test) were used to analyze the data. The data analyses demonstrated that the most and the least dominant types of multiple intelligences among participants of this study were existential and naturalistic intelligences and those of listening strategies were cognitive and socio-affective strategies, respectively. The results also revealed that there was some significant positive relationship between the overall MIs and listening strategies. In a similar vein, the findings indicated that there are significant differences between male and female students in bodily, interpersonal, and existential intelligence, but the analysis showed no significant difference between male and female students regarding their listening strategies.

Keywords: multiple intelligences; intelligence; listening strategies; gender; EFL learners

INTRODUCTION

The idea of intelligence was first proposed in 1885 by Sir Francis Galton, who used statistical tools and curves to show that there is a relationship between heredity and genius (Chaplin & Krawiec 1974, cited in Ahmadian & Hosseini 2012). However, the origin of psychometric measurement of general intelligence refers back to the French psychologist Alfred Binet who with his colleague, Theodor Simon, in the early 1900s, were asked by the French Ministry of Education to create a method that would be able to identify which students would succeed and which ones would fail in primary school. With their efforts in 1905, they formed the first intelligence test which was welcomed by educationalists and in later years in 1912 developed and revised as the intelligence quotient (IQ) test to represent the ratio of one's mental age to one's chronological age (Baum, Viens & Slatin 2005).

Later Howard Gardner, professor of education at Harvard University, in 1983 proposed the theory of multiple intelligences (MI) which is based on the cognitive approach (Motah 2007). Gardner in the 1970s and the 1980s began to work in neuropsychology and child development and questioned the traditional view of intelligence as a single capacity that measured only logical and mathematical thought. He instead proposed nine different intelligences which are used in a variety of ways and a variety of settings, including work and educational settings, which can be developed over time (Gardner 1993). Gardner (1983) defines intelligence as "the ability to solve problems or to create fashion products that are

valued within one or more cultural settings" (p. 81). By the same token, Gardner (1999) redefines the concept of intelligence as "a bio-psychological potential to process information that can be activated in a cultural setting to solve problems or create products that are of value in a culture" (pp. 33–34).

Gardner (1983) first identified seven distinct intelligences. In 1999, he added an eighth and later on he introduced a ninth intelligence. Each intelligence type represents a set of capacities that concentrate on two major issues: the solving of problems, and the fashioning of significant cultural products (Armstrong 2003). The nine intelligence types that need to be taken into account are explained according to Richards and Rodgers (2001):

1. Linguistic/Verbal intelligence: the way people such as lawyers, writers, editors, and interpreters use language skillfully and creatively.
2. Logical/Mathematical intelligence: the ability to perform intellectual activities and to use logical structures including those done by doctors, engineers, scientists, and programmers.
3. Visual/Spatial intelligence: to organize and perceive models of the world visually is the feature of this type of intelligence. Decorators, sculptors, architects, and painters are good at this kind of intelligence.
4. Bodily/Kinesthetic intelligence: the capacity to make the body fit and to have control on body motions, something seen in craft persons and athletes.
5. Musical/Rhythmic Intelligence: this encompasses the ability to listen to music eagerly and to perceive and express components of music. Gifted people in this kind of intelligence are singers and composers.
6. Interpersonal intelligence: the ability to have a good interaction with other people. This ability is strong in salespersons, politicians, and teachers.
7. Intrapersonal intelligence: self-identifying and the ability to use one's talent successfully in an appropriate way are attributed to this type of intelligence.
8. Naturalistic intelligence: the ability to comprehend and recognize the world and forms of nature. People who use such an intelligence type often become farmers, botanists, conservationists, zoologist, and environmentalists.
9. Existential intelligence: the ability to tackle the deep questions with respect to the human conditions such as the meaning of life, death, and love. This intelligence engages individuals in real world and allows learners to see their place in the big picture and to observe their roles in the classroom, society and the world or the universe. Philosophers, theologians, life coaches, cosmologists are among those who have high level of existential intelligence (Gardner 1999; Chapman 1993).

