

Self-Efficacy and Anxiety among EFL Learners with Different Kinds of Multiple Intelligences

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Abstract—The present study was an attempt to investigate the relationship between the self-efficacy and anxiety of EFL learners with different kinds of multiple intelligences. Accordingly, three questionnaires were used: the General Self-Efficacy Scale (GSE), the Endler Multidimensional Anxiety Scales (EMAS), and the Multiple Intelligence Development Assessment Scales (MIDAS). A total of 246 undergraduate and graduate students aged 19 to 27 participated in this study. The researchers carried out a series of both descriptive and inferential statistical analyses and the results indicated that there is a positive correlation between anxiety and self-efficacy. The results also showed a significant relationship between linguistically intelligent EFL learners' self-efficacy and anxiety and that anxiety cannot be a predictor for EFL learners' self-efficacy.

Index Terms—self-efficacy, anxiety, multiple intelligences

I. INTRODUCTION

The discipline of second language learning and its research literature have manifested a sizeable focus on determining those factors that seem more likely to have an effect on the process of language learning in more recent times. Accordingly, one such factor identified as an affective variable is self-efficacy; the latter influences human decision, behaviors, and endeavors to overcome challenges (Bandura, 1986). To this end, the way people choose their behavior is affected by self-efficacy.

Self-efficacy is predominantly defined as the belief that one holds in their capabilities to achieve a goal or an outcome (Rudy, Davis, & Matthews, 2012). In his early writings, Bandura (1977) defines self-efficacy as “the conviction that one can successfully execute the behavior required to produce the desired outcome” (p. 193). Self-efficacy is a cognitive belief that can be evident in behavior. Hackett and Betz (1981), who were among the early researchers discussing self-efficacy, note that this construct is related to the subjective probability of achieving a desired outcome. Individuals with a strong sense of efficacy tend to maintain persistence in tasks when faced with adversity.

As stated by Bandura (1984), a strong self-efficacy produces higher levels of achievement within individuals. Compared with learners who doubt their capabilities, “those who feel self-efficacious about learning or performing a task completely are apt to participate more readily, work harder, persist longer when they encounter difficulties, and achieve at higher levels” (Schunk & Meece, 2005, p. 71).

Gist and Mitchel (1992) believe that self-efficacy is an individual's estimate of their ability to conduct a specific task. They further argue that those who anticipate they can undertake a task well do better than those who think they would not succeed and that efficacy perceptions also may be influenced by differences in personality, motivation, and the task itself. According to Bandura (1994), learners who hold a high degree of self-efficacy are not intimidated and challenged by sophisticated tasks and projects; quite the contrary, they regard them as an opportunity for growth and development. Attempts to provide a universal definition of self-efficacy are sometimes obscured by the existence of pertinent constructs such as self-concept, self-esteem, and locus of control. However, Bandura (2006) asserts that albeit they are self-referential, self-efficacy is vividly different from all other self-constructs since it involves judgments of capabilities which are specific to a particular task.

There is at times a twilight zone governing the definition of self-efficacy. Ormrod (2008) believes that self-efficacy is similar to self-concept, but with an important distinction. He writes that, “Self-efficacy is more specific in the domain or tasks or situations” (p. 125). He continues that, “A student may have high self-efficacy as he or she performs mathematics skills, but in the language arts classes, he or she may have a low self-efficacy, believing he or she is not good enough or the subject is too hard” (p. 125).

There is also the notion of perceived self-efficacy which is one's belief in the aptitude to navigate through and manage prospective situations which forecasts motivational directions and mathematic achievement (Stevens, Olivarez, Lan, & Tallend-Runnels, 2004). Accordingly, Bandura (1994) also states that, “Perceived self-efficacy is defined as people's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives” (p. 77). He offered not only a solution for teachers in their classrooms today but for the future, to build students with a strong sense of belief so that they can succeed.

Furthermore, perceived self-efficacy is one's beliefs about their capacity to perform actions at specific levels (Bandura, 2006). Bandura further argues that efficacy judgments are "concerned not with the number of skills you have, but with what you believe you can do with what you have under a variety of circumstances" (p. 37). Self-efficacy beliefs can influence human functioning in numerous ways. Bandura's self-efficacy theory provides a clear understanding of behavior that occurs when a person feels like he does not have control of situation.

