

**The Impact of a Cognitive-Affective Reading-Based Course on EQ
and Foreign Language Anxiety**

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Abstract

This study intended to explore the impact of a cognitive-affective reading-based course on emotional intelligence and foreign language anxiety. To this end, short literary readings were used as learning materials and the basis of classroom activities in a cognitive-affective reading-based course. An additional goal of this study was to probe the relationship between foreign language anxiety and emotional intelligence, defined in terms of both ability and mixed models. Mayer, Salovey, and Caruso's (2002) Emotional Intelligence Test (MSCEIT), Cooper's (1996/1997) EQ-Map, and Horwitz, Horwitz, and Cope's (1986) Foreign Language Classroom Anxiety Test (FLCAS) were administered to 70 EFL undergraduate students in a pretest posttest quasi-experimental design. MANOVA, ANCOVA and Pearson correlation procedures were conducted. The results revealed that the cognitive-affective reading-based course in which literary readings were used significantly improved the subjects' MSCEIT scores and decreased their FLCAS scores. Besides, there was a significant negative correlation between emotional intelligence and foreign language anxiety. The pedagogical implications for learners, teachers, educators and materials developers are presented.

Key Words: Emotional Intelligence, Foreign Language Anxiety, Cognitive-Affective Course

Introduction

The debate for many philosophers concerns whether cognition or emotion is more important to our life. We do not know exactly when the debate first started, but philosophical considerations of the relations between thought and emotion in western culture go back to early Greek thoughts (Bar-on and Parker, 2000). Aristotle distinguished *orexis*, the emotional and moral functions, from *dianoia*, the cognitive and intellectual functions. He argued that intellect was dependable and so important to us. Later, Cicero translated the *dianoia* as *intelligentia* to mean something like understanding and knowledge (Vernon, 1979).

The same debate was also evident in early psychology. Intelligence was considered as an immeasurable concept devoid of emotion. Nonetheless, as Eysenck (2000) states, Francis Galton in the late 19th century made it as a measurable concept like other characteristics which could be described quantitatively. He conceived of intelligence as “a general ability, largely inherent, and best measured in terms of speed of mental process” (p. 17). Since then, different views have been put forward without any significant consensus over its operationalization and exact definition. For instance, Eysenck (ibid) states that 14 different views were put forward just in a symposium on intelligence in the 1920s. However, symposiums on intelligence over the years repeatedly concluded that the first hallmark of intelligence would be high-level mental ability such as abstract reasoning (Sternberg, 1997). For instance, Terman (1921; cited in Sternberg, 1997), as a pioneer of IQ tests, stated, “an individual is intelligent in proportion as he is able to carry on abstract thinking” (p. 399). Therefore, intelligence conceptualized as abstract thinking was demonstrated to predict academic success.

In relating intelligence to L2 learning, Brown (2000) states that it was generally conceived that a smart person would be capable of learning a second language more successfully because of greater intelligence. If a student could remember something he or she was exposed to, that student would be a successful language learner only

because intelligence was traditionally defined and measured in terms of linguistic and logical-mathematical abilities. However, Gardner (1983), in a rather different approach, advanced a controversial theory of intelligence, Multiple Intelligence (MI), which blew apart the traditional thoughts about monolithic general intelligence. He argued that IQ tests had relatively little predictive power outside the school context when other social factors were involved. In his Multiple Intelligence theory, Gardner (ibid) initially described seven *intelligences* which paved the way for uncovering other intelligences such as *emotional intelligence* or what is known as *EQ* or *EI*.

The concept of emotional intelligence partly stems from Gardner's (1983) interpersonal and intrapersonal intelligences. However, the formal term was originated from two psychologists, John Mayer and Peter Salovey, in 1990 based on examining evidence from emotion, intelligence, aesthetics, artificial intelligence, brain and clinical psychology research (Bar-on and Parker, 2000). Since then, the concept has generated interest in both the popular media and scientific circle, leading to several definitions and two general competing models of EQ.