Strategies are a series of events and because of the heavy cognitive demand of the task they might not be completely observable in the listening process (Anderson 1991). In fact, strategies are the thoughts and behaviors used by learners to comprehend, learn, or retain information (O'Malley & Chamot 1990). All those conducting research on first language acquisition maintain that listening is essential not only to language learning but also to learning in general. Listening is an important activity of initial steps to develop other learning strategies (James 1986). It is known that listeners use a variety of mental processes to give meaning to the information they listen to. These mental processes that listeners use to comprehend spoken English can be described as listening comprehension strategies (Oxford 1990). O'Malley and Chamot (1990) categorize these strategies into three groups: cognitive (repeating, translating, grouping, note taking, deducting, and imaging), meta-cognitive (planning for learning, thinking about the learning process as it is taking place, monitoring of one's production or comprehension, and evaluating learning after an activity is completed) , and socio-affective (cooperation and question for clarification) strategies.

STUDIES ON MULTIPLE INTELLIGENCES AND LISTENING STRATEGIES

A study was done by Bemani Naeini and Pandian (2010) to investigate the relationship of multiple intelligences and listening comprehension proficiency among Iranian EFL university students. The participants in this study comprised a total of 60 university students (50 females

and 10 males, age range 19-26 years) majoring in TEFL at Islamic Azad University–Mashhad Branch. The participants in the study were first rated for their English listening proficiency by taking a TOEFL test at the beginning of the semester. The participants were also given the MI Inventory to identify their MI profiles and the listening section of a TOEFL test containing 50 questions. The obtained results indicated no significant relationship between MI profiles and listening comprehension.

To determine the relationship between MI and language proficiency, Razmjoo (2008) conducted a study in which he aimed to investigate the relationship between MI and language proficiency of Iranian EFL Ph.D. candidates, to explore whether one of the intelligence type or a combination of them are predictors of language proficiency, and to examine the effect of gender on language proficiency and types of intelligences. The subjects of the study were 278 (179 males, 99 females) Ph.D. candidates at Shiraz University. An MI questionnaire and a 100-item language proficiency test were distributed among the candidates. The data revealed no significant relationship between language proficiency and the combination of intelligences in general and the types of intelligence in particular. Likewise, no significant difference was found between male and female students in terms of their MI and language proficiency.

Mahdavy (2008) compared TOEFL and IELTS listening tests with MI development by investigating the role of MI in listening proficiency. The study included 151 male and female students majoring in English language at a university in Iran. The researcher used three instruments namely, the TOEFL listening test, the IELTS listening test, and the Persian version of MIDAS questionnaire. The researcher distributed the questionnaires among the students (N=151) to be completed. The results showed that regardless of the differences between the tests (IELTS & TOEFL), only verbal-linguistic intelligence has a significant influence on the students' listening proficiency. It was also found that verbal-linguistic intelligence is a good predictor of the scores of the listening section in both tests.

Another study was carried out by Shirani Bidabadi and Yamat (2010) in Esfahan to examine the relationship between listening strategies employed by Iranian EFL Freshman university students and their learning style preferences. To do this, the researchers distributed a Listening Strategy questionnaire adapted from Vandergrift (1997) with 23 items and a Learning Style Questionnaire adapted from Willing (1988) with 24 items among 92 freshman university female students majoring in TEFL course. The findings showed that there was a significant moderate positive relationship between listening strategies employed by freshman university students and their learning styles, and that these Iranian EFL freshmen employed meta-cognitive listening strategies such as planning, directed attention and selective attention the most and in terms of learning style preferences they considered themselves as communicative learners.

Saricaoglu and Arikan (2009) conducted a study to examine the relationship between particular intelligence types and students' success in grammar, listening and writing in English, to investigate the relationship between parental education and students' types of intelligences, and to explore the relationship between students' gender and intelligence types. The data collection was done by Multiple Intelligence Inventory for Adults. The data analyses indicated that negative but significant relationships were found between success in students' test scores in grammar and bodily, spatial, and intrapersonal intelligences whereas the relationship between musical intelligence and writing was found to be significant and positive. The study also showed no significant relationship between parental education and students' intelligence types. Finally, it was revealed that no significant relationship was found between gender and the intelligence types except for linguistic intelligence which was positive. That is, female students used this type of intelligence more than male students.

