# The Relationship Between Linguistic Intelligence of EFL Learners and Their Performance on Grammar

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## **Abstract**

This study investigated the possible relationships between Linguistic Intelligence and Grammar Performance of English as Foreign Language Learners. To this aim, 139 homogenous undergraduate male and female English language learners between 22 and 32 years old participated in this study. Participants had been studying English language programs at the University of Kohdasht. The instruments utilized in this study were the Multiple Intelligence Questionnaire (MIDAS) designed by Shearer in 1996 to value linguistic intelligence, and a grammar TOEFL test to measure the grammar performance of the learners. Descriptive statistics and correlation indicated a statistically significant relationship between linguistic intelligence of the learners and their performance on grammar. The results of regression analysis revealed that linguistic intelligence was the best predictor of learners' performance on grammar. The independent sample t-test also showed no significant differences between males and females with respect to linguistic intelligence of learners and their performance on grammar. The findings propose professional English teachers to investigate the function of individual differences such as linguistic intelligence in different steps of teaching and learning of grammar in classes and provide more effective activities to help language learners improve their performance on grammar.

Keywords: EFL learners; Grammar; Learners' performance; Linguistic intelligence

## INTRODUCTION

Intelligence is one of the individual differences involving the extent learners acquire foreign or second language (Gardner, 2011 & Armstrong, 2008). Gardner (2011) proposed a view of natural human talents namely the multiple intelligences model. This model consists of eight types of intelligences such as linguistic-verbal, logical-mathematical, spatial, musical, bodily-kinesthetic, interpersonal, intrapersonal, and naturalistic intelligences.

These intelligences are "associated with the set of unique talents of individuals and the ways they might prefer to manifest their intellectual capacities" (Gardner, 2006, p. 48). Linguistic intelligence is the ability to help individuals effectively utilize language to express poetically themselves to impress others. In a sense, this type of intelligence is associated with language learning. It is the capacity to utilize language effectively in oral and written form to accomplish proper objectives (Gardner, 2011 & Armstrong, 2009). Grammar competence is an important aspect in writing ability and grammar learning. It will help learners promote their linguistic knowledge and grammatical system to transmit ideas appropriately to readers (Murcia, 2001). In other words, grammar competence plays a specific



role in "the learners' language use and language production" (Fikron, 2018, p. 102).

The function of linguistic intelligence as one type of MI theory in different fields of English study on university education encouraged English teachers to put more focus on the individual differences in teaching and learning processes in the classroom. On the other hand, the importance of linguistic intelligence and the role it plays in English learning will help us investigate the possible effects of it on grammar learning. It also provides English teachers with opportunities to look at instruction, curriculum and assessment differently (Sadeghi, 2013). Many studies which have been conducted to consider the relationships between intelligence of EFL learners and their performance on grammar were concerned with intelligence as a unitary concept which is measured only by a single Intelligence Quotient (IQ) scores (Shahrokhi, Ketabi & Amiri Dehnoo, 2013). They didn't provide a comprehensive concept of linguistic intelligence and its practical functions in language learning and teaching. For this reason, this study aimed at investigating possible relationships between linguistic intelligence of EFL learners and their performance on grammar to understand whether there is a possible relationship between linguistic intelligence and performance on grammar. Moreover, this study focused on the differences between males and females with respect to linguistic intelligence and their performance on grammar. Accordingly, the following research questions were raised:

Is there any relationship between linguistic intelligence of EFL learners and their performance on grammar?

Is there any difference between EFL male and female learners with respect to linguistic intelligence and their performance on grammar?

## REVIEW OF LITERATURE

## Historical studies on intelligence

The history of Intelligence Quito (IQ) was planned in the nineteenth century by Sir Francis Galton after Wilhelm Wundt. Galton (1885) tried to discover the intrinsic relationship between heredity and human ability (Martins,

2018). With the rise of IQ in learning, Lambert applied a statistical method to study the human characteristics (Martins, 2018).