Ability Model of Emotional Intelligence

As the latest development in understanding the relation between reason and emotion, Salovey and Mayer defined emotional intelligence in terms of a set of abilities and used two-part approach, speaking first of the general processing of emotional information and second specifying the skills involved in such processing. According to their early definition (Mayer, et al., 1990; cited in Mayer, 2001), emotional intelligence is "a type of emotional information processing that includes accurate appraisal of emotion in oneself and others, appropriate expression of emotion and adaptive regulation of emotion in such a way as to enhance living" (p. 9). By 1997 and 1999, Mayer and Salovey, together with Caruso, expanded on this ability-based definition and defined emotional intelligence as (Mayer et al., 1999):

An ability to recognize the meaning of emotions and their relationships and to reason and problem-solve on the basis of them ... the capacity to perceive emotions, assimilate emotion-related feelings, and understand the information of those emotions and manage them. (p. 267)

This revised ability-model definition is based on the capacity to reason in four areas: perceiving emotions, facilitating thought, analyzing emotions and managing emotions. As Bar-on and Parker (2000) explain, the first area itself involves registering, attending to and deciphering emotion-loaded messages as they are expressed through voice tone, objects of art, stories, facial expressions or cultural artifacts. The second area concerns assimilating basic emotional experiences into mental life, including evaluating emotions against each other or other sensations. The third area involves reasoning about or with emotions, that is, the ability to understand emotional information and the causes of emotions and how emotions combine, progress and change from one to another. The fourth area, which is the highest level, concerns the regulation of emotion in oneself and others. This area demands the ability to stay open to feelings and monitor them effectively to promote growth and personal understanding.

According to this model, having high EQ appears relatively independent of most personality characteristics; EQ scores might correlate more with some traits and less with others (Ciarrochi et al., 2001). Moreover, being emotionally intelligent does not mean that a learner will necessarily succeed in school. Rather, there are other personality and contextual variables that should be taken into consideration. Therefore, this model does not provide evidence that EQ is the best predictor of success. However, it does not deny potentiality.

Mixed Models of Emotional Intelligence

After the modern field of emotional intelligence saw its first scientific publication in early 1990s, some other researchers including Goleman (1995), and Cooper (1996/1997) expanded the meaning of emotional

intelligence by explicitly mixing the ability to understand and process emotion with other diverse parts of personality or skills; hence creating mixed approaches to emotional intelligence (Barrett and Salovey, 2002).

Goleman (1995), who commercially popularized the concept, considered emotional intelligence as a mix of positive traits and skills such as self-control, zeal and motivation and identified five domains of EQ: (a) Knowing one's emotion, (b) managing emotion, (c) motivating oneself, (d) recognizing emotions in others, and (e) handling relationships. In a rather similar manner, Cooper (1996/1997) defined emotional intelligence as mix of mental and non-mental abilities and divided emotional intelligence into five attributes in a measure called EQ-Map: *Current environment*, measuring life pressure and life satisfaction; *emotional literacy*, measuring emotional self-awareness, emotional expression, and emotional awareness of others; *EQ competencies*, including intentionality, creativity, resilience, interpersonal connection and constructive discontent; *EQ values and attitudes*, measuring outlook, compassion, intuition, trust radius, personal power and integrated self and *the outcome*, including general health, quality of life, relationship quotient and optimal performance.

Taken together, both the ability and mixed approaches of EQ share a similar intention: to understand how an individual perceives and regulated his or her emotions. Despite the fact that different competing and sometimes conflicting components have been integrated into emotional intelligence, this construct which reveals the synthesis between cognitive and affective processes has stimulated some research, mostly in the fields of psychology, management, education, and curriculum development. For instance, in the field of education, Stottlemayer (2002) in a study of EQ and its relation to student achievement among 200 eleventh and twelfth grade American students in Texas found that EI skills were significantly predictive of academic achievement. Also, in the field of psychology, Besharat et al. (2005) examined the impact of emotional intelligence on mental health and academic success in a sample of 220 students at Esfahan University. They reported that EQ

was negatively correlated with psychological stress and positively with academic success.

