### The Relationship between Multiple Intelligences, Self-Efficacy and Academic Achievement of Saudi Gifted and Regular Intermediate Students

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#### ABSTRACT

The current study aimed to investigate and describe the multiple intelligences (MIs) and self-efficacy profiles that characterize Saudi female (gifted / regular) third intermediate students and their relationship to the achievement of EFL language skills and aspects. The sample consisted of (85) Saudi female third intermediate grade students, (43) were identified as gifted, and (42) were regular students. Three research instruments were used to collect data: (a) the Multiple Intelligence Inventory, (b) the Self-efficacy Scale and (3) A Language Achievement Test. The results of data analysis revealed that Interpersonal Intelligence was the most preferred intelligence types among gifted and regular participants. Musical intelligence was the least preferred intelligence among both groups. Differences between the two groups were in the order of other preferences. The study also revealed that there was significant correlation between MIs and achievement in specific language skills and language aspects. Self-efficacy, on the other hand, did not correlate to language achievement but it was a good predictor of success. The study recommended EFL teachers to respond to different potentials of their students, develop activities that support students' strongest intelligences as well as improving the weak ones and pay more attention to creating a motivating classroom environment.

Keywords: Multiple Intelligence, Self-Efficacy, Gifted students, Achievement

### INTRODUCTION

Gifted students have been referred to as observant, curious, creative and independent workers who are self-directed and self-motivated (Clark, 1992; Harrison, 2004). Renzulli (1978, cited in Legare, 2008) stated that giftedness involves the interaction of three basic traits: above average abilities, high levels of commitment and high levels of creativity (p.7). Moon and Brighton (2008) found that teachers described gifted students as possessing good reasoning skills, broad knowledge and language proficiency. They are extraordinary problem solvers when presented with challenges. They also demonstrate creativity and critical thinking in order to reach productive solutions. Moreover, they are skilful in organizing, analyzing, synthesizing information and generating imaginative ideas.

It is important to emphasize that neither all gifted students have all the above characteristics, nor all of them are high achievers. Gifted students, like other students, have a wide variety of learning needs. They differ in their readiness levels, interests, motivations and learning styles. To create a challenging learning environment, teachers should maximize opportunities to help gifted students learn, grow and be challenged. They should also realize that each gifted student has an individual learning profile of his/ her intellectual and affective needs, abilities, multi intelligences and learning preferences (Chessman, 2007; Davis & Rimm, 2004).

Investigating the academic achievement of gifted learners is a prominent issue to enhance the quality of education because the main objective of education today is to bring changes not only in the amount of knowledge but for developing abilities and improving skills. Understanding academic achievement requires exploring and examining a number of internal and external factors: cognitive, psychological, social, economic...etc. Intelligence and self-efficacy are among the determining factors that have proved to be consistent predictors of success

Over the years, the notion of General Intelligence (GI), measured by IQ, was valued and dominated assessment in traditional school tests which put maximal focus on verbal and logical abilities and ignore the rest (Hajhashemi, Akef & Anderson, 2012; Ikiz & Cakar, 2010; Chan, 2004). Gardner's Multiple Intelligence Theory (1983, quoted in Ibnian & Haban, 2013) introduced a radical definition stating that Intelligence includes the ability to solve problems. Gardner believed that all human beings have a combination of eight types of Intelligences which work together to make them different and unique individuals (Hajhashemi, Akef & Anderson, 2012). The intelligence types developed by Gardner are: verbal-linguistic intelligence, logical-mathematical intelligence, visual-spatial intelligence, bodily-kinaesthetic intelligence, musical intelligence, interpersonal intelligence, intrapersonal intelligence and natural intelligence .According to Gardner's theory, paying equal attention to each type of intelligence will help the recognition of sources of strengths, weaknesses and divergent abilities of each individual. In addition to developing instruction to respond to their uniqueness (Javanmard, 2012), his theory also raised awareness of some important points including the following: all of the eight intelligences are evident in all human beings in varying amount; each intelligence can be taught and improved in most people, all of the intelligences work together and are changing throughout life; and learning performance can be improved by addressing learners' multiple intelligences (Razmjoo, 2008, Bilgin 2006).

Addressing individuals' MIs may nurture their independence and self-regulation. In other words, it may lead to high self-efficacy levels. Self-efficacy is a set of different self beliefs related to varied areas of functioning (Valentine, Du Bois & Copper, 2004). It refers to the beliefs about one's capabilities to learn or perform behaviors at designated levels. It can be considered as individuals' judgments about their abilities to carry out the actions and behaviors needed to succeed and reach to the predetermined goals. It is not a fixed trait that a person possesses in a fixed quantity from birth. It is rather a general capacity that develops through time and experience (Bandura, 1997). Klassen, Krawchuk and Rajani (2008) stated that self-efficacy is a good predictor of human behavior and actions. The beliefs people hold about their abilities have both emotional and behavioral aspects. They determine the choice of whether to engage in a task, the power and effort a person has to exert in performing the task, and the level of persistence and avoidance in accomplishing it.

Based on the aforementioned introduction, the current study aims to investigate and describe the multiple intelligences and self-efficacy profiles that characterize Saudi female (gifted / regular) third intermediate students and their correlations to the achievement of EFL language skills and aspects.