Liu (2006) conducted a study to examine whether/how extensive listening and repeated listening differentially affect listeners' listening strategy use. The participants of this

study were 12 sophomore females majoring in English in National Taiwan Normal University in Taipei, Taiwan. The instruments for this study were the listening materials which were 8 stories chosen from the book *In Your Own Words: Extraordinary Tales from Ordinary Life* edited by Anna Murphy in 1986 and the Recall Protocol, a test for listeners' listening comprehension ability which can distinguish between more-skilled and less-skilled listeners, and the third one was Listening Comprehension Strategy Inventory. Each of the participants engaged in extensive listening (listening to five different stories) and repeated listening (listening to one story five times), respectively. The verbal reports of their listening strategy use were recorded, transcribed, coded, and analyzed. The findings demonstrated that the participants utilized significantly more listening strategies including meta-cognitive and cognitive listening strategies while engaging in repeated listening than in extensive listening. They also used significantly more types of listening strategies in repeated listening than in extensive listening.

STATEMENT OF THE PROBLEM, PURPOSE, AND SIGNIFICANCE OF THE STUDY

Nowadays, English language teaching plays an important role in the educational curriculum in Iran and special attention is given to it in the society. Most Iranian English teachers are aware of learners' individual differences which are considered to be a significant issue in language learning, but not all of them apply these individual differences in their classes. As a result of this neglect, learners are not sufficiently motivated to develop positive attitudes toward learning English in general and listening in particular (Akbari & Hosseini 2008). In the educational system of Iran the high school books are written based on traditional intelligence; that is logical and linguistics. Thus, the books are boring for students because, on the basis of MI theory, every individual is strong in a specific type of intelligence and most often does not show tendency to learn by other types. For example, a person may be strong in musical intelligence and be able to learn new melodies easily, and the same person may be weak in spatial intelligence and have difficulties in perceiving an unfamiliar domain. Thus, the findings may be helpful for emphasizing the necessity of considering these issues in developing Iranian books by curriculum developers in Iran and embedding other intelligence types in the books so that they can be motivating and interesting for both teachers and students, and teachers need to avoid developing only one intelligence type of the students and should address all intelligence types and provide tasks tailored to students' intelligences in the classroom. In recent years in Iran, there have been some educators and researchers who have begun to study the roles of MI and listening strategies in the realm of language acquisition. They began to examine the relationship of these two variables with some other factors such as English proficiency, vocabulary learning, self-esteem (Razmjoo 2008, Hayati & Ostadian 2008). Therefore, the motive for conducting this study is recognition of the most and the least frequently used MI types and listening strategies of Iranian EFL learners. The study also aims at investigating the relationship between MI and listening strategies of Iranian EFL learners. Finally, the study intends to examine the effect of gender on using the different types of multiple intelligences and listening strategies. The study contributes significantly to making learners aware of their deficiencies and use of their competences, intelligences, in order to find an appropriate solution to overcome their problems in the course of language learning. The study is also likely to stimulate the students to become proficient through their potentials. Obtaining a better understanding of these factors may pave the way for the emergence of new ways of teaching and learning from which both teachers and learners can benefit. To achieve the research goals, the following four research questions were posed:

Q1. What are the most and the least frequently used types of intelligences and listening strategies among Iranian EFL learners?
Q2. Is there any significant relationship between Iranian EFL learners' types of Multiple Intelligences and the types of listening strategies they employ?
Q3. Is there any significant difference between Iranian male and female EFL learners in using different types of multiple intelligences?
Q4. Is there any significant difference between Iranian male and female EFL learners in using different types of listening strategies?

METHODOLOGY

PARTICIPANTS

The participants of this study were 120 male and female under-graduate students (60 males and 60 females) majoring in ELT within the age range of 19 to 24. Forty students were chosen from the university of Sistan and Baluchestan majoring in English Language and Literature, forty from Yasuj University majoring in Teaching English as a Foreign Language, and forty from university of Iranshahr majoring in English Language Translation. The criterion for participant selection was the ease of access and availability.

INSTRUMENTATION AND PROCEDURE

The first instrument was a 90-item MI questionnaire prepared by McKenzie (1999). This questionnaire consists of 9 sections and 90 items with five-Likert Scale ranging from: 1. Not at all like me, 2. A little like me, 3. Somewhat like me, 4. A lot like me, 5. Definitely me; that covers 9 categories of Gardner's Multiple Intelligences theory. Since participants were EFL students the questionnaire was translated into Persian. For validity and reliability indexes, the original English version was first translated into Persian and then it was translated back into English. The validity of the questionnaire was approved by the item-constructors committee, 8 experienced assistant professors in the Department of Foreign Languages and Linguistics at Shiraz University. The overall internal consistency of the questionnaire was determined by Razmjoo (2008) using cronbach alpha and turned out to be 0.89 which is an acceptable and high index of reliability. The overall internal consistency of the questionnaire was rerun by the researchers and the obtained result showed an alpha value of 0.84 implying that it has a relatively high internal consistency.