Self-efficacy is commonly interconnected with certain emotional issues, including anxiety disorders. According to Bandura (1997), self-efficacy constitutes the key factor of human agency and a powerful resource in protecting persons from psychological strains such as anxiety. Indeed, self-efficacy hugely influences test anxiety, which refers to individuals' beliefs that they have the ability to succeed at a specific task. Self-efficacy also affects how one perceives potential threats. Bandura assumed the important roles of both threatening events and self-efficacy in anxiety arousal (Nie, Lau, & Liau, 2011).

Anxiety is a state of fear, tension, and discomfort in response to a real or perceived threat. Despite the fact that anxiety is considered a normal response to temporary periods of stress or uncertain conditions, it is possible that prolonged, intense, or inappropriate periods of anxiety may impair daily functioning, thence becoming an anxiety disorder (Schmoyer, 2007).

The kind of anxiety EFL learners manifest, sometimes in the form of nervous feelings or unclear fear (Scovel, 1978), is not a single independent variable; rather, it happens to be a phenomenon involving several other dependent variables. Thus, the issue of student anxiety needs to be addressed from a variety of perspectives and approaches.

Anxiety can be a symptom of a number of illnesses known as anxiety disorders. These disorders are a group of serious and treatable health problems caused by a combination of biological and environmental factors. Social anxiety is defined as "a marked and persistent fear of one or more social or performance situations in which the person is exposed to unfamiliar people or to possible scrutiny by others" (American Psychiatric Association, 1994, p. 416). According to this suggestion, there is evidence that individuals who tend to be socially anxious "judge their own performance in a negative fashion, emphasizing their shortcomings and underestimating their behavioral skills relative to the evaluation of their conversational partner, in comparison to a non-clinical control group or compared to participants with low levels of social anxiety" (Hampel, Weis, Hiller, & Witthoft, 2011, p. 545).

Perhaps contrary to anxiety which is often associated with a negative impact on language learning, there is the construct of intelligence with its usually positively perceived influence on learning in general and language learning in particular. Gardner's (1983) Multiple Intelligences Theory (MI) "has been used as a tool for understanding the relationship between language, learning, and intelligence" (Savas, 2012, p. 851) because, as Christison (1998) points out, ELT specialists and practitioners endorse MI theory and its principles. This wide endorsement, Christison argues, is due to the fact that through MI theory, an effective framework for language learning can be presented since the theory is compatible with the very complex nature of language learning.

MI theory, first introduced by Gardner (1983) has attracted considerable attention because it made educators and researchers question the notion of intelligence as one single entity. According to this approach, "intelligence entails the ability to solve problems or fashion products that are of consequence in a particular setting or community" (Gardner, 1993, p. 15). Gardner (2006) proposes eight main types of intelligences instead of one broad category of intelligence: logical-mathematical, linguistic, musical, spatial, bodily-kinesthetic, interpersonal, intrapersonal, and naturalistic (recently existential is added too but remains immeasurable).

According to Gardner (as cited in Savas, 2012), everyone has all of these intelligences at different levels and each individual has a unique intelligence profile. "No two people, not even twins, have the same intelligence profile since the development of intelligence is not determined by genetics alone; cultural and environmental factors also influence the type of intelligence individuals have" (p. 851).

Gardner (1983) defines intelligence as "the ability to solve problems or to create fashion products, that are valued within one or more cultural settings" (p. 81). "This definition challenged the traditional psychological view of intelligence as a single capacity that drives logical and mathematical thought" (Savas, 2012, p. 852). Accordingly, Gardner (1993) described intelligence as a bio-psychological capacity which may be impacted by experience, culture, and motivational factors. He further asserts that intelligence is the ability to solve problems.

Different researchers have studied extensively learners' self-efficacy, anxiety, and multiple intelligences and a pattern has been identified where high levels of self-efficacy are related to higher levels of self-achievements and lower levels of anxiety. Most studies on the relationships among students' self-efficacy and test anxiety have focused on elementary and secondary students (Mutton, Brown, & Lent, 1991).