After some changes in construction of different forms of intelligence, Alfred Binet, as the father of IQ testing, with the help of Simon, the French psychologist, for the first time, developed the first intelligence test in 1905 (Noack, 2014). Since then, E.L. Thorn-dike in 1920s planned a new test to evaluate mathematical capacity and individuals' linguistic. This test became the basis of advanced intelligence tests that we know today (Ahmadian & Hosseini, 2012).

The definition of intelligence has been developed over the different time. Gardner (2011) stated that intelligence was introduced previously as a single characteristic of individual mind that could be measured by IQ test which includes verbal and mathematical tests. Therefore, traditional view of intelligence performed in educational setting needed to be reformed (as cited in Esmaeli, Behnam, Esmaeli, 2014). In his view, human mind processes more complicated properties. These properties cannot be measured only by a single IQ score.

Gardner (1983) first suggested multiple intelligences theory in his work namely Frame of Mind. Moreover, from 1999 to 2001, naturalistic and existential intelligences were added to his list of MIs (Razmjoo, 2008). In fact, MIT was proposed by Gardner (1983) to clarify the traditional concepts of intelligence category (Ahmadian Hossieini, 2012, Razmjoo, 2008, Samiyan, 2013). Gardner (1983) proposed a view of natural human talents namely the "multiple intelligences model" (Richards & Rodgers, 2001, p. 115). This model consists of eight types of intelligences such as linguistic-verbal, logical-mathematical, spatial, musical, bodily- kinesthetic, interpersonal, intrapersonal, and naturalistic intelligences (Armstrong, 2008).

 Linguistic intelligence is one of the eight types of intelligences helping individuals effectively utilize language to express poetically themselves to impress others (Armstrong, 2008).

- Logical mathematical intelligence is absolutely associated with utilizing numbers and calculation analysis (Armstrong, 2008).
- Armstrong (2008) noted spatial intelligence is the capacity to find out visible and dimensional prototypes or reproduce visible and dimensional pictures and colors.
- In musical intelligence individuals are able to construct association and penetrate music. It is sensitivity to melody, pitch and rhythm (Armstrong, 2008).
- People who have a high level of bodily-kinesthetic intelligence are skilled to utilize the whole body efficiently such as dancing to express feelings, ideas and intentions (Armstrong, 2008).
- Interpersonal intelligence refers to attitudes, desires and reactions (Armstrong, 2008).
- Intrapersonal intelligence means the skill of penetrating one's awareness and making specific self- delegations (Armstrong, 2008).
- Naturalist intelligence is the potential of distinguishing or utilizing characteristics of the nature (Armstrong, 2008).

## **Linguistic Intelligence**

Linguistic intelligence is one type of multiple intelligences which "allows individuals to communicate and make sense of the world through language. Writers, poets and teachers exemplify this intelligence in its mature form" (Gardner, 2011, p. 41). Learners who enjoy playing with rhymes and always have a story to tell, all exhibit linguistic intelligence (Gardner, 2011). Moreover, it is in touch with everything associated with language, speech, syntax, structure and other levels of language learning (Armstrong, 2018).

Linguistic intelligence is the most frequent of intelligence which has four aspects including "rhetoric, mnemonic, explanation and metalinguistics aspect" (Gardner, 2011, p. 82). In rhetoric aspect, language is used to persuade other people in an action. Mnemonic aspect is the ability to apply language to facilitate a human to remember knowledge (Gardner, 2011). Explanation is potential to employ language in providing the knowledge which plays a key role in learning and teaching pro-

cesses, and metalinguistics aspect means talking about language (Gardner, 2011).

In linguistic intelligence, learners have this ability to utilize both written and oral idiom. By having this intelligence type educators and teachers supply the materials to the English language learners obviously so that they perceive the knowledge and find out what others mean clearly (Erlina, Marzulina & Astrid, 2019). In fact, "linguistic intelligence is a suitable tool for instructors in understanding, accepting and providing information" (Erlina, Marzulina & Astrid, 2019, p. 2143).

