The Relationship between Iranian EFL Learners' Multiple Intelligences and their Writing Performance across Different Genders

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Abstract

After Gardner's Multiple Intelligences Theory (MIT), some language teaching practitioners set out to teach students in a way to help their dominant intelligence(s) blossom. In an EFL context, usually teachers' main focus is to develop communication skills. Nowadays, writing is one of the main ways by which people communicate. Thus, this study aimed at investigating possible relationship between Multiple Intelligences and writing performance of Iranian EFL learners across different genders. To conduct this study, 15 male and 15 female advanced EFL learners from a reputable institute in Tabriz participated. They passed through a placement test to enter the course, yet the researchers administered a Test of English as a Foreign Language (TOEFL) to ensure homogeneity in the group. After a session of introducing the project's purpose, *Multiple Intelligence Developmental Assessment* (MIDAS) questionnaire was administered for obtaining participants' Multiple Intelligence profile. Later, the participants were given a text and asked to read and summarize it. The collected writings were analyzed for grammatical accuracy, complexity and quality of the writing based on Jacob et al.'s (1981) scale. The results of the correlational analysis revealed that overall Multiple Intelligences correlated positively with the quality of the female learners' writing. The findings suggest that English teachers consider the role of multiple intelligences in learning and teaching process and provide more effective activities to help learners of different intelligences improve their foreign language writing skill.

*Keywords***:** Multiple intelligences, Writing performance, Gender

strengthen vocabulary and grammatical knowledge rather than as a tool of communication. Nowadays, by the growing attention of teachers to the individual differences among learners as members who are equipped with Multiple Intelligences, their individual potentials in intelligences can be counted beneficial in developing their language skills.

By growing interest in Multiple Intelligences as an internal factor which can have a positive effect on learners' writing performance, researchers such as Dung and Tuan (2011) state that teachers must find ways to explicitly introduce, develop, and integrate MI into learning process. If learners are aware of the existence of MI, they would try to explore their own weaknesses and may call on the assistance of their strength to fill the gap. For example, Rubado (2002) integrated Multiple Intelligences theory in her instructional practices and found that learners naturally began to identify their abilities and recognize which intelligences would boost their performance. The theory of Multiple Intelligences provides a way of understanding intelligence which teachers can use as a guide to develop classroom activities and address multiple ways of learning and knowing (Christison, 1998).

In the book *Frames of Mind*, Gardner (1983) presented the definition for intelligence as "the ability to solve the problems or to create products that are valued within one or more cultural setting" (p. 11). Gardner (1993) suggested that human being possesses a number of intelligences that show themselves in different skills and abilities. According to Christison (1998), humans use these intelligences in solving problems and creating processes and things. Moreover, he suggested that these eight intelligences can be improved and developed to higher levels. Christison (1996) considered this very encouraging for language educators. They can help their students to develop their intelligences.

Gardner (1983) suggested the existence of intelligence profiles for all individuals which consist of combinations of seven different intelligences. He added an eighth intelligence type to the existing list, that is, natural intelligence in 1999. In 2006, he identified existential intelligence, involving aesthetic, philosophy, religion, etc. but has not added it to the list of intelligences. Gardner (1983), proposed the following intelligences: linguistic intelligence, logical/mathematical intelligence, spatial/visual intelligence, musical intelligence, bodily/kinesthetic intelligence, interpersonal intelligence, intrapersonal intelligence, and naturalistic intelligence.

After Gardner (1983) proposed the existence of MI, educators become more and more interested in the theory and started considering the possible relationship of MI and several aspects of language learning, including writing. Ahmadian and Hosseini (2012) conducted a study that aimed at investigating the relationship between Iranian EFL learners' Multiple Intelligences and their performance on writing. The results showed that only linguistic intelligence and interpersonal intelligence had a statistically significant correlation with the participants' writing scores. Based on the results, the researchers showed that linguistic intelligence remains as the best predictor of writing performance. These findings, as stated by the researchers, are also in line with Richards and Rogers, (2001), Hosseini (2009) and also Saricaoglu and Arikan (2009).