Some studies that cover a wide range of issues show the significant relationship between test anxiety and academic self-efficacy (Lian, Davey, Wake, & Cashell, 2011), social anxiety and social intelligence (Hampel et al., 2011), and self-efficacy and social anxiety. Furthermore, several studies demonstrate a negative correlation between learners' self-efficacy and anxiety (Cheng, 2004; Muris, 2002; Wang & Liu, 2000).

Many studies in ELT suggest a negative relationship between L2 anxiety and self-perception of competence in the second language, akin to the concept of self-efficacy (Cheng, 2004; Horwitz, Horwitz, & Scope, 1986; Onwuegbuzie, Bailey, & Daley, 1997). Due to the importance of the role of affective factors which influence language anxiety and EFL learners' self-efficacy, it appears important to examine the effect domain of other affective factors which have not

been given due attention particularly when there seems to be a scarcity of research – if any – on the relationship among EFL learners' self-efficacy, anxiety, and multiple intelligences. Hence, the purpose of this research was thus to examine and find the relationship among EFL learners' anxiety, self-efficacy, and multiple intelligences and also to investigate any difference among the anxiety and self-efficacy of EFL learners with different kinds of multiple intelligences. Accordingly, the following null hypotheses were raised:

- H₀₁: There is no significant relationship between logically intelligent EFL learners' self-efficacy and anxiety.*
- H₀₂: There is no significant relationship between linguistically intelligent EFL learners' self-efficacy and anxiety.*
- H₀₃: There is no significant relationship between musically intelligent EFL learners' self-efficacy and anxiety.*
- H₀₄: There is no significant relationship between spatially intelligent EFL learners' self-efficacy and anxiety.*
- H₀₅: There is no significant relationship between kinesthetically intelligent EFL learners' self-efficacy and anxiety.*
- H₀₆: There is no significant relationship between interpersonally intelligent EFL learners' self-efficacy and anxiety.*
- H₀₇: There is no significant relationship between intrapersonally intelligent EFL learners' self-efficacy and anxiety.*
- H₀₈: There is no significant relationship between naturalistically intelligent EFL learners' self-efficacy and anxiety.*
- H₀₉: There is no significant difference among the self-efficacy of EFL learners with different kinds of multiple intelligences.*
- H₁₀: There is no significant difference among the anxiety of EFL learners with different kinds of multiple intelligences.*

In case a significant relationship were found among the variables, the following hypotheses were raised:

- H₁₁: Anxiety is not a significant predictor of logically intelligent EFL learners' self-efficacy.*
- H₁₂: Anxiety is not a significant predictor of linguistically intelligent EFL learners' self-efficacy.*
- H₁₃: Anxiety is not a significant predictor of musically intelligent EFL learners' self-efficacy.*
- H₁₄: Anxiety is not a significant predictor of spatially intelligent EFL learners' self-efficacy.*
- H₁₅: Anxiety is not a significant predictor of kinesthetically intelligent EFL learners' self-efficacy.*
- H₁₆: Anxiety is not a significant predictor of interpersonally intelligent EFL learners' self-efficacy.*
- H₁₇: Anxiety is not a significant predictor of intrapersonally intelligent EFL learners' self-efficacy.*
- H₁₈: Anxiety is not a significant predictor of naturalistically intelligent EFL learners' self-efficacy.*

II. METHOD

A. Participants

The participants in this study were 246 undergraduate and graduate EFL learners aged between 19 and 27. All of the participants expressed their willingness to fill out the three questionnaires.

B. Instrumentations

1. Endler Multidimensional Anxiety Scales (EMAS)

The EMAS is composed of three individual scales: The EMAS-State (EMAS-S), EMAS-Trait (EMAS-T), and the EMAS-Perception (EMAS-P) Scales. The EMAS-S is a 20-item measure that assesses state anxiety on a five-point intensity scale which is also summed to produce a Total State Anxiety score. The facets of the EMAS-T scale are social evaluation, physical danger, ambiguous, and daily routines. The EMAS-T is rated on a five-point intensity scale so it produces four scores for each dimension of trait anxiety. The EMAS-Perception (EMAS-P) assesses a respondent's perception of the type and degree of threat in her/his immediate situation. The scale is composed of five questions, and also three additional open-ended questions provided regarding specific aspects of their current situation. It takes 30 minutes to complete this questionnaire.

