Iranian EFL learners' emotional intelligence, learning styles, strategy use, and their L2 achievement

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The idea that language learning is facilitated or inhibited by a multitude of factors has prompted scholars in the field to investigate variables considered to be crucial in the process of second or foreign language learning. This study investigated relationships between emotional intelligence, learning style, language learning strategy use, and the L2 achievement of Iranian EFL learners. One hundred and thirty eight Iranian EFL learners participated in the study by completing three Likert-scale questionnaires: the Emotional Quotient Inventory (Bar-on, 1997), the Learning Style Questionnaire (Kolb, 1984), and the Strategy Inventory for Language Learning (Oxford, 1990). Also, the participants' final scores in the previous four terms were collected and their average was regarded as their L2 achievement. The results of Pearson correlation analyses revealed there was no statistically significant relationship between learning styles and L2 achievement; however, the findings indicated L2 achievement was significantly related to emotional intelligence as well as to language learning strategy use. The results of multiple regression analysis revealed that among the variables of the study, strategy use, followed by emotional intelligence, was a stronger predictor of L2 achievement. Moreover, the findings indicated that of the components of emotional intelligence, assertiveness was the best predictor of L2 achievement.

Introduction

Emotional intelligence

Emotional intelligence has recently gained prominence in educational research, most plausibly due to the fact that conventional theories of intelligence are not completely adequate. As Bar-on (2007) maintained, education has long tried to strengthen the cognitive skills involved in the acquisition, remembering, and application of information. However, despite this emphasis on cognition and despite being cognitively intelligent, some people do not yet perform effectively in learning, which might imply that another more determining factor in education is missing.

Ameriks, Wranik and Salovey (2009) argued that emotional intelligence is a psychological feature pertaining to the effective identification, understanding, and regulation of emotion and its application in problem solving and decision making. Goleman (1996) defined emotional intelligence as "abilities such as being able to motivate oneself and persist in the face of frustrations; to control impulse and delay gratification; to regulate one's moods and keep distress from swamping; the ability to think, to empathize and to hope" (p.54). Neophytou (2013) demonstrated that emotional intelligence helps to recognise, control, and regulate feelings; additionally, it calls for a concordant emotional expression that is translated into satisfactory performance. Scholars in the field agree that IQ by itself is not the only predictor of success and failure; on the contrary, as Goleman (1996) indicated,

the contribution of IQ to achievement is around 20 percent, leaving 80 percent to affective factors.

Emotional intelligence is not the reflection of only a single attribute; on the contrary, it constitutes a set of discrete emotional capabilities. Leithwood and Beatty (2008, p.7) pointed out that "Positive emotions enhance access to one's existing knowledge, imagination, and creativity; whereas negative emotions can constrain one's thinking and reduce one's ability to access one's store of knowledge and skill in a flexible manner". Scholars argue that the appropriate management of these emotions is definitely connected to career and educational success.

Several studies have measured and exhibited the contribution of emotional intelligence to academic achievement. Pishghadam (2009) investigated the relationship between emotional intelligence and students' achievement in English. Five hundred and eight participants (374 females and 134 males) majoring in English at four universities completed Bar-on's *Emotional Intelligence Inventory* (1997). The findings showed that the participants' foreign language skills and GPA were in strong positive correlation with some aspects of emotional intelligence (e.g., intrapersonal and stress management abilities).

In another study, Abdolrezapour and Tavakoli (2012) investigated the relationship between emotional intelligence and the reading ability of Iranian EFL learners. They found that students in the experimental group who were exposed to a program based on Goleman's framework including reading short stories with highly emotional content obtained higher scores on a reading comprehension test. Similarly, Shao, Yu and Ji (2013) conducted a study to explore the relationship between Chinese students' emotional intelligence and their writing achievement. The researchers found that there was a strong positive correlation between the two.

In the same vein, Soodmand Afshar and Rahimi (2016), investigating the relationship between emotional intelligence, reflective thinking and speaking ability of Iranian EFL learners majoring in English language, found a significant positive correlation among the three constructs. They further found emotional intelligence was a significantly stronger predictor of EFL learners' speaking ability.

Learning styles

The significance of a learner-centred education highlights the pertinent role of learning style; the knowledge of the learners' learning style is of prime importance for implementing constructive instruction. The first studies on learning styles date back to 1970s, after which this research topic has attracted the attention of many scholars. Learning style has been defined as particular ways of learning, or individuals' preferred and best manner of thinking and learning. Similarly, Sims and Sims (1995, p. xii) defined learning style as "characteristic cognitive, affective, and physiological behaviours that serve as relatively stable indicators of how learners perceive, interact with, and respond to the learning environment".

Acknowledging the early discussions of experiential learning by such prominent scholars as John Dewey, Jean Piaget and Paulo Freire, Kolb (1984) presented his theory of experiential learning and learning style model. His theory of learning marks four distinct learning styles on the basis of a four-step learning process, through which observation and reflection on immediate and concrete experiences appear as abstract concepts which create new implications for action (Kolb, 1984).

Kolb's model described learning preferences based on two continua: abstract conceptualisation versus concrete experience, and active experimentation versus reflective observation, which resulted in four types of learning styles (Griffiths, 2012). These include converging style which is the one dominated by active experimentation and abstract conceptualisation as the learners' learning abilities. In other words, convergers tend to colour ideas and theories with practical uses. They are effective in dealing with technical issues rather than social and interpersonal ones. Kolb's second learning style is called accommodating style at the heart of which lies concrete experience and active experimentation as learners' dominant learning abilities. That is, being competent to learn from available experiences, accommodators are willing to accomplish plans and get involved in challenging experiences. Diverging style is another style of Kolb which is marked by concrete experience and reflective observation learning abilities. Divergers develop the tendency to cooperate with others and listen to different perspectives openly.