In another study, Sadeghi and Farzizadeh (2012) investigated the relationship between Multiple Intelligences and writing ability of Iranian EFL learners. Based on the result of the analysis, the researchers claimed that there was no significant relationship between EFL university students' MI and their ability in writing. Also, there were no significant relationship between the components of MI and writing ability. They also stated that their findings confirmed the results obtained by Razmjoo (2008), who found no significant relationship between language success and MI, but their findings were at odds with Saricaoglu and Arikan's (2009) findings, which revealed a significant correlation between types of intelligences and grammar. Similarly, Mahdavi's study (2008) revealed a significant correlation between MI and both TOEFL and IELTS listening comprehension performance. Hosseini's (2012) study also showed a significant relationship between MI and performance in writing. In this study, linguistic intelligence served as the best predictor of the writing performance of the participants.

Razmjoo (2008), aimed at examining the relationship between language proficiency and types of intelligences; the relationship between MI as a whole factor and language proficiency. He also tried to examine the intelligence(s) type which can be seen as the predictor of language proficiency, and the difference between males and females in terms of intelligence(s). The results of the analyses showed that there were no significant differences among male and female participants in terms of their language proficiency, their MI in general and different types of intelligences in particular. Further analysis revealed that none of the intelligences types can predict the language proficiency among the Iranian male and female participants, and that there were no significant positive or negative correlation among the candidates' MI type and their language proficiency.

In intelligence studies, researchers have chosen different genders as the participants of their studies, probably trying to see whether the gender factor has any effects on the results of their studies or not. For example, Saricaoglu and Arikan (2009) aimed at investigating the relationship between students' gender and intelligences types. To answer the proposed questions, 144 participants (78 female and 66 male) were randomly selected. MI Inventory for Adults, prepared by Armstrong (1994), was used in the study to assess the participants' Multiple Intelligences. The results of the analysis revealed that the leading intelligence type among the students was logical mathematical intelligence. Intrapersonal, linguistics, logical, and musical intelligences were common among females. Further analysis of group differences revealed a significant difference between males and females in linguistic intelligence.

In another study Loori (2005) conducted a research with 90 international English learners at ESL centers at three universities in the United States of America and found that males showed higher preference in logical/mathematical intelligence whereas female participant preferred learning activities involving intrapersonal intelligence.

According to Christison (1998), Multiple Intelligences theory shows many educational implications that should be considered by educators. Many researchers have examined the effectiveness of Multiple Intelligences theory in educational settings. For example, Saeidi (2006), in line with Coustan and Rocka (1999), stated that the high achievement of the learners in Multiple Intelligence Focus on Form teaching was because of the integration of Multiple Intelligence into Focus on Form, and this integration helped learners to attend to the meaningful tasks actively.

One of the basic skills in second and foreign language learning is summarization. There are different definitions for summary. For example, Langan (1993) defines summary as "the reduction of a large amount of information to its most important points" (p. 120). Wohl, (1978) notes that "to summarize is to report information using a far fewer words than were used in the original communication" (p. 127). To him, what is important to consider in creating a good piece of summary is to have the ability to identify the essentials, main points and ideas of a text.

Identifying and selecting important ideas is not enough, however. Brown, Day, and Jones, (1983) believe that a good summary is also the result of judgment, knowledge, strategies, and effort. In line with Brown et al. (1983), Rinehart and Thomas (1993) note that an effective summary needs reflection and decision making. One must see and argue the relation of ideas

in the text, reduce important information to the level of organizational gist, and finally capture that gist in written form.

But the distinction between general writing ability and summary writing must be made clear. According to Hidi and Anderson (1986), summarization is based on an existing text and fundamentally different from a writing activity. They believe that summarization involves operations which are based on already planned discourse while most other writing abilities require careful planning of content and structure, generation of core ideas and related details and continuous shifting between these processes.