The results of the factor analyses conducted on the EMAS variants showed that the multidimensional structure was tenable and that they were valid tools (Miclea, Ciuca, & Albu, 2009).

2. General Self-Efficacy Scale (GSE)

The GSE is a 10-item, four-point self-report instrument, designed to assess a general sense of perceived self-efficacy with the aim in mind to predict coping with daily hassles as well as adaptation after experiencing all kinds of stressful life events. The four-point scale ranges from "not at all true" to "exactly true". The responses on all 10 questions are summed to provide a total score. The range is from 10-40 points. There is no cut-off score for the GSE. A median split is used to categorize the sample into high and low self-efficacy beliefs. The GSE has been shown to be highly reliable (with Cronbach's alphas ranging from 0.79 to 0.90) and well-validated measure of anxiety symptomatology (Schwarzer, Mueller, & Greenglass, 1995). This instrument also takes approximately 30 minutes.

3. Multiple Intelligence Development Assessment Scales (MIDAS)

The MIDAS is an instrument used to measure multiple intelligences. The measure is a screening instrument to determine the characteristics of an individual's MI dispositions. The MIDAS purports to provide an objective measure of the multiple intelligences as reported by the person or by a knowledgeable informant. The MIDAS which finds the dominant intelligence of the learner consists of 106 five-point Likert scale with scale anchors specific to the content of the items in subsections of eight intelligences: Musical, Spatial, Kinesthetic, Linguistic, Logical, Interpersonal, Intrapersonal, and Naturalist. The reading level of the questionnaire is approximately sixth grade. Items surveyed the participants' skill level, amount of participation regarding skills, and their level of enthusiasm relative to the activities

of personal preferences reflected in the item. The MIDAS instrument contains 10 main scale and 27 subscales. The MIDAS can be scored by a computerized scoring service provided by the publisher. The approximate time for this questionnaire is one hour.

Score for the eight intelligences appears on the profile as percentage scores (zero-100) based upon the total number of completed items. Scores are reported for the main scales and corresponding subscales. The rating of the questionnaire of this study is done according to the suggestion of Shearer (1996) through several correspondence, employing a Likert Scale as follows: The item response values should be scaled 1 for Never, 2 for Rarely, 3 for Sometimes, 4 for Often, and 5 for All the times; 6 is also for I don't know which indicates missing value.

Exploratory factor analysis of the final 80-item version identified an appropriate 7-factor solution and the findings indicate high internal consistency estimates, inter-rater ratings, and test-retest statistics (Shearer & Branton, 2006).

C. Procedure

The researchers selected the students from both Payameh Noor University of Ghom and also a number of language schools (all the participants were university students). No specific training was required for the administration of any of the questionnaires used in this study. They were all self-report instruments and once the participants were provided a short briefing in Farsi on the purpose of the research, they were requested to complete the three questionnaires either in class or at home after which they had to email them to the researcher. Emphasis was laid on the timing of the questionnaire for those participants filling them at home.

Once all the completed questionnaires were gathered by the researchers, the data analysis was conducted.

III. RESULTS

The details of the statistical analyses are presented and discussed in a chronological order of administering the three instruments and testing the hypotheses.

A. Descriptive Statistics

1. Administering the MIDAS

Table 1 below contains the number of the learners belonging to each intelligence category. As the table below displays, the number of the learners in each subcategory varied from a maximum of 33 to a minimum of 28.

TABLE 1.
NUMBER OF PARTICIPANTS IN EACH MI CATEGORY

MI Category	Natural	Intrapersonal	Interpersonal	Kinesthetic	Spatial	Musical	Linguistic	Logical
Number	28	33	33	32	32	29	31	28

2. Administering the EMAS

Table 2 below displays the descriptive statistics of the 246 participants on the EMAS disaggregated by their intelligence subcategory. While the musical group held the highest mean (63.28), the spatial subcategory manifested the lowest mean (58.97).