Then, a listening strategy questionnaire adapted from Vandergrift (1997) and Vandergrift, Goh, Mareschal, and Tafaghodatari (2006) served as the second instrument of the study. Three more items were added to the questionnaire based on the listening strategy category developed by Vandergrift (1997). The items were modified in order to suit Iranian students' learning. The questionnaire includes three categories (Meta-cognitive, cognitive, and socio-affective strategies) with 23 items. Items one to eight deal with organization and evaluation of listening (meta-cognitive); items nine to seventeen represent the use of mental processes (cognitive); and items eighteen to twenty three relate learning with others (socio-affective strategy). A five-point Likert-Scale that ranges from one (Strongly Disagree) to five (Strongly Agree) is used to indicate students preferences (cited in Shirani Bidabadi and Yamat 2010).

These questionnaires were distributed among the students during their class time in one session, and they were asked to fill out the questionnaires within 30 minutes.

RESULTS

The Results Concerning the First Research Question

The mean and standard deviation scores of the participants' responses for types of MIs and listening strategies are illustrated in Table 1.

TABLE 1. Basic Descriptive Statistics Concerning the Types of MIs and Listening Strategies Questionnaires

	N	Min	Max	Mean	SD
Linguistic	120	17	47	33.89	5.600
Logical	120	17	47	33.02	6.244
Visual	120	18	50	32.86	6.387
Musical	120	12	50	34.65	8.040
Bodily	120	17	50	34.58	6.547
Interpersonal	120	20	50	36.30	7.186
Intrapersonal	120	18	50	33.39	6.181
Naturalist	120	14	50	**31.50**	**7.201**
Existential	120	19	50	**37.94**	**7.286**
Metacognitive	120	9	40	27.57	5.378
Cognitive	120	16	43	**30.77**	**5.541**
Socio-affective	120	7	29	20.11	3.955

Note. N = Number of participants; Min = Minimum; Max = Maximum; SD = Standard Deviation

According to Table 1, the most and the least frequently used intelligence types among the participants were existential and naturalistic intelligence types with the mean values of 37.94 and 31.50 respectively. Table 1 also indicates that cognitive strategies are the dominant listening strategies with the mean score of 30.77. This implies that students learn better through repeating, translating, grouping, note taking, deducting, and imagery strategies. The next listening strategy used by students was meta-cognitive strategies with the mean score of 27.57 followed by socio-affective strategies with the mean score of 20.11.

THE RESULTS CONCERNING THE SECOND RESEARCH QUESTION

In order to answer the second research question, a Pearson correlation coefficient was computed using SPSS software. The results are illustrated in Table 2 below.

TABLE 2. The Relationship between Multiple Intelligences Types and Listening Strategies

MI		Listening Strategies		
		Metacognitive	Cognitive	Socio-affective
Linguistic	Pearson Correlation	**.323****	**.363****	**.256****
	Sig. (2-tailed)	**.000**	**.000**	**.005**
	N	120	120	120
Logical	Pearson Correlation	.134	**.288****	**.191***
	Sig. (2-tailed)	.143	**.001**	**.036**
	N	120	120	120
Spatial	Pearson Correlation	.165	**.215***	.117
	Sig. (2-tailed)	.072	**.018**	.203
	N	120	120	120
Musical	Pearson Correlation	**.231***	**.269****	.122
	Sig. (2-tailed)	.011	.003	.185
	N	120	120	120
Bodily	Pearson Correlation	**.290****	**.379****	**.299****
	Sig. (2-tailed)	**.001**	**.000**	**.001**
	N	120	120	120
Interpersonal	Pearson Correlation	**.275****	**.300****	**.256****
	Sig. (2-tailed)	**.002**	**.001**	**.005**