According to Picket and Laster (1993) "three basic types of summary are descriptive, informative, and evaluative, depending on the writer's primary purpose and intended audience" (p. 216). They maintain that the descriptive summary and informative summary can be written as independent summaries; the evaluative summary, however, must include either description or information in addition to evaluation to give the reader a point of reference. Thus, summaries can be written to describe only, to inform only, to describe and evaluate, or to inform and evaluate. In the present study, the learners were asked to read the given texts and provide descriptive summaries as a writing production.

To conduct the study, the following six research questions were formulated:

1. Is there is any significant relationship between advanced male EFL learners' Multiple Intelligences and the accuracy of their writing performance?
2. Is there is any significant relationship between advanced male EFL learners' Multiple Intelligences and the complexity of their writing performance.
3. Is there is any significant relationship between advanced male EFL learners' multiple intelligences and the quality of their writing.
4. Is there is any significant relationship between advanced female EFL learners' Multiple Intelligences and the accuracy of their writing performance.
5. Is there is any significant relationship between advanced female EFL learners' Multiple Intelligences and the complexity of their writing performance.
6. Is there is any significant relationship between advanced female EFL learners' multiple intelligences and the quality of their writing.

Method

Participants

Thirty participants comprising two intact groups from a language institute in Tabriz, Iran participated in this study. All the participants took a standard placement test. Later, an interview was conducted by the experts in the field. Each group comprised 25 participants of advanced proficiency level, but one group included male students and the other female ones. A test of English as a Foreign Language (TOEFL) was administered to homogenize an intact group of 15 male in one class and 15 female learners in the other class (Total: 30 learners), who comprised the advanced group. The rest of the participants were excluded from the study but remained in the class until the end of the course.

The participants came from different educational backgrounds and various occupations, such as physicians, engineers, artists, architects, chemists and high school students with different fields of study such as mathematics, science, and humanities. Their age range was between16-28.

Instrumentation

To ensure the homogeneity of the advanced group, the standard Test of English as a Foreign Language (TOEFL) was used. It included three sections: Listening comprehension, Structure/Written expression and Reading comprehension. The total score at TOEFL test was 677 and the mean score and SD were 480 and 57.03. Only the learners who obtained scores between 423 and 537, that is, one standard deviation below and above the mean were selected out of 50 participants. In order to have equal and manageable groups, 15 male and 15 female students with the above criteria were finally selected.

There are several scales to assess learner's Multiple Intelligences, out of which Multiple Intelligence Developmental Assessment Scale (MIDAS) was selected. MIDAS is a self-report instrument designed by Shearer (1996). This instrument contains 119 Likert-type questions with six options (a to f) to choose as an answer. These questions cover eight different intelligences introduced by Gardner. It also minimizes the pressure on the respondent to make guesses since the answers contain options like "I don't know" or "Does not apply". To rely on MIDAS as a reliable and valid source, Shearer (1996, 2006) indicated that the MIDAS scale could provide a reasonable estimate of one's MI strength and limitations. Since MIDAS has been taken by 10.000 people around the world, it enjoys high reliability. To avoid complexity and difficulty in answering the test, MIDAS was

translated into the learners' official language, Persian. The reliability of the Persian version was calculated using Cronbach's Alpha analysis for 50% of the participants, and the result revealed a reliability of 0.94.

The writings were scored using the analytic scoring, in which scripts are rated on several aspects of writing rather than giving a single score. For this purpose, the scoring profile suggested Jacob et al. (1981) was chosen. Following this scale, five aspects were differentially weighted to emphasize first the content (30 points), and next the language use (25 points), with organization and vocabulary weighted equally (20 points), and mechanics receiving very little emphasis (5 points).