In an EFL context, Aghasafari (2006) in a correlational design investigated the relationship between EQ and language learning strategies among 100 EFL sophomore participants at Ghazvin Islamic Azad University. The results indicated that there was a positive relationship between overall emotional intelligence and language learning strategies. Also, Pishghadam (2007) examined the relationship between EQ and verbal intelligence, on the one hand, and second language skills and academic success, on the other, among 576 EFL students at Allameh Tabataba'ii University in Tehran. In this study, the EQ and verbal intelligence scores were correlated with the students' grade point average and scores obtained at the end of second year in listening, reading, speaking and writing. The results indicated that ESL skills and GPA were strongly correlated with stress management and intrapersonal skills in his EQ test. He also reported that higher levels of EQ and verbal intelligence were related to second language learning success. All said there is still a pressing need to conduct research on EQ in EFL contexts since quite a few studies have been focused on emotional intelligence in an EFL/ESL context (Brackett and Katulak, 2007). That is why this research was conducted to explore two components, emotional intelligence and foreign language anxiety, to see how they would be affected in an EFL context.

Foreign Language Anxiety

Gardner (1993) emphasizes that language is not grammar specific, but it is influenced by other factors that are intelligence-based. Likewise, he has expanded the framework of traditional intelligence and emphasized that the development of language is not limited to syntax, semantics and phonology. As Ellis (1994) states, there are many other factors that will influence language development, particularly SLA. These include affective factors such as anxiety.

Anxiety, in Heron's (1989) terms, "is associated with negative feelings such as uneasiness, frustration, self-doubt, apprehension and tension" (p. 33), which is experienced by a psychologically disturbed learner. Also, cognitivists view anxiety as worry and emotionality (MacIntyre, 1995). Thus, anxiety is related to cognitive interference due to extreme instances of worry which might relate to appraisal of situations as threatening (Deffenbacher, 1980). Yet, Brown (2000) states that a distinction should be made among trait, state and situation-specific anxiety. Trait anxiety is a characteristic of a learner's personality whereas state anxiety is experienced in response to a specific event. In addition, Horwitz et al. (1986) identify another type of situation-specific anxiety, *Foreign Language Anxiety*, which affects L2 learning. They describe it as "a distinct complex phenomenon of self-perception, beliefs, feelings and behaviors related to classroom language learning arising from the uniqueness of language learning process" (p. 126). That is why they developed Foreign Language Anxiety Classroom Scale, distinguishing it from other types of anxiety.

Although Dewaele (2002) had difficulty in confirming the role of foreign language anxiety as a stable factor for foreign language learning, many researchers (e.g. Cheng et al., 1999; Argaman and Abu-Rabia, 2002) have found a significant correlation between language anxiety and language achievement. Therefore, if teachers are concerned with helping students develop their L2 abilities, they might want to reduce foreign language anxiety and improve their emotional intelligence skills, if possible. Unfortunately, little research, if any, has been conducted on this issue, which is the focus of this study.

Emotional Knowledge and literature

Duraiswamy (1999) stated that language remains rather unconscious until it is dealt with emotionally. The emotional awareness and experience could be the vehicle that evokes consciousness, enabling readers to understand, clarify and communicate ideas better. In doing so, as Freeman (1987; cited in Duraiswamy, 1999) suggests, literature may provide a variety of contexts to encourage emotional development and

fill in student's emotional deficiencies because emotional components of literature are those areas of human functions that enable the reader first to perceive the world as comprehensible and then participate in roles on the basis of perception. Also, literature, as Ghosn (2001) argues, has the potential to foster emotional well-being by providing vicarious emotional experience that shape brain circuits for empathy, which is a component of EQ.

To fully enrich our inner and outer world, Oatley (2004) states that literature could be diverse sources of examples of emotional life because the authors of imaginative literary works have written about emotions that may have sufficient resonance with generations of learners. To her, literature does not represent psychometric science, but it helps us understand what emotional knowledge/experience actually is. To move further, Miall (2005) claims that in literary works we can find joy in negative feelings such as discomfort and anxiety and turn them into positive feelings.

All said, it seems evident that the review of literature tends to provide the potential for the theoretical connection between emotional skills and development, on the one hand, and the engagement with literary works, on the other. However, the empirical support in the literature is quite poor (Cobb and Mayer, 2000; Goleman, 1995). In the light of these views, this study is an attempt to shed more light on this line of empirical research.