TABLE 2.
DESCRIPTIVE STATISTICS OF SCORES OF THE 246 PARTICIPANTS DISAGGREGATED BY THEIR INTELLIGENCE ON THE EMAS

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error
Logical	28	38	82	61.89	8.465	-.217	.441
Linguistic	31	50	75	62.19	5.412	-.262	.421
Musical	29	34	86	63.28	8.791	-.713	.434
Spatial	32	26	79	58.97	9.690	-.179	.414
Kinesthetic	32	33	76	61.34	7.868	-.071	.414
Interpersonal	33	34	72	59.67	7.377	-.637	.409
Intrapersonal	33	33	79	61.52	9.741	-.766	.409
Natural	29	20	75	59.79	9.221	-.712	.434
Valid N (listwise)	28						

Furthermore, as can be calculated based on the data in the above table, all the skewness ratios (statistic / standard error) fell within the ± 1.96 range and thus resembled normalcy.

3. Administering the GSE

The descriptive statistics of the participants on the GSE again disaggregated by their intelligence subcategory appears in Table 3. The natural group held the highest mean (31.07) while the spatial subcategory the lowest mean (29.41). The skewness ratios also fell within the acceptable range and thus resembled normalcy.

TABLE 3.
DESCRIPTIVE STATISTICS OF SCORES OF THE 246 PARTICIPANTS DISAGGREGATED BY THEIR INTELLIGENCE ON THE GSE

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error
Logical	28	24	34	29.93	2.666	-.372	.441
Linguistic	31	22	36	30.23	4.031	-.529	.421
Musical	29	22	34	29.72	3.473	-.701	.434
Spatial	32	22	36	29.41	3.723	-.438	.414
Kinesthetic	32	23	36	30.25	4.265	-.347	.414
Interpersonal	33	19	36	29.97	4.455	-.484	.409
Intrapersonal	33	22	36	29.94	3.807	-.439	.409
Natural	29	23	36	31.07	3.081	-.790	.434
Valid N (listwise)	28						

B. Testing Hypotheses

To verify the first eight null hypotheses of the study, the researchers conducted a series of Pearson correlation coefficient tests. The prerequisites for these tests (i.e. normalcy, linearity, and homoscedasticity of the scores) were established a priori but not reported here in the interest of brevity.

1. Null Hypothesis 1

To test the first hypothesis, i.e. whether a significant relationship existed between logically intelligent EFL learners' self-efficacy and anxiety, the researchers ran the correlation which was not significant at the 0.01 level ($r = 0.074$, $p = 0.710 > 0.05$) and the first null hypothesis was not rejected. In other words, *there is no significant relationship between logically intelligent EFL learners' self-efficacy and anxiety.*

2. Null Hypothesis 2

To test the second hypothesis, i.e. whether a significant relationship existed between linguistically intelligent EFL learners' self-efficacy and anxiety, a correlation was run. The correlation coefficient turned out to be significant at the 0.01 level ($r = 0.501$, $p = 0.004 < 0.05$). Furthermore, R^2 (or common variance) which is the effect size for correlation came out to be 0.25. This is a strong effect size (Larson-Hall, 2010). As a result, the researchers were able to reject the second null hypothesis. In other words, *there is a significant relationship between linguistically intelligent EFL learners' self-efficacy and anxiety.*

3. Null Hypothesis 3

A correlation was run to test the third hypothesis of the study. The correlation coefficient was not significant at the 0.01 level ($r = 0.022$, $p = 0.908 > 0.05$). Hence, the third null hypothesis was not rejected and *there is no significant relationship between musically intelligent EFL learners' self-efficacy and anxiety.*

4. Null Hypothesis 4

The researchers ran the correlation to test the fourth hypothesis of the study: the correlation was not significant at the 0.01 level ($r = 0.086$, $p = 0.639 > 0.05$). Hence, the fourth null hypothesis was not rejected and *there is no significant relationship between spatially intelligent EFL learners' self-efficacy and anxiety.*