Procedure

A whole (90 minutes) introductory session was devoted to introduce the research study and explanation of the process which participants were to get through. The students were assured that they would be informed of the results and interpretations of the results of the study. Therefore, they tried their best to honestly respond and grew motivated to participate in the study.

A week after the introductory session, the participants were asked to complete the MIDAS scale while they were well aware of the purpose of taking the test, the terms used in the scale, and the time (30 minutes) needed to answer the questions. The researcher completely explained the purpose of the study and benefits of taking MIDAS test and patiently answered the questions posed by the participants. Many learners did not know or even heard anything about Multiple Intelligences. But later, they were happy and excited to be a part of the study. They felt comfortable with the questionnaire, as it contained choices like "I don't know" or "Does not apply".

The answer sheets were collected after 30-35 minutes. Later, the answers given by each participant were entered into a Microsoft Excel sheet and sent back to Dr. Branton Shearer, the designer of the MIDAS. On the third week of the study, the researcher introduced a topic for each group.

The topic was chosen from the learners' main course books, Passages, an upper-level multi-skill course, student's book 1 by Richards and Sandy (1998) for advanced level. The course books were chosen by the experts in the field in accordance with the proficiency level of the students. The text was entitled "It's not so bad to be middle-aged". The reason to choose this topic was that it was new and more interesting for the participants. They had 60 minutes to read the text carefully and write a summary of the text. They were allowed to look at the text while writing their summaries. The reason behind choosing summary writing from all other types of writing was the

different nature of summarization. It was ensured that the participants completely understood the topic and had no problem interpreting the whole text by asking some questions regarding the comprehension of the text and asking the participants about their personal idea about the topic.

The written summaries were collected for being carefully studied and analyzed in order to determine the grammatical accuracy, that is, the number of grammatical errors/the number of T-units (Gaies, 1980) and complexity, that is, the number of content words/ the number of T-units (Wolfe-Quintero, Inagaki & Kim, 1998). Finally, the writing quality was assessed through Jacobs, Zinkgraf, Wormuth, Hartfiel, and Hughey's (1981) scoring profile. Based on this scale, a maximum of 30 points were assigned to content, 20 to text organization, 20 to vocabulary, 25 to language use and just 5 points to mechanics.

At the end, the MIDAS scores were correlated with the scores obtained from writing analysis of the 60 participants utilizing SPSS 17.

Design

The design of the study was correlational. The variables of the study included Multiple Intelligences scores and writing performance scores (i.e., accuracy, complexity and writing quality). In this study, the participants' gender was a moderator variable.

Results

The descriptive analysis for male advanced learners' writing accuracy and overall MI was carried out. The results show a mean score of 1.13 for accuracy and 435 for overall MI with the standard deviation of .856 and 138 respectively.

In order to find out the relationship between overall MI and accuracy in male advanced learners' writing, a Pearson-product moment Correlational analysis was made to evaluate the strength and direction of the relationship (Table 1).

Table 1
Pearson Correlation between Overall MI and Accuracy in Writing Performance of Advanced Male Learners

		Accuracy	MI
	Pearson Correlation	1	-.121
Accuracy	Sig. (2-tailed)		.667
	N	15	15
	Pearson Correlation	-.121	1
MI	Sig. (2-tailed)	.667	
	N	15	15

The results of the analysis revealed no significant relationship between overall MI and accuracy of male advanced learners' writing accuracy, r = -.12, p = 66, p > .05 (Table 2).

As a result, the first null hypothesis, which claimed no relationship between advanced male EFL learners' Multiple Intelligences and the accuracy of their writing performance, was not rejected.

In order to find whether any relationship existed between the components of MI and accuracy in male advanced learners' writing, the researcher performed another Pearson Correlation Analysis (Table 2).