Research Questions

The broad objective of this study was to investigate the impact of a cognitive-affective reading-based course on emotional intelligence and foreign language anxiety. In this cognitive-affective reading course, literary readings were used not only as learning materials but also the basis for classroom activities such as group work, peer-lead discussion and journal writings where the subjects had opportunities empathize characters, events or settings in the literary readings, express their emotions and make use of emotional knowledge to solve problems. An

additional goal of this study was to explore the relationship between emotional intelligence and foreign language anxiety. Meanwhile, this research relied on both the ability-based and mixed approaches to EQ/EI to provide a better-balanced picture of the subjects. Accordingly, the following broad research questions were developed:

1. Does a cognitive-affective reading-based course with its focus on literary readings affect the undergraduate EFL subjects' emotional intelligence scores from two EQ measures?

2. Does a cognitive-affective reading-based course with its focus on literary readings affect the undergraduate EFL subjects' foreign language anxiety scores?

3. Do the undergraduate EFL subjects' emotional intelligence scores from two EQ measures correlate with their foreign language anxiety?

To probe the above questions, the following null hypotheses were formulated:

HO1: *The cognitive-affective reading-based course with its focus on literary readings does not have a significant effect on the undergraduate EFL subjects' emotional intelligence scores from two EQ measures.*

HO2: *The cognitive-affective reading-based course with its focus on literary readings does not have a significant effect on the undergraduate EFL subjects' foreign language anxiety scores.*

HO3: *There is no significant correlation between the undergraduate EFL subjects' emotional intelligence and foreign language anxiety scores.*

Method

Subjects

Seventy undergraduate EFL sophomore and junior (forty-six female and twenty-four male) students participated in this study. These subjects included two intact classes from Shahrekord University which were assigned as control and experimental groups. They enrolled in the corresponding four-credit Reading Course in the fall semester of 2006-2007 and attended the class on Saturday and Monday. Meanwhile, they were all majoring in Translation of English and their ages ranged from 18 to 27.

Instrumentation

This study made use of the following instruments for data collection:

Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT Version 2.0)

The MSCETT is a performance-based measure of emotional intelligence which includes 141 items. According to the MSCEIT Manual (Mayer et al., 2002), emotional intelligence is divided into two major areas: experiential and strategic EI, which can further be divided into four subscales that measure: perceiving, using, understanding and managing emotions, respectively. These four branches themselves are made up of two tasks. Therefore, all eight tasks give the total EI scores.

There are two methods of scoring. One is to identify the correct answer as the one that is considered correct by the majority of the respondents in the research or standardized sample. This is the *general consensus* method. The second method is to invite emotion experts to judge which answers are correct and use the average response to a given alternative as a criteria. This is the *expert consensus* approach which was used for scoring in this study.

According to the MSCEIT User's Manual (Mayer et al., 2002), the test has a full scale reliability of .91, with area reliability of .90 (Experiential) and .85 (Strategic). Brackett and Mayer (2001; cited in

Mayer et al., 2002) also found a test-retest reliability of .86, with a sample of 62. The MSCEIT V. 2.0 has good coverage of 1997 model. Thus, it possesses content validity. At its most basic level, confirmatory factor analyses are supportive of the methods of scoring used (Ciarrochi et al., 2000).

EQ-Map Questionnaire

This study also used an EQ test, which was part of the full-scale EQ-Map developed by Cooper (1996/1997). This mixed-approach test was validated by Bahrami (2002) through concurrent correlation procedures. Also, she reported the test-retest reliability of .84 with a sample of 30. In this questionnaire, emotional intelligence is divided into eight parts: (a) Self awareness, (b) emotional awareness of others, (c) emotional expression, (d) resilience, (e) compassion, (f) creativity, (g) interpersonal connection, and (h) personal power. Besides, this self-report questionnaire is a likert-type scale coded on a 4-point scale ranging from *very well* (3) to *none/didn't occur* (0).

Foreign Language Classroom Anxiety Scale (FLCAS)

To collect data on foreign language anxiety, this study also used a likert-type questionnaire developed by Horwitz et al. (1986). This thirty-three-item scale measures test anxiety, speech anxiety and fear of negative evaluation. Each item ranges from *strongly agree*, at one end, to *strongly disagree*, at the other end. Thus, the scale for each item ranges from 1 to 5.

The test-retest reliability and internal consistency of the FLACS, as measured by Horwitz (1986), are .83 and .93, respectively. Besides, criterion-related studies that bear on the construct validity of the scale were conducted. The results suggest that foreign language anxiety can be reliably and validly measured (Horwitz et al., 1986; Horwitz and Young, 1991).