Continued

Continued

	N	120	120	120
	Pearson Correlation	.174	**.254****	.092
Intrapersonal	Sig. (2-tailed)	.057	**.005**	.319
	N	120	120	120
	Pearson Correlation	.059	.066	.085
Naturalistic	Sig. (2-tailed)	.523	.477	.354
	N	120	120	120
	Pearson Correlation	**.390****	**.331****	**.304****
Existential	Sig. (2-tailed)	**.000**	**.000**	**.001**
	N	120	120	120
	Pearson Correlation		**.420****	
Total	Sig. (2-tailed)		**.000**	
	N		120	

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Based on the information presented in Table 2, some significant positive relationships were found between MIs types and listening strategies use by Iranian EFL learners. As it can be seen in Table 2, the linguistic intelligence has a moderate positive correlation with meta-cognitive and cognitive strategies and a low positive relationship with socio-affective strategies at p = .00 < .01(r = .323), p = .00 < .01(r = .363), and p = .005 < .01(r = .256) respectively. The logical intelligence was correlated with cognitive and socio-affective strategies at p = .001 < .01 (r = .288) and p = .036 < .05 (r = .191), but there is no correlation between this type of intelligence and meta-cognitive strategies (p = .143 > .05; r = .134). The spatial intelligence is correlated only with cognitive strategies at p = .018 < .05 (r = .215), and no correlation was found between spatial and the other two listening strategies. That is, meta-cognitive and socio-affective strategies (p = .072 > .05; r = .165), (p = .203 > .05; r = .117) respectively. The other correlations between variables include musical intelligence with meta-cognitive (p = .011 < .05; r = .231), and cognitive strategies (p = .003 < .01; r = .269), the bodily intelligence with meta-cognitive (p = .001 < .01; r = .290), cognitive (p = .00 < .01; r = .379), and socio-affective strategies (p = .001 < .01; r = .299), the interpersonal intelligence with meta-cognitive (p = .002 < .01; r = .275), cognitive (p= .001 < .01; r = .300), and socio-affective strategies (p = .005 < .01; r = 256), the intrapersonal intelligence with cognitive strategies (p = .005 < .01; r = .254), and the existential intelligence with meta-cognitive (p = .00 < .01; r = .390), cognitive (p = .00 < .01; r = .331), and socio-affective strategies (p = .001 < .01; r = .304). Pearson correlation shows no correlation between naturalistic intelligence and the three strategies of listening strategies. Furthermore, table 2 indicates that there is a statistically moderate positive relationship between the overall multiple intelligences and the overall listening strategies Iranian EFL learners apply.

THE RESULTS CONCERNING THE THIRD RESEARCH QUESTION

Independent-samples t-tests were carried out to find the answers for questions 3.

TABLE 3. Independent Samples T-Tests for Gender Differences in Using MIs

MIs	Gender	N	Mean	Std. Deviation	t	Sig. 2 tailed
	male	60	33.08	5.289	-1.591	.114
Linguistic	female	60	34.70	5.826		
Logical	male	60	32.97	6.684	-.087	.931
	female	60	33.07	5.828		
Visual	male	60	32.03	6.727	-1.421	.158
	female	60	33.68	5.970		*Continued*

Continued

Musical	male	60	33.28	8.265	-1.882	.062
	female	60	36.02	7.635		
Bodily	male	60	32.65	6.881	-3.357	.001
	female	60	36.50	5.619		
Interpersonal	male	60	34.57	7.200	-2.712	.008
	female	60	38.03	6.797		
Intrapersonal	male	60	32.58	6.572	-1.439	.153
	female	60	34.20	5.704		
Naturalist	male	60	31.87	7.022	.556	.579
	female	60	31.13	7.416		
Existential	male	60	35.87	7.899	-3.242	.002
	female	60	40.02	5.993		
Total Intelligences	male	60	298.32	42.923	-2.586	.011
	female	60	317.35	37.509		

Note. t = t-test value; MIs = Multiple Intelligences

As the results in table 3 show, it seems that all types of intelligences are used more commonly among female learners than male ones except for naturalistic intelligence whose mean score for males is 31.87 and for females 31.13, but the table also demonstrates that there is only a significant difference between male and female learners in bodily intelligence ($p = .001 < .01$), interpersonal intelligence ($p = .008 < .01$), and existential intelligence ($p = .002 < .01$). This means that except for these three types of intelligences whose p-values are less than .01, the results for other types of intelligences have occurred randomly. In addition, table 3 reveals that there is also a significant discrepancy between males and females in using the overall MIs with the probability value of $.011 < .05$.