Table 2
Pearson Correlation between Components of Multiple Intelligences and Accuracy in Writing Performance of Advanced Male Learners

		music	kinesthe	Logical	spatial	linguistic	Inter	intra	naturalistic
Accuracy	Pearson Correlation	-.216	-.097	-.203	-.049	-.142	-.061	-.095	-.028
	Sig. (2-tailed)	.440	.730	.468	.862	.614	.828	.735	.922
	N	15	15	15	15	15	15	15	15

As the results in Table 2 revealed no significant correlation between the components of Multiple Intelligences and accuracy in the male EFL advanced learners' writing.

According to the descriptive statistics for the overall MI and complexity in the male advanced learners' writing complexity, the mean scores for complexity and overall MI are 8.93 and 435, with the standard deviation 2.94 and 138.30, respectively.

In order to find out the relationship between overall MI and complexity in the male advanced learners' writing complexity, a Pearson product-moment correlation was carried out (Table 3).

Table 3
Pearson Correlation between Overall MI and Complexity in Writing Performance of Advanced Male Learners

		Complexity	MI
Complexity	Pearson Correlation	1	.262
	Sig. (2-tailed)		.345
	N	15	15
MI	Pearson Correlation	.262	1
	Sig. (2-tailed)	.345	
	N	15	15

The results presented in Table 3 indicated no significant relationship between the overall MI and complexity in the male advanced learners' writing complexity, r = .262, p = .34, p > .05.

Thus, the second null hypothesis, which claimed no significant relationship between the advanced male EFL learners' Multiple Intelligences and the complexity of their writing performance, was not rejected.

Since no relationships were found between the overall MI and complexity in the male advanced learners' writing complexity, the researchers made another correlation analyses between the components of MI and complexity in the male advanced learners' writing (Table 4).

Table 4
Pearson Correlation between Components of MI and Complexity in Writing Performance of Advanced Male Learners

		music	kinesthe	Logical	spatial	linguistic	inter	intra	naturalistic
Complexity	Pearson Correlation	.085	.125	.305	.258	.262	.173	.265	.349
	Sig. (2-tailed)	.763	.658	.269	.353	.346	.538	.339	.203
	N	15	15	15	15	15	15	15	15

The results of the analysis in Table 4 revealed no significant relationship between the components of MI and complexity in the male advanced learners' writing.

The descriptive statistics for overall MI and quality of writing in male advanced learners' writing quality show that the mean scores for quality of writing and overall MI are 80.80 and 435.07, with the standard deviation of 13.90 and 138.30 respectively.

In order to find out the relationship between overall MI and quality of male advanced learners' writing, a Pearson correlation analysis was done (Table 5).

Table 5
Pearson Correlation Analysis for Overall MI and Quality of Advanced Male Learners' Writing

		Writing	MI
Writing	Pearson Correlation	1	.220
	Sig. (2-tailed)		.430
	N	15	15
MI	Pearson Correlation	.220	1
	Sig. (2-tailed)	.430	
	N	15	15

The results presented in Table 6 revealed no significant relationship between overall MI and quality of male advanced learners' writing, $r = .220$, $p = .43$, $p > .05$.

Thus, the third null hypothesis, which claimed no significant relationship between overall MI and quality of advanced male learners' writing, was not rejected.

As no relationship was found between overall MI and quality of male advanced learners' writing, the researcher carried out a Pearson product-moment correlation between the components of MI and quality male advanced learners' writing (Table 6).

Table 6.
Pearson Correlation Analysis for Components of MI and Quality of Advanced Male Learners' Writing

		music	kinesthe	logical	spatial	linguistic	inter	intra	naturalistic
Writing	Pearson Correlation	.141	.139	.279	.236	.139	.278	.333	.082
	Sig. (2-tailed)	.617	.621	.313	.398	.621	.316	.225	.771
	N	15	15	15	15	15	15	15	15

The results presented in Table 6 showed no significant relationship between the components of MI and quality of male advanced learners' writing.