Kolb's last style is referred to as *assimilating style*. Assimilator's prominent learning abilities incorporate abstract conceptualisation and reflective observation. Assimilators are capable of developing curtailed and rational forms out of large amounts of information.

The concept of learning style emphasises the notion that learners' modes of learning vary considerably and that these differences might have an influence on how they perform and grasp the materials presented to them. Zhou (2011) argued that learning styles have a paramount influence on teachers' choice of instructional materials, material processing, activity designing, and performance evaluation.

Lin and Qin (2006) found that learners' learning styles had a significant influence on their choice of learning strategies. They claimed that the effect of learning style on language learning was through the employment of language learning strategies in that the students with higher scores employed more strategies, some of which were linked to their non-preferred learning styles. Additionally, in a study conducted by Bicer (2014) the possible correlation between students' and instructors' learning styles and achievement in foreign language was investigated. The findings revealed that the most preferred learning style among participants was diverging style. However, Bicer concluded that there was no statistically significant relationship between learning styles and participants' scores.

Language learning strategies

Another important factor, thought to affect learning outcomes, is learning strategies. Some scholars (e.g., Bromley, 2013; Dornyei, 2005; Oxford, 1993) claimed that the incorporation of learning strategies in education would result in more active and competent learners and also contribute to more learner-centred language learning.

According to Ehrman and Oxford (1990), the distinction between learning style and language learning strategies lies in the level of awareness, consistency, and intentionality. Oxford (1993, as cited in Wong & Nunan, 2011) maintained that learners who are aware of their learning styles will employ strategies which are consistent with their learning styles. Moreover, she argued that the conformity between learning styles and strategies benefits learners. Meanwhile, learners can balance their learning by applying strategies which compensate for the disadvantages of their learning styles. Likewise, Cohen (2003) argued that learners usually deploy a series of strategies which are in accordance with their learning styles. He maintained that although language learning strategies per se might be effective and contribute to success, the effectiveness of strategies needs to be assessed in relation to learners' style preferences.

Identification of the features of effective learning is the force behind the emergence of the body of literature on learning strategies (O'Malley & Chamot, 1990). Most of the studies conducted on learning strategies came to the conclusion that the awareness and employment of language learning strategies differentiated good and poor language learners. Wong and Nunan (2011), for instance, explored the differences between more effective and less effective learners in terms of their learning styles, strategies, and their practice system. They revealed that effective learners were 'communicative' in their style, were autonomous in their application of strategies, and employed various strategies in their learning; on the other hand, less effective learners were 'authority-oriented' and were inclined towards passivity and isolation.

A study by Gerami and Madani (2011) investigated the importance of learning strategies on language learning. The *Test of English as a Foreign Language* (TOEFL) was administered to 200 EFL learners to obtain their proficiency level. The results showed that successful learners mainly employed metacognitive strategies; however, unsuccessful students preferred cognitive strategies.

Emotional Intelligence, learning styles, learning strategies, and L2 achievement

Drawing upon the convincing body of literature confirming that successful language learning is supported by a rich and varied personalised range of learning strategies (Schmitt, 2002), scholars who seek to improve education for all learners who have distinct learning preferences (e.g., Bromley, 2013; Wong & Nunan, 2011), hold that learning styles are related to language learning strategies in one way or another. Ehrman, Leaver and Oxford (2003) noted that one of the conditions guaranteeing the usefulness of learning strategies is that they fit learners' learning preferences. That is, effective learning presupposes that learners' learning preferences and the strategies they employ have something in common.

Humphrey, Curran, Morris, Farrell & Woods (2007) argued that both the rational (i.e. thinking) and emotional (i.e. feeling) elements in education have to be encompassed in order to ensure success. They maintained that the ability to make a better decision is bound to the development of emotional intelligence. Oatley, Keltner and Jenkins (2006, as cited in Leithwood & Beatty, 2008) stated that emotions have systematic impact on

cognitive processes, the combination and coordination of which enable learners to appropriately manage the environment, an argument which might shed light on the relation between emotional intelligence and the cognitive variables dominant in the process of learning. Also, as Garcia-Fernandez, Ingles, Suria, Lagos-San Martin, Gonzalvez-Macia, Aparisi and Martinez-Monteagudo (2015) maintained, on the one hand, while emotional intelligence plays a crucial role in academic achievement, language learning strategies are the various mechanisms of control employed by learners in order to achieve better learning. On the other hand, the effective employment of these strategies is linked to the learners' learning styles as discussed earlier. Therefore, it is possible to find a logical relationship among the constructs under investigation in this study (i.e. emotional intelligence, learning styles, language learning strategy use, and L2 achievement of EFL learners).

Significance of this study

On the one hand, a desire to enhance the quality of teaching and increase the level of achievement has prompted many scholars to consider what variables are fundamental to the process of language learning. According to Zeidnar, Matthews and Roberts (2009), emotional intelligence has a structural role in interlinking emotional abilities with cognitive competencies. They argued that being emotionally intelligent enables learners to organise and manage emotions and guide them, resulting in a better operation. Mastery of learning how to learn has also come to prominence recently (Nunan, 1999). Geary and Sims (1995) argued that an appreciation of individual differences is of crucial importance in the design and delivery of education. Effective learning thus seems to be also dependent on the learners' awareness of their preferred learning styles and their endeavour for optimising their learning by pursuing learning strategies which best match their learning styles.