Procedures

This study was based on quasi-experimental design. Two intact classes of undergraduate EFL students from Shahrekord University were selected and randomly assigned as the control and experimental groups of the study. The pretest scores were obtained by administering the EQ and FLCAS tests to both groups. Then, the subjects in the control group were assigned non-literary readings which were the basis for learning vocabulary, forms or sentence comprehension, as they are conventional in reading courses in Iran. In contrast, the subjects in the experimental group were assigned literary readings where they were asked to empathize characters, events and settings, keep a journal to reflect on the choice and themes of literary readings or connect the themes of readings to their own experiences. The literary readings provided the basis not only for learning materials, but also for classroom activities such as peer-lead discussion, group work and journal writing in which they could express their feelings.

Posttest scores were obtained by administering the same tests to both control and experimental groups after an eight-week interval. Finally, MANOVA, ANCOVA and Pearson Product correlational procedures were run to address the research questions of the study. Meanwhile, the pilot study was excluded from the study since EQ-Map and FLCAS instruments of this study were already piloted on Persian subjects by Bahrami (2002) and Ghorban-Mohammadi (2003), who confirmed the feasibility of desired results. Also, MSCIT measure was already piloted and standardized based on the data collected over 50 research sites from diverse geographic locations including data from Persian respondents (Mayer et al., 2002).

Results

In this section, a descriptive analysis of quantitative data is presented based on the research questions of the study. Table 1 shows the descriptive statistics of emotional intelligence (from the two measures) and foreign language anxiety scores by groups before and after the treatment. As Table 1 indicates, the emotional intelligence and foreign

language anxiety mean scores changed very slightly from pretest to posttest in the control group, but the greatest increase (from 41.65 to 43.76) and decrease (from 92.80 to 90.06) were seen in the experimental MSCEIT and FLCAS scores, respectively.

Table1
Descriptive Statistics of EQ and FLCAS Measures by Group

Group	Variable	N	Pretest		Posttest	
			Mean	SD	Mean	SD
Control	MSETT	35	41.81	4.04	41.92	3.91
	EQ Map	35	145	16.05	146.09	15.82
	FLCAS	35	90.23	13.86	90.03	13.30
Experimental	MSETT	35	41.65	4.05	43.76	3.29
	EQMap	35	146.08	15.61	146.14	15.72
	FLCAS	35	92.80	13.57	90.06	12.86

Before the multivariate and covariate analyses were run to address the research questions, it was important to make sure that two groups had the normal distribution. Table 2 reports the result of test of normality. As this table displays, the significance values of Kolmogorov-Smirnov test of normality for the two groups were .200.

Therefore, both EQ and FLCAS scores enjoyed at least 80% of normal distribution, which was significantly acceptable.

Table 2
Tests of Normality for the EQ and FLCAS Measures

Variable	Group	Skewness	Kurtosis	Kolmogorov-Smirnov		
				Statistic	df	Sig.
MSCEIT	Control	.041	.823	.103	35	*.200
	Experimental	-.64	.544	.096	35	*.200
EQMap	Control	-.009	-.543	.073	35	*.200
	Experimental	.087	.282	.060	35	*.200
FLCAS	Control	.141	-.495	.051	35	*.200
	Experimental	.145	-.544	.049	35	*.200

To examine the first null hypothesis stating that the cognitive-affective reading-based course with its focus on literary readings does not have a significant effect on the undergraduate EFL subjects' emotional intelligence scores from two EQ measures, a MANOVA was conducted. The posttest scores from two measures were considered as dependent variables and the treatment on pretests as an independent variable. The error was originally set at .05 when comparing groups on EQ variables. The results are reported in Table 4. Also, Table 3 reports the results of Box and Levene's tests of equality of covariance and variance, which are prerequisites to MANOVA.

Table 3
Tests of Equality of Covariance and Variance

Test	Variable	F	df1	df2	Sig.
Box	MSCEIT & EQ-Map	.721	3	32326	.539
Levene	MSCEIT	.508	1	68	.479
	EQMap	.000	1	68	.998

As the Box Test displays, the covariance matrix did not differ significantly across groups, $F = .721$, $p = .539$. In the same line, the variance matrices did not differ significantly in both groups in the Levene's test, $F = .508$, $p = .479$ and $F = .000$, $p = .998$. Therefore, it was quite appropriate to use and interpret multivariate test of significance to determine the treatment effect.