#### STATEMENT OF THE PROBLEM

The uniqueness and diversity of individuals intellectual abilities and the great power of expectations that people carry out about their abilities are two main affective factors relevant to EFL learning success and achievement. Although the correlation between the three factors (multiple intelligence, self-efficacy and academic achievement) has gained attention in EFL research, yet it is less investigated in case of gifted students. Reviewing the literature, no

similar study has been found in Saudi Arabia. Therefore, this study is designed with the hope that its results will draw the attention of Saudi EFL teachers to their gifted students'intelligences and internal beliefs and the effect they may exert on their EFL achievement. The early recognition of gifted students'abilities and needs will help teachers provide the required attention and services in order to reach their students' productive outcomes. The study attempts to answer the following questions:

- 1. What are the MIs that characterize gifted intermediate students?
  - a. Which MI type is the best predictor of gifted students' success?
- 2. What are the MIs that characterize regular intermediate students?
  - a. Which MI type is the best predictor of regular students' success?
- 3. Is there a correlation between specific types of MIs and gifted students 'achievement (high / low)?
  - a. What are the most preferred MIs of (high /low) gifted students?
  - b. Are there significant differences between the MIs of high /low) gifted students?
- 4. Is there a correlation between specific types of MIs and regular students 'achievement (high / low)?
  - a. What are the most preferred MIs of (high /low) regular students?
  - b. Are there significant differences between the MIs of (high /low) regular students?
- 5. Is there a difference between gifted and regular students in self-efficacy?
- 6. Is there a correlation between MI types of gifted / regular students and self-efficacy levels (High / low)?
- 7. To what extent do specific types of MIs correlate to achievement (gifted / regular) in specific language skills?
- 8. To what extent does self-efficacy correlate to EFL achievement (gifted / regular).

### SIGNIFICANCE OF THE STUDY

- 1. It contributes to the literature on how multiple intelligences and self-efficacy may affect the academic achievement of gifted and regular students.
- 2. It will help students (gifted –regular) be aware of their internal self beliefs and strong intelligences and try to develop the weak areas.
- 3. It could encourage curriculum planners to take MI theory into account while designing curricula.
- 4. It could direct the attention of EFL teachers to the importance of and effects of affective factors in language classrooms.

### LITERATURE REVIEW

#### Self-Efficacy and Academic Achievement

It has been proven that individuals'belief about their capacities influence their academic performance. It may affect achievement directly or indirectly. The thoughts that people hold about themselves are double edged sword. They either aid or hinder progress. For example, individuals with high self-efficacy are more confident and relax when solving difficult tasks than those with low self-efficacy. Therefore, these influences are strong determinants of the

individuals' level of achievement (Mahyuddin et.al, 2006). Many studies have been carried out on investigating the correlation between self-efficacy and academic achievement reported that self-efficacy promoted achievement directly or indirectly. Some research showed that self-efficacy had direct positive correlations with achievement (Truner, Chandler & Heffer, 2009; Sharma & Silbereisen, 2007; Greene, Miller, Crowson, Duke, & Akey, 2004; Ergul; 2004; Chemers, Hu, & Garcia, 2001). Other research found that self-efficacy was a good predictor of academic achievement. (Azar, 2013; Klassen, Krawchuk, Rajani; 2008; Saunders, Davis, Williams, & Williams, 2004; Pajares, 2003; Wang & Newlin, 2002; Lim, 2001).

The differences in the patterns of self-efficacy among various groups of students have been found to significantly affect skill development in academic activities (Shore & Robbin, 2002). These findings suggested that higher self-efficacy might be reported in students whose MI or learning style are incorporated into the lessons they study in the classroom. Research on the secondary level found that instructors who incorporate MI- based lessons in their classrooms aid in augmenting their students' performance and discipline, and students with diverse needs were reported to feel good about themselves (SUMIT, 2001cited in Koura, 2005).

Findings from the studies of children and adults across age distribution and demographic area have produced results that support self-efficacy's tie to achievement in children (Bong, 1998; Pajares, 1995). However, some researchers in the area of adult academic achievement and self-efficacy have not found a significant relationship between efficacy beliefs and academic outcomes (StreIneks, 2005; Lim, 2001).

#### Multiple Intelligences and Academic Achievement

The MI theory is discussed in much of the current literature the implementation of MI strategies has sparked considerable research. Many teachers, schools, textbook writers, and assessment specialists have embraced these strategies (El-Embaby, 2008; Koura, 2005; Olson & Land, 2007; Wong, 2005). Teachers, who have applied the MI in their teaching, state the benefits that the theory brings to their learners such as having several ways to learn and to demonstrate their learning through using their strong intelligences and/or by developing their weak ones. Variety is also mentioned as a way of motivating students to learn and giving choice for students to demonstrate their learning. MI also allows variety in teaching and challenges teachers to tab the best of out their students'. Below is a review of a number of studies on MIs as they relate to academic achievement, language skills and activities, affective factors and textbook evaluation

The results of a study conducted by Ibnian and Haban. (2013) concluded that the MI theory qecould have a vital role in creating an attractive, encouraging and motivating atmosphere in ELT class. Ikiz and Cakar (2010) found that the student who had lower academic achievement level, had lower verbal-linguistic ability, had lower logical-mathematical ability and had lower interpersonal and intrapersonal ability than the others.

