



Teaching English as a Second Language  
Quarterly (TESLQ)  
(Formerly Journal of Teaching Language Skills)  
41(1), Winter 2022, pp. 1-31  
DOI: 10.22099/TESL.2021.40684.3001

Online ISSN: 2717-1604  
Print ISSN: 2008-8191

*Research Paper*

## Validation of Spiritual and Emotional Intelligence questionnaire and Predictability Power of the Former for EFL Learners' Performance

**Momene Ghadiri \***

**Gholamreza Zarei \*\***

**Amir Esmacili \*\*\***

*Isfahan University of Technology*

### Abstract

While the bulk of literature repletes with studies on emotional intelligence and its effect on teachers' performance and students' academic achievement, few have been released as to the potency of the factors that can foster emotional intelligence inside classrooms. Accordingly, the present study aimed to investigate the extent to which spiritual intelligence could be a predictor of emotional intelligence. The data were collected through a merger of the Brief Emotional Intelligence Scale (BEIS-10) and Spiritual Intelligence Self-Report Inventory (SISRI). The evolved 34-item questionnaire was translated into Persian to ensure maximum comprehension of participants. The sample of this study consisted of 847 undergraduate Iranian EFL learners from two provinces in Iran. Three phases were in this study. First, an exploratory factor analysis of SISRI-24 was performed. Second, confirmatory factor analysis of both inventories, individually, was done by IBM SPSS AMOS. This was followed by CFA of the 34-item questionnaire. Last, multiple regression analysis was modeled to find the predictive relationships. The results of PCA revealed a three-factor model of SISRI (18 statements). CFA also verified both inventories under investigation. The model fit estimated of the 34-item questionnaire was sufficiently adequate to approve the model. Multiple regression

Received: 17/05/2021

Accepted: 19/09/2021

\*Assitant Profossor, Email: momene.ghadiri@iut.ac.ir, Corresponding Author

\*\* Assoicate Professor, Email: grzare@iut.ac.ir

\*\*\* MA in TEFL, Email: amireseng@gmail.com

**analysis also indicated that critical existential thinking could predict both appraisal and regulation of own emotions as well as utilization of emotions. Likewise, conscious state expansion could predict the utilization of emotions. It was also found that personal meaning production could predict the appraisal of other emotions.**

**Keywords:** Spiritual Intelligence, Emotional Intelligence, Exploratory Factor Analysis, Multiple Regression Analysis, Confirmatory Factor Analysis, EFL Learners

Zohar (2010), the American-British author and speaker, defines spiritual intelligence as "the wealth, the power, and the influence that we gain by acting from a deep sense of meaning, our deepest values, and a sense of higher purpose, and all of these are best expressed through a life devoted to service" (p. 3). Moreover, Zohar (2010) categorically states there need not be any link between spiritual intelligence and religions as spiritual intelligence goes far beyond that. Much as spiritual intelligence seems to be irrelevant to education in the face of it when we scratch the surface, we readily notice it contains some indispensable, inherent elements. Practiced properly, spiritual intelligence has the potential to pique learners' curiosity for any subject matter, to seek explanation, and to open their minds, to name but a few. All of these are bound to educate critical thinkers – an essential skill for the 21<sup>st</sup> century – and prepare them to be decent human beings.

On the other hand, Gardner (2000) identifies three connotations of spiritual intelligence. The first is comprised of activities germane to physical states and varying degrees of consciousness, such as those experienced through yoga or meditation. This is the only perspective Gardener affirms vociferously. The second refers to phenomenological states, which are not ingrained in the actual intelligence, where one finds a spiritual connection to

a higher power such as God. This is where he voices an absence of a personal experience while approving of such genuine, preternatural states. The last signifies that existential intelligence is what accounts for multifarious computation skills as in linguistic, spatial, or interpersonal areas. Even though Gardner recognizes the last connotation as a fit candidate for his eight criteria benchmarked for intelligence (see Gardner, 1983, section 4 for thorough discussion in this regard), he considers the insufficient data obtained hitherto to be found wanting, compelling him to humorously rearrange his formerly nine types of intelligence set to be now viewed as 8½.

It is noteworthy to examine spiritual intelligence from other standpoints, however. To begin with, Emmons's (2000) description of spiritual intelligence is undoubtedly regarded as riveting. In his exhaustive outline, Emmons categorizes spiritual intelligence into five distinct domains, i.e. "the capacity for transcendence", "the ability to enter into heightened spiritual states of consciousness", "the ability to invest everyday activities, events, and relationships with a sense of the sacred", "the ability to utilize spiritual resources to solve problems in living", and "the capacity to engage in virtuous behavior or to be virtuous (to show forgiveness, to express gratitude, to be humble, to display compassion)" (p.10).

With the passage of time, some jargon such as 'mental ability' went through slight modifications to 'consciousness' or 'awareness', and so did Emmons' elaborate description. "Spiritual consciousness", rather than intelligence, was now outlined as "attending to the unity of the world and transcending one's existence", "consciously entering into heightened spiritual states", "attending to the sacred in everyday activities, events, and relationships", "structuring consciousness so that problems in living are seen in the context of life's ultimate concerns", and "desiring to act, and

consequently, acting in virtuous ways (to show forgiveness, to express gratitude, to be humble, to display compassion)" (Mayer, 2000, p.48).

Mayer (2000) expresses a somewhat disparate denotation of intelligence. He highlights the power of abstract reasoning, which merely partially reflects Gardner's (1983) renowned eight criteria of intelligence, to succeed in conducting a performance. This abstract reasoning includes discrete cognitive tasks: differentiation between similarities and differences, forming generalizations, and mental arithmetic are a handful of a wider assortment (Carroll, 1993).