Table 4
Multivariate Tests of Significance for the Treatment Effect

Effect		F	df	Sig.
Intercept	Pillai's Trace	4845	2	.000
	Wilks' Lambada	4845	2	.000
	Hotelling's Trace	4845	2	.000
	Roy's Largest Root	4845	2	.000
Treatment	Pillai's Trace	6.17	2	.003
	Wilks' Lambada	6.17	2	.000
	Hotelling's Trace	6.17	2	.000
	Roy's Largest Root	6.17	2	.000

As Table 4 indicates, the treatment of the study was significant, $F(2, 68) = 6.17$, $*p < .05$. However, this table does not indicate whether it was significant for one or both measures of EQ. That is why, we turn to Table 5, which reports the result of subsequent univariate analysis on both EQ measures.

Table 5
Univariate Tests of Significance for the Two Dependent Measures (MSCEIT and EQ-Map Scores)

Source	Variable	Mean Square	df	F	Sig.
Intercept	MSCEIT	128492	1	9824	.000
	EQMap	1494457	1	6006	.000
Treatment	MSCEIT	59.30	1	4.53	.037
	EQMap	5.71	1	.000	.988
Error	MSCEIT	13.08	68		
	EQMap	249	68		

As the Table 5 displays, with an alpha level of .05, the F value for MSCEIT scores was significant, $F(1, 68) = 4.53$, $*p < .05$, whereas the F value for EQ-Map was not, $F(1, 68) = .000$, $p = .988$. Thus, there was a significant difference in the treatment effect.

To address the second null hypothesis stating that the cognitive-affective reading-based course with its focus on literary readings does not have a significant effect on the undergraduate EFL subjects' foreign language anxiety scores, two covariate analyses were conducted. The first one was conducted to see whether there was a significant interaction between the treatment of the study and FLCAS pretest scores and the second one was carried out to see whether the treatment had a significant effect on FLCAS posttest scores when the pretreatment effects were covaried out. The results of analyses are reported in Tables 6 and 7.

Table 6
Analysis of Covariance on FLCAS Scores for the Interaction Effect

Source/Variable	Mean Square	df	F	Sig.
Intercept	15.17	1	9.40	.003
Pretest	11526	1	7141	.000
Treatment	.25	1	.152	.698
Treatment by Pretest	.98	1	.606	.439
Error	1.61	66		

As Table 6 displays, the treatment for the pretest scores was not significant, $F(1, 66) = .152$ $p = .698$. Besides, the slope of the regression line in each group was similar and there was not any significant interaction between the treatment and the pretest scores, $F(1, 66) = .606$ $p = .439$. Therefore, there were not significant pretreatment differences between the two groups.

Table 7
Analysis of Covariance for the Treatment Effect on Posttest FLCAS Scores

Source/Variable	Mean Square	df	F	Sig.
Intercept	14.93	1	9.30	.003
Pretest	11535	1	7188	.000
Treatment	101	1	62.92	.000
Error	1.61	67		

Table 7 revealed that there was a strong linear relationship between pretest and posttest FLCAS scores because the p value of pretest variable in the test of treatment effect on posttest scores was significant, $F(1, 67) = 7188, *p < .05$. More important, the treatment of the study had a significant effect on the subjects' FLCAS posttest scores $F(1, 67) = 62.92, *p < .05$.

To address the third null hypothesis stating that there is no significant correlation between the undergraduate EFL subjects' emotional intelligence and foreign language anxiety scores, the Pearson Product correlation coefficients between EQ (from two measures) and FLCAS scores were obtained for both control and experimental groups before and after the treatment. The results are reported in Table 8.

Table 8
Correlation Indices between EQ and FLCAS Scores

Variable/Group		FLCAS				Total n=140
		Pretest		Posttest		
		C n = 35	E n = 35	C n = 35	E n = 35	
MSCEIT	Pretest	C	*-.76 .000			
		E		*-.65 .000		
	Posttest	C		*-.69 .000		
		E			*-.55 .001	
Total						*-.66 .000
EQ-Map	Pretest	C	*-.55 .001			
		E		*-.52 .001		
	Posttest	C		*-.53 .001		
		T			*-.51 .002	
Total						*-.52 .000

C = Control; E = Experimental

* $p < .05$, 2-tailed.

