The Investigation of the Dominant Effect of Each Element of Multiple Intelligence on EFL Learners' Four Main Language Skills

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Abstract— This study supports the Gardner's inspiration (1999), that some intelligences have supremacy and power over others in conducting the specific activity. This matter supports the fact that each activity demands specific intelligence and integrating the intelligence type with specific activity is a pre-requisite for learning (Gardner, 1987, 1995, 1999). So, this article presents the results of experimental research of MI-based instruction in teaching reading, writing, listening, and speaking which was held in language institution and, it is an attempt to provide EFL learners with appropriate solutions to overcome the problems encountered in developing the skills of foreign language. It is of the most importance that we recognized and nurture all of the varied human intelligences, and all of the combinations of intelligences. We are all so different largely because we all have different combinations of intelligences. If we recognize this, we will have at least a better chance of dealing appropriately with the many problems that we face in the foreign language learning world. Our sample comprised 40 English students aged 17-20during the 2013-2014 (14-weeks). All students took an English proficiency test and filled out a series of questionnairs dealing with their multiple intelligences and learning language 4 skills. The students, who constituted participants of the study, were known an intermediate in both productive and receptive skills after conducting the proficiency test. After administering the multiple intelligence questionnaire, subjects with different intelligences were identified. Regarding the results gained in proficiency and multiple intelligence tests, participants were assigned to 4 homogenous groups, i.e. four reading, writing, listening, and speaking classes with different intelligences, with 10 subjects in each. Because, exploring the relationship between MI and EFL learning skills is the main of this study, so findings show that all elements of MI affect subjects English performance. It's suggested that English teachers consider the broad understanding of individual differences, the role of MI in classes, provide more effective activities to help students 4 main language skills ability, and students be encouraged to take control of their learning in language skills (reading, writing, listening, speaking) for maximizing their potential for success. Also the results of this paper, offers teachers a way to examine and adopt the best teaching techniques and strategies in light of students individual differences. Teachers will be aware of the fact that every classroom is full of students with different areas of interest, different ways of expressing themselves, different strategies and weakness, and will recognize that an effective teaching and learning is to help students appreciate their strengths, and improve their weakness.

Keywords: Dominant intelligence, EFL, Language four skills, Multiple intelligence.



anguage learning is a cognitive activity in which mental and brain-based factors of intelligences play indispensable roles in processing the authers's meaning and differences in intelligence types lead to the different results in subjects' performance on language 4 skills test. As Saricaoglu and Arikan (2009) articulate his matter provides a support for the fact that certain types of intelligences are in close connection with certain skills. Creating the interaction between particular types on activities and learners' specific intelligences, required for conducting the activity, leads to what Gardner (1999) labeled sustained deep learning. As it was affirmed in advance, individual variables play potential role in developing L2/FL learning. The notion of individual variables is what most (EFL/ESL) teachers are familiar with. Learners are different and learn differently. They bring many individual characteristics and distinct abilities to the learning process, that result in many different pathways to learning and way of knowing which

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stand on their own two feet and act in a contrast even with a greater power. One of those innate abilities which lead to the major individual differences is intelligence (Saeidi, 2006).

Gardner (1987, 1995, 1999) defines intelligence as the ability to solve problems or to create fashion products that are valued within one or more cultural settings. He claims that unlike traditional and conventional view of intelligence as a single capacity, each individual possesses eight types of intelligences. Gardner deserves everyone's gratitude, in particular language teacher appreciate how well the theory applies in the language learning process. As per Gardner's notion each and everyone has different intelligence level and hence, in the process of learning they can able to interact and compete with one another. According to Howard Gardner, human beings have different kinds of intelligence that reflect different ways of interacting with the world. Each person has a unique combinations, or profile. Although we each have all intelligences, no two individuals have them in the same exact configuration. For Gardner, intelligence is, the ability to create an effective, product or offer a service that is valued in a culture, a set of skills that make it possible for a person to solve problems in life, and, the potential findings or creating solutions for problems, which involves gathering new knowledge. Gardner chose