A student with a high level of linguistic intelligence usually learns language through language skills to discuss about something, communicate with other people, persuade others and explain events (Laughin, 1999, as cited in Abdallah, 2008, Hoerr, Boggeman & Wallach, 2015). These students are good at writing essays, paraphrasing sentence, using complex sentence structure, and appreciating the subtleties of grammar (Erlina & et al, 2019). To Richards and Rodgers (2001) "language use and learning are clearly close to" this type of intelligence (p. 115).

According to Armstrong (2008) and Hammoudi (2010) effective activities for linguistic intelligent students are: "Individualized reading, storytelling, and brainstorming, memorizing linguistic facts, small group discussions, and manuals" (p. 2147). They also noted English teachers also should put their focus on some other activities such as reading to the class, student speeches, using words, essay writing, drama, and making a presentation (Armstrong, 2008 & Hammoudi, 2010).

To investigate the relationships between linguistic intelligence of EFL learners and their performance on grammar (Ahamadian & Hosseini, 2012) considered this relationship between linguistic intelligence of EFL learners and their writing performance. The results revealed a significant relationship between linguistic intelligence and grammar performance. This study also indicated among all multiple intelligences, only linguistic intelligence was the predictor of writing performance.



Alizade, Saidi and Tamjid (2014) in a study namely multiple intelligences and writing quality concluded that all intelligences totally had a significant relationship with writing quality of English learners.

Abdi, Soleymani and Rezai (2012) investigated the effect of instruction based on MI and language learning process and attitude towards general English course among students. The results showed a significant difference between instruction based on multiple intelligences and traditional instruction, and students who received MI training made greater progress in levels of learning English including grammar, vocabulary, and reading comprehension.

In another study, Mulyaningsih, Dahlan and Hefy (2012) investigated grammatical competence and linguistic intelligence toward writing. They showed that there was a correlation between grammatical competence and linguistic intelligence toward writing ability. Zhonggen and Ran (2016) investigated gender differences in satisfaction and academic achievements in the clicker- aide flipped EFL class. They concluded there was no significant gender difference between students. In his study, Razmjoo (2008) found that the use of intrapersonal intelligence by females was higher than that of the males whereas no significant difference was found between male and female participants regarding language success and types of intelligences.

This is to say that awareness of function of MI theory, particularly, linguistic intelligence with language and grammar learning makes us come to conclude that successful language grammar learning is affected by a complex combination of cognitive and other important variables. The main variable that has been found to influence foreign language grammar performance is linguistic intelligence.

## **Linguistic Intellidnce Applications**

In Gardner's (2006) point of view, instead of depending on one form of curriculum, "all schools should suggest individualized education in order to pay much attention to the essential needs of language learners in the classroom" (p. 61). This helps students understand where their strengths and weaknesses are to be

more responsible for their learning. Awareness of the strengths and weaknesses of males and females associated with MI would help both teachers and learners make progress, and promote language skills to choose proper syllabus design and learning method (Sadeghi, 2013).

By creating and developing some activities related to linguistic intelligence in the classroom which can be used in different ways, teachers can provide a great variation of evaluation and assessment by considering different ways to evaluate learners (Armstrong, 2018). It is essential to observe the learners and keep different notes on how well students are working and promoting in each activity. Then, teachers can compare their notes to the learner's self-assessment (Armstrong, 2018). In order to apply linguistic intelligence of students in the classroom, they should be encouraged to work individually, practice creative writing, memorize vocabulary, write a scary or a ghost story not a pain story, and use the dictionary (Kennedy, 2015). They should take care of spelling and grammar and give them feedback by writing comments (Kennedy, 2015).

#### **METHOD**

## **Participants**

Two hundred EFL male (N=61) and female (N=139) learners had been studying the English language programs at the University of Kohdasht were randomly recruited to participate in this study. They ranged in age from twenty two to thirty two. Then, after familiarizing the participants with the objectives of this study, the multiple intelligence questionnaire (MIDAS) was manually administered among the participants who participated in the exam which was held in person to specify the linguistic intelligence. After obtaining grammar scores of the learners, those learners whom their scores were between one standard deviation minus and one standard deviation plus the mean were chosen to determine the homogeneous sample group for this study. A number of students (N=61) who scored very high or low on grammar test were excluded from the grammar data, the number reached 139 including 46 males and 93 females.

