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## **Original Research Article**

# Contribution of Multiple Intelligences to L2 Writing of EFL Learners

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#### **KEYWORDS**

L2 writing, logical, musical, existential, and interpersonal intelligences, multiple intelligences, writing components The present study was carried out to unveil the predictive power of multipleintelligences (MI) in accounting for different components of L2 writing. To do so, through an OPT, 120 intermediate EFL learners were selected. In one class session, the researcher gave McKenzie's (1999) MI questionnaire to the learners and asked them to fill out the questionnaire. In the subsequent session, the participants were asked to write an argumentative essay about a topic within 60 minutes. The learners' writings were scored from 1 to 4 based on each component of writing under question (i.e., content, organization, cohesion, vocabulary, grammar, spelling, and pronunciation). Finally, the learners' answers to the questionnaire were quantified and their performances on the writing test were scored by two raters (and the inter-rater reliability calculated through Pearson correlation equaled .86). Multivariate regression in AMOS (version 22) was used to analyze the data, and to show which types of MIs contributed more to different aspects of L2 writing. The results of this investigation showed that certain types of multipleintelligences affected certain components of the students' writing. More precisely, it was unraveled that logical and musical intelligences contributed more to the relevance and adequacy of content; on the other hand, verbal, musical, and naturalistic intelligences bore effects on learners' writing organization; logical, existential, and verbal intelligences played a significant part in the learners' cohesion; logical and intrapersonal intelligences contributed more to the adequacy of vocabulary for purpose; musical, logical and intrapersonal intelligences could significantly account for the grammar of written productions; visual and kinesthetic intelligences were most effective in the punctuation components of L2 writings; finally, EFL learners' spelling was influenced by logical, musical, existential, and interpersonal intelligences. The results of the study bear significant implications for L2 writing researchers and teachers.

## Introduction

As one of the basic language skills, writing is very important in second language teaching. Writing affects students' cultural awareness and developing writing ability is very difficult. Many researchers (Lay, 1982; Uzawa & Cumming, 1989 as cited in Tang, 2012) have found that in second language writing students at lower proficiency levels are often dependent on their mother tongue, and they use native language to organize ideas, and then literally translate them into the target language. This means that in writing in an L2, the mother tongue thinking and second language thinking are combined and interact consistently, which tends to result in incongruity, sentence errors, bad coherence, and vague expression. Regarding the

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importance of teaching/learning second language writing, Brown (2003) claims that not all native speakers of any language are necessarily good writers in their own mother language. Hence, writing has always been considered an important skill contributing to students' language learning. The importance is critical when you consider that in almost every course there is a writing element of some kind. For many learners of English as a second/foreign language, writing is considered the most difficult skill to acquire because it requires having a certain amount of L2 background knowledge about rhetorical organization, appropriate language use, or specific lexicon with which they want to communicate their ideas (Zachariah, 2005 as cited in Ahmadi, Maftoon, & Mehrdad 2012).

L2 writing ability is a skill which is given slight attention in Iranian contexts both by teachers and learners. A small amount of class time is allocated to developing this skill. Writings are mostly done outside classroom for which the students seek help from other sources, and the focus is on the product rather than the process of writing. It is often seen as a means of strengthening vocabulary or grammatical knowledge rather than as a tool for communicating ideas (Sadeghi, & Farzizadeh, 2012; Namaziandost, Saberi Dehkordi, & Shafiee, 2019). However, students can ideally benefit from their individual potentials in intelligences to draw on during the act of writing, an attempt the highlighting of which will bring about valuable benefits. With an eye always on the students' intelligences, a lot can hopefully be done to meet different needs of different students in different settings. Teachers can have other choices available when teaching in addition to that of overemphasizing IQ as the only factor important in learning, and thus this will create a sense of equality by focusing on all individuals possessing whatever intelligence type they might possess, and not only on those who have high IQs (Sadeghi, & Farzizadeh, 2012; Namaziandost, Hafezian, & Shafiee, 2018). In general, learning how to use the correct forms of L2 in writing is very important because it is complicated with a lot of different rules. The aim of this study was to investigate which types of MIs (i.e., verbal-linguistic intelligence, logical mathematical intelligence, visual-spatial intelligence, musical intelligence, naturalistic intelligence, bodilykinesthetic intelligence, interpersonal intelligence, or intrapersonal intelligence) contributes more to the different components of written productions of EFL learners (i.e., relevance and adequacy of content, compositional organization, cohesion, adequacy of vocabulary for purpose, grammar, punctuation, and spelling) (Namaziandost, Hashemifardnia, & Shafiee, 2019).