AbuGhararah and Koura (2010) found that some MI types were vital in language learning.

El-Embaby (2008) stated that MI activities were effective in developing students' writing competencies. Gullatt (2008) proposed that by involving students in learning catered to their specific intelligence strengths, they will become more active participants in the learning process. Hamurlu (2007) found that MIT-based instruction increased students' achievement in English classes and had positive effect on students' attitudes towards English. Koura (2005) examined the relationship of MI and both achievement and self-efficacy in pre-

university classrooms and found positive and statistically significant correlations between them.

The findings of Chen (2004) indicated that using the theory of MI in multimodal classroom proved to be effective to promote individualized and student-cantered. It also helped students to achieve essential task of team work especially for large EFL classes. They were highly motivated and showed a great effective response. Gaines and Lehmann (2002) found that the use of MI strategies was found to improve the students'reading comprehension ability and it enhanced their academic performance as well .Shore (2001) examined the use of multiple intelligences in George Washington University second language classroom.

The findings indicated that utilizing multiple intelligences based lessons in English foreign language classroom had led to a higher self-efficacy and therefore a greater achievement in English language learning. Many studies have revealed a strong relationship between the application of MI activities and a number of affective factors such as motivation, attitudes, self-esteem, enthusiasm, etc. (Bas & Beyhan 2010).

Other studies like Hanafiyeh's (2013) revealed that the relationship between success in students 'test scores in grammar and some intelligence types was negative.. The result of Javanmard' study (2012) indicated that there was no significant relationship between intelligence preferences of participants of this study and their scores on different formats of vocabulary tests as well as their total vocabulary score. Salehi and Gerami (2012) found that none of the intelligence types correlated in a significant way with the achievement scores of the students. Zarati (2007, cited in Javanmard,2012) found that there was no significant relationship between multiple intelligences and strategies of language reading in Iranian language learners. Razmjoo's (2008) and Saricaoglu and Arikan(2005) pointed to no significant relationship between MIs and English language proficiency in the Iranian context.

Considering the link between MIs and EFL self-efficacy, Shore and Robin (2002) conducted a study to examine the use of MIs in the university EFL classroom. The correlation between MI used in the classroom and student self-efficacy was examined. Results revealed that highly significant positive correlations were found between reading, writing, and speaking self-efficacy and MIs. The implication of this study is that with the integration of intelligences into EFL lessons, there will be a positive effect on self-efficacy in English Language Learning.

### METHOD

### Sample

The sample consisted of (85) female Saudi third intermediate grade students whose ages ranged from (15-17). Forty three of the total participants were identified as gifted, and (42) were regular students. The gifted group was nominated by King Abdulaziz and his Companion Foundation for Giftedness and Creativity to join summer enrichment program provided at Taibah University. They were identified and selected as gifted after passing a standardized ability test administered by the National Center for Assessment and they were considered as the top %5 of the total number of tested sample. The regular group was selected randomly from a poll of third intermediate grade students.

### Instruments

Three research instruments were used in order to collect data. All three instruments were designed by the researchers.

a. The Multiple Inelegance Inventory (MII, Appendix A).

- b. The Self-Efficacy Scale (SES, Appendix B).
- c. Language Achievement test (ELAT, Appendix C).

#### **Data Analysis**

In order to examine the correlation between the study variables, the collected data was analyzed using SPSS (version 18), and the following statistical analyses were conducted:

- a. **Descriptive Statistics** was used to reveal the demographic characteristics of the participants.
- b. **Pearson's Correlation Coefficient** was used to establish significance of the correlation among study variables.
- c. **Independent t-test** was used to find out differences between gifted and regular students.
- d. **Multiple Regression Analysis** was run to estimate which intelligence types contribute to better performance.

#### RESULTS

# Research Question (1): What are the MIs that characterize gifted intermediate students?

To investigate the multiple intelligences that characterize gifted intermediate students, the results of the analysis illustrated in Table (1) revealed that Interpersonal Intelligence (M= 5.976) was the leading intelligence among gifted students. The other dominant intelligence types were Logical Intelligence (M= 5.720), and Intrapersonal Intelligence (M= 5.558). Intelligences like Natural and Musical were the least common amongst this sample (M= 4.511 and M= 4.348 respectively). It was noteworthy that Intrapersonal Intelligence had the highest standard deviation, indicating a greater variation among the participants who showed tendency toward it.

	Descriptive Statistics										
	N	Sum	Mean	Std. Deviation	Rank						
Logical	43	246.00	5.7209	2.00387	2						
Linguistic	43	203.00	4.7209	1.43636	6						
Spatial	43	238.00	5.5349	1.85612	4						
Bodily	43	220.00	5.1163	1.87983	5						
Musical	43	187.00	4.3488	1.63130	8						
Interpersonal	43	257.00	5.9767	2.18750	1						
Intrapersonal	43	239.00	5.5581	1.81662	3						
Natural	43	194.00	4.5116	2.05139	7						

 Table 1. The Multiple Intelligences of Gifted Students

To find out which MI type was the best predictor of gifted students'success in foreign language learning, Multiple Regression Analysis was run. Table (2) revealed that Interpersonal Intelligence was the best predictor of success of all intelligence types.