eight abilities that he held to meet these criteria: musicalvisual-spatial, verbal-linguistic, rhythmic, mathematical, bodily-kinethetic, interpersonal, intrapersonal and naturalistic. He later suggested that existential and more intelligence may also be worthy of inclusion. Although the distinction between intelligences has been set out in great detail, Gardner opposes the idea of labeling learners to a specific intelligence. Each individual possesses a unique blend of all the intelligences. Gardner firmly maintains that this theory of multiple intelligences should "empower learners", not restrict them to one modality of learning. The multiple intelligence theory (MIT) proposed by Howard Gardner in 1983, has offered teachers a way to examine and adopt the best teaching techniques and strategies in light of students' individual differences. Gardner's MI theory is very important to ESL/EFL teachers because we work with such diverse learners. History has witnessed numerous transformations of second language (L2) teaching. Nonetheless, the teaching of language 4 main skills based on MI remained a central component of any L2 curricula, and not much has done about how students' learning language 4 main skills is linked to their multiple intelligences and English performance. The results may highlight the necessity of taking individual differences into consideration in language classrooms and show such differences may lead to variation in learners' 4 skills performance. If it turns out that multiple intelligences have positive relationship with students skills ability, there can be a new trend in language teaching, especially teaching 4 language skills to improve students' skills through taking individual differences into ac-

Christision (1999), in his attempt about how MIT has been applied to EFL/TESL, summarizes the effectiveness of MIT for students:

- As a guide to develop lesson plans that address the full range of learners needs
- As a tool to help students to develop better understanding and appreciation of their own learning preferences and strengths and become empowered in finding bridging techniques and study skills
- Helps students to tap into natural talents
- Helping to create a state of "flow" and a more egalitarian conceptualization of giftedness

As an aid to broaden teachers' awareness of their students' knowledge to look at each from strength and potential perspectives and to create more personalized and diversified instructional experiences.

Although MI is not a prescribed teaching method, curriculum, or technique, and there is no particular syllabus for MI-based, being aware of the contribution of the MIT to curriculum development and lesson planning, teachers may help students become empowered learners by fostering deep metacognitive understanding. Integrating MIT into educational curriculum is suggestive in terms of both the potential for communicative

language use in the traditional language learning setting and in the creating positive attitudes toward language learning instruction. Saricaoglu and Arikan (2009) claimed that one of the greatest challenges for teachers today is to provide curriculum which effectively caters to the needs of diverse groups of students and the MI framework was providing more options for children who were not academically or linguistically strong in English to demonstrate their knowledge. They investigated three interrelated propositions about a reliable and valid assessment for multiple intelligences, MI-inspired instruction and curriculum and use of strength-based learning activities concluded that MI profiles of students may be used by students and teachers alike to further students' educational agendas because they serve as the basis for personalized planning. Thus, EFL teachers should begin to see the possibilities of integrating MIT to language educational curriculum is even the most traditional language setting. Taking on a multiple intelligence stance, a teacher may ask of her own teaching: "How can I learn about my students' preferences and strengths in the eight intelligences? What kinds of assessment can I create that provide opportunities for students to use and demonstrate their strengths in different areas? How can I think about introducing a rich and important concept in my subject area through a range of different intelligences? Which intelligences may I be neglecting in my teaching? How can I include these in some of what I do?" some suggestions have been offered to help practitioners and teachers in the implementation of the MIT in the second/foreign language instruction. At the outset, a basic development sequence is offered to incorporate multiple intelligences concepts in lesson planning (Lazear, 1994).

Waken the Intelligence: Students are given exercises and activities which make use of sensory bases, intuition or metacognition to stimulate a particular intelligence.

Amplify the Intelligence: Students practice with the awakened intelligences and improve them through the activity. Intelligence will be strengthened with more use and practice like any skill.

Teach for/with Intelligence: Teachers design the lesson with structure of multiple intelligences and put emphasis on adopting different intelligences in teaching/learning process.

Transfer the Intelligence: Teachers help students reflect on their learning in the previous stages and relate the lesson to their real lives, such as solving problems.

2 PROCEDURE

2.1 Problem Statement & Purpose of the Study

According to Gardner (1999) all human beings possesses all different intelligences in varying degree and each individual manifests varying levels of these different intelligences and thus each person has a unique cognitive profile; that is; a) all human possesses all eight intelligences in varying amounts, b)