Improving English teaching method is necessary as it is the language of modern technology, science, art, politics, and other subjects. Since teachers always try hard to abstract the learners' attention, much efforts are needed to provide a well-planned program for this purpose. In fact, collaboration to improve such effective methods and program will be important to an efficient teaching. Despite the efforts that have been done in improving teachings abilities through training course on teaching methods, teachers always complain about students' poor proficiency in English. So, it is of great importance to think of new teaching methods and techniques which can be used to promote student's efficiency in the four skills in general and writing skill in particular. According to Gardner (1993 as cited in Grow, 1995) every human achievement is filled by intelligence of a kind far more supple and complex than commonly believed. These multiple intelligences are present in virtually every field of human activity and not just in the verbal and analytical activities commonly called intelligent. Even though it was first published in 1983, Gardner's theory has not made an impact on the teaching of writing though it has influenced some innovative research like John-Steiner's study of creativity. This study introduces Gardner's 7-part theory of mind with the hope that it will stimulate new ways of thinking about writing and the teaching of writing.

This study can be significant for English teachers in institutes and private schools that findings of this study can help them to improve their teaching techniques in writing skill. In addition, Iranian EFL learners, university students, university professors and ministry of Iranian education can benefit from the findings of this study. Using multiple-intelligence in teaching writing can help both teachers and learners. For teachers, using different element of multiple- intelligence is a new way of teaching writing. For students, using different elements of multiple-intelligence can improve their writing components.

## **Literature Review**

The multiple intelligences theory characterizes human intelligence as a multifaceted entity that exists in all human beings with varying degrees. The most important contribution of this theory to the field of English Language Teaching (ELT) is its role in identifying individual differences and designing more learner-centered programs. Shayeghi and Hosseinioun (2015) investigated the relationship between different elements of multiple intelligences and grammar scores. To this end, 63 females Iranian EFL learner selected from among intermediate students participated in the study. The instruments employed were a Nelson English language test, Michigan Grammar Test, and Teele Inventory for Multiple Intelligences (TIMI). The results of Pearson Product-Moment Correlation revealed a significant positive correlation between grammatical accuracy and linguistic

as well as interpersonal intelligence. The results of Stepwise Multiple Regression indicated that linguistic intelligence contributed to the prediction of grammatical accuracy.

Ghamati (2011) studied improving reading comprehension and motivation of young Iranian EFL learners through the application of MI. The results of this study revealed that using reading activities based on the multiple intelligences theory could increase reading comprehension and, it increased motivation of young EFL learners to read.

Sadri (2007) studied the relationship between MI and vocabulary learning knowledge and vocabulary learning strategies among Iranian EFL learners. The findings revealed that there was a positive relationship between MI and vocabulary knowledge (vocabulary breadth). Moreover, stepwise multiple regression analysis showed that linguistic verbal intelligence is the best predictor of vocabulary knowledge. With respect to the relationship between MI and vocabulary strategies, the results indicated that among five categories of strategies, determination, social, and memory strategies had significant relationship with bodily, natural and interpersonal intelligences respectively.

Amiriani (2010) investigated the relationship between foreign language classroom anxiety and MI. She found that there exists a significant negative relationship between anxiety and five intelligence types, namely logical-mathematical, visual-spatial, naturalistic, interpersonal and intrapersonal intelligences while the results of the regression analysis showed that none of the five intelligences or their combinations had the power to predict the variance in anxiety.