MI Types –	Unstar Coef	ndardized ficients	Standardized Coefficients	t	Sig
	В	Std. Error	Beta	L	518.
(Constant)	28.214	2.193		12.868	.000
Logical	233-	.334	152-	698-	.490
Linguistic	.295	.443	.138	.666	.510
Spatial	.216	.332	.131	.652	.519
Bodily	050-	.351	031-	142-	.888
Musical	588-	.369	313-	-1.593-	.120
Interpersonal	.426	.327	.304	1.302	.202
Intrapersonal	266-	.328	158-	811-	.423
Natural	032-	.287	022-	112-	.911

Table 2.	Multiple	Regression	Analysis o	of MI types	and Success	s of Gifted in	Learning EFL

## Research Question (2): What are the MIs that characterize regular intermediate students?

To investigate the multiple intelligences that characterize regular intermediate students, the results of the analysis illustrated in Table (3) indicated that Interpersonal Intelligence (M= 6.142) was the leading intelligence among regular students, followed by Spatial and Intrapersonal intelligences (M= 5.357 and M= 4.904 respectively). These were followed by a considerably less common intelligences, namely Natural intelligence (M= 4.261) and Musical intelligence (M= 3.261). It was noteworthy that Intrapersonal intelligence had the highest standard deviation, indicating a greater variation among the participants who showed tendency toward it.

Descriptive Statistics											
MI Types	Ν	Minimum	Maximum	Sum	Mean	Std. Deviation	Rank				
Logical	42	2.00	9.00	201.00	4.7857	1.53870	4				
Linguistic	42	1.00	7.00	194.00	4.6190	1.52942	6				
Spatial	42	2.00	9.00	225.00	5.3571	1.81889	2				
Bodily	42	1.00	10.00	199.00	4.7381	2.07258	5				
Musical	42	1.00	7.00	137.00	3.2619	1.36256	8				
interpersonal	42	1.00	10.00	258.00	6.1429	2.01907	1				
Intrapersonal	42	1.00	10.00	206.00	4.9048	2.08139	3				
Natural	42	1.00	10.00	179.00	4.2619	2.43009	7				

Table 3. The Multiple Intelligences of Regular Students

To find out which MI type was the best predictor of regular students' success in foreign language learning, Multiple Regression Analysis was used. Results in Table (4) reaffirmed the dominance of Interpersonal intelligence as the best predictor of success in EFL learning.

MT Types -	Unstan Coefj	dardized ficients	Standardized Coefficients	t	Sig
mi i ypes	В	Std. Error	Beta	ι	Sig.
(Constant)	22.031	2.976		7.404	.000
Logical	310-	.438	136-	707-	.485
linguistic	134-	.450	059-	298-	.768
Spatial	195-	.469	102-	416-	.680
Bodily	112-	.434	066-	257-	.799
Musical	288-	.493	112-	584-	.563
Interpersonal	.612	.399	.353	1.536	.134
Intrapersonal	.026	.329	.016	.080	.937
Natural	211-	.316	147-	668-	.509

 Table 4. Multiple Regression Analysis of MI types and Success of Regular Students

# Research Question (3): Is there a correlation between specific types of MIs and gifted students' achievement (High / low)?

To answer the third research question, there was a need to divide gifted students into two groups namely, high gifted achievers and low gifted achievers. High gifted achievers in this study scored the full mark and those who were considered low gifted achievers scored above the mean score (M=15.00). Then, the most frequently preferred intelligence types used by high / low gifted achievers were conducted.

It was apparent that the Logical- Mathematical Intelligence (M=6.60) was the most preferred intelligence used by high gifted students, followed by Visual-Spatial Intelligence (M=6.50) and the least preferred intelligence was the Bodily-kinaesthetic Intelligence (M=5.10). On the other hand, low gifted achievers preferred to use Logical- Mathematical Intelligence (M=6.15) most frequently, followed by Intrapersonal Intelligence (M=6, 07) and the least preferred intelligence type was the Natural Intelligence (M=4.46).

To find out whether there were significant differences between MIs of the high / low gifted students and their achievement, An independent sample t-test was conducted between the two categories (high and low achievers). The results presented in Table (5) showed that there were no significant differences in the mean scores of gifted students MI between the two groups.