each individual can develop each intelligence to an adequate level of competency c) different intelligences are located in different areas of brain and can work independently and d) there are many ways to be intelligent within each category. As language learners bring a plethora of individual differences of learning area, it's worth paying attention to these variables. The point is that most of the teachers are not aware of their students' unique learning characteristics and patterns. Therefore, teachers utilize their own preferred ways of teaching without considering their students' learning styles. This problem is more widespread in traditional schools, teachers are often tied to textbooks or other easily available materials without paying much attention to "who and how" their students are. Consequently, they treat all students in the same way. Even though language skills are an imperative skills, many language learners experience failure in reading or writing and in most cases, in listening or speaking, and do not reach the desired level of proficiency in these respects. Failure and breakdown in language skills is overwhelmingly the most significant reason that students are assigned to special education, or given long-term remedial services (Saeidi, 2006). Although personal preferences or habits should be incorporated into the instructors' educational practices. A skillful language instructor is a qualified whose methodology is learners' wants, needs, and abilities. Gardner (1995) claimed that the surest avenue to improve educational practices will occur through the application of knowledge derived from learners' preferences. Subsequently, instructors must analyze and question their own teaching methods upon learners' abilities and search for solution strategies that fit the needs of all students and identifying students' abilities and strength will be a prerequisite for this. But, Hoerr (2002) believed that if teachers rely on only one approach some students will not learn materials that well. Furthermore, Reiff (2003) maintained that everyone has multiple learning styles. All people have different personalities, preferences (p1). Similarly, evidence indicated that when material is presented in one's preferred styles or dominant intelligences he can learn better, faster and will retain more information (Lane, 2000). According to smith (2006), Gardner admitted the existence of a close relationship between his theory and discussion of learning styles. Through identifying learners' dominant intelligences, educators can make use of effective teaching strategies to much learning with instruction (Kelly & Tangy, 2004). The aim of the present study is, based on Gardner's to examine the way that MI can be utilized in relation to enhancing learning skills abilities. This study may enable teachers to maximize the learning environments for their learners through mapping their learners' individual intelligence profiles and utilizing them in the process of learning, all along, being aware that their audiences are different and deserve different treatments. Finally, by knowing different kind of intelligences in each individual and their correlation with influencing reading, writing, listening and speaking ability

and efficiency, educators and teachers can make best use of their students and obtain extraordinary results from ordinary learners. This would result in enhancing the process of teaching and learning as instruction is tailored to personal characteristics of unique individuals. In this vein, applying MIT can be one of the best solutions for identifying holistic nature of learners to assign variety of classroom activities in line with their inherent abilities and strengths. Say differently, the study tried to investigate whether particular types of intelligences would exercise any impact on EFL learners language skills success and if yes, which one would be conductive and dominant.

2.2 Significance of the Study

The point behind in the study is the fact that intelligence as an inside the-head-factor is a base for acquiring all four skills. Reading, for instance as a conductive skill, requires deriving the meaning of a text by applying mental factors and capabilities (Armstrong, 2003 & Gardner, 1995). For sure, some learners may have deficiency in comprehending the text. However, these students may have special abilities which may not emerge in traditional educational system and teachers may want to search for solution strategies. By applying Gardner's MIT teachers' can display and strengths students' interests and varied abilities and assign different classroom activities to them in line with their needs, wants and abilities (Abdulakbar, Gundog &Elisa, 2009). In keeping with Viens (1999, as cited in Saeidi, 2006) such an approach for the students enables them to apply their knowledge and skills flexibly in a variety of situations and creates higher levels of engagement, which will increase the chances for substantive learning. In addition applying MIT in the classroom provokes a critical process of practice and reflection on the part of the teacher. MIT informs teachers about how to teach better and encourages teachers to cater to student differences by teaching in variety of ways. Today more than ever, academic tensions in the research of language teaching and learning are in rise. Part of this research agenda is on the concept of individual differences (Dornyei, 2005). Within this movement, an area which is more challenging and less-illuminated is MI. As a theoretical construct, the theory of Multiple Intelligences suggests an explanation for intelligence which embraces human diversity. As every teacher has a different teaching style and personality characteristics, every learner has his/her different learning styles and idiosyncrasies. Therefore, what may work for one group, may not work for another group. This study is planned to inform teachers that students do not learn in the same way. Teachers can help learners to apply their knowledge and skills flexibly in different situations and provide higher levels of involvement, which will increase learners self-confidence and chances for effective learning (Viens, 1999) to fulfill these objectives, and also it was set up to shed the light on function and usefulness of particular types of MIT, as input enhancement and

conscious raising techniques. Students' intelligences as individual-related variables moderate the impact of learning language skills of EFL learner.

2.3 Research Questions and Hypotheses

The present study intends to investigate the effects of multiple intelligences on learners' reading, writing, listening, and speaking ability. It was therefore seek to find answer to the following question:

RQ1: Does multiple intelligences have any effect on learners' reading, writing, listening, and speaking ability?

Considering the above-stated research question this study accordingly possessed the following hypothesis;

HO1: Multiple Intelligences has no effect on learners' reading, writing, listening, and speaking ability.

HO2: Whether grouping students according to their dominant intelligence type and organizing for them the receptive type of a activities mainly, can really have a positive impact on teaching language skills.