Nemat Tabrizi, (2016) studied the relationship between multiple intelligence and reading comprehension abilities of Iranian EFL learners. For the purpose of this study, 117 senior English students were randomly selected. After administering two types of instruments including MIDAS Adults (Shearer, 1996) and Reading Comprehension Section of TOEFL (2005, Longman), the data were collected and analyzed. The results indicated that all types of the learners' MI profile have significant relationship with the reading comprehension scores and that the verbal-linguistic intelligence is the most significant predictor of the learners' reading comprehension abilities, while visual-spatial and interpersonal intelligences are the second and third predictors of the learners' reading comprehension of the learners. Given all the studies reviewed above, the purpose of the present study was to investigate the contribution of different multiple intelligences to L2 writing components (i.e., content, organization cohesion, vocabulary, grammar, punctuation, and spelling) of Iranian EFL learners.

Literature review dealt with important issues related to the variables of the present study. The previous pertinent studies were also reviewed in the section of the chapter. Although, a lot of studies investigated the multiple-intelligence, and different language skills separately but there has not been any study about contribution of Multiple Intelligences to L2 Writing of EFL Learners.

Accordingly, the following research questions were formulated to be examined:

1. Which of the multiple intelligences contributes more to the relevance and adequacy of content written productions of EFL learners?

2. Which of the multiple intelligences contributes more to the compositional organization of written productions of EFL learners?

3. Which of the multiple intelligences contributes more to the cohesion of written productions of EFL learners?

4. Which of the multiple intelligences contributes more to the adequacy of vocabulary for purpose of written productions of EFL learners?

5. Which of the multiple intelligences contributes more to the grammar of written productions of EFL learners?

6. Which of the multiple intelligences contributes more to the punctuation of written productions of EFL learners?

7. Which of the multiple intelligences contributes more to the spelling of written productions of EFL learners?

## Methodology

## Participants

The participants of this study were 270 intermediate EFL learners who were selected from three different institutes, namely Jahad Daneshgahi, Afarinesh, and Omid language institutes. The participants' age range was from 18 to 24. They were selected based on non-random convenience sampling; they were chosen based on their scores on Oxford Quick Placement Test (OQPT). The participants consisted of both males and females and they were native speakers of Persian.

### Instruments

The first instrument employed in this study was an Oxford Quick Placement Test (OPT). This validated test consists of 70 multiple-choice items. It includes 20 listening items, 20 readings items, and 30 items related to language use. The other instrument was the writing test; the researchers required the test takers to write a short essay on an argumentative topic within 60 minutes to show their ability to generate and organize ideas, support ideas in writing with examples or evidence and use standard written English formats. The validity of the writing test in the present study was confirmed by a couple of experts in the field; based on their ideas, modifications were not necessary. In addition, the reliability of the scale was confirmed by Cronbach's alpha with acceptable internal consistency (.74). The last instrument was the MIs questionnaire designed by McKenzie (1999). The questionnaire included nine sections with 10 items in each. The items tap into different personality traits or abilities of individuals. These nine sections of the MIs scale included naturalistic, logical, existential, interpersonal, kinesthetic, verbal, intrapersonal, interpersonal, and musical intelligences. The validity of the questionnaire for the context of the present study was confirmed through the corroboration of two experts in the field and its reliability was obtained through Cronbach's alpha (.86).

## Data Collection Procedure

This study aimed to investigate the effects of multiple intelligences on the L2 writing components of EFL learners. To do so, the following procedures were followed: First of all, through an OQPT test, 120 intermediate learners were selected. In the first session, the researchers gave the MI questionnaire to the learners and asked them to complete the questionnaire. The researchers gave detailed instructions about the completion of the questionnaire. Names and personal information of the participants were strictly confidential and were not disclosed anywhere in the work. In a subsequent session, the participants were asked to write about an argumentative topic within 60 minutes. Students' writings were scored based on Weir's (1990) scoring scale different components of writing, i.e., content, organization, cohesion, vocabulary, grammar, spelling and pronunciation. Finally, the learners' answers to the questionnaire and their performance on the writing test were analyzed. The data were then analyzed by multivariate regression analysis in AMOS (version 22).