MIs	Levels	Ν	Mean	Std. Deviation	Т	sig
Logical	low	13	6.153	2.192	,507	,618
Logical	high	10	6.600	1.955		
<b>.</b>	low	13	5.076	1.891	,929	,416
Linguistic	high	10	4.500	1.269		
Que et el	low	13	5.230	1.832	1,558	,134
Spatial	high	10	6.500	2.068		
D - 411	low	13	5.461	1.265	,440	,664
Bodily	high	10	5.100	2.601		
Marcinal	low	13	4.923	1.605	,371	,517
Musical	high	10	4.700	1.159		
T	low	13	5.769	1.786	,765	,453
Interpersonal	high	10	6.400	2.170		
T	low	13	6.076	1.656	,675	,507
Intrapersonal	high	10	5.600	1.712		
	low	13	4.461	2.258	,874	,392
inatural	high	10	5.300	2.311		

 Table 5. Independent Samples t-test for Gifted MI of the Two Achievement Groups

Table 6. The Correlations between High/Low Gifted Students' Achievement and Specific Types of MIs

Pearson	Achievement	Logical	Linguistic	Spatial	Bodily	Musical	Inter-	Intra-	Natural
High gifted	1	.522	065	.040	.424	.128	.440	654	.506
Sig		.122	859	.913	.222	.725	.203	-*.040	.136
Ν	10	10	10	10	10	10	10	10	10
Low gifted	1	077	.299	287	.346	294	.334	.127	329
Sig		802	.321	342	.246	330	.265	.678	272
Ν	13	13	13	13	13	13	13	13	13

In order to determine the correlation between MI types and high / low gifted students' achievement, the Pearson correlation method was applied. Results illustrated in Table (6) indicated that there was a negative significant correlation between the achievement of high gifted students and Intrapersonal Intelligence with correlation coefficient (r = .040) which was significant at (p<0.05). No significant correlation, however, was found between the achievement of low gifted students and any specific type of MIs

# **Research Question (4): Is there a correlation between specific types of MIs and regular students' achievement (high / low)?**

To examine the fourth research question, regular students were divided into two groups according to their achievement namely, high regular achievers and low regular achievers.

Next, the most frequently preferred intelligence types used by high / low regular achievers were conducted. Correlations revealed that Interpersonal Intelligence (M=6.27) was the most preferred intelligence used by high regular students, followed by Visual-Spatial intelligence (M=5.00) and the least preferred was Intrapersonal Intelligence (M=4.90). Low regular students, on the other hand, preferred to use Visual-Spatial Intelligence most frequently (M=5.50), followed by Interpersonal Intelligence (M=5.40) and the least frequently used was Musical Intelligence (M=3.10).

To find out whether there were significant differences between MIs of the regular students and their achievement, An independent sample t-test was conducted to pin point significant differences between the two categories (high and low achievers). The results displayed in Table (7) showed that there were no significant differences in the mean scores of regular students MI between the two groups.

MIs	Levels	Ν	Mean	Std. D	t	Sig.
Lagical	high	11	4.81	1.470	-,231	,820
Logical	low	10	5.00	2.108		
Linguistia	high	11	4.00	1.549	-,748	,464
Linguistic	low	10	4.50	1.509		
0 1	high	11	5.00	1.897	-,536	,598
Spatial	low	10	5.50	2.368		
ויו ת	high	11	4.00	2.236	-,415	,683
Bodily	low	10	4.40	2.170		
N/ · 1	high	11	2.81	1.470	-,453	,656
Musical	low	10	3.10	1.370		
Tu 4 - ma - ma - ma - 1	high	11	6.27	1.902	-,868	,369
Interpersonal	low	10	5.40	2.674		
T. (	high	11	4.90	1.758	,735	,471
Intra	low	10	4.20	2.616		
NT . 1	high	11	3.90	1.972	-,959	,350
naturai	low	10	5.00	3.162		

 Table 7. Independent Samples T-test for regular MI of the Two Achievement Groups

To assess whether there was a correlation between MI types and high / low regular students' achievement, the Pearson correlation method was run. The results indicated in Table (8) showed that there was a negative significant correlation between the achievement of high regular students and Linguistic Intelligence. On the other hand, a negative significant correlation was found between the achievement of low regular students and Intrapersonal Intelligence.

 Table 8. The Correlations between High/Low Regular Students' Achievement and Specific

 Types of MIs

	Achievement	Logical	Linguistic	Spatial	Bodily	Musical	Inter-	Intra-	Natural
	1	250-	625-*	278-	394-	.408	172-	205-	093-
High Regular		.458	.040	.407	.231	.213	.612	.546	.785
	11	11	11	11	11	11	11	11	11
	2	.000	044-	195-	461-	.010	350-	695-*	458-
Low Regular		1.000	.905	.590	.180	.979	.322	.026	.183
	10	10	10	10	10	10	10	10	10

# Research Question (5): Is there a difference between gifted and regular students in self-efficacy?

To answer this question, descriptive statistics of gifted/regular students'self-efficacy was calculated first (see Table 9). The results of using the independent t. test showed that there were statistically significant differences between the two groups (gifted/regular) in favor of the gifted students group. This indicated that gifted students had higher levels of self-efficacy than their regular counterparts.

Self-Efficacy	Ν	Mean	Std. Deviation	t	Sig.	
Gifted	43	67.60	5.169	2 561	020*	
Regular	42	63.78	8.26	2.301	.028*	

Table 9. Descriptive Statistics for Gifted/Regular Students Self-Efficacy

# **Research** Question (6): Is there a correlation between MI types of gifted / regular students and self-efficacy levels (High / low)?