2.4 Limitation of the Study

Like the other studies, this study contains certain drawbacks. First of all, the study would not take into consideration the influence of different proficiency levels. Only intermediate group participate in study. The result of the study are generalizable to intermediate language learners at language institutes. Another drawback, not unique to this study, faced by most researchers is the availability of required subjects. The more subjects, the more precise and generalizable, the results will be, as the behavior of some statistical analyses like t-test used here, depends on the number of subjects in order to get normally distributed population (Dornyei, 2007).

3 METHODOLOGY

The participants of this study were chosen from among the EFL learners of a language institute. They were 40 students of intermediate level. They ranged in age from 17 to 20. In order to ascertain the homogeneity of the subjects in terms of language proficiency and initial differences between them a Standardized Proficiency Test, and oxford placement test (OPT) was given to the subjects and students were known as intermediate. About 90% of the participants has received English instruction for at least 5-6 years in institutes. Subsequently, participants were almost homogenous in terms of language proficiency, age and English language instruction. The materials include standardized proficiency test, oxford placement test, multiple intelligence test (questionnaire), adapted from the book Multiple Intelligence in the Classroom (Armstrong, 2000) was administered in order to collect data about students' intelligence profile. This questionnaire measures the following eight type intelligences as linguistic, logical, mathematical, spatial, musical, bodily/kinesthetic, interpersonal, trapersonal and naturalist. Each category, regarding a single

intelligence, consisted of 10 questions and total numbers of questions were 80. The third tool was pre-test of reading, writing, listening, and speaking. It was a subtest of standardized proficiency test (2006). The last instrument was a post-test on reading, writing, listening, and speaking ability. The reliability of questionnaire (after being administered to 5 students of a homogenous groups, was calculated through Cronbach's Alpha formula proposed by Cronbach (1959) and it was 0.79. The validity of the questionnaires was confirmed by some English university professors and teachers.

In procedure first, proficiency test (2006) was used to put participants into homogeneous groups at intermediate level. Following informing students about the study, it was considered a requirement to ensure about their approximate homogeneity. Hence standardized proficiency test was administered to determine proficiency level of the 100 subjects so consequently, the 40 homogeneous subjects were selected to take part in stage two (multiple intelligence test). Incidentally, based on the results of the multiple intelligence test, those students, whose scores ranged from 74 to 94 on the mentioned proficiency test were considered as intermediate. Following table summarizes the outcome of the MI questionnaire with number of students with high intelligences in each intelligence domain.

subjects	number
Linguistic intelligence	13
Visual/spatial intelligence	13
Logical/mathematical intelligence	14
Intrapersonal	14
Bodily/kinesthetic intelligence	14
Musical intelligence	8
Interpersonal	12
Naturalist intelligence	12

Another phase of data collection, related to the grouping of subjects, was to use Gardner's eight intelligence types questionnaire (Armstrong, 2000). The whole MI questionnaire was distributed among the participants. Further, approximately one or two hours would be required to notify each group of students about their special intelligences and about what they are going to do employing those intelligences during the study. This distribution was based upon the fact that students' alertness of their particular abilities persuades and controls their performance to a great extent (Gardner, 1987). Then the subjects were randomly assigned into 4 experimental groups of reading, writing, listening, and speaking. There were 10 students in each group. A content of table below reveals all groups.

TABLE 1
FOUR EXPERIMENTAL GROUPS OF STUDY

group	number	position
1	10	Reading class with different MI
2	10	Writing class with different MI
3	10	Listening class with different MI
4	10	speaking class with different MI

Total=40

After that, the pre-test of reading, writing, listening, and speaking, was given to the subjects. Then the treatment was given to the experimental groups. It was in the form of the instruction Course Book. Here the course book was Top-notch, with prompt on students' MI. This treatment lasted around 14 sessions during the semester of 2013-2014. The teacher needed to be active during the experimentation because the teaching process required a kind of active and facilitative role on the part of the teacher. And, finally the last test as a post-test on reading, writing, listening, and speaking ability. To measure the differential effects of intelligences and their interaction on reading, writing, listening, and speaking abilities, scores in multiple choice post-test were analyzed. In this research, intelligence types is the independent variable and subjects' improvement in reading, writing, listening, and speaking is the dependant variable of the study. After giving pre-test and post-test and scoring them, the obtained data were fed into statistical Package for the Social Science (SPSS) in order to analyze them. To this end, t-test was used to determine the effect of multiple intelligence-based learning on learners' reading, writing, listening, and speaking ability. In view of the fact that the study addressed MI and language 4 skills, two-way analysis of variance (ANOVA) was run to determine the effects of MI types and their interaction on reading, writing, listening, and speaking performance of student.