#### **Instruments**

a. Multiple Intelligence Development Assessment Scale (MIDAS). MIDAS is the questionnaire that was first put forward to measure intellectual disposition by Shearer in 1996 (Ahmadian & Hosseini, 2012). This instrument is divided into eight sub-divisions such as linguistic, musical, logical-kinesthetic, spatial, bodily, interpersonal, intrapersonal, and naturalist intelligences. It consists of 119 items. The participants were required to answer the eight profile scores of the questionnaire with "No", "Little", "To some extent", Very", "Very much", and "I do not know". Alpha reliability of the eight profile scores of the questionnaire in this study collectively was found 87. In other words, Alpha reliability of the eight profile scores of the questionnaire respectively was found as follows: Linguistic: .85, Logical- Mathematical: .73, Musical: .70, Bodily: .76, Spatial: .67, Logical: .73, Interpersonal: .82, Intrapersonal: .78, and Naturalistic: .82 (Ahmadian & Hosseini, 2012).

b. Test of English as a Foreign Language (TOEFL). This language proficiency test consisted of different sections including multiple choice and completion tests. The test including 30 grammar and structure items and 25 vocabularies and reading comprehension. All participants were asked to answer only grammar part of questions which were intended for measuring grammar scores.

## **Data Collection Procedure**

This study was carried out in two different sessions. Firstly, MI questionnaire (MIDAS) designed by Shearer (1996) was administered among the participants of the study to specify their linguistic intelligence. The time given for the first session was 40 minutes. Secondly, in order to check the homogeneity of the participants, the TOEFL test was distributed. The participants answered the test. The initial number of participants was 200. After scoring the papers and computing the mean and standard deviation, to select a ho-

mogeneous group of participants, learners who scored the grade above and below the mean were chosen. Sixty-one of the participants were excluded due to either a high or a low proficiency level. Therefore, 139 including 46 males and 93 females rested as the final participants.

Descriptive statistics, correlation and regression analysis were used to investigate the relationship between linguistic intelligence and performance on grammar. Then, in order to evaluate the differences between EFL male and female learners in performance on grammar, sample T-test was utilized.

## **Data Analysis**

After collecting the required data, descriptive statistics, Pearson correlation, and linear regression were used to investigate the relationships between linguistic intelligence of EFL learners and their performance on grammar. Then, by accomplishing a sample t-test, the difference between males and females with respect to linguistic intelligence and performance on grammar was measured.

## **RESULTS**

To fulfill the possible relationships between linguistic intelligence and performance on grammar, and also to evaluate the differences between EFL male and female learners which were the goals of this study, descriptive statistics, Pearson correlation, linear regression, and independent sample t-test were utilized:

Is there any relationship between linguistic intelligence of EFL learners and their performance on grammar?

To response this question, descriptive statistic, Pearson correlation and coefficient analysis were employed. Table 1 covers the summary of descriptive statistics and correlation between linguistic intelligence of learners and their performance of grammar. This table also gives some information associated with mean, standard deviation, skewness, kurtosis, minimum, maximum, and the number of the participants.

Table 1

Descriptive statistics and Correlation Analysis Between Linguistic Intelligence and Performance on Grammar

Variable	Mean	±SD	Skewness	Kurtosis	Minimum	Maximum	N
					TVIIIIIIIIIIII	Maximum	
LIL	3.5	1.63	057	-1.16	1	6	139
LOL	3.39	1.69	.1	-1.23	1	6	139
SPI	3.21	1.52	.304	-1.06	1	6	139
MUI	3.4	1.54	.19	99	1	6	139
BOI	3.47	1.52	.075	-1.12	1	6	139
INTERL	3.65	1.58	038	-1.05	1	6	139
INTRAI	3.35	1.51	.32	933	1	6	139
NAI	3.79	1.5	189	996	1	6	139
GM	13.83	.83	.33	-1.48	13	15	139
37 .							