On the other hand, evidence for any relationship between emotional intelligence and either learning styles or learning strategies, as well as its possible correlation with L2 achievement, was found to be scarce. This question is therefore open to more inquiry, which highlights a gap in the existing literature and serves as a rationale for conducting the present study.

This study thus aimed at complementing and contributing to the existing literature by exploring relationships among emotional intelligence, learning styles, language learning strategy use, and EFL learners' L2 achievement, in a context where English is learned and taught as a foreign language (EFL), the results of which might benefit other EFL and English as a second language (ESL) contexts. To this end, the following research questions were formulated:

Research questions

- 1. Is there any statistically significant relationship between Iranian EFL learners' emotional intelligence and their L2 achievement?
- 2. Is there any statistically significant relationship between Iranian EFL learners' learning styles and their L2 achievement?

- 3. Is there any statistically significant relationship between Iranian EFL learners' language learning strategy use and their L2 achievement?
- 4. Among learning styles, emotional intelligence and language learning strategy use, which one is a better predictor of Iranian EFL learners' L2 achievement?
- 5. Is there any statistically significant relationship among Iranian EFL learners' learning styles, emotional intelligence, and their language learning strategy use?
- 6. Among the components of emotional intelligence, which one is a better predictor of Iranian EFL learners' L2 achievement?

Method

Participants

The participants in this study included 138 EFL learners from English language institutes in Kermanshah, a city in the west of Iran. The participants were at intermediate and upper intermediate proficiency levels. Their age ranged from 17 to 30. The strategy used in the selection of participants was convenience sampling. Gender was not considered as a moderator variable in this study; both males and females participated in the study though not proportionately.

Instruments

The participants were asked to complete the following questionnaires.

Emotional Quotient Inventory

The first instrument they were asked to complete was the *Emotional Quotient Inventory* developed by Bar-on (1997). The original questionnaire consisted of 133 items. Soodmand Afshar and Rahimi (2016) pilot tested this questionnaire with 150 Iranian EFL learners and reduced it to 125 items, to suit the context of Iran. They estimated Cronbach's *alpha* reliability index and the KMO of the questionnaire to be .98 and .73 respectively, which are both acceptable. This instrument is based on a five-point Likert scale. Participants reacted to statements by indicating to what extent they agreed or disagreed with the items in the questionnaire.

Kolb's Learning Style Questionnaire

The participants also completed the Persian version of Kolb's Learning Style Questionnaire. The validity of the translation was checked through back translation by two experts in the field. This questionnaire consists of 12 statements with the choice of four endings. The participants are required to rank the endings by using the numbers 4 to 1. Kolb's model of learning style is based on experiential learning theory which categorises language learning into four major learning modes, namely concrete experience abilities (CE), reflective observation abilities (RO), abstract conceptualisation abilities (AC), and active experimentation abilities (AE). According to Kolb, the combination of these four learning modes has led to four learning styles: 1. Divergent style; 2. Convergent style; 3. Assimilative style, and 4. Accommodating style. Soodmand Afshar, Sohrabi and Malek Mohammadi (2015) indicated that the questionnaire had acceptable reliability and validity

indices. They revealed that it had Cronbach's *alpha* reliability estimations of .81 for CE, .80 for RO, .81 for AC, and .78 for AE.

Strategy Inventory for Language Learning (SILL)

The last inventory used was a Persian version of the *Strategy Inventory for Language Learning* developed by Oxford (1990). The validity of this translation was also checked through back translation by two experts in the field. Soodmand Afshar, Sohrabi and Malek Mohammadi (2015) pilot tested this questionnaire with 355 Iranian students and estimated its Cronbach's *alpha* reliability in the EFL context of Iran to be 0.92, which is a high reliability coefficient. Also, this questionnaire had already been validated by Pishghadam (2008) in the Iranian context. It consists of 50 Likert-scale items divided into six parts: memory, cognitive, compensation, metacognitive, affective, and social strategies. The participants check the options on a five-point scale which describes what they actually do regarding language learning.

Procedure

This study examined the possible relationships among Iranian EFL learners' emotional intelligence, learning styles, language learning strategy use, and their L2 achievement. The instruments were prepared as described above and were distributed among the participants of the study. Distributing the questionnaires required three sessions. In the first session, the *Emotional Quotient Inventory* was distributed and in the second and third sessions, the *Learning Style Inventory* and *Strategy Inventory for Language Learning* were distributed respectively. The final scores of the participants' on their previous four semesters were also collected from the institutes and their average was regarded as their L2 achievement.

Data analysis

Having collected the required data, *SPSS* version 20 was used for analysing the data. Three Pearson product moment correlations were run in order to answer the first three research questions of the study to show the possible correlation between the three variables and L2 achievement. For the fourth research question, a multiple regression analysis was conducted to discover the predictive power of the variables of the study; i.e., learning styles, emotional intelligence, and language learning strategy use for Iranian EFL learners' L2 achievement.

For the fifth research question, a multiple correlation analysis was conducted to find the relationship between learning styles, emotional intelligence, and language learning strategy use. For the last research question, another multiple regression analysis was run to determine which component of emotional intelligence was the strongest predictor of Iranian EFL learners' L2 achievement.

Results

The first research question set out to investigate whether there was any statistically significant relationship between Iranian EFL learners' emotional intelligence and their L2

achievement. Table 1 summarises the descriptive statistics, and Table 2 shows the results of Pearson correlation in this respect.