4 RESULT

The required data was gathered on the reading, writing, listening, and speaking test scores. Two-way ANOVA was applied to measure the effects of intelligence types, and their interaction on students' performance on reading, writing, listening, and speaking test by applying Scheffe adjustment. One-way ANOVA was performed to measure the homogeneity of subjects in terms of proficiency level by means of Scheffe adjustment. The alpha level was set as 0.05. With the purpose of testing out the homogeneity of subjects in terms of proficiency level, one-way ANOVA was used and proficiency test scores of four groups were analyzed. Table below demonstrates the descriptive statistics for proficiency test scores of four participating groups.

TABLE 2
DESCRIPTIVE STATISTICS FOR PROFICIENCY TEST
SCORES

Group	N	M	SD
Reading group with different MI	10	11.26	1.65
Writing group with different MI	10	11.89	1.38
Listening group with different MI	10	11.35	1.45
speaking group with different MI	10	11.41	1.68

 $T=40 P \le 0$

TABLE 3
RESULT OF ONE- WAY ANOVA ON PROFICIENCY TEST
SCORES

	Sum of	df	Mean	F	Sig(p)
	square		score		
Between group	55.801	4	13.950	8.265	.000
Within group	126.586	45	1.688		
total	182.388	79			

 $P \le 0.0$

There was no statistically significant difference between performance of four participating groups on proficiency test scores (F= 0.006, P=0.000). Further, mean scores of four participating groups are almost close to each other, so groups can be considered homogenous in terms of language proficiency. Initially the subjects took Standardized Proficiency Test (2006) in order to select a homogenous group of subjects at the intermediate level. Then based on their answers to Gardner's eight intelligence types' questionnaire (Armstrong, 2009), they were organized groups to be assigned 4 experimental sets. After that, a course book of Topnotch Test (2006) related to assessing reading, writing, listening, and speaking proficiency, as a pretest, was given to the subjects, in experimental groups in order to have the required data in final comparison as a result of treatment sessions. Then the gathered data were analyzed using the SPSS software version 16.0.

The effect of the second independent variable, intelligence types, exceeds the critical value and it is considerable. The main effect for the intelligence types is statistically significant. For this reason, we can claim that there are differences in reading, writing, listening, and speaking test scores for four groups across the different intelligences and certain types of intelligences affect students' performance difficulty.

What follows is the descriptive statistics of all four subgroups in experimental groups on the pre-test.

TABLE 4
DESCRIPTIVE STATISTCS FOR STUDENTS 4 SKILLS
ON PRE-TEST

Group	N	Mean	Std. Deviation
Reading group with different MI	10	12.34	1.78
Writing group with different MI	10	12.84	1.87

listening group with different MI	10	12.83	1.57
speaking group with different MI	10	12.47	1.58

After reviewing the pre-test descriptive statistics, let's look at the comparison of the means of the groups in pre-test to see if there is any significant difference between performances of groups on post-test of reading, writing, listening, and speaking, skills.

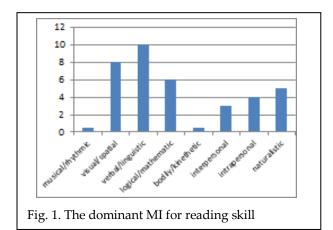
TABLE 5
DESCRIPTIVE STATISTICS FOR STUDENTS 4 SKILLS
ON POST-TEST

Group	N	Mean	Std. Deviation
Reading group with different MI	10	15.87	1.54
Writing group with different MI	10	12.26	1.94
listening group with different MI	10	16.41	1.36
speaking group with different MI	10	16.12	1.49

TABLE 6 ANOVA TABLE OF GRUPS' COMPARISON

	Sum of	df	Mean	F	Sig.
	squares		square		
Between	60.417	4	15.104	11.153	.000
groups					
Within	101.571	75	1.354		
groups					
total	161.988	79			

The post-test results of Experimental groups is significantly higher than the pre-test, so it can be claimed that the treatment has had enough influence on the subjects. Therefore the hypothesis (Ho1) is rejected, and it can be obviously claimed that MI-based instruction does have an effect on learners' language 4 skills ability.