Note:

GM= LII=Linguisti LOI=Logical SPI=Spatial MUI=Musica BOI=Bodily INTERI=Interper NAI=Naturalis Grammar c Intelligence Intelligence Intelligence l Intelligence Intelligence sonal Intelligence t Intelligence

As it is clear in Table 1, the linguistic intelligence group has the mean (mean=3.5). To evaluate the range of the relationship between

linguistic intelligence and performance on grammar, a correlation coefficient was conducted. Table 2 reveals the results.

Table 2
Correlation Analysis Between Linguistic Intelligence and performance on Grammar

	GM	LII	LOI	SPI	MUI	BOI	INTERI	INTRAI	NAI
GM									
T 11	**.78								
LII	*.001								
LOI	**.11	**.14							
LOI	*.22	*.07							
SPI	**.07	**.17	**.19						
511	*.44	*.05	*.02						
MUI	**.02	**.12	**.03	**.03					
MUI	*.83	*.15	*.72	*.75					
BOI	**.68	**.703	**.18	**.03	**.01				
ВОІ	*.001	*.001	*.03	*.71	*.99				
INTERI	**.05	**.02	**.02	**.17	**.19	**.04			
INIEKI	*.14	*.79	*.77	*.04	*.02	*.66			
INTRAI	**.64	**.62	**.18	**.01	**.04	**.67	**.09		
INIKAI	*.001	*.001	*.03	*.88	*.61	*.001	*.27		
NIAT	**.08	**.09	**.14	**.07	**.02	**.09	**.34	**.02	
NAI	*.34	*.29	*.11	*.39	*.79	*.26	*.53	*.82	

<sup>\*\*</sup> The amount of correlation

Accordingly, Table 2 reveals the existence of statistically meaningful relationship between linguistic intelligence and performance on grammar. This correlation between linguistic intelligence and performance on grammar is p=0.78. On the other hand, to understand the extent to which linguistic intel-

ligence account for the variance in grammar performance, regression analysis was used. Table 3 shows the results.

Moreover, to evaluate the amount of the relationship between linguistic intelligence and performance on grammar, a correlation coefficient was conducted.

<sup>\*</sup>Significance level

Table 3
Coefficient Determination Analysis Model

Model	R	R Square	A- R Square	Std. Error	<b>D-Watson</b>
1	.814 <sup>a</sup>	.662	.641	.499	1.64 <sup>b</sup>

Note: Predictors: (Constant) Linguistic intelligence

According to the result in table 3, the value of coefficient determination analysis model is 0.66. It means that about 66% of grammar performance changes are explained by the model. The multiplicity correlation coefficient of the model is equal to 0.81, which indicates the

correlation between the real values of the target variable and the estimates obtained from the regression equation. To see whether the model is significant or not, the ANOVA (Analysis of Variance) procedure was done. Table 4 shows a significant result.

Table 4

Analysis of Variance on Grammar Performance ANOVA<sup>a</sup>

N	Model	Sum of Squares	df	Mean Square	F	<b>Sig.</b> .000 <sup>b</sup>	
1	Regression	63.49	8	7.93	31.86		
	Residual	32.38	130	.249	-	=	
	Total	95.86	138	-	-	_	

a. Dependent Variable: Grammar

Table.4 indicates the extent to which linguistic intelligence accounts for the variance in grammar, it shows the standardized coefficients and the significance of the observed t value for linguistic intelligence (Table 4).