Table 1: Descriptive statistics of Iranian EFL learners' emotional intelligence and their L2 achievement (N=138)

	Emotional intelligence	L2 achievement
Mean	359.83	86.67
Std. deviation	27.35	6.90

Table 2: The relationship between EFL learners' emotional intelligence and their L2 achievement (N=138)

		Emotional
		intelligence
L2 achievement	Pearson correlation	.545**
	Sig. (2-tailed)	.000

^{**} Correlation is significant at the 0.01 level (2-tailed).

As shown in Table 2, there was a statistically significant positive relationship between Iranian EFL learners' emotional intelligence and their L2 achievement (r = 0.54, p = 0.00 < .05).

The second research question explored whether there was any statistically significant relationship between Iranian EFL learners' learning styles and their L2 achievement. First, descriptive statistics for Iranian EFL learners' learning styles are presented in Table 3.

Table 3: Descriptive statistics of Iranian EFL learners' learning style

Learning style	Frequency	%	Valid %	Cumulative %
Assimilator	89	64.5	64.5	64.5
Converger	26	18.8	18.8	83.3
Diverger	13	9.4	9.4	92.8
Accommodator	10	7.2	7.2	100.0
Total	138	100.0	100.0	

As indicated in Table 3, most of the learners are assimilators (64.5 %) and convergers (nearly 19%) in style. Divergent (nearly 9%) and accommodating (nearly 7%) are the third and fourth preferred learning styles, respectively.

Table 4 shows the results of Pearson correlation coefficient between Iranian EFL learners' learning styles and their L2 achievement. There was no statistically significant relationship between Iranian EFL learners' L2 achievement and their learning styles (r = -0.125, p = 0.14>.05). In other words, the results did not confirm a statistically significant relationship between Iranian EFL learners' learning style and their L2 achievement.

Table 4: The relationship between EFL learners' L2 achievement and their learning style (N=138)

		Learning style
L2 achievement	Pearson correlation	125
	Sig. (2-tailed)	.143

The third research question investigated whether there was any statistically significant relationship between Iranian EFL learners' language learning strategy use and their L2 achievement. First, descriptive statistics for Iranian EFL learners' language learning strategy use are presented in Table 5. Table 6 shows the results of Pearson correlation between Iranian EFL learners' language learning strategy use and their L2 achievement.

Table 5: Descriptive statistics of Iranian EFL learners' language learning strategy use (N=138)

	Language learning strategy use
Mean	150.46
Std. deviation	18.22

Table 6: The relationship between EFL learners' language learning strategy use and their L2 achievement (N=138)

		Language learning strategy use
L2 achievement	Pearson correlation	.609**
	Sig. (2-tailed)	.000

As indicated in Table 6, there was a statistically significant positive relationship between Iranian EFL learners' language learning strategy use and their L2 achievement (r = 0.609, p = 0.00 < .05).

To answer the fourth research question of the study (i.e., among learning style, emotional intelligence, and language learning strategy use, which one is a better predictor of Iranian EFL learners' L2 achievement?), a multiple regression analysis was run, the results of which are presented in Tables 7, 8 and 9.

Table 7: Model summary

Model	R	R square	Adjusted R square	Std. error of estimate
1	.71a	.50	.49	4.90

a. Predictors: (Constant), Learning style, EIQ, Strategy use

Table 7 shows that the total variance explained by the model as a whole was 49%. In other words, 49 per cent of the variance in L2 achievement can be explained by the independent variables, including emotional intelligence, learning styles, and language learning strategy use (adjusted R square = .49). Next, the results of ANOVA are presented

in Table 8, which indicates that the model reached statistical significance, F(3, 134)=45.98, p=.000<.001.

Table 8: The results of ANOVAa

Model	Sum of squares	df	Mean square	F	Sig.
Regression	3313.86	3	1104.62	45.98	.000 ^b
Residual	3218.79	134	24.02		
Total	6532.66	137			

a. Dependent variable: L2 Achievement

Table 9: Coefficients

Model	Unstandardised coefficients		Standardised coefficients	t	Sig.	95% confidence interval for B	
	В	Std. error	beta			Lower bound	Upper bound
(Constant)	24.61	5.85		4.20	.000	13.04	36.19
EIQ	.10	.01	.39	6.07	.000	.06	.13
Strategy	.17	.02	.46	7.06	.000	.12	.22
Style	36	.46	04	78	.435	-1.28	.55

a. Dependent variable: L2 achievement

As shown in Table 9, emotional intelligence and language learning strategy use were significant predictors of L2 achievement. They, taken together, explained 49% of the variance in L2 achievement; however, language learning strategy use was a stronger predictor of Iranian EFL learners' L2 achievement (beta = 0.46, t = 7.06).

A multiple correlation was run to answer the fifth research question as to whether there was any statistically significant relationship among Iranian EFL learners' learning style, emotional intelligence, and language learning strategy use, the results of which are summarised in Table 10.

Table 10: The results of multiple correlation

		EIQ	Learning style
Strategy use	Pearson correlation	.327**	222**
	Sig. (2-tailed)	.000	.009
	N	138	138
EIQ	Pearson correlation		.072
	Sig. (2-tailed)		.403
	N		138

^{**} Correlation is significant at the 0.01 level (2-tailed)

As shown in Table 10, there was a statistically significant positive relationship between language learning strategy use and emotional intelligence (r = 0.327, p = 0.00 < .05), and a reverse association between language learning strategy use and learning styles (r = -0.222, p = 0.00 < .05)

b. Predictors: (Constant), Learning style, EIQ, Strategy use

= 0.00<.05) of Iranian EFL learners. There was no significant relationship between emotional intelligence and learning styles of Iranian EFL learners (r = 0.072, p = 0.40>.05).