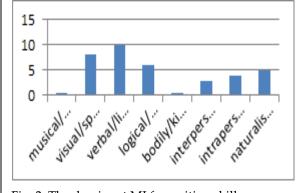


Fig. 2. The dominant MI for writing skill

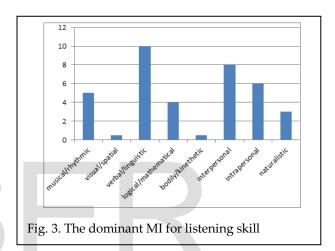


Fig. 4. The dominant MI for speaking skill

The ANOVA results obtained from the tables and figures reuser $@\,2015$

flected that the main effect flowing from intelligence types and the interaction between language skills was statistically significant. A closer look at the mean scores reveals that students with high linguistic intelligence got high scores and improved to a great extent in all for skills. Linguistic intelligence appears to be more effective than other intelligences in terms of developing students' reading ability. Meanwhile, students with other MI for example visual/spatial intelligence got high scores and made a substantial progress in reading. The comparison of all mean scores confirms the significant effect of interaction between particular types of intelligences on reading performance of the subjects. Comparing the components of these two tables makes it evident that existence of interaction affects students' performances to great extent. Among the subcategories of EI, Intrapersonal skill tends to have a weak negative relation with speaking proficiency. However, the Interpersonal skill shows a great positive relation with speaking proficiency and other components of EI show negligible relations. As like other similar studied (Tiffany & Deborah, 2003; Mackie, 2005; Shearer, 2006). The result of the present study show that we can make best use of the diversity or the differences which exist among our students and make the whole greater than the sum of the part. The results presented in figures demonstrate the existence of significantly dominant effect of interpersonal and linguistic intelligence for speaking performance. Spatial intelligence has low effects on writing scores. All other have weak but positive effect on writing. Linguistic and interpersonal intelligence have significant effect on EFL performance of writing. All In all, figures show the dominant intelligence for each skill.

5 CONCLUSION

With the help of the theory, language teachers can create activities flexible, reflective, logical and creative for diverse students' individual differences (Christison, 1998). Po-Ying (1999, 2006) listed three steps to show how MIT applies of ELT. The first step is to identify the activities frequently used in our classes and categorize them to teach particular type of intelligence. Step two is to use multiple intelligence checklists (questionnaire) to identify students' intelligences needed for doing particular activities. Besides, it will be obligatory to take these factors into consideration: students' needs, strengths, levels, learning styles, learning strategies, learning potentials, the nature of the subject matter, etc. And the last step is to assign classroom activities concerning students' needs and abilities determined by means of questionnaire. Armstrong (2000), in the absence of questionnaire, focuses upon the motivating learners by activating multiple ways of meaning-making through presenting the task to different intelligences. Providing a diversity of language activities that stimulate the different tools or intelligences proposed by Gardner (1999) makes it possible to engage multiple memory pathways necessary to produce sustained deep learning. As was said before, people

are born possessing the eight intelligences, only in different proportions; therefore, students will come into the classroom with different sets of interests. They will have their more developed and less developed intellectual styles. The more developed intelligences will present their stronger manners of learning, or learning styles (Brown, 2004). Many learning styles can be found in the same classroom. To accommodate every lesson to all of the learning styles is an ideal which is something too difficult but possible. The key to this problem is just to apply all the diversity and bring them all together. The teacher can find out his/her students' intelligences and show them how to use their more developed intelligences to assist in the understanding of a subject in which they normally employ their weaker intelligences. Regarding the question and hypothesis proclaimed that types of intelligences would affect students' performance and linguistic intelligence can lead to higher degree on the part of readers. Particular types of intelligences have a significant and different effect on students' performance and linguistic intelligence was more effectual terms of developing reading ability of EFL learners. What's more contrary to Chem and Gardner (2005) which stated that intelligence is the least common type of intelligences amongst the students and there is no relationship between students' reading success and this intelligence, the result of this study appears to confirm something different. By analyzing the exact effect of intelligence types on reading, it is reasonable to argue that, the result is in line with findings of Block and Pressely (2002) which state that reading ability is more associated with linguistic intelligence because reading comes to mind when learner first access the meanings and nuances of the written words they encounter during reading. The act of reading involved touching the words as one read. Speaking the words out loud, and putting one's whole physical and mental energy into the work of understanding and comprehending . that is where the linguistic intelligence as the ability to use words effectively both orally or in written form becomes conductive. Gardner (1999) has described linguistic intelligence as sensitivity to spoken and written language and the ability to use language to accomplish goals as well as the ability to learn new languages. In keeping with him, the linguistic intelligence domain, seems to encompass a wide variety of more specific abilities which are directly associated with reading skill. In total, convergent aspects of linguistic intelligence assessed by standard intelligence tests include use of vocabulary knowledge accurately in writing, speaking and reading (Gardner, 1999).

Although the MI theory has been criticized on theoretical, conceptual, empirical, and pedagogical grounds by several scholar (Plucker, Callahan, & Tomchin, 1996), one of its greatest strengths is its capacity to serve as a framework allowing teachers to explore their teaching styles and to assist them in making decisions about ways of structure teaching and learning experiences for students based on their diversity. Students

need to experience learning that allows them to engage all of their intelligences to explore their own intelligences and how they can impact their learning, and they need to be offered choice in how they learn.