According to Table 8, the correlation indices ranged from .51 (moderate) to .76 (high) and the scores of both MSCEIT and EQ-Map measures were found to have a significant negative correlation with the foreign language anxiety scores. In the same line, the negative correlation coefficients between the total MSCEIT and total FLCAS

scores, on the one hand, and total EQ-Map and total FLCAS scores, on the other, were significant, $r(138) = -.66, *p < .05$ and $r(138) = -.52, *p < .05$, respectively.

Discussion and Implications

The results reported above raise a number of issues. First is the improvement of emotional intelligence in the cognitive-affective reading-based course, particularly significant improvement of MSCEIT scores, which are, in Mayer's (2001) terms, more scientifically based than scores obtained from mixed-approach measures. Other studies empirically support the positive relationship between EQ, on the one hand, and academic success (Stottlemayer, 2002; Besharat et al., 2005), second language performance (Pishghadam, 2007) and language learning strategy use (Aghasafari, 2006), on the other. However, the literature fails empirical research on how to improve EQ in an EFL context. This is the point this study can significantly touch through the results obtained in Table 4 and 5. It is assumed that EQ scores of the subjects in the experimental group improved through stimulating humor, metaphor, wit, fancy and other imaginative devices found in the literary excerpts assigned in the cognitive-affective reading-based course. Humor was not a just literary device per se, but possibly, as Vaid (2006) argues, a technique that the subjects could use as the interpersonal management of emotion, both their own emotions as well as those of others. Metaphor and metonymy found in literary excerpts, as Jakobson (1988) states, were not just figures of speech, but possibly fundamental modes by which they felt and their mind worked. Besides, in one way or another, the literary readings which were the basis of the classroom activities in the cognitive-affective course offer the subjects opportunities to relate the real world of fictional literary characters to their own past experiences and the potential to address four basic questions in line with the concept of emotional intelligence: "how may/was he or she feel/feeling?", "what may/was she or he think/thinking as a result of these feelings?", "what may cause/caused each person to feel that way he or she does/did?" and "what may/did he or she do to manage these feelings?".

The discussion of the above issue raised by the empirical findings of the study on EQ enables us to argue for the following pedagogical implications. Given that students can learn by observing, symbolic and representational modeling, EQ-based syllabuses can come into being with many liberal arts such as poetry, drama and stories. Young learners can learn much about their feelings when they read literary excerpts that depict characters with tendency to experience specific emotions. Using different techniques in literature-based reading courses such as brainstorming, journal writing, peer-discussion, cooperative learning, self-assessment, and creative writing, language learners learn to perceive emotions, differentiate between emotions and subsequent need to take appropriate action in response to negative affect which could be a deterrent to language learning. Besides, English classes in Iran are generally a threatening milieu for students since their feelings are not taken into account. Students suffer from error phobia, meaning that they do not speak or interact until they feel that they are perfect to do so. The classes are generally teacher-centered and EFL learners are allowed less to express their voices. By implication, emotional intelligence skills touched in cognitive-affective courses can be a great help in this context. When EQ skills develop through these courses, second language skills, as Pishghadam (2007) reports, can improve and more academic success is expected.

Second is the difference in the treatment effect on MSCIT and EQ-Map scores, as observed in Table 5. The significant improvement of MSCIT scores, compared with non-significant improvement of EQ-Map scores, provide a mixed response to the first null hypothesis of the study. Besides, this difference can challenge the wild claim made by the advocates of mixed approaches such as Goleman (1995) about improving EQ through intervention courses. This result can also suggest that emotional intelligence is partly biologically based and partly learned. The cognitive-affective reading-based course with its focus on literary readings might have taught the subjects emotional knowledge, that is, what a person learns about emotions. This emotional knowledge is different from the concept of character which is mixed with the mental

abilities in mixed-approach definitions of emotional intelligence. From a theoretical point of view, this issue is a further support for an ability model of EQ. The implication is that only emotion knowledge can be inculcated through a reading curriculum in which emotionally colored text are used to train subjects to perceive emotional information better to facilitate their thinking.