## Results

#### Answering the First Research Question

In order to answer research questions of the study, a set of multivariate tests were conducted. They were run to examine the effects of different components of multiple-intelligence on L2 writing components. The first research question was "Which of the multiple intelligences contributes more to the relevance and adequacy of content of written productions of EFL learners?" Results of multivariate regression conducted to answer this research question are presented in Table 1:

nemgenee components							
Content	Coefficient	Std. Error	t	<b>p</b> ≥ t	95% Confidence Interval		
					Upper Bound	Lower Bound	
Visual	02	.03	-0.86	0.39	09	.03	
Intrapersonal	03	.03	-1.20	0.23	10	.02	
Verbal	.05	.03	1.77	0.07	00	.12	
Kinesthetic	.03	.03	1.23	0.21	02	.10	
Interpersonal	00	.03	-0.00	0.99	06	.06	
Existential	05	.03	-3.61	0.14	12	.01	
Logical	.15	.03	4.24	0.00	.08	.22	
Musical	10	.03	-2.72	0.00	17	02	
Naturalistic	.03	.03	0.86	0.39	03	.10	
cons	2.33	.31	6.94	0.00	1.67	2.99	

Table 1. Multivariate Regression Test on the Relevance and Adequacy of Content of L2 Written Productions and Multipleintelligence Components As indicated in the above table, logical and musical intelligences contributed significantly to the relevance and adequacy of content of L2 written productions as the *p* values for logical and musical intelligences were less than the significance level (.00 < .05). Thus, the answer to the first research question is that logical and musical intelligences had statistically significant effects on the learners' relevance and adequacy of content of L2 written productions.

## Answering the Second Research Question

The second research question of the study was "Which of the multiple intelligences contributes more to the compositional organization of written productions of EFL learners?" The results of multivariate regression conducted to answer this research question are shown in Table 2.

Coefficient Std. Error 95% Confidence Interval t **p** ≥ t Content Upper Bound Lower Bound Visual .03 0.44 .03 -.02 -0.77 -.09 Intrapersonal .00 .03 0.00 0.99 -.06 .06 Verbal .06 .03 0.03 .00 2.12 .13 **Kinesthetic** .03 0.38 -.09 .03 -.02 -0.87 Interpersonal -.06 .03 -1.92 0.05 -.12 .00 Existential .01 .03 0.45 0.65 -.05 .09 Logical .05 .05 1.46 0.14 -.01 .12 Musical -.07 .03 -2.07 0.03 -.15 -.00 Naturalistic .08 .03 2.28 0.02 .01 .15 Cons 2.25 .34 6.63 0.00 1.58 2.92

 Table 2. Multivariate Regression Test on the Organization of Written Productions and Multiple-intelligence Components

As Table 2 demonstrates, verbal, musical and naturalistic intelligences significantly affect the learners' organization of writing. As it is clear in Table 2, the *p* values for verbal, musical and naturalist intelligences were respectively .03, .03, and .02. Hence, the answer to the second research question is that using verbal, musical and naturalist significantly contributed to the learners' organization of writing.

## Answering the Third Research Question

The third research question of the study was "which of the multiple intelligences contributes more to the cohesion of written productions of EFL learners?" The results of multivariate regression conducted to answer this research question are shown in Table 3.

Components						
	Coefficient	Std. Error	t	<b>p</b> ≥ t	95% Confidence Interval	
Content					Upper Bound	Lower Bound
Visual	00	.03	0.25	0.80	05	.06
Intrapersonal	03	.03	-1.20	0.23	09	.02
Verbal	.07	.03	2.49	0.01	.01	.13
Kinesthetic	.00	.02	0.12	0.90	05	.06
Interpersonal	04	.02	1.38	0.16	01	.069
Existential	12	.03	-3.61	0.00	19	05
Logical	.19	.03	5.64	0.00	.12	.25
Musical	04	.03	-1.29	0.19	11	.02
Naturalistic	.00	.03	0.15	0.88	-0.06	.07
Cons	1.74	.31	5.51	0.00	1.12	2.37

#### Table 3. Multivariate Regression Test on the Cohesion of Written Productions and Multiple-intelligence

As Table 3 demonstrates components, logical, existential and verbal intelligences significantly affected the learners' organization of writing. As it is clear in Table 3, the *p* values for logical, existential, and verbal intelligences were respectively .00, .00, and .01. Hence, the answer to the third research question is that logical, existential and verbal intelligences significantly contributed to the learners' written production.