In order to find out the correlation between self -efficacy and specific types of MI,

gifted students were divided into two groups according to their self-efficacy score. High selfefficacy students and low self-efficacy students. The Pearson correlation coefficient was applied. The results illustrated in Table (10) showed that there was no significant correlation between the high self-efficacy of gifted students and their MI types. A significant but negative correlation between spatial Intelligence and the self-efficacy of low gifted students was also found.

Groups	Logical	Linguistic	Spatial	Bodily	Musical	Inter	Intra	Natural
Self-efficacy High/gifted	.443	.313	.177	111-	.256	.187	047-	386-
Sig	.065	.206	.482	.661	.306	.458	.854	.114
No.	18	18	18	18	18	18	18	18
Self-efficacy Low gifted	391-	.133	803-**	.411	269-	444-	.392	102-
Sig	.209	.680	.002	.185	.398	.148	.208	.753
No.	12	12	12	12	12	12	12	12

Table 10. The Correlations between High/Low Gifted and MI Types

On the other hand, the application of the Pearson correlation coefficient on the self-efficacy of regular students revealed no significant statistical correlation between MI types and self-efficacy (See Table 11).

Groups	Logical	Linguistic	Spatial	Bodily	Musical	Inter	Intra	Natural
Self-efficacy High/regular	.327	.078	.571	.392	.238	.327	.506	.283
Sig	.299	.810	.053	.208	.456	.300	.093	.372
No.	12	12	12	12	12	12	12	12
Self-efficacy Low regular	.235	.021	.103	.052	.021	.345	.186	111-
Sig	.364	.937	.695	.842	.937	.175	.475	.671
No.	17	17	17	17	17	17	17	17

Table 11. The Correlations between High/Low Regular and MI Types

# **Research Question (7): To what extent do specific types of MIs correlate to achievement (gifted / regular) in specific language skills?**

The seventh research question scrutinized whether there was a correlation between gifted / regular students' MI types and their achievement scores in specific language skills and aspects. Pearson correlation coefficients indicated some relationships between gifted students' scores in specific language skills and MI types. The results reported in Table (7) demonstrated the following correlations:

MI Types	Speaking	Reading	Listening	Writing	Grammar	Vocab
	.001	161-	261-	047-	.318*	.066
Logical	.996	.303	.091	.763	.038	.674
	43	43	43	43	43	43
	016-	087-	224-	.142	032-	.026
Linguistic	.921	.581	.148	.363	.839	.869
	43	43	43	43	43	43
	.082	.024	.056	082-	.139	044-
Spatial	.601	.880	.723	.602	.375	.777
	43	43	43	43	43	43
	.239	.056	303-*	074-	.109	033-
Bodily	.123	.720	.048	.639	.486	.836
	43	43	43	43	43	43
	045-	392-**	.094	091-	102-	126-
Musical	.773	.009	.550	.563	.515	.423
	43	43	43	43	43	43
	$.345^{*}$	.120	070-	.053	.103	.156
Inter-	.023	.444	.657	.736	.511	.318
	43	43	43	43	43	43
Intra-	.059	077-	485-**	.095	006-	.006
	.706	.624	.001	.543	.970	.971
	43	43	43	43	43	43
	,038	-,069	-,099	-,055	-,041	-,006
Natural	,087	,659	,529	,725	,792	,971
	43	43	43	43	43	43

Table 12. The Correlations between MI Types and Achievement of Gifted Students in Language Skills

\*a- There was positive significant correlation between Logical Intelligence and students'scores in Grammar

\*b- There was positive significant correlation between Interpersonal Intelligence and students'scores in speaking

\*c- There was negative significant correlation between Bodily Intelligence and students'scores in listening.

\*d- There was negative significant correlation between Intrapersonal Intelligence and students'scores in listening.

\*e- There was negative significant correlation between Musical Intelligence and students'scores in reading

As for regular students, the results presented in Table (13) indicated that there were no significant correlations between different MI types and achievement in different language skills and aspects.

MI Types	Writing	Speaking	Reading	Listening	vocab	grammar
Logical	087-	014-	240-	046-	135-	.031
Sig	.583	.928	.125	.772	.394	.848
Ν	42	42	42	42	42	42
Linguistic	.254	176-	.016	194-	007-	105-
Sig	.105	.264	.920	.219	.965	.509
Ν	42	42	42	42	42	42
Spatial	.166	191-	.023	117-	114-	123-
Sig	.293	.227	.887	.460	.471	.436
Ν	42	42	42	42	42	42
Bodily	.148	024-	100-	183-	111-	055-
Sig	.351	.882	.529	.247	.486	.731
Ν	42	42	42	42	42	42
Musical	.005	232-	036-	152-	.027	.208
Sig	.973	.139	.822	.336	.863	.186
Ν	42	42	42	42	42	42
Interpersonal	.219	.026	.011	079-	.095	.226
Sig	.164	.871	.943	.618	.549	.150
Ν	42	42	42	42	42	42
Intra	085-	.136	.018	134-	097-	.197
Sig	.592	.390	.909	.399	.540	.210
Ν	42	42	42	42	42	42
Natural	.180	.009	138-	166-	235-	244-
Sig	.253	.957	.382	.294	.135	.119
Ν	42	42	42	42	42	42

Table 13. The Correlations between MI Types and Achievement of Regular Students in Language Skills

# **Research Question (8): To what extent does self-efficacy correlate to EFL achievement (gifted / regular)**

The final research question concerned the correlation between the self-efficacy levels (high /low) and EFL achievement (gifted / regular). The participants (gifted / regular) were divided into two levels (high / low) according to their self –efficacy. The correlation coefficient method was run. The results indicated in Table (14) revealed that different levels of self-efficacy did not correlate with EFL achievement either in case of gifted or regular students. It was surprising to find out that students'scores were not affected by their self-efficacy levels. Students' achievement maybe attributed to a myriad of factors other than self-efficacy.