By the same token, Amram & Dryer (2008) provides a fairly similar definition of spiritual intelligence, notwithstanding five distinctive coatings. He attributes spiritual intelligence to the ability to exploit spiritual resources to promote everyday tasks and welfare. He subsequently introduces a measurement for spiritual intelligence known as 'the Integrated Spiritual Intelligence Scale (ISIS)'. ISIS consists of 22 constituent elements, all of which are placed into five predominant scales, i.e., consciousness, grace, meaning, transcendence, and truth. ISIS proved to hold a high reliability index, too.

Moving on, King and Decicco (2009) make an effort to propose a painstaking, truncated version of spiritual intelligence into four core units. They concisely assert that spiritual intelligence is one's mental prowess in order to raise awareness of their existence, self-reflection, and spiritual states. King et al. (2009) listed four main parts of spiritual intelligence, each of which is succinctly analyzed hereby. Critical Existential Thinking (CET) is the first constituent promoting critical thinking for mundane and immaterial aspects such as reality, space, or death. Second comes Personal Meaning Production (PMP), reflecting the idea of personal existential purpose in life for both

mental and physical experiences. Transcendental Awareness (TA) is the third element, which is basically concerned with one's perception of metacognitive aspects of self, others, and the (earthly) world in a typical state of consciousness. Last but not least arrives Conscious state expansion (CSE), which contends with a deeper state of consciousness, say on a divine level, on a self-controlled basis.

King et al.'s model set a prominent landmark for future research. Scholars, such as Antunes, Silva, and Oliveira (2018), Das (2015), Jyadi (2013), Polemikou, Zartaloudi, and Polemikos (2019), and Sokhandani (2016), embarked on a thorough inspection of this model. In turn, a hefty volume of studies appeared investigating SISRI-24 in areas as diverse as entrepreneurship, health, and education the world over (Antunes, Silva, & Oliveira, 2018).

**Rationale of the Study**

The advent of Gardner's (1983) Multiple Intelligences Theory (MIT) has brought about a new phase in teaching and learning ever since. In general, MIT has helped instructors to tackle learning idiosyncrasies more prudently and deal with various styles more considerately. Gardner (1991) suggests teaching the subject matter in a variety of forms so that learners whose mastery in one intelligence outweighs the other all have the same opportunity to benefit from the lesson.

Unlike former beliefs that intelligence is an inborn quality set and stable in one's genome, contemporary neuroscience has clinically proved that the human brain is perfectly capable of more and more neural constructs to improve intelligence, at least to some extent (Arnold & Fonseca, 2004). The quantity of research to appraise individuals' multifaceted intelligence is legion

due to the fact that each person has his own intricacies of interrelated bits of intelligence. Every person has an exclusively unique pattern of intelligence based on the surrounding milieu and personal traits. By the same token, there have been many academic studies to find measures in order to evaluate the relationship between various bits of intelligence, although the results have stubbornly remained a thorny issue (Gardner, 1991).

In line with the studies done in this area, this study was triggered by the idea indicating whether the spirituality, or spiritual intelligence of English language learners, could have a predictive power for their emotionality, i.e., emotional intelligence, with the hope that it would serve as a stepping stone toward a better understanding of this notion. Emotional intelligence denotes how individuals confront and handle their emotions in a setting. This type of intelligence gains prominence in an English language program, where learning the subject matter is stirred up with assimilating with the second culture. On the other hand, a few studies (e.g., King & DeCicco, 2009; Martin & Hafer, 2009) indicated a close relationship between spiritual intelligence and emotional intelligence. Nonetheless, the predictive power has not yet been appraised. Suppose the study results show that the three main factors of spiritual intelligence, namely, criticality, consciousness, and meaning production, can predict one's emotional awareness and utilization. In that case, teachers should pay more attention to the tasks that foster critically inside language classes, including but not limited to those that entail cultural awareness or self-regulated strategies, to have an emotionally-balanced classroom. This was the main motive of the authors to set up the current study.



**Literature Review**

Intelligence has long been a contentious variable for nearly all types of research. That said, up until two decades ago, there used to be a unanimous consensus on what intelligence means; a hefty volume of scholars and academics believed that intelligence is an innate, barely malleable criterion, which is determinable at a tender young age through IQ tests (cf. Herrnstein & Murray, 1994); it was known as the "g" factor standing for general intelligence. However, many resources joined forces to question this long-lived perspective collectively. Neuroscience, cognitive science, anthropology, and psychology have clinically proved the human brain's modularity, miscellaneous intellectual character traits grown incrementally, and progressive intelligence theories (Gardner, 2000). What follows is the review of the studies done on the two variables under investigation, i.e., spiritual intelligence and emotional intelligence, in the context of education.

**Emotional Quotient (EQ)**

We can attribute the very first steps to the realization of EQ to Thorndike's social intelligence notion during the 1930s. He defined social intelligence as the ability to cope with others should we understand our own motives and behaviors as well as others (Dhani & Sharma, 2016). Although the coinage of EQ dates back to the 1980s, Goleman (1995) was a leading figure to popularize it. EQ has been defined in a variety of ways predominantly regarded as a set of non-cognitive skills to understand your own and others' emotions, but it is simply boiled down to one's perception, appreciation, and self-control of emotions in different situations. Formerly, EQ was the main interest of educational and psychological fields; it later attracted attention in more areas notwithstanding (Gayathri & Meenakshi, 2013). The reason for

© Shiraz University

EQ's immediate appeal