#### Answering the Fourth Research Question

The fourth research question of the study was "Which of the multiple intelligences contributes more to the adequacy of vocabulary for purpose of written productions of EFL learners?" The results of multivariate regression conducted to answer this research question are shown in Table 4:

Table 4. Multivariate Regression Test on the Adequacy of Vocabulary and Multiple-intelligence Components

	Coefficient	Std. Error	t	<b>p</b> ≥ t	95% Confide	ence Interval
Content					Upper Bound	Lower Bound
Visual	01	.03	-0.36	0.71	07	.04
Intrapersonal	07	.02	-2.39	0.01	12	01
Verbal	00	.02	-0.04	0.97	-05	.05
Kinesthetic	02	.02	-0.97	0.33	08	.02
Interpersonal	.01	.02	.62	0.53	03	.07
Existential	00	.03	19	0.84	07	.06
Logical	.14	.03	4.39	0.00	.08	.21
Musical	04	.03	-1.17	0.24	10	.02
Naturalistic	.04	.03	1.41	0.16	-0.01	.11
Cons	2.09	.30	6.76	0.00	1.48	2.70

According to Table 4, logical and intrapersonal were the most effective components of multiple-intelligence in the adequacy of vocabulary for purpose of written productions. The level of significance for all components of multiple-intelligence are more than 0.5 except than logical and intrapersonal.

### Answering the Fifth Research Question

The third research question of the study was "Which of the multiple intelligences contributes more to the grammar of written productions of EFL learners?" The results of multivariate regression conducted to answer this research question are shown in Table 5:

Table 5. Multivariate Regression Test on the on the Grammar of Written Productions and Multiple-intelligence Components

	Coefficient	Std. Error	t	<b>p</b> ≥ t	95% Confidence Interval	
Content					Upper Bound	Lower Bound
Visual	.04	.02	1.60	0.11	01	.10
Intrapersonal	07	.02	-2.58	0.01	13	01
Verbal	.01	.02	.62	0.53	-03	.07
Kinesthetic	02	.02	0.98	0.32	08	.02
Interpersonal	01	.02	55	0.58	07	.04
Existential	04	.03	-1.35	0.17	11	.02
Logical	.14	.03	4.47	0.00	.08	.21
Musical	12	.03	-3.70	0.00	19	.05
Naturalistic	.01	.03	.46	0.64	-0.04	.07
Cons	2.78	.30	9.14	0.00	2.18	3.38

As indicated in Table, 5 musical, logical and intrapersonal contributes more to the grammar of written productions of EFL learners. The level of significance for musical, logical and intrapersonal are less than 0.5 that are significant.

#### Answering the Sixth Research Question

The sixth research question of the study was "Which of the multiple intelligences contributes more to the punctuation of written productions of EFL learners?" The results of multivariate regression conducted to answer this research question are shown in Table 6:

Table 6. Multivariate Regression Test on the Punctuation of Written Productions and Multiple-intelligence Components

	Coefficient	Std. Error	t	<b>p</b> ≥ t	95% Confidence Interval	
Content					Upper Bound	Lower Bound
Visual	12	.02	-4.38	0.00	17	06
Intrapersonal	03	.02	-1.18	0.23	08	.02
Verbal	.05	.02	1.88	.06	-00	.10
Kinesthetic	.06	.02	2.19	0.02	.00	.11
Interpersonal	01	.02	59	0.55	06	.03

Existential	05	.03	-1.62	0.10	11	.01
Logical	.13	.03	4.43	0.00	.07	.19
Musical	08	.03	-2.54	0.01	14	.01
Naturalistic	.00	.03	-0.28	077	-0.06	.05
Cons	3.09	.29	10.64	0.00	2.51	3.66

Based on Table 6, logical, visual and kinesthetic were most effective components of multiple-intelligences on students' punctuation. As indicated in above table, the level of significance for logical, visual and kinesthetic are respectively 0.00, 0.00, and 0.02. As all of them are less than 0.5, so it can be said that they had the most effect on students' punctuation.