Table 14. The Pea	arson Correlation	between	Self-Efficacy	Levels	and	Students	'Achievement
(Gifted/Regular)							

Pearson Correlation	No.	EFL Achievement	Sig
High Self Efficacy /Gifted	18	.043	.866
Low Self Efficacy Gifted	12	079	808
High Self Efficacy /Regular	12	468-	.125
Low Self Efficacy Regular	17	.180	.489

To find out whether self efficacy was a good predictor of gifted / regular students' EFL achievement in language skills and aspects. Multiple Regression Analysis was applied. The results illustrated in Table (15) revealed that self-efficacy was a good predictor of success in language learning for both gifted and regular participants

Table 15. Multiple Regression Analysis of Self-Efficacy levels and Achievement ofGifted/Regular

Groups	Solf Efficacy	Unstandardized Coefficients		Standardized Coefficients		Sia
	Seij-Ejjicacy	В	Std. Error	Beta	ι	Sig.
Gifted	(Constant)	27.46	6.27		4.37	.000
	Self-efficacy	.002	.093	.003	.018	.986
Regular	(Constant)	19.86	4.30		4.61	.000
	Self-efficacy	.008	.067	.020	.126	.900

#### DISCUSSION

The main objective of this study was to investigate and describe the multiple intelligences and self-efficacy profiles that characterize Saudi female (gifted / regular) third intermediate grade students and their correlations to the achievement in EFL in general, and specific language skills in particular. The findings of the research first question revealed that Interpersonal intelligence was the leading intelligence type that characterized gifted students, followed by Logical-Mathematical intelligence. Musical intelligence was the least common among gifted students. This finding was in consistent with that of (Abu Ghararah and Koura, 2010) The results of Multiple Regression Analysis also indicated that Interpersonal Intelligence was the best predictor of gifted students' success in foreign language learning. This means that the sample of gifted students had the ability to understand and make distinction in the moods, feelings and motivation of other people. They were excellent in using both verbal and non verbal communication. This intelligence includes displaying talent in understanding feelings and thoughts of people around them, responding to others, working and cooperating effectively in teams and viewing situations from different viewpoints. This intelligence type is a basic requirement in language learning since language is mainly communication.

Logical-Mathematical intelligence turned out to be the second most preferred by gifted intermediate students. Those students had sensitivity to logical patterns and relationships, using numbers effectively, enjoying complex operations, representing concrete objects and solving critical problems. In language classroom, this intelligence is an influential factor in learning. It stimulates students to ask questions, solve problems, understand rules and use abstraction.

Intrapersonal intelligence was found to be the third popular amongst gifted students. This finding means that they had the ability to understand one's feelings, strengths, and weaknesses. This draws attention to the importance of affective variables in second and foreign language learning. As Smith (2001: 44) explains, affective variables such as self-esteem, inhibition and anxiety are important factors in second language mastery and are aspects of intrapersonal intelligence which helps learners examine their strengths and weaknesses in language learning processes. This finding also reveals that gifted students could work both individually and in groups, which gave them the stamina to benefit from cooperative and team learning in addition to independent and self-regulated learning opportunities.

Musical Intelligence was the least common preference used by gifted students. This type of intelligence deals with the ability to communicate and understand meanings made out of sounds. Abu Ghararah and Koura (2010:60) attributed the low level of this type of intelligence among Saudi students to cultural and educational context in Saudi Arabia since music and signing are not popular or encouraged.

The results of the second research question indicated that the most frequently used intelligence was Interpersonal and the least frequently used intelligence was Musical. Interpersonal intelligence was also the best predictor of success in foreign language learning according to Multiple Regression Analysis. This result was similar to that of gifted. Differences between the two groups were in the order of other preferences. Both gifted and regular students had almost the same preferences for specific MIs such as Interpersonal, Intrapersonal, Logical and Spatial. The reason could be that these types of intelligences are basic to learning EFL.

The results of the third research question revealed that the most preferred intelligence of high gifted achievers was logical- Mathematical. This finding was similar to that of Koura, Abdella and Zafer (2010). Highly gifted seemed to have an analytic approach in handling problems. On the other hand, the least preferred intelligence type was Bodily-Kinesthetic. To find the correlation between the MIs of high gifted achievers and heir achievement scores, the correlation coefficient was calculated. The result revealed a negative and statistically significant correlation between intrapersonal intelligence was high may not probably be able to achieve better as EFL learners because they are independent, self-regulated, and self-assessing students.