Table 5
Liner Regression Analysis of Linguistic Intelligence and Performance on Grammar

Model	Independent Variables	<b>Unstandardized Coefficients</b>		Standardized Coef- ficients	t	Sig.
		В	Std. Error	Beta	1	
GM Scores	(Constant)	12.21	.27		45.2	.001
	LII	.293	.04	.574	7.39	.001
	LOI	028	.026	057	-1.06	.29
	SPI	.014	.028	.027	.507	.61
	MUI	.024	.029	.043	.817	.41
	BOI	.085	.045	.356	3.89	.001
	INTERI	.001	.028	.001	006	.32
	INTRAI	.1	.042	.282	2.41	.017
	NAI	018	.029	033	63	.53

According to Table 5, linguistic intelligence has the highest significant correlation with performance on grammar. This means that according to Beta Standardized Coefficients, linguistic intelligence has the highest correlation with performance on grammar.

Second research question attempted to see is there any difference between EFL male and female learners with respect to linguistic intelligence and their performance on grammar?

To answer this question, independent sample t- test was conducted to compare the means between males and females. The findings show that there is not any significant difference between males and females with respect to linguistic intelligence (Table 6).

b. b. Predictors: (Constant) Linguistic intelligence

Table 6
Sample Independent T-test to Compare the Means Between Males and Females

Variable	Gender	Mean <sub>±</sub> SD	t-test	Sig.
LII	M F	4.04 ±1.43 3.97 ±1.66	1.81	.11
LOI	M F	$3.37 \pm 1.73$ $3.41 \pm 1.68$	13	.89
SPI	M F	$3.17 \pm 1.68$ $3.23 \pm 1.47$	18	.86
MUI	M F	3.35 ±1.61 3.43 ±1.51	29	.77
ВОІ	M F	3.81 ±1.45 3.31 ±1.53	1.85	.07
INTERI	M F	3.5 ±1.24 3.73 ±1.73	81	.42
INTRAI	M F	$3.5 \pm 1.54$ $3.26 \pm 1.49$	1.05	.29
NAI	M F	$3.54 \pm 1.54$ $3.26 \pm 1.49$	-1.61	.11
GM Scores	M	$13.98 \pm .86$	1.51	.13

According to Table 6 the significance level for linguistic intelligence variable is more than 0.05. It can be concluded that between linguistic intelligence and performance on grammar there is not any significant difference between male and female students.

## **DISCUSSION**

After investigating the relationships between linguistic intelligence of EFL learners and their performance on grammar, the findings of the study indicated there is a high significant relationship between linguistic intelligence and performance on grammar of English language learners. Accordingly, this study supports certain aspects of applying grammatical rules of language in writing to form accurate sentences in appropriate context which is influenced by human intelligence (Murcia, 2001). The findings of the study approximate previous studies such as Ahamadian and Hosseini (2012), Alizade, Saidi and Tamjid (2014), Abdi, Soleymani and Rezai (2012), who concluded that linguistic intelligence and writing scores significantly correlate.

This study also shows that linguistic intelligence directly is related to language and performance on grammar because Richards and Rodgers (2001) claimed that language use and learning are clearly closed to linguistic intelli-

gence. In a sense, it can be inferred that there is an interconnection between linguistic intelligence and performance on grammar. Moreover, in this intelligence type, the skills including the ability to manipulate syntax or the structure of language, and practical uses of language can be used (Armstrong, 2018). Linguistic intelligent learners are good at writing essays, paraphrasing sentence, and using complex sentence structure of grammar (Erlina & et al, 2019). Accordingly, the findings indicate that linguistic intelligence is the best predictor of learners' performance on grammar (tables 3, 4 & 5). This level of significant is 0.78 which is less than 0.5. The findings of the study also approximate previous studies such Mulyaningsih, Dahlan, and Hefy (2012) who all revealed a positive relationship between MI scores, particularly, linguistic intelligence and writing performance. This is to say that the first research hypothesis is approved.

On the other hand, the findings of the independent sample t- test which was carried out to compare the means between males and females showed that there is not any significant difference between male and female learners with respect to linguistic intelligence and performance on grammar. The findings also approximate a previous study such as Zhonggen and Ran (2016) who reported there is no statistically significant gender differences between students in satisfaction and academic achievements and their verbal tasks. It also is in line with Razmjoo (2008) who found that no significant difference was found between male and female participants regarding language success and types of intelligences. Therefore, the second research question is rejected (Table 6). In supporting this finding, to Gardner, having linguistic intelligence makes learners use words for indicative and feasible objectives. Those students who have high levels of this intelligence use language emotionally for interpersonal consultations and inspirations.