## Answering the Seventh Research Question

The last question of the study was as so "Which of the multiple intelligences contributes more to the spelling of written productions of EFL learners?" The results of multivariate regression conducted to answer this research question are shown in Table 7:

Table 7. Multivariate Regression Test on the Spelling of Written Productions and Multiple-intelligence Components

	Coefficient	Std. Error	t	<b>p</b> ≥ t	95% Confidence Interval	
Content					Upper Bound	Lower Bound
Visual	00	.02	07	.94	05	06
Intrapersonal	00	.02	-0.18	0.85	06	.05
Verbal	.06	.02	2.32	.02	.01	.12
Kinesthetic	.01	.02	0.51	0.06	04	.07
Interpersonal	.06	.02	2.14	0.03	.00	.11
Existential	10	.03	-3.10	0.00	17	.03
Logical	.11	.03	3.42	0.00	.04	.17
Musical	09	.03	-2.78	0.00	16	02
Naturalistic	02	.03	-0.89	0.37	-0.09	.03
Cons	2.66	.30	8.74	0.00	2.06	3.26

Finally, students' spelling was influenced by logical, musical, existential and interpersonal as indicated in Table 7. According to above table the level of significance for logical, musical, existential and interpersonal are 0.00, 0.00, 0.00, 0.03. All the level of significance for them are less than 0.5, so the answer to the seventh research question is that logical, musical, existential and interpersonal had the most effects on students' spelling.

## **Discussion and Conclusion**

This study aimed to investigate the effect of multiple-intelligences on EFL learners' writing components. To do so, seven research questions were formulated. The questions dealt with which one of the components of the multiple-intelligences affected EFL learners' writing components (i.e., content, organization, cohesion, vocabulary, grammar, punctuation, and spelling). The findings of the study revealed that logical and musical intelligences contributed more to the relevance and adequacy of content of L2 written productions; on the other hand, verbal, musical, and naturalist intelligences affected L2 learners' organization of writing; logical, existential, and verbal intelligences contributed more to the learners' cohesion; logical and intrapersonal intelligences were the most effective when it comes to adequacy of vocabulary for purpose of L2 written

productions; musical, logical, and intrapersonal intelligences contributed more to the grammar of written productions; visual and kinesthetic intelligences were most effective components of MIs impacting L2 learners' punctuation; finally, the learners' spelling was influenced by logical, musical, existential, and interpersonal intelligences. The findings of the present study are consistent with and in contrast to some studies as follows:

The outcome of the study supports findings from Rostami and Soleimani (2015) that investigated the relationship between Iranian EFL learners' multiple intelligences and their performance on four essay types. However, based on the results, logical intelligence was found to be the best predictor of the interpretative essay scores. Similarly, the findings are in line with those of Alizadeh, Saeidi and Tamjid (2015), who investigated the possible relationship between multiple intelligences and writing performance of Iranian EFL learners across different genders. The results of the correlational analysis revealed that overall multiple intelligences correlated positively with the quality of the female learners' writing.

Also, the findings are in line with Shayeghi, and Hosseinioun (2015) that investigated the relationship between different elements of multiple intelligence and grammar scores. The results of multiple regression indicated that linguistic intelligence contributed to the prediction of grammatical accuracy. The results of our study support the above studies because like our study these studies confirmed the effectiveness of using multiple intelligence.