According to the descriptive statistics produced for overall MI and accuracy in female advanced learners' writing, the mean scores for accuracy

and overall MI are .73 and 450.24, with the standard deviation of .506 and 74 respectively.

The Pearson product-moment correlation was utilized to find the relationship between overall MI and accuracy in female advanced learners' writing (Table 7).

Table 7
Pearson Correlation between Overall MI and Accuracy in Writing Performance of Advanced Female Learners

		Accuracy	MI
Accuracy	Pearson Correlation	1	.062
	Sig. (2-tailed)		.825
	N	15	15
MI	Pearson Correlation	.062	1
	Sig. (2-tailed)	.825	
	N	15	15

The results presented in Table 7 indicated no significant relationship between overall MI and accuracy in writing performance of female advanced learners' writing, r = .062, p = .82, p > .05.

Thus, the forth null hypothesis, which claimed no significant relationship between advanced female EFL learners' Multiple Intelligences and the accuracy of their writing performance, was not rejected.

As no significant relationship was found between overall MI and accuracy in female advanced learners' writing, the researcher performed a Pearson correlational analysis to find out whether any relationship exists between the components of MI and accuracy in writing performance of female advanced learners (Table 8).

Table 8
Pearson Correlation between Components of Multiple Intelligences and Accuracy in Writing Performance of Advanced Female Learners

		music	kinesthe	logical	spatial	linguistic	inter	intra	naturalistic
accuracy	Pearson Correlation	.117	.217	.089	.185	-.003	.148	-.200	-.238
	Sig. (2-tailed)	.679	.438	.751	.509	.991	.598	.474	.392
	N	15	15	15	15	15	15	15	15

The results presented in Table 8 indicated no significant relationship between the components of MI and accuracy in the female advanced learners' writing.

The descriptive statistics for Overall MI and complexity in the female advanced learners' writing reveal that the mean scores for complexity and the overall MI are 8.35 and 450.24, with the standard deviation of 1.64 and 47 respectively.

In order to find out the relationship between overall MI and complexity in the Female advanced learners' writing, a Pearson product-moment correlation was conducted (Table 9).

Table 9
Pearson Correlation for Overall MI and Complexity in Writing Performance of Advanced Female Learners

		Complexity	MI
Complexity	Pearson Correlation	1	.056
	Sig. (2-tailed)		.842
	N	15	15
MI	Pearson Correlation	.056	1
	Sig. (2-tailed)	.842	
	N	15	15

The results of the analysis indicated in Table 9 showed no significant relationship between the overall MI and complexity in the female advanced learners' writing, r = .056, p = .84, p > .

Thus, the fifth null hypothesis, which claimed no significant relationship between the advanced female EFL learners' Multiple Intelligences and the complexity of their writing performance, was not rejected.

Since no significant relationship between overall MI and complexity was found, the researcher set out to examine the same relationship with the components of MI (Table 10).

Table 10
Pearson Correlation for Components of MI and Complexity in Writing
Performance of Advanced Female Learners

		music	kinesthe	logical	spatial	linguistic	inter	intra	naturalistic
complexity	Pearson Correlation	.399	.257	-.255	-.227	.346	.596[*]	.021	-.617[*]
	Sig. (2-tailed)	.140	.355	.360	.416	.207	.019	.941	.014
	N	15	15	15	15	15	15	15	15

The results of Pearson correlation analysis in Table 10 revealed a significant positive correlation between Interpersonal Intelligence and complexity in writing, r = .596, p = .01, p < .05 and a negative correlation

between Naturalistic Intelligence and complexity in the female EFL learners' writing, r = -.617, p = .01, p < .05.

As the descriptive statistics for overall MI and quality of advanced female learners' writing show, the mean scores for writing quality and overall MI are 82 and 450.24, with the standard deviation of 6.40 and 74 respectively.

In order to find out the relationship between overall MI and quality of advanced female learners' writing, a Pearson product-moment correlation analysis was done (Table 11).