5. Null Hypothesis 5

To test the fifth null hypothesis, i.e. whether a significant relationship existed between kinesthetically intelligent EFL learners' self-efficacy and anxiety, the researchers ran a correlation which was not significant at the 0.01 level ($r = 0.158$, $p = 0.388 > 0.05$). Hence, the fifth null hypothesis was not rejected. In other words: *There is no significant relationship between kinesthetically intelligent EFL learners' self-efficacy and anxiety.*

6. Null Hypothesis 6

The researchers ran the correlation to test the sixth null hypothesis of the study. Again, the correlation was not significant at the 0.01 level ($r = 0.059$, $p = 0.746 > 0.05$). Hence, the sixth null hypothesis was not rejected: *there is no significant relationship between interpersonally intelligent EFL learners' self-efficacy and anxiety.*

7. Null Hypothesis 7

The researchers thus ran the correlation to test the seventh null hypothesis of the study: the correlation was not significant at the 0.01 level ($r = -0.077$, $p = 0.672 > 0.05$). Hence, the seventh null hypothesis was not rejected and *there is no significant relationship between intrapersonally intelligent EFL learners' self-efficacy and anxiety.*

8. Null Hypothesis 8

The researchers thus ran the correlation to test the eighth null hypothesis of the study and the correlation was not significant at the 0.01 level ($r = 0.171$, $p = 0.374 > 0.05$). Hence, the eighth null hypothesis was not rejected and *there is no significant relationship between naturalistically intelligent EFL learners' self-efficacy and anxiety.*

To test the ninth and 10th null hypotheses of the study, the researchers conducted two sets of one-way ANOVAs as again the distribution of scores had proven normality (Tables 2 and 3).

9. Null Hypothesis 9

To test the ninth hypothesis, i.e. whether a significant difference existed among the self-efficacy of EFL learners with different kinds of multiple intelligences, the researcher conducted the first ANOVA. Prior to that, the Levene's test of homogeneity of variances was checked ($p = 0.140 > 0.05$).

Subsequently, the ANOVA was run. As Table 4 demonstrates below, the difference between the eight groups was indeed significant ($F_{(7, 236)} = 191.58, p = 0.0005 < 0.05$).

TABLE 4.
ONE-WAY ANOVA ON THE SCORES OF THE 246 LEARNERS DISAGGREGATED BY THEIR INTELLIGENCE SUBCATEGORY ON THE GSE

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	24945.616	7	3563.659	191.580	.000
Within Groups	4389.937	236	18.601		
Total	29335.553	243			

In other words, the null hypothesis was rejected as *there is a significant difference among the self-efficacy of EFL learners with different kinds of multiple intelligences*.

To identify where the differences lay, i.e. which groups performed in a significantly different manner from one another on the GSE, a post hoc Tukey HSD test was run on the scores (Table 5).

TABLE 5.
MULTIPLE COMPARISONS (TUKEY HSD TEST)