On the contrary, the results of the present study are in contrast with Sadeghi and Farzizadeh, (2012), who examined the relationship between multiple intelligences and the writing ability of EFL learners. Results obtained through multiple regression indicated that the components of MI did not have a significant relationship with the writing ability of the participants. The results are also in contrast with Esmaeili, Behnam, and Esmaeili, (2014), that investigated the relationship between multiple intelligences and writing ability of Iranian female and male students. Their results indicated no significant relationship between female and male students on relationship between components of MI and writing ability of Iranian female and male students.

In summary, this study aimed at investigating the contribution of multiple intelligences to L2 writing of EFL learners. The results for the first and second research question showed that musical and logical intelligences contributed to the relevancy and adequacy of content and verbal, musical, and naturalistic intelligences contributed to the organization of the writing. The results for the third and fourth research questions also indicated that logical, existential and verbal intelligences were more effective in students' cohesion. Fifth and sixth research questions divulged that musical, logical and intrapersonal intelligences contributed more to the grammar of written productions and logical, visual, and kinesthetic intelligences were most effective components of multiple-intelligences in students' punctuation. Finally, it was found that students' spelling was influenced by logical, musical, existential, and interpersonal intelligences. Hence, it could be concluded that 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. Multiple intelligences theory provides different pathways to tap the diverse students' learning preferences. Different intelligence types are considered as learning tools and have a contribution to the learners' success and development. Since the findings of the present study revealed significant relationships between different intelligence types and different components of L2 writing, all of the intelligences should be activated if the aim of education is to train successful individuals in everyday life in the globalized diverse world of ours.

Today, it is more likely that teachers, while teaching, take into account the strength and weakness concerning multiple intelligences among different learners. Clearly, when learners are taught language through using various teaching ways their learning will improve. Discovering the way in which their intelligences act, the learners themselves come to figure out how to enhance their learning most effectively by using different kinds of intelligences in the best possible way. In addition, both teachers and learners can know the strategies mostly used by the learners as well as the strategies which are the most effective ones. They also will know the extent to which these multiple intelligences influence the various skills including writing and reading.

The findings of the present study can be particularly applied by educational supervisors in language schools, textbook and syllabus designers as well as English teachers. Based on the results of this study, the language learners try to foster the multiple-intelligence would help improve their writing skill.

The findings of this study can make the researchers, managers, material designers, and teachers aware of how multiple intelligences could influence components of writing skill used by learners which proves the individuality of the students. This encourages them to take the necessity of using a variety of ways in teaching into a more careful consideration. The teachers are more likely to care about the strength and weakness of different intelligences among different students when teaching. Being exposed to a variety of teaching ways, the amount of learning will definitely increase. Knowing about how their intelligences act, the students themselves would also know how to improve themselves most efficiently through using different types of intelligences best. Moreover, by being aware of the writing strategy used by students, both teachers and students would know which strategies are almost learned and used most and which strategies need more emphasis and practice which is going to help improve the students' writing.

It appears that more research could be conducted to examine the relationship between multiple intelligence and writing in larger sample populations and with regard to other variables such as years of experience and age. The other suggestion is that this study can be done on teachers if there are a lot of teachers in available it's a good idea to run this study on teachers.

Eager researcher can also investigate the relationship between the multiple-intelligence ability of Iranian EFL learners and students with different level of language proficiency or they can investigate the relationship between multiple intelligence and other skills like grammar, pronunciation, and reading, listening and speaking. This study was done on students in language institute the other studies can investigate the relationship multiple-intelligence and writing skill in public school.