Table 11
Pearson Correlation for Overall MI and Quality of Advanced Female Learners' Writing

		Writing	MI
Writing	Pearson Correlation	1	.526*
	Sig. (2-tailed)		.044
	N	15	15
MI	Pearson Correlation	.526*	1
	Sig. (2-tailed)	.044	
	N	15	15

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

The results of the analysis presented in Table 11 indicated a significant positive correlation between the overall MI and quality of advanced female learners' writing, r = .526, p = .04, p < .05.

Thus, the sixth null hypothesis, which claimed no relationship between advanced female EFL learners' multiple intelligences and the quality of their writing, was rejected.

Since the positive correlation between overall MI and writing quality of advanced female learners was revealed, the researcher carried out a Pearson correlation analysis between the components of MI and quality of advanced female learners' writing (Table 12).

Table 12
Pearson Correlation for Components of MI and Quality of Advanced Female Learners' Writing

		Music	kinesthe	logical	spatial	linguistic	inter	intra	naturalistic
writing	Pearson Correlation	.104	.341	.494	.393	.270	.104	.533*	.482
	Sig. (2-tailed)	.712	.213	.061	.147	.330	.711	.041	.069
	N	15	15	15	15	15	15	15	15

The results of the correlational analysis in Table 12 reveal that among all the components of MI, a significant positive correlation existed between Intrapersonal Intelligence and quality of the advanced female learners' writing, r = .533, p = .04, p < .05.

Discussion

The present study was an attempt to find out the relationship between Multiple Intelligences and Iranian EFL learners' writing performance. To this end, the researcher proposed six research hypotheses. To test the hypotheses, Pearson product-moment correlation analysis was carried out. The results of the analyses revealed that overall Multiple Intelligences only positively correlated with the quality of the advanced female learners' writing, r = .526, p = .04, p < .05. This finding is in line with Ahmadian and Hosseini (2012), who reported a statistically significant correlation between writing and Multiple Intelligences. This result also supports Marefat's (2007) finding.

The results of correlational analysis between the components of MI and accuracy, complexity and writing quality of the participants revealed that among all intelligence types only Interpersonal and Intrapersonal intelligences positively correlated with complexity and writing quality. The findings were interesting in that Gardner's (1983) claim that Linguistic Intelligence is the sensitive to spoken and written language and the ability to use and learn new languages had made the researcher expect to find a positive relationship between linguistic intelligence and aspects of writing prior to the study; however, to his surprise, no significant relationship was shown by the results between the variables. The finding of this study is at odd with Ahmadian and Hosseini (2012) who reported high positive relationship between linguistic Intelligence and writing ability, but in line with Marefat's (2007) finding in the sense that she has also claimed kinesthetic, interpersonal and existential intelligences to be as accurate predictors of writing performance. However, there are other researchers who reported no relationship between Multiple Intelligences and writing ability of the learners (Sadeghi & Farzizadeh, 2012).

Gardner's (1983) Theory of Multiple Intelligences was based on individual differences. The fact that each person has a different combination of intelligences results in the development of different abilities and skills in different people. The participants in this study were all from different educational backgrounds. Civil engineers, architects, managers, teachers, electronic engineers, law students and painters were just some of many other

groups of learners who participated in the study. According to Gardner's (1983) Theory of Multiple Intelligences, people of different professions have different dominant intelligences which assist them to progress and succeed in their careers. The participants of this study were not university students majoring in English. The fact that the participants in this study were not English majors should also be taken into consideration in discussing the discrepancy in the results.

Interpersonal intelligence, which helps understanding intentions, motivations, needs and desire of others as well as better understanding of social consequences of events and the underlying intentions of people's behavior (Gardner, 1983) was also found to have a significant relationship with complexity in the female participants' writing performance. They were able to produce highly complex descriptive summary writings due to the high interpersonal intelligence they possessed. This finding is in line with Ahmadian and Hosseini (2012), who reported a significant correlation between learners' interpersonal intelligence and their writing scores.