To answer the sixth research question, namely, which component of emotional intelligence significantly predicted Iranian EFL learners' L2 achievement, a multiple regression analysis was run (Table 11).

Table 11: Results of multiple regression for prediction of L2 achievement from EI components

	Unstandardised		Standardised		
EI component	coefficients		coefficients	t	Sig.
	В	Std. error	beta		
(Constant)	-3.41	3.12		11	.23
Independence	.42	.72	.05	.56	.43
Empathy	.81	.79	.12	0.96	.24
Interpersonal relationship	58	.63	-1.12	89	.31
Social responsibility	1.42	.86	.23	2.61	.01
Impulse control	1.00	.67	.12	1.95	.03
Happiness	11	.69	23	15	.79
Optimism	.60	.84	.08	.77	.41
Problem solving	.03	.60	.00	.05	.96
Reality testing	1.50	.70	.22	2.35	.02
Flexibility	20	.71	02	27	.65
Stress tolerance	58	.59	08	94	.29
Emotional self-awareness	36	.78	04	45	.56
Assertiveness	1.56	.60	.24	2.85	.00
Self-regard	.50	.76	.09	.71	.40
Self-actualisation	.81	.82	.12	1.12	.27

As shown in Table 11, social responsibility (beta = 0.23, t = 2.61), impulse control (beta = 0.12, t = 1.95), reality testing (beta = 0.22, t = 2.35) and assertiveness (beta = 0.24, t = 2.85) significantly predicted Iranian EFL learners' L2 achievement. Moreover, assertiveness (beta = 0.24, t = 2.85) was found to be a significantly stronger predictor of Iranian EFL learners' L2 achievement.

Discussion

This study aimed to identify relationships among Iranian EFL learners' emotional intelligence, learning styles, language learning strategy use, and their L2 achievement, since each of these factors have been found to play an important role in the second language acquisition process.

The results revealed that there was a strong positive correlation between language learning strategy use and L2 achievement and that among the predictor variables of the study (i.e. emotional intelligence, language learning strategy use and learning styles), strategy use was the first strong predictor of L2 achievement. Based on these findings, it can be presumed

that knowledge and awareness of language learning strategies are vital for having effective L2 achievement. The findings of the study in this respect are consistent with those of Hong-Nam and Leavel (2006), who found a curvilinear relationship between participants' English proficiency and their strategy use. That is, the students in the intermediate level used more learning strategies than those in the beginning or advanced levels. Learners who were more strategic showed faster improvement in proficiency than those who used fewer strategies.

Using strategies, students become actively involved in the process of language learning and the frequent application of various strategies actually enhances their achievement. That is perhaps why many scholars classify students as successful and unsuccessful based on their strategy use.

The results showed no statistically significant relationship between Iranian EFL learners' learning styles and their L2 achievement. These findings of the current study are in line with those of Baily, Onwuegbuzie and Daley (2000), Busato, Prins, Elshout and Hamaker (2000), Yildirim, Cevat Acar, Bull and Sevinc (2008), and Bicer (2014), all of which revealed there was no positive correlation between learning styles and academic success.

This lack of relation between learners' learning styles and their L2 achievement, as found in the present study, might be due to the premise that teachers do not train their students how to make use of their repertoire of styles. That is, as educationalists suggest, teachers should acknowledge learners' diversity of style, present learning activities in various styles and train learners to gain necessary skills/strategies to adapt to their less preferred styles. Corroborating this stance, Wong and Nunan (2011) argued that teachers need to preserve stylistic flexibility in their instructional practices and employ a range of instructional activities which cater for different learners with various learning preferences. Along with Wong and Nunan's debate, Griffiths (2012) also contended that teachers have to expand their teaching style when planning curriculum and also help learners to abandon "their comfort zones and experiment with different styles, thereby enhancing their chances of achieving success in language learning" (p.163).

Since the results showed that the most and least preferred learning styles were 'assimilative', and 'accommodating' respectively, it could be argued that, the findings of this study are consistent with those of Bicer (2014) who revealed that accommodating was the least preferred learning style. However, Bicer found diverging was the most preferred learning style.

The result of the study in this respect might stem from the fact that the educational system in Iran is not learner-centred and teachers are not professionally trained to base their teaching on the learners' learning styles. Supporting this line of reasoning, Sims and Sims (1995) argued that effective learning depends on the instructor's emphasis on the presence and usefulness of different learning styles and their attempts for designing instructional materials and conditions in which the learners' diverse preferences are taken into account. Furthermore, Banner and Rayner (2000, p.39) stated that "teaching in style

gives learning more immediate meaning, greater relevance and results in better understanding".

Also, in light of the findings of the study, the claim that emotional intelligence is an essential component of success was once again supported. That is, whereas high emotionally intelligent learners are able to guard against the interfering effects of negative emotions and neutralise their obtrusive influence, less emotionally intelligent learners are likely to succumb in the face of intricate and ill-defined situations and are unable to control destructive emotions. Supporting our findings, Goleman (1995, as cited in Woitaszewski & Aalsma, 2004, p.2) held that emotional intelligence is "a master aptitude, a capacity that profoundly affects all other abilities, either facilitating or interfering with them".