#### References

- [1] Ahmadi, D., Maftoon, P., & Mehrdad, A. G. (2012). Investigating the effects of two types of feedback on EFL students' writing. *Procedia-Social and Behavioral Sciences*, 46, 2590-2595.
- [2] Alizadeh, H., Saeidi, M., & Tamjid, N. H. (2015). The relationship between Iranian EFL learners' multiple intelligences and their writing performance across different genders. *Journal of English Language Pedagogy and Practice, 7*(14), 623-647
- [3] Amiriani, G. (2010). On the relationship between foreign language classroom anxiety and multiple intelligences. Unpublished master's thesis, Islamic Azad University, Shiraz.
- [4] Brown, H. D. (2003). Language Assessment: Principles and Classroom Activities. San Fransisco University: Longman.
- [5] Esmaeili, F., Behnam, B., & Esmaeili, K. (2014). A Study of Relationship between Multiple Intelligences and Writing Ability of Iranian Female and Male Students. *Mediterranean Journal of Social Sciences*, *5*(20), 2663.
- [6] Ghamati, S. (2011). Improving reading comprehension and motivation of young Iranian EFL learners through the application of the multiple intelligences' theory. Unpublished master's thesis, Islamic Azad University, Shiraz.
- [7] Lay, N. (1982). Composing processes of adult ESL learners: A case study. TESOL Quarterly, 16, 406-407.
- [8] Moheb, N., & Bagheri, M. S. (2013). Relationship between multiple intelligences and writing strategies. *Journal of Language Teaching and Research*, 4(4), 777-790.
- [9] Namaziandost, E., Hafezian, M., & Shafiee, S. (2018). Exploring the association among working memory, anxiety and Iranian EFL learners' listening comprehension. Asian-Pacific Journal of Second and Foreign Language Education, 3(20), 1-17. https://doi.org/10.1186/s40862-018-0061-3.
- [10] Namaziandost, E., Hashemifardnia, A., & Shafiee, S. (2019). The impact of opinion-gap, reasoning-gap, and information-gap tasks on EFL learners' speaking fluency. *Cogent Social Sciences* 5(1), 1-16. https://doi.org/10.1080/23311886.2019.1630150
- [11] Namaziandost, E., Saberi Dehkordi, E., & Shafiee, S. (2019). Comparing the effectiveness of input-based and output-based activities on productive knowledge of vocabulary among pre-intermediate EFL learners. Asian-Pacific Journal of Second and Foreign Language Education, 4(2), 1-14 https://doi.org/10.1186/s40862-019-0065-7.
- [12] Nattinger, J. & Decarrico, J. (1992). Lexical phrases and language teaching. Oxford: Oxford University Press
- [13] Nemat Tabrizi, A. R. (2016). Multiple intelligence and EFL learners' reading comprehension. *Journal of English Language Teaching and Learning*, 8(18), 199-221.
- [14] Rostami, F., & Soleimani, H. (2015). The relationship between multiple intelligences and Iranian EFL learners' performance on writing different essay types. *Journal of Language and Literature*, 6(4), 6-4.
- [15] Sadeghi, K., & Farzizadeh, B. (2012). The relationship between multiple intelligences and writing ability of Iranian EFL learners. *English Language Teaching*, 5(11), 136-149.
- [16] Sadri, M. (2007). The relationship between multiple intelligences, vocabulary learning knowledge and vocabulary strategies among Iranian EFL learners. Unpublished master's thesis, Shiraz Azad University, Shiraz, Iran.
- [17] Seifoori, Z., & Zarei, M. (2011). The relationship between Iranian EFL learners' perceptual learning styles and their multiple intelligences. *Procedia-Social and Behavioral Sciences*, 29, 1606-1613.
- [18] Shayeghi, R., & Hosseinioun, P. (2015). The relationship between Iranian EFL learners' multiple intelligences and their performance on grammar tests. *International Scholarly and Science Research & Innovation*, *9*, 2972-2976.
- [19] Shearer, B. (1996). *The MIDAS: A professional manual*. Kent, Ohio: MI Research and Consulting, Inc. Retrieved April 12, 2010 from: www.miresearch.org/ files/ Teacher\_Development.doc.

- [20] Tang, J. (2012). An empirical study on the effectiveness of the lexical approach to improving writing in SLA. *Journal of Language Teaching* and Research, 3(2), 578-583.
- [21] Uzawa, K. &A. Cumming. (1989). Writing strategies in Japanese as a foreign language: lowering or keeping up the standards. *The Canadian Modern Language Review*, 46(1), 178-194.
- [22] Weir, C. J. (1990). Communicative language testing. NJ: Prentice Hall Regents.