Third is the significant decrease in the foreign language anxiety scores observed in the experimental group. One reason for this result is that the cognitive-affective reading-based course in which literary readings were used might have changed the subjects' negative expectations which could lead to their higher anxiety and negative affect. Besides, this cognitive-affective reading-based course with its emotionally colored literary readings must have offered the subjects the opportunity to voice their emotions, avoid discomfort and promote helpful function of emotion and thought. Compared with the subjects in reading-based course in which non-literary readings were used, the subjects in the cognitive-affective course where literary readings were used also interacted more with their peers. Therefore, they might have learnt to be less anxious. Previous research by Besharat et al. (2005) on the impact of emotional intelligence on mental health or stress can support the therapeutic role of this cognitive-affective course which is in line with the concept of emotional intelligence.

Students with higher language anxiety, as Broidy (2005) argues, are prone to have irrational ideas, to be less able to control their impulses, and to cope more poorly than other learners. By implication, language learning can gain momentum through the kind of cognitive-affective course employed in the present study since, in Elder's (1997) words, once the danger signal is off through these courses, the speed of language learning can be accelerated. Besides, English is spoken in limited contexts in Iran and EFL classes are rather threatening to both teachers and students because much pressure is put on the correct pronunciation, grammar and perfect accent. Through cognitive-affective courses, both teachers and learners can appropriately tackle some of the

affective and communication problems besetting in the classrooms and evaluate language performance in an optimistic light, leading to better L2 learning performance.

The final issue is the significant negative correlation between emotional intelligence and foreign language anxiety, as observed in Table 8. The higher EQ was the lower foreign language anxiety. One reason for this result is that students with higher levels of emotional intelligence skills tend to behave in a more socially appropriate non-aggressive context. However, when anxiety-provoking situations arise, they can manage their emotions more effectively than less emotionally intelligent students and act better, hence lower anxiety levels. In contrast, learners with high degree of anxiety are more likely to be self-focused and perhaps less socially desirable because their foreign language anxiety serves as a deterrent to social facility, hence, their lower emotional intelligence.

The implication is that EFL learners can enjoy communicative facility and experience less levels of language anxiety if teachers rely on emotion-generating and emotion-managing techniques in courses which use emotionally colored literary excerpts in an attempt to improve EQ. Meanwhile, communicative skills in L2 will develop because with lowering language anxiety, as MacIntyre et al. (1997) argue, more information is communicated. In the light of these views, curriculum developers, educators, teachers, intervention specialists should pay attention to the aspects of EQ/EI skills which relate to social and emotional functions of language and incorporate them into their syllabuses. To enhance the integration of cognition with affect, they should also orient a curriculum towards helping students identify their own feelings and feelings of others involved.

Conclusion

As Gardner (1993) states, to fully understand the complexity of language learning process, we should pay attention to internal mechanisms and social interpersonal interaction involved in this process.

To this end, emotional intelligence can be a great help since, as Goleman (2001) states, it not only serves as an internal mechanism, but also interlocks with the external environment. In line with the practice of emotional intelligence, this study presents a preliminary step towards approaching a cognitive-affective course or, in Forgas' (2001) terms, an *affect into thought* infusion course. Attempts were also made to draw on literary readings which could provide the diverse examples of emotional life. The results of the study indicated that the literary readings used in the cognitive-affective reading-based course helped the subjects improve their emotional intelligence skills. This finding encourages us to use tools and strategies to invest on EQ/EI skills in a reading-based curriculum to promote emotions as positive in L2 learning. However, we should avoid wild generalizations about the predictive power of the cognitive-affective course which makes use of literary excerpts as reading materials because, compared with MSCIT scores, the improvement of EQ scores from the mixed approach measure of this study was not significant.

Also, this study provided the empirical evidence for the therapeutic role of the cognitive-affective reading-based course in which the literary readings were used. This course significantly lowered the subjects' foreign language anxiety scores. Meanwhile, the results indicated that the subjects with higher degrees of foreign language anxiety were less emotionally intelligent. Given the role of emotional intelligence and foreign language anxiety in second language learning, teachers should make use of *affect into thought* infusion courses through studying fictions to help learners think rationally within an emotionally colored context.

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