THE RESULTS CONCERNING THE FOURTH RESEARCH QUESTION

Another Independent-samples t-test was computed to identify whether there was any difference between males and females in terms of using listening strategies. The obtained results are represented in Table 4.

TABLE 4. Independent Samples T-Tests for Gender Differences in Using Listening Strategies

Listening Strategies	Gender	N	Mean	Std. Deviation	t	Sig. 2 tailed
Metacognitive	male	60	27.47	5.953	-.220	.826
	female	60	27.68	4.782		
Cognitive	male	60	30.30	6.146	-.922	.358
	female	60	31.23	4.869		
Socio-affective	male	60	19.42	4.236	-1.938	.055
	female	60	20.80	3.555		
Total Listening strategies	male	60	77.18	13.701	-1.115	.267
	female	60	79.72	11.039		

As is illustrated in Table 4, the results clearly demonstrate that no significant differences can be traced between male and female students in using different types of listening strategies and the overall listening strategies they employ.

DISCUSSION

As for the first research question, the descriptive statistics indicated that the most and the least dominant MIs type belonged to the existential intelligence and naturalistic intelligence, respectively. These findings contradict those obtained by Saricaoglu and Arikan (2009) who showed logical mathematical intelligence as the most dominant and musical intelligence as the least dominant one. The fact that students generally make use of existential intelligence may be attributed to the religious thinking dominant in the society in general and in the books and universities in particular, and the development of such thinking among teachers and students through the activities utilized. The reason for not applying naturalistic intelligence may be due to the fact that, on the one hand, people with naturalistic intelligence are likely to be familiar with research and analysing living beings and natural patterns such as colour, smell, connecting with nature. They are interested in creatures, environmental consciousness and so on. For these reasons, naturalistic intelligence is closely related to biology, zoology, agriculture, botany and outdoor sports (Gürel & Tat 2010).

On the other hand, all participants involved in the present study were EFL students who concerned themselves with teaching methodology and education and might not be interested in issues related to the nature. The study also considered cognitive strategies as the leading strategies and socio-affective strategies as the least frequently used one. This may be because of the familiarity of cognitive strategies for Iranian students and the frequent use of this strategy among students from early levels of education. These findings stand in contrast to Shirani Bidabadi and Yamat (2010) who found meta-cognitive strategies as the most frequently used strategies among students. This difference in results may be because of the fact that the level of meta-cognitive awareness across age groups is different. This difference can be attributed to students' motivation, self-efficacy and language listening skilfulness (Vandergrift 2003).

These two studies showed the same results for the least dominant listening strategies. That is, they identified the socio-affective strategies as the least common listening strategies used by students. This also may be due to the spirit of competition that exists among Iranian students. In order to accommodate different intelligences in the classroom, teachers are required to consider students' preferences. For example, students with naturalistic intelligence may learn best through exploring living things; students with musical intelligence like to listen to music and melodies; students with kinaesthetic intelligence prefer to move around, touch and talk, and students who prefer meta-cognitive strategies tend to plan for learning, evaluate learning after an activity is completed; those who prefer cognitive strategies express tendency toward grouping, note taking, auditory representation, and contextualization.

The research findings obtained from the Pearson Correlation Coefficient for the second research question demonstrated that there existed some significant positive relationship between students' MI types and their employed listening strategies. That is, there are statistically positive relations between their linguistic intelligence and meta-cognitive, cognitive, and socio-affective strategies; their logical intelligence and cognitive and socio-affective strategies; their spatial intelligence and cognitive strategies; their musical intelligence and meta-cognitive and cognitive strategies; their bodily intelligence and meta-cognitive, cognitive, and socio-affective strategies; their interpersonal intelligence and meta-cognitive, cognitive, and socio-affective strategies; their intrapersonal intelligence and cognitive strategies; their existential intelligence and meta-cognitive, cognitive, and socio-affective strategies. The learners attempted to use both top-down strategies and bottom-up strategies while listening. It seems that learners' cognitive strategy is applicable to all intelligence types and is effective in learning. Thus, MI types have a significant effect on the listening strategies employed by the students. The findings showed that when the students are

aware of their own intelligences, they use the appropriate strategies to improve their learning in general and listening in particular. That is, students who are intelligent in linguistics may appear to be stronger in their meta-cognitive, cognitive, and socio-affective strategies, and those with logical intelligence seem to be strong in cognitive and socio-affective strategies.