They can also utilize words as well as it is possible in writing letters, stories, reading, and writing (1983). According to the consideration above, the findings of the study show that the difference between males and females with respect to intelligences is affected by some cognitive and emotional factors such as intelligences that teachers should put more focus on them.

## **CONCLUSION**

This indicated linguistic study that lintelligence of EFL learners and performance on grammar is closely connected to each other. In grammar performance development there are many factors playing a significant role in language learning. The findings of this study revealed linguistic intelligence is the best predictor of performance on grammar of the learners and between male and female learners of English with respect to linguistic intelligence in grammar learning, there is not so meaningful difference. . Thus, this is to say that awareness of the role of linguistic intelligence can be beneficial for learners and teachers of English education study program to have deeper findings out about the concept of intelligence.

The findings of this study have some important contributions and practical implications both for English teachers and language learners. In fact, people with significant linguistic intelligence are often good at languages and enjoy writing. In other words, a student with strong linguistic intelligence may re-

member new words very easily and use them quickly in different fields of learning. As a matter of fact, supporting and developing linguistic intelligence involves encouraging learners to enjoy real communicating through reading and writing. This allows learners to see the purpose of language, and helps them take an interest in it. In reality, being familiar with cognitive abilities such as intelligence, specifically linguistic intelligence in teaching and learning can help both English teachers and learners to be aware of this category that performance on grammar will be influenced by linguistic intelligence. In addition, it also provides a way of understanding intelligence which is more important in teaching and learning. In fact, awareness of the influence of linguistic intelligence on teaching makes teachers think how foreign language grammar learning occurs. Furthermore, these findings also provide English teachers with complete perception of their students along with gender differences to construct more appropriate learning activities to attract their interests and meet their needs in learning English.

Accordingly, what it can be found out from this study is that linguistic intelligence helps English learners increase the success level of language learning. Linguistic intelligence deals with everything related to language skills and its impact on grammar performance is significant. Its impact on grammar learning to some extent is close.

The findings of this study are limited to the context in which all participants were EFL male and female learners of English. Thus, the present findings cannot be overgeneralized to other EFL male and female learners in different levels of English language. On the other hand, this study was only limited to TOEFL grammar test not to the other sections of the TOEFL test such as speaking, listening, and reading. It is difficult to make generalizations about the potential implications of the findings of the present study for foreign language learning context. According to the findings of this study, future English instructors are suggested to consider the influence of linguistic intelligence on other skills of language learning. In fact, awareness of the influence of linguistic



intelligence on grammar learning may represent a variety of ways to develop grammar learning with efficiency. This can help language teachers and learners to utilize some other activities which develop the required intelligences. Moreover, this study concludes that linguistic intelligence would be the best predictor of learners' ability on grammar performance.

## References

- Abdallah, M.M.S. (2008). Multiple ways to be smart: Gardner's theory of multiple intelligences and its educational implications in English and oral communication. Retrieved October26, 2019, from http://www.mabdallah.braveshot.com
- Abdi, A. Soleymani, H., & Rezai, B. (2012). A study of effect of multiple intelligence based instruction on learning progress and attitude towards general English course. Journal of English Language Teaching, 5(9), 114-134.
- 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, 3 (1),111-126.
- Alizadeh, H. Saeidi, N., & Tamjid, N. (2014). The relationship between Iranian EFL learners' multiple intelligences and their writing performance across genders. The Journal of Applied Linguistics, 7(14), 1-22.
- Armstrong, T. (2018). Multiple intelligences in the classroom (4rd ed.). Alexanderia, VA, USA: 12.
- Armstrong, T. (2008). Multiple intelligences in the classroom (3rd ed.). Alexanderia, VA, USA: 69.
- Campbell, S. (2008). Multiple intelligences: Discovering the giftedness in all child-hood education, 84(3), 187.
- Chastain, K. (1988). Developing second-language skills (3rd ed.). Chicago: Harcourt Brace Jovanovich publishers, 122.
- Ehrman, M. E. (2003). A brief overview of individual differences in second language learning. System 31, 313–330.