On the other hand, low gifted students indicated that they preferred to use the Logical Intelligence most frequently and the Natural Intelligence less frequently. No significant correlation was found between their MIs and EFL achievement. It was evident that MIs did not play a significant role in improving their achievement. It could also imply that this group of students had no specific MI preference when it comes to achievement in EFL. These result was in line with that of Salehi and Gerami,(2012); Razmjoo, (2008); Zarati,(2007); Saricaoglu andArikan, (2005).

The fourth question examined the correlation between High / low EFL regular students' achievement and specific types of MIs. The findings showed that the most preferred intelligence of high regular students was the Interpersonal Intelligence and the least preferred intelligence was the Intrapersonal. To find the correlation between the MIs of high regular students and their achievement scores, the correlation coefficient was calculated. The result revealed a negative and statistically significant correlation between Linguistic Intelligence and EFL achievement scores. This finding was surprising, Linguistic Intelligence usually enables students to use different aspects and skills of language effectively, remember information and express themselves in spoken and written language easily. But this was not the situation in this study.

Relatively, the findings also indicated that the most preferred intelligence of low regular achievers was Visual-Spatial intelligence and the least preferred intelligence was Musical. The results of the correlation coefficient revealed a negative statistical correlation between intrapersonal intelligence and EFL achievement scores. This finding was similar to the case of high gifted students. Different levels of self awareness and understanding did not support their progress in language learning.

The fifth research question investigated the differences between gifted and regular students in their self-efficacy levels. The results of the independent T.test revealed that there were positive significant differences between the two groups . Gifted students had higher levels of self-efficacy than regular ones. This result might be attributed to the fact that receiving positive feedback from instructors and peers for being gifted enhanced a young person's reputation, image and perception of self in the classroom (Carrol et.al, 96).

The sixth research question discussed the correlation between MI types (gited /regular) and self-efficacy levels (high /low). Descriptive statistics was calculated; the results showed that gifted students had more self-efficacy than regular students. It can be said that it was due to the more enough attention and feedback from teachers, parents and peers for being gifted enhanced their reputation image and perception of self in the classroom.

To examine the correlation between the two variables, each group (gifted/ regular) was divided into two levels according to students'self –efficacy (high/low). The results of Pearson Correlation method application revealed only a negative correlation between low self-efficacy regular students and Visual-Spatial Intelligence. Less efficacious regular students did not involve themselves in activities related to Visual-Spatial Intelligence. Self-efficacy and MI types did not correlate to each other in the results of different groups of the study sample. This means that self-efficacy had no effect on MI types. This finding was opposite to that of Mahasenh (2013).

The seventh research question testes the correlation between gifted / regular students' MI types and their achievement scores in specific language skills and aspects. The results of Pearson correlation method application revealed that MI types did not have an effect on the achievement of regular students. On the contrary, MI types did affect gifted students'

achievement positively or negatively. Among the correlations found between MI types and the gifted students' achievement were the following:

- 1. A positive significant correlation between Logical Intelligence and students'scores in grammar. This finding was expected. Grammatical activities required those students to use rules, logic and to think abstractly.
- 2. A positive significant correlation between Interpersonal Intelligence and students'scores in speaking. This finding was also expected. Interpersonal gifted students were social. They had some good perquisite essential for being successful language speakers. For example, they had the ability to communicate verbally and non-verbally, work cooperatively, play roles..etc. After all, language is communication and social interaction.
- 3. A negative significant correlation between Bodily Intelligence and students 'scores in listening. The possible explanation was that the listening achievement test might not include sections where Bodily Intelligent students could use their skills and abilities.
- 4. There was negative significant correlation between Intrapersonal Intelligence and students'scores in listening. Intrapersonal gifted students had characterises
- 5. A negative significant correlation between Musical Intelligence and students'scores in reading. Those musical gifted students seemed to possess skills that could not qualify them to be good readers.

The final research question investigated the correlation between self-efficacy levels and language achievement of gifted and regular students. Gifted and regular students' achievement was not affected by their self-efficacy. The finding was surprising and unexpected. It was not in line with previous research (e.g. Abedini, 2010; Valle et al., 2009;

Aarabian et al., 2004; Greene et al., 2004; Chemers et al., 2001). This was perhaps due to developmental changes in young people's self-efficacy during adolescence. Decline in self-efficacy beliefs are evident at middle school (Dale & Gudith, 2005).

The finding resulted from multiple regression analysis suggested that self-efficacy was a good predictor of success.

### CONCLUSION

The present study was conducted to investigate and describe the multiple intelligences and self-efficacy profiles that characterize Saudi female (gifted / regular) third intermediate students and their correlations to the achievement of EFL language skills and aspects. The findings highlighted the importance of the MIs theory in providing deeper understanding of students strengths and weaknesses. Thus, EFL teachers should create attractive and motivating learning atmosphere while taking into consideration students individual interests, needs and preferences in specific intelligences. Although self-efficacy had no significant relationship with academic achievement, yet it was a good predictor of it. Therefore, teachers 'practices and efforts should be aimed at supporting self-efficacy to increase competence. The study recommended EFL teachers to respond to different potentials of their students, develop activities that support students 'strongest intelligences as well as improving the weak ones and pay more attention to creating a motivating classroom environment.

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