The last two research questions concerned the effect of gender on the types of MIs and listening strategies. The findings of this study indicated that female learners are significantly more intelligent than male learners in terms of bodily, interpersonal, and existential intelligences. These findings contradict findings of Saricaoglu and Arikan (2009) who found that female learners were more intelligent in terms of linguistic intelligence. The findings also contradict Loori (2005) who found that logical/mathematical intelligence was stronger in males while intrapersonal intelligence was higher in females. The differences between the results of the present study and the two studies conducted by Saricaoglu and Arikan (2009) and Loori (2005) may be attributed to the questionnaires used by the researchers. The questionnaires used by the previous researchers do not include the naturalistic and existential intelligences. Furthermore, it was found that MIs as a whole factor is stronger in females than males. This stands in contrast to what Razmjoo (2008) found. That is, there is no significant difference between the Iranian males and females in using multiple intelligences in general and each type of intelligence in particular. This difference in results of the two studies may be related to the educational level of the participants. That is, students from different levels of education may differ from one another in their intelligence types. The participants of the previous study were Ph.D. candidates. For the fourth question, the study found no significant differences between male and female students in using different types of listening strategies and also in the overall listening strategies they employ. In other words, male and female students apply listening strategies in a similar way.

CONCLUSIONS AND SUGGESTIONS FOR FURTHER RESEARCH

The current study proceeded to investigate the MI and listening strategy preferences of Iranian EFL learners at the universities of Sistan and Baluchestan, Iranshahr, and Yasuj. Learners in this study showed major tendencies toward the existential intelligence and cognitive strategies and minor tendencies toward the naturalistic intelligence and socio-affective strategies respectively. The study also intended to explore the question of whether there was any relationship between Iranian EFL learners' types of Multiple Intelligences and their listening strategies. It was demonstrated that such a relationship exists between some types of MI and listening strategies. That is, there are statistically positive correlations between their linguistic intelligence and meta-cognitive, cognitive, and socio-affective strategies; their logical intelligence and cognitive and socio-affective strategies; their spatial intelligence and cognitive strategies; their musical intelligence and meta-cognitive and cognitive strategies; their bodily intelligence and meta-cognitive, cognitive, and socio-affective strategies; their interpersonal intelligence and meta-cognitive, cognitive, and socio-affective strategies; their intrapersonal intelligence and cognitive strategies; their existential intelligence and meta-cognitive, cognitive, and socio-affective strategies. In terms of the differences between male and female students in using MI and listening strategies, the findings of this study revealed that female learners are significantly more intelligent than male learners in using bodily intelligence, interpersonal intelligence, and existential intelligence. Furthermore, it was found that MI as a whole factor is stronger in female learners than male learners. It can also be concluded that Iranian male and female students have no different preferable listening strategies as the findings indicated.

The current study examined the relationship between multiple intelligences and listening strategies. Other researchers may find it interesting to get insights into the relationship of these variables with other factors including critical thinking, vocabulary learning, and other skills. The study can also be replicated in a different context with a larger number of students to see whether the similar results can be yielded or not.

ACKNOWLEDGEMENT

We wish to express our gratitude to students who participated in this study and answered the questions patiently, and we would also like to specially thank the Editor-in-Chief and the anonymous reviewer for their valuable and helpful comments and suggestions.

REFERENCES

Ahmadian, M. & Hosseini, S. (2012). A Study of the Relationship Between Iranian EFL Learners' Multiple Intelligences and their Performance on Writing. *Mediterranean Journal of Social Sciences*. Vol. 3 (1) January 2012.

Akbari, R. & Hosseini, K. (2008). Multiple intelligences and language learning strategies: Investigating possible relations. System, 36(2), 141-155.

Anderson, N.J. (1991). Individual differences in strategy use in second language reading and testing. *Modern Language Journal*, 75(4), 460-472.