The varying results obtained from various studies conducted in the area of Multiple Intelligences and language learning can be interpreted in many possible ways. Although the proposal of Multiple Intelligences dates back to (1983) and ever since researchers and educators have been conducting studies into the effect of Multiple Intelligences on education, the domain of language learning and teaching still seems to seriously lack a unified framework to be employed in doing research. One of the possible explanations for the discrepancies among the results of different studies concerning the relationship between Iranian EFL learners' MI and their writing skill can be the type of MI scale and written proficiency scale which is used. For example, similar to this study, Ahmadian and Hosseini (2012) used MIDAS scale to assess the learners' Multiple Intelligences and Jacobs et al.'s (1981) scale to assess their writing. However, the students' writing performance was different from the writing performance involved in this study. The participants in this study were asked to read the given text and produce a summary of the text. Based on Hidi and Anderson (1986), there is a distinction between the nature of summarization and general writing ability. They mentioned that summarization is done based on an existing text and already planned discourse while most other writings require careful planning of content and structure. Sadeghi and Farzizadeh (2012) utilized Armstrong's Multiple Intelligences questionnaire (1995) to assess the female learners' Multiple Intelligences. The writing scores were obtained from an essay of IELTS writing task. In another study, Razmjou (2008)

obtained learners' writing scores from their writing performance in the entrance exam to university, and their Multiple Intelligences were assessed through a 90-item questionnaire. The results of the study revealed no significant relationship between language proficiency and the combination of intelligences in general and the types of intelligences in particular. On the other hand, Marefat (2007) utilized Mckenzie's (1999) MI Inventory to assess learners' Multiple Intelligences, and the learners' writing scores were obtained from three essays written for a writing course.

Taking into consideration the mixed results obtained from various Multiple Intelligence studies, one of the reasons for discrepancy in the findings of the present study with previous findings is that the nature of summary writing is different from writing ability. According to Hidi and Anderson (1986), summarization is fundamentally different from writing ability. They believe that summarization involves operations which are based on an already planned discourse while most other writing abilities require careful planning of content and structure, generation of core ideas and related details and continuous shifting between these processes. Considering the different nature of summary writing, it is seriously important to ask whether we should consider the findings of the present study in line or different from other studies indicating similar results. As previously mentioned, different researchers have conducted studied based on Multiple Intelligences and writing ability of different learners. These studied are lacking a unified framework. They have used different ways to collect writing productions from their participants.

Many researchers at different times and in different conditions have used different instruments to conduct MI based studies in the field of language learning. Some results are in line and some at odd with other researchers' findings. In short, based on the varying results of different studies mentioned earlier, in can be inferred that the instruments used, participants and their study background and probably their ages can affect the results of a study.

In this study, the relationship between learners' Multiple Intelligences and their writing performance was investigated through correlational analyses. The learners from different educational backgrounds with varying intelligence combinations and of course different dominant intelligences participated in the study. According to Gardner (1983), individuals are different because of the unique combination of intelligences. As a result, individual differences, as an undeniable fact in educational settings should be taken into proper consideration. The results of this study revealed that among all intelligences, kinesthetic, interpersonal and intrapersonal

intelligences positively correlated with complexity and quality of the learners' writings.

This research was concerned with advanced students. What results could be achieved by conducting studies with other proficiency levels or other skills (e.g. reading, speaking and listening) is a matter of question and thus further study.

Besides, there is a need for further investigations to find out whether the same results will be obtained with other types of writings rather than summary writing or not.

Also, it is a matter of question to find out whether same results will be obtained if same study investigates learners' performance on their first language, Persian.

The issue of Multiple Intelligences greatly contributing to individual differences should be taken in to consideration by language teachers, material developers and curriculum designers in order to tap learners' varying combinations of intelligences, abilities and skills.

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