The theory of MI suggests that two of human intelligences, linguistic and logical-mathematical intelligence have dominated in traditional schooling (Armstrong, 2009). More specifically, linguistic intelligence has been assumed to be the most important domain of intelligence contributing to reading performance, because it deals with the ability to manipulate different components of language including syntax, phonology, and the semantics or meaning of language (Armstrong, 2003). He suggests, "reading and writing aren't simply linguistic acts; they involve all of the intelligences, and many more areas of the brain are involved in literacy acquisition than has previously been assumed by educators in the field" (ibid, p.7).

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REFERENCE

- [1] Arsenian, S. (1945). Bilingualism in the post-war. *Psychological Bulletin*, 42(2), 65-86.
- [2] Backman, N. (1976). Two measures of affective factors as they relate to progress in adult second-language learning. *Working Papers on Bilingualism, 10,* 100-122.
- [3] Christison, Mary Ann (1996). Teaching and learning language through multiple intelligences. TESOL Journal, 6(1): 10-14.
- [4] Christison, Mary Ann (1998). Applying Multiple Intelligences Theory in Pre-service and In-service TEFL Education Programs. English teaching Forum, April-June: 3-13.
- [5] Cohen, A. D. (1994). Assessing language ability in the classroom (2nd Ed.). MA: Heinle & Heinle Publishers.
- [6] Dornyei, Z. (1994). Motivation and motivating in the foreign language classroom. *The Modern Language Journal*, 78(3), 273-284.
- [7] Ellis, R. (1989). *Understanding second language acquisition*. Oxford: Oxford University Press.
- [8] Ellis, R. (2003). *The Study of Second Language Acquisition*. *Tenth impression*. Oxford: Oxford University Press.
- [9] Gardner, Howard (1983). Frames of Mind: The Theory of Multiple Intelligences. NY: Basic Books.
- [10] Gardner, Howard (1991). The Unschooled Mind: How Children Think and How Schools Should Teach. NY: Basic Books.
- [11] Gardner, Howard (1993). Multiple Intelligences: The Theory in Practice. NY: Basic Books.
- [12] Gardner, Howard (1995). "Are there additional intelligences? The Case for the Naturalist Intelligence." Howard Project Zero. Cambridge, MA: President and Fellows of Howard College.

- Multiple Intelligences: The Theory in Practice. NY: Basic Books
- [13] Gardner. Howard (1999). Intelligence Reframed: Multiple intelligence for the 21st century, NY: Basic Books.
- [14] Gardner, R. C. (1985). Social psychology and second language learning: The role of attitude and motivation. Edward Arnold, Baltimore, Maryland.
- [15] Gardner, R. C., & Lambert, W. E. (1959). Motivational variables in second language acquisition. *Canadian Journal of Psychology*, 13, 266-72.
- [16] Gardner, R. C. & Lysynchuk, L. M. (1990). The role of aptitude, attitude, motivation, and language use on second-language acquisition and retention. *Canadian Journal of Behavioral Science*, 22(3), 254-270.
- [17] Gay, L. R. (1992). Educational research: Competencies for analysis and application (4th Ed.). Macmillan Publishing Company, N.Y.
- [18] Horwitz, E. (1985). Using student beliefs about language learning and teaching in the foreign language methods course. Foreign Language Annals, 18, 333-34.
- [19] Horwitz, E. (1986). *Preliminary evidence for the reliability and validity of a foreign language anxiety scale*. TESOL Quarterly, 20(3), 559-562.
- [20] Horwitz, E. (1987). Surveying students beliefs about language learning. In A. L. Wenden & J. Rubin (Eds), <u>Learner strategies in language learning</u>, (pp. 119-129). Englewood Cliffs, NJ: Prentice-Hall.
- [21] Horwitz, E. (1988). The beliefs about language learning of beginning university students. <u>Modern Language Journal</u>, 72, 182-193.
- [22] Horwitz. E. (1990). Attending to the affective domain in the foreign language classroom. Shifting the Instructional Focus to the Learner, (pp. 15-33). Northeast Conference on the Teaching of Foreign Language.
- [23] Horwitz, E. K., Horwitz, M. B. & Cope, J. (1986). Foreign language classroom anxiety. The Modern Language Journal, 70, 125-132.
- [24] Horwitz, E. K. & Young, D. J. (1991). Language anxiety. Prentice Hall, Englewood Cliffs, NJ.
- [25] Horwitz, E. K. & Young, D. J. (1991). Preface. In E. K. Horwitz & D. J. Young (Eds.), *Language anxiety: From theory and research to classroom implications* (pp.xii-xiv). Englewood Cliffs, NJ: Prentice Hall.
- [26] Kerlinger, F. N. (1986) (3rd Ed.). Foundations in behavioral research. NY: Harcourt Brace Jovanovich College Publishers.
- [27] Kern, R. G. (1995). Students' and teachers' beliefs about language learning. *Foreign Language Annals*, 28(1), 71-92.
- [28] Kumaravadivelu, B. (1991). Language learning tasks: teacher intention and learner interpretation. *ELT Journal* 45(2), 98-107.
- [29] Lambert, W. E. (1955). Measurement of the linguistic dominance of bilinguals. Journal of Abnormal Psychology, 50(2), 197-200.