Archer, C. G. (2002). The effect of language learning strategy instruction on listening comprehension proficiency and strategy use of learners of German as a foreign language. M A Thesis, Department of Modern Languages and Cultural Studies. Edmonton, Alberta.

Armstrong, T. (2003). *The multiple intelligences of reading and writing: making the words come alive.* Association for Supervision and Curriculum Development 1703 N. Beauregard St.

Baum, S., Viens, J. & Slatin, B. (2005). *Multiple Intelligence in the Elementary Classroom: a Teacher's Toolkit.* Teachers College Press, 1234 Amsterdam Avenue, New York, NY 10027.

Bemani Naeini, M. & Pandian, A. (2010). On the Relationship of Multiple Intelligences With Listening Proficiency and Attitudes Among Iranian TEFL University Students. *TESL Canada Journal/Revue TESL DU Canada* 97, VOL. 28, NO 1, Winter 2010.

Chaplin, J. P., & Krawiec, T. S. (1974). *Systems and theories of psychology*. NY: Holt Rinehart & Winston.

Chapman, C. (1993). *If the shoes fit: How to develop multiple intelligences in the classroom*. Palatine, IL: IRI/Skylight.

Gardner, H. (1983). *Frames of mind: The theory of multiple intelligences*. New York: Basic Books.

Gardner, H. (1993). *Multiple intelligences: The theory in practice*. New York: Basic Books.

Gardner, H. (1999). *Intelligence reframed: multiple intelligences for the first century* New York: Basic Books.

Gürel, E. & Tat, M. (2010). Multiple intelligence theory: Single intelligence concept to multiple intelligence concepts. *J. Int. Soc. Res.*, 3(11): 336-356.

Hayati, M. & Ostadian, M. (2008). The relationship between self-esteem and listening comprehension of EFL students. Glossa, 3(2), 300-312. Retrieved 1 August, 2010, from:http://bibliotecavirtualut.suagm.edu/Glossa2/Journal/jun2008/The_Relationship _between_Self-esteem.pdf.

James, C. J. (1986). *Listening and learning: Protocols and processes*. (ERIC Document Reproduction Service No. ED 267 629).

Liu, H. J. (2008). A study of the interrelationship between listening strategy use, listening proficiency levels, and learning style. RARECLS, 5, 84-104.

Loori, A. A. (2005). Multiple intelligences: A comparative study between the preferences of males and females. *Social Behaviour and Personality*, 33(1), 77-88.

Mahdavy, B. (2008). The Role of Multiple Intelligences (MI) in Listening Proficiency. *The Asian EFL Journal Quarterly*, 10(3), 109-126.

Motah, M. (2007). Study of the Influence of Multiple Intelligences and the use of Soft Skills in Project Write-up among IT and Non-IT Students: A Research Paper. Proceedings of the 2007 Informing Science and IT Education Joint Conference.

O'Malley, J. M. & Chamot, A. U. (1990). *Learning strategies in second language acquisition*. Cambridge: Cambridge University Press.

Oxford, R. L. (1990). *Language learning strategies: What every teacher should know*. New York: Newbury House Publishers.

Razmjoo, S.A. (2008). On the relationship between multiple intelligences and language proficiency. *The Reading Matrix, 8(2),* 155-174.

Richards, J. C. & Rodgers, T. S. (2001). *Approaches and methods in language teaching*. Cambridge: Cambridge University Press.

Saricaoglu, A. & Arikan, A. (2009). A study of multiple intelligences, foreign language success and some selected variables. *Journal of Theory and Practice in Education*. 2009, 5 (2):110-122.

Shirani Bidabadi, F., & Yamat, H. (2010). The Relationship between Listening Strategies Employed by Iranian EFL Freshman University Students and their Learning Style Preferences. *European Journal of Social Sciences* – Volume 16, Number 3 (2010).

Vandergrift, L. (1997). The comprehension strategies of second language (French) listeners: A descriptive study. *Foreign Language Annals*. 30(3), 387-409.

Vandergrift, L. (2003). From prediction through reflection: Guiding students through the process of L2 listening. *Canadian Modern Language Review*, 59(4), 425-40.

Vandergrift, L., Goh, C., Mareschal, C. & Tafaghodatari, M.H. (2006). The Meta-cognitive Awareness Listening Questionnaire (MALQ): Development and validation. *Language Learning*, 56(3), 431-462.