- Ellis, R. (2008). The study of second language acquisition Oxford: Oxford University Press, 649.
- Erlina, D., Marzulina, L. & Astrid, A. (2019). Linguistic intelligence of undergraduate EFL learners in higher Education: A case study. Universal Journal of Educational Reaserach 7(10),2143-2155.
- Esmaeli, F., Behnam, B. & Esmaeli, 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),2663-2664.
- Fikron, M. R. (2018). Grammatical competence within L2 communication: Language production, monitor hypothesis, and focus on forms instruction, 1,(7), 101-112.
- Gardner, H. (2006). Multiple intelligences New Horizons. New York: Basic Books.61.
- Gardner, H. (2011). Frames of mind: The theory of multiple intelligences, (3rd ed.). New York: Basic Books, A Member of Pireus Books Group, 82-83.
- Greenhawk, J. (2006). Enhancing learning through multiple intelligences in elementary science education. Journal of Baltic Science Education, 2 (10), 61–69.
- Hammoudi, A. (2010). Multiple intelligences and teaching English as a foreign language, the case of second- year pupils at Malika gaid secondary school Setif (Master's thesis). Ferhat Abbes University, Setif, Algeria, 2147.
- Hoerr, T.T., Boggeman, S. & Wallach, C. (2015). Celebrating every learner activities and strategies for creating multiple intelligences classroom: foreword by Howard Gardner, San Franssisco, CA: Jossy-Bass, 224.
  - Kennedy, T. (2015). Activities for the Language Classroom. Retrieved January 15, 2019, from http://www.teresakennedy.com/activities. htm
- Martins, D. (2018). History of IQ test. Retrieved October 24, 2019, from F:/ History of IQ Test 222222222222. Html.

- Moron, S. Kornhaber, M., & Gardner, H. (2006). Orchestrating multiple intelligence. Educational leardership, 64 (1), 22-27.
- Mulyaningsih, T., Dahlan Rais, A. & Sulistyawati, H. (2012). A correlation study between grammatical competence, verbal linguistic intelligence, and writting ability, English education study program sebelas Maret University Surakarta, 24.
- Murcia, M. C. (2001). Teaching English as second or foreign language. (3rd)Edition. Boston: Heinle & Heinle. 233.
- Noack, K. (2014). Multiple intelligences views. 360 facilitator's guide Journal, 27(29), 27-33.
- Razmjoo, 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 (4th ed.). Cambridge: Cambridge University Press, 116-118.
- Sadeghi, M. R. (2013). EFL male & female learning styles and multiple intelligences; A case of Iranian EFL university students. The International Journal of English language Teaching (IJRELT) 1 (2), 14, 19-28.
- Samiyan, L.V. (2013). The relationship between linguistic intelligence and L2 learning strategies among EFL learners with intermediate level of proficiency. Journal of literature, language and linguistics- An Open Access international Journal, 1, 89-93.
- Shahrokhi, M., Ketabi, M. & Amiri Dehnoo, M.(2013). The relationship between multiple intelligences and performance on grammar tests: Focusing on linguistic intelligence. Journal of Basic and Applied Scientific Research, 3(9), 189-194.
- Shearer, C. B. (1996). The MIDAS handbook of multiple intelligences in the classroom. Kent, Ohio: I Research and Consulting, Inc, 33-34.
- Zhongen, Y., & Ran, M. (2016). Gender differences in satisfaction and academic achievements in the clicker- aided flipped EFL class. International conference on ed-

ucation and development (ICED) Nanjing, Jiangsu, China, Lancaster, P, USA: Destech Publications. Inc.242-248.

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