- [30] Lutz, R. (1990). Classroom shocks: The role of expectations in an instructional setting. In J.E. Alatis (Ed.): GURT 1990: Linguistics, language teaching and language acquisition: The independence of theory, practice, and research, pp. 144-56. Washing, DC: Georgetown University Press.
- [31] Marckwardt, A. H. (1948). *Motives for the study of modern languages*. *Language Learning*, 1, 3-99. (Reprinted in Language Learning, 1988, 38, 161-169.)
- [32] Oxford, R. L. (1986). *Development and psychometric testing of the Strategy Inventory for Language Learning* (SILL). ARI Technical Report 728. Alexandria, VA: US Army Research Institute for the Behavioral and Social Sciences.
- [33] Oxford, R. L. (1989). Use of language learning strategies: A synthesis of studies with implications for strategy training. System, 17(2), 235-247.
- [34] Oxford, R. L. (1990). Missing link: Evidence from research on language learning styles and strategies. In J. E. Alatis (Ed.). *Georgetown University Round Table on Language and Linguistics*, (pp. 438-458). Georgtown University Press.
- [35] Oxford, R. L. (1990). Styles, strategies, and aptitude: Connections for language learning. In T. S. Parry & C. W. Stansfield, (Eds.), Language aptitude reconsidered, (pp. 67-125). NJ: Prentice Hall Regents.
- [36] Oxford, R. L. (1990). Language learning strategies: What every teacher should know. NY: Newbury House/Harper & Tow. [37] Oxford, R. L. (1992). Who are our students? A synthesis of foreign and second language research on individual differences with implications for instructional practice. TESL Canada Journal/Revue TESL DU Canada, 9(2), 30-48.
- [38] Oxford, R. (1993). Instructional implications of gender differences in second/foreign language (L2) learning styles and strategies. Applied Language Learning, 4(1&2), 65-94.
- [39] Oxford, R. L. (1992). Language learning strategies in a nutshell: Update and ESL suggestions. TESOL Journal, winter, 1992/1993, 18-22.
- [40] Oxford, R. L. (1993). Research on second language learning strategies. Annual Review of Applied Linguistics, 13, 175-187.
- [41] Oxford, R. L. (1993). *Instructional implications of gender differences in second/foreign language* (L2) *learning styles and strategies*. *Applied Language Learning*, 4(1-2), 65-94.
- [42] Reid, J. M. (1984). Perceptual Learning Style Preference Questionnaire. In J. M. Reid (Ed.): Learning styles in the ESL/EFL classroom (pp. 202-204). NY: Heinle & Heinle Publishers.
- [43] Reid, J. M. (Ed.)(1995). Learning styles in ESL/EFL classroom. NY: Heinle & Heinle Publishers.
- [44] Scovel, T. (1978). The effect of affect on foreign language learning: A review of the anxiety research. Language Learning, 28, 129-42.
- [45] Stake, R. E. (1988). Case study methods in educational research: Seeking sweet water. In R. M. Jaeger (Ed.): *Complementary methods for research in education*, (pp.253-300). American Educational Research Association, Washington, DC. [46] Titone, R. (1990). *A psycho-sociolinguistic perspective in EFL*

- Learning: The role of attitude a dynamic factor. Paper presented at The World Congress of Applied Linguistics, sponsored by the International Association of Applied Linguistics (9th, Thessaloniki, Greece, April 15-21, 1990) ERIC Document Resume, ED 326-073.
- [47] Yang, N. D.(1992). Second language learners' beliefs about language learning and their use of learning strategies: A study of college students of English in Taiwan. Unpublished doctoral dissertation of the University of Texas at Austin.
- [48] Yorio, C.A. (1986). Consumerism in second language learning and teaching. Canadian Modern Language Review, 42(3), 668-687. [49] Wittrock, M. (Ed.) (1977). Learning and instruction. Berkely, CA: McCutchan.