The results of the study in this respect are corroborated by those of Soodmand Afshar and Rahimi (2016), who found that emotional intelligence was significantly positively correlated with the speaking ability of EFL learners. The results are also in line with those of Thi Lam and Kirby (2002), who confirmed that emotional intelligence had a statistically significant relationship with student achievement. The results here in this respect are also in agreement with the findings by Hogan, Parker, Wiener, Watters, Wood and Oke (2010), who achieved similar results on the relation between emotional intelligence and academic success of male students. However, our results contrast with those of Woitaszewski and Aalsma (2004), who found that emotional intelligence did not contribute significantly to the social and academic success of gifted adolescents.

Furthermore, the findings also revealed that there was a statistically significant relationship between emotional intelligence and language learning strategy use, a finding which is consistent with those of Zafari and Biria (2014), Garcia-Fernandez, et al. (2015), Hasanzadeh and Shahmohamadi (2011), and Alavinia and Mollahossein (2012), who found that more emotionally intelligent students applied more strategies in comparison to less emotionally intelligent students. Fredrickson (1998) offers two assumptions regarding the role of emotion in governing individuals' practices. The first assumption is that emotions generate the tendency for performance and the second assumption is that emotions urge for physical action. According to Fredrickson, negative emotions narrow an individual's thought-action repertoire, whereas positive emotions develop an individual's creativity and enable them to discover new possibilities and ideas which promote individual's resources, including physical, intellectual, and social resources.

In addition, the results of the study indicated a reverse relationship between Iranian EFL learners' learning styles and their language learning strategy use, which stands in contrast to the findings of most studies on the topic, which have documented a positive relationship between language learning styles and strategies (Bromley, 2013; Chen, 2006; Cohen, 2003; Li & Qin, 2006; Wong & Nunan, 2011).

Some explanations might justify the results obtained in the study in this respect. Firstly, the participants might not have been trained to choose learning strategies compatible with their learning styles. Bromley (2013) argued that the adoption of strategies which are

complementary with learners' preferred learning styles will facilitate learning. The second explanation on this issue can be ascribed to the teachers not being trained enough; that is, as pointed out by Ehrman, Leaver and Oxford (2003), "strategy instruction is more effective when adjusted for students' learning style" (p.6). Teachers' understanding of students' learning style will help them in determining and providing accurate instruction.

The results of the study also indicated that among all the fifteen components of emotional intelligence, only four (namely, social responsibility, impulse control, reality testing and assertiveness) were strong predictors of L2 achievement, with the last one (i.e. assertiveness) being the strongest predictor. Assertiveness includes the ability to express one's feelings effectively and constructively. It is thus, the ability to express feelings, beliefs, and thoughts and also the ability to defend one's rights in a non-destructive manner, which is of paramount importance in most social contexts including the classroom.

Conclusion and implications

Emotional intelligence and language learning strategy use were found to have a statistically significant and positive relationship with L2 achievement; however, no statistically significant relationship was found between Iranian EFL learners' L2 achievement and their learning styles. Moreover, the findings revealed there existed a positive relationship between language learning strategy use and emotional intelligence, whereas a reverse association was found between EFL learners' language learning strategy use and their learning styles. Furthermore, no significant relationship was found between emotional intelligence and learners' learning styles. Additionally, the findings indicated that language learning strategy use was a stronger predictor of EFL learners' L2 achievement. Finally, the findings indicated that, among the components of emotional intelligence, assertiveness was a significantly stronger predictor of Iranian EFL learners' L2 achievement.

The findings of this study could prove fruitful for EFL teachers. If teachers intend to improve the students' learning outcome, they should consider not only cognitive, but also affective variables which are vitally important in learning. That is, teachers should find ways to enhance learners' emotional intelligence in language classes to improve Iranian EFL learners' L2 achievement. Additionally, it is deemed essential for ESL/EFL instructors to encourage their students to use more language learning strategies, especially those found in the literature to contribute to success, and provide them with various challenging opportunities to use them on every occasion the need arises.

As language learning strategy use was found to be a stronger predictor of EFL learners' L2 achievement, students should not only use more language learning strategies, but also make greater use of those strategies that have been found in various studies to be connected with effective foreign language learning (which, of course, might sometimes be context-specific), in order to improve their L2 achievement. In other words, besides the *amount* of strategy use, the learners should also pay due attention to the *type* of strategies they adopt in the learning process and pick those which lead to successful and effective foreign language acquisition.

The results of the current study might be beneficial for syllabus designers and material developers, who can design and develop textbooks and materials which incorporate and highlight language learning strategy use, and emotional intelligence, two significant variables found in the study to promote L2 achievement of EFL learners.