(I) Group	(J) Group	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1	2	-.297	1.124	1.000	-3.74	3.14
	3	.204	1.143	1.000	-3.29	3.70
	4	.204	1.143	1.000	-3.29	3.70
	5	-.321	1.116	1.000	-3.73	3.09
	6	-29.738*	1.108	.000	-33.13	-26.35
	7	-.011	1.108	1.000	-3.40	3.38
	8	-1.140	1.143	.974	-4.64	2.35
	2	1	.297	1.124	1.000	-3.14
3		.502	1.114	1.000	-2.91	3.91
4		.502	1.114	1.000	-2.91	3.91
5		-.024	1.087	1.000	-3.35	3.30
6		-29.441*	1.079	.000	-32.74	-26.14
7		.286	1.079	1.000	-3.01	3.59
8		-.843	1.114	.995	-4.25	2.56
3		1	-.204	1.143	1.000	-3.70
	2	-.502	1.114	1.000	-3.91	2.91
	4	.000	1.133	1.000	-3.46	3.46
	5	-.526	1.106	1.000	-3.91	2.86
	6	-29.943*	1.098	.000	-33.30	-26.59
	7	-.215	1.098	1.000	-3.57	3.14
	8	-1.345	1.133	.935	-4.81	2.12
	4	1	-.204	1.143	1.000	-3.70
2		-.502	1.114	1.000	-3.91	2.91
3		.000	1.133	1.000	-3.46	3.46
5		-.526	1.106	1.000	-3.91	2.86
6		-29.943*	1.098	.000	-33.30	-26.59
7		-.215	1.098	1.000	-3.57	3.14
8		-1.345	1.133	.935	-4.81	2.12
5		1	.321	1.116	1.000	-3.09
	2	.024	1.087	1.000	-3.30	3.35
	3	.526	1.106	1.000	-2.86	3.91
	4	.526	1.106	1.000	-2.86	3.91
	6	-29.417*	1.070	.000	-32.69	-26.14
	7	.311	1.070	1.000	-2.96	3.58
	8	-.819	1.106	.996	-4.20	2.56
	6	1	29.738*	1.108	.000	26.35
2		29.441*	1.079	.000	26.14	32.74
3		29.943*	1.098	.000	26.59	33.30
4		29.943*	1.098	.000	26.59	33.30
5		29.417*	1.070	.000	26.14	32.69
7		29.727*	1.062	.000	26.48	32.97
8		28.598*	1.098	.000	25.24	31.96
7		1	.011	1.108	1.000	-3.38
	2	-.286	1.079	1.000	-3.59	3.01
	3	.215	1.098	1.000	-3.14	3.57
	4	.215	1.098	1.000	-3.14	3.57
	5	-.311	1.070	1.000	-3.58	2.96
	6	-29.727*	1.062	.000	-32.97	-26.48
	8	-1.130	1.098	.970	-4.49	2.23
	8	1	1.140	1.143	.974	-2.35
2		.843	1.114	.995	-2.56	4.25
3		1.345	1.133	.935	-2.12	4.81
4		1.345	1.133	.935	-2.12	4.81
5		.819	1.106	.996	-2.56	4.20
6		-28.598*	1.098	.000	-31.96	-25.24
7		1.130	1.098	.970	-2.23	4.49

*. The mean difference is significant at the 0.05 level.

The above table demonstrates that there was a significant difference in the GSE scores of interpersonally intelligent EFL learners with all the other seven subcategories.

10. Null Hypothesis 10

To test the 10th null hypothesis, i.e. whether a significant difference existed among the anxiety of learners with different kinds of multiple intelligences, the researcher conducted the second ANOVA. again, the Levene's test of homogeneity of variances was checked of course and this assumption was met ($p = 0.581 > 0.05$).

Subsequently, the ANOVA was run. As Table 6 demonstrates below, the difference between the eight groups was not significant ($F_{(7, 236)} = 0.929, p = 0.485 > 0.05$).

TABLE 16.
ONE-WAY ANOVA ON THE SCORES OF THE 246 LEARNERS DISAGGREGATED BY THEIR INTELLIGENCE SUBCATEGORY ON THE EMAS

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	461.585	7	65.941	.929	.485
Within Groups	16965.832	239	70.987		
Total	17427.417	246			

In other words, the null hypothesis was not rejected as *there is no significant difference among the anxiety of EFL learners with different kinds of multiple intelligences*.

Since only the second null hypothesis was rejected in this study meaning that there is a significant correlation between linguistically intelligent EFL learners' self-efficacy and anxiety, only the 12th null hypothesis (i.e. whether a significant difference between linguistically intelligent EFL learners' prediction of self-efficacy existed by their anxiety) could be tested as a result. For this of course running a linear regression was required. The assumptions for this regression, i.e. normality and homoscedasticity had already been established. Table 7 below represents R and R square for this regression analysis.

TABLE 7.
MODEL SUMMARY – R AND R SQUARE

Model	R	R square	Adjusted R square	Std. error of the estimate
1	.097a	.009	.005	3.72132

a. Predictor: (constant), Learners' anxiety
b. Dependent variable: Self-efficacy

As reported in Table 7, the R came out to be 0.097 and R square 0.009. Table 8 reports the results of the ANOVA ($F_{1,245} = 2.339$, $p = 0.127 > 0.05$) which proved not significant.

TABLE 8.
REGRESSION OUTPUT: ANOVA TABLE

Model		Sum of squares	df	Mean square	F	Sig.
1	Regression	32.390	1	32.390	2.339	.127a
	Residual	3392.816	245	13.848		
	Total	3425.206	246			

a. Predictors: (constant), Learners' anxiety
b. Dependent variable: Self-efficacy

The 12th null hypothesis of this study was thus not rejected meaning that anxiety was not a significant predictor of self-efficacy among EFL learners.

IV. DISCUSSION

The results of this study indicated that there were a significant relationship between anxiety and self-efficacy among EFL learners with different multiple intelligences. While only partially supporting the hypothesis that as anxiety increases, general self-efficacy beliefs decrease, the results do support the concept that anxiety cannot be evaluated as a whole, but better assessed by its dimensions (Endler, Parker, Bagby, & Cox, 1991).

Therefore, the results indicate that different factors of anxiety interact differentially with general self-efficacy beliefs, because previous research has indicated that anxiety is related to poor perception of self-efficacy (Beck, 1976; Kavanagh, & Bower 1985; Stanley 2002). The results of the current research is further consistent with a past research too which indicates that anxiety is related to general self-efficacy beliefs (Grimm & Nachmias, 1977). Furthermore, socially anxious individuals are under-achievers in social interactions compared to non-anxious control participants (Baker & Edelman, 2002). Here the result is consistent with other empirical studies which explore similar relations in other countries. A number of studies have explored how self-related beliefs (e.g., self-efficacy, self-concept) relate to test anxiety (e.g. Bonaccio & Reeve, 2010; Kesici, Balogu, & Deniz, 2011; Putwain, Langdale, Woods, & Nicholson, 2011).

The predominant trend in MI theorization indicates that all intelligence types have to interact (Moran, Kornhaber, & Gardner, 2006). Christison (1998) also stated that, "Intelligence works together in complex ways. No intelligences are always interacting with each other" (p. 2). "Due to the complex nature of human language learning and processing, interaction of intelligences play even a bigger role" (Savas, 2012, p. 853). Bellanca, Chapman, and Swartz (1997) also claim that, "Because language distinguishes human behavior and identifies the ability of humans to reason, the verbal/linguistic intelligence crosses all disciplines". This is how language learning is synonymous with employing all intelligences and linguistic intelligence alone cannot be responsible for language learning.

V. CONCLUSION

Self-efficacy is not a quality that some people have or have not in a fixed quantity from their birth, rather, an attribute which develops with the passage of time. It shapes through experience and can be changed or enhanced. A teacher may play a crucial role in enhancing a positive feeling about efficacy among students. This may be achieved through

developing self-efficacy by using different learning strategies, which can increase this quality among students towards English language learning.

As self-efficacy is the ability of a person's judgment to perform a particular activity, it shows how students are confident about performing a specific task. Individuals who are confident about their assigned task and have high levels of self-efficacy may do better rather than talented ones although they are not perfect but as they are guarded by their beliefs rather than reality, they perform better. In fact individuals will successfully complete those activities that fall within their efficacy (Pajares, 2000).

Teachers are one of the most influential elements for the success of any educational system as they can construct learning environments that promote students' progress. Teachers can use strategies to reduce students' stress, fatigue, or anxiety which an English learner may face during his learning processes. They can develop a strong sense of personal competence in the students, and can also help in the development of students' self-efficacy towards English learning.

Syllabus designers should provide context for learners to articulate and refine their prior understandings, purposes, and intentions for new learning. A syllabus usually involves the learners in decisions making regarding the goals, content, presentation, assessment of the course and could also help a learner's need and increase their self-efficacy. Learners with high self-efficacy see difficult tasks as challenging and work attentively to master them, and learners with low self-efficacy learn helplessness. So poor self-efficacy and poor motivation will negatively affect a student's ability to do well. In directing a syllabus, a designer must know which syllabus works more effectively.

The following three recommendations for future research are based upon the results of this study.

1. First, replicating this research with different samples including other age groups or among female participants seems very critical in order to be able to generalize the findings.
2. A gender comparison based on the performance of female and male EFL learners on the three constructs may provide further detailed information about the issue at stake.
3. Perhaps a comparative study among different language proficiency levels may provide useful information too.

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