References

- Abdolrezapour, P. & Tavakoli, M. (2012). The relationship between emotional intelligence and EFL learners' achievement in reading comprehension. *Innovation in Language Learning and Teaching*, 6(1), 1-13. http://dx.doi.org/10.1080/17501229.2010.550686
- Alavinia, P. & Mollahossein, H. (2012). On the correlation between Iranian EFL learners' use of metacognitive listening strategies and their emotional intelligence. *International Education Studies*, 5(6), 189-203. http://dx.doi.org/10.5539/ies.v5n6p189
- Ameriks, J., Wranik, T. & Salovey, P. (2009). *Emotional intelligence and investor behavior*. The Research Foundation of CFA Institute. http://www.cfapubs.org/doi/pdf/10.2470/rf.v2009.n1
- Bailey, P., Onwuegbuzie, A. J. & Daley, C. E. (2000). Using learning style to predict foreign language achievement at the college level. *System*, 28(1), 115-133. http://dx.doi.org/10.1016/S0346-251X(99)00064-0
- Banner, G. & Rayner, S. (2000). Learning language and learning style: Principles, process and practice. *The Language Learning Journal*, 21(1), 37-44. http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.131.9019&rep=rep1&type=pdf
- Barlozek, N. (2015). EFL teachers' affective competencies and their relationships with the students. In E. Piechurska-Kuciel & M. Szyszka (Eds.), *The ecosystem of the foreign language learner, second language learning and teaching* (pp. 97-115). Switzerland: Springer.
- Bar-On, R. (1997). Bar-On emotional quotient inventory: User's manual. Toronto, ON: Multi-Health Systems.
- Bar-On, R. (2007). How important is it to educate people to be emotionally intelligent, and can it be done? In R. Bar-On, J. G. Maree & M. J. Elias (Eds.), *Educating people to be emotionally intelligent* (pp. 1-14). London: Praeger.
- Bar-On, R., Maree, J. G. & Elias, M. J. (2007). What this book is about. In R. Bar-On, J. G. Maree & M. J. Elias (Eds.), *Educating people to be emotionally intelligent* (pp. xiii-xvi). London: Praeger.
- Bicer, D. (2014). The effect of students' and instructors' learning styles on achievement of foreign language preparatory school students. *Procedia Social and Behavioral Sciences*, 141, 382-386. http://dx.doi.org/10.1016/j.sbspro.2014.05.067
- Bromley, P. (2013). Active learning strategies for diverse learning styles: Simulations are only one method. *PS: Political Science & Politics*, 46(4), 818-822. http://dx.doi.org/10.1017/S1049096513001145
- Busato, V. V., Prins, F. J., Elshout, J. J. & Hamaker, C. (2000). Intellectual ability, learning style, personality, achievement, motivation and academic success of psychology students in higher education. *Personality and Individual Differences*, 29(6), 1057-1068. http://dx.doi.org/10.1016/S0191-8869(99)00253-6
- Chen, T. H. (2006). Grade level differences in perceptual learning style preferences and language learning strategies of grade seven to grade nine students learning English as a foreign language in Taiwan. Unpublished EdD thesis, Idaho State University, Pocatello.

- Cohen, A. D. (2003). The learners' side of foreign language learning: Where do styles, strategies, and tasks meet? *International Review of Applied Linguistics in Language Teaching*, 41(4), 279-291. http://dx.doi.org/10.1515/iral.2003.013
- Dornyei, Z. (2005). The psychology of the language learner: Individual differences in second language acquisition. Mahwah, NJ: Lawrence Erlbaum Associates.
- Ehrman, M. E., Leaver, B. L. & Oxford, R. L. (2003). A brief overview of individual differences in second language learning. *System*, 31(3), 313-330. http://dx.doi.org/10.1016/S0346-251X(03)00045-9
- Ehrman, M. E. & Oxford, R. L. (1990). Adult language learning styles and strategies in an intensive training setting. *The Modern Language Journal*, 74(3), 311-327. http://dx.doi.org/10.1111/j.1540-4781.1990.tb01069.x
- Fredrickson, B. L. (1998). What good are positive emotions? Review of General Psychology, 2(3), 300-319. http://psycnet.apa.org/doi/10.1037/1089-2680.2.3.300
- Garcia-Fernandez, J. M., Ingles, C. J., Suria, R., Lagos-San Martin, N., Gonzalvez-Macia, C., Aparisi, D. & Martinez-Monteagudo, M. C. (2015). Profiles of emotional intelligence and learning strategies in a sample of Chilean students. *European Journal of Psychology of Education*, 30(4), 437-455. http://dx.doi.org/10.1007/s10212-015-0254-9
- Geary W. T. & Sims R. R. (1995). Adapting faculty and student learning styles: Implications for accounting education. In R.R. Sims & S.J. Sims (Eds.), *The importance of learning styles: Understanding the implications for learning, course design, and education* (pp. 117-128). London: Greenwood Press.
- Gerami, M. & Madani Ghareh Baighhon, Sh. (2011). Language learning strategies used successful and unsuccessful Iranian EFL students. *Procedia Social and Behavioral Sciences*, 29, 1567-1576. http://dx.doi.org/10.1016/j.sbspro.2011.11.399
- Goleman, D. (1996). *Emotional intelligence: Why it matters more than IQ*. New York: Bantam Books.
- Griffiths, C. (2012). Learning styles: Traversing the quagmire. In S. Mercer, S. Ryan & M. Williams (Eds.), *Psychology for language learning: Insights from research, theory, and practice* (pp.151-168). Palgrave Macmillan.
- Hasanzadeh, R. & Shahmohamadi, F. (2011). Study of emotional intelligence and learning strategies. *Procedia Social and Behavioral Sciences*, 29, 1824-1829. http://dx.doi.org/10.1016/j.sbspro.2011.11.430
- Hogan, M. J., Parker, J. D. A., Wiener, J., Watters, C., Wood, L. M. & Oke, A. (2010). Academic success in adolescence: Relationships among verbal IQ, social support and emotional intelligence. *Australian Journal of Psychology*, 62(1), 30-41. http://dx.doi.org/10.1080/00049530903312881
- Hanoch, Y. (2002). "Neither an angel nor an ant": Emotion as an aid to bounded rationality. *Journal of Economic Psychology*, 23(1), 1-25. http://dx.doi.org/10.1016/S0167-4870(01)00065-4
- Hong-Nam, K. & Leavell, A. G. (2006). Language learning strategy use of ESL students in an intensive English learning context. *System*, 34(3), 399-415. http://dx.doi.org/10.1016/j.system.2006.02.002
- Humphrey, N., Curran, A., Morris, E., Farrell, P. & Woods, K. (2007). Emotional intelligence and education: A critical review. *Educational Psychology*, 27(2), 235-254. http://dx.doi.org/10.1080/01443410601066735
- Leithwood, K. & Beatty, B. (2008). Leading with teacher emotions in mind. Corwin Press.

- Kolb, D. (1984). Experiential learning: Experience as the source of learning and development. Englewood Cliffs, NJ: Prentice-Hall.
- Kolb, D. (1985). Learning style inventory (Revised Edition). Boston, MA: McBer and Company.
- Li, J. & Qin, X. (2006). Language learning styles and learning strategies of tertiary-level English learners in China. *RELC*, 37(1), 67-90. http://dx.doi.org/10.1177/0033688206063475
- Neophytou, L. (2013). Emotional intelligence and educational reform. *Educational Review*, 65(2), 140-154. http://dx.doi.org/10.1080/00131911.2011.648171
- Nunan, D. (1999). Second language teaching and learning. Boston, MA: Heinle and Heinle.
- Oatley, K., Keltner, D. & Jenkins, J. M. (2006). *Understanding emotions* (2nd ed.). Malden, MA: Blackwell.
- O'Malley, J. M. & Chamot, A. U. (1990). *Learning strategies in second language acquisition*. Cambridge: Cambridge University Press.
- Oxford, R. L. (1990). Language learning strategies: What every teacher should know. Boston, MA: Heinle and Heinle.
- Oxford, R. L. (1990). Strategy inventory for language learning (SILL). [viewed 11 March 2013 at http://homework.wtuc.edu.tw/sill.php, not found 28 Aug 2016; see https://www.surveymonkey.com/r/9ZB5TFG]
- Pishghadam, R. (2008). The relationship among Iranian EFL learners' language learning strategy use, gender, and their most-frequently used learning strategies. *The Journal of English Language Teaching and Learning*, 208(51), 23-51.
- Pishghadam, R. (2009). A quantitative analysis of the relationship between emotional intelligence and foreign language learning. *Electronic Journal of Foreign Language Teaching*, 6(1), 31-41. http://e-flt.nus.edu.sg/v6n12009/pishghadam.pdf
- Pritchard, A. (2009). Ways of learning: Learning theories and learning styles in the classroom, 2nd ed. London: David Fulton.
- Schmitt, N. (2002). An introduction to applied linguistics. London: Arnold.
- Shao, K., Yu, W. & Ji, Z. (2013). The relationship between EFL students' emotional intelligence and writing achievement. *Innovation in Language Learning and Teaching*, 7(2), 107-124. http://dx.doi.org/10.1080/17501229.2012.725730
- Sims, R. R. & Sims, S. J. (1995). Learning enhancement in higher education. In R. R. Sims & S. J. Sims (Eds.), *The importance of learning styles: Understanding the implications for learning, course design, and education* (pp.1-24). London: Greenwood Press.
- Soodmand Afshar, H., Sohrabi, S. & Malek Mohammadi, R. (2015). On the relationship among Iranian ESP learners' learning strategy use, learning styles and their English language achievement. *Procedia Social and Behavioral Sciences*, 192, 724-729. http://www.sciencedirect.com/science/article/pii/S1877042815035508/pdf?md5=72724b421 cc0a10f4edfe642c1be1580&pid=1-s2.0-S1877042815035508-main.pdf
- Soodmand Afshar, H. & Rahimi, M. (2016). Reflective thinking, emotional intelligence, and speaking ability of EFL learners: Is there a relation? *Thinking Skills and Creativity*, 19, 97-111. http://dx.doi.org/10.1016/j.tsc.2015.10.005
- Thi Lam, L. & Kirby, S. L. (2002). Is emotional intelligence an advantage? An exploration of the impact of emotional and general intelligence on individual performance. *The Journal of Social Psychology*, 142(1), 133-143. http://dx.doi.org/10.1080/00224540209603891
- Woitaszewski, S. A. & Aalsma, M. C. (2004). The contribution of emotional intelligence to the social and academic success of gifted adolescents as measured by the multifactor

- emotional intelligence scale adolescent version. *Roeper Review*, 27(1), 25-30. http://dx.doi.org/10.1080/02783190409554285
- Wong, L. L. C. & Nunan, D. (2011). The learning styles and strategies of effective language learners. *System*, 39(2), 144-163. http://dx.doi.org/10.1016/j.system.2011.05.004
- Wooldridge, B. (1995). Increasing the effectiveness of university/college instruction: Integrating the results of learning style research into course design and delivery. In R. R. Sims & S. J. Sims (Eds.), *The importance of learning styles* (pp. 49-68). London: Greenwood Press.
- Yildirim, O., Cevat Acar, A., Bull, S. & Sevinc, L. (2008). Relationships between teachers' perceived leadership style, students' learning style, and academic achievement: A study on high school students. *Educational Psychology*, 28(1), 73-81. http://dx.doi.org/10.1080/01443410701417945
- Zafari, M. & Biria, R. (2014). The relationship between emotional intelligence and language learning strategy use. *Procedia Social and Behavioral Sciences*, 98, 1966-1974. http://dx.doi.org/10.1016/j.sbspro.2014.03.630
- Zeidnar, M., Matthews, G. & Roberts, R. D. (2009). What we know about emotional intelligence: How it affects learning, work, relationships, and our mental health. London: the MIT press.
- Zhou, M. (2011). Learning styles and teaching styles in college English teaching. *International Education Studies*, 4(1), 73-77. http://dx.doi.org/10.5539/ies.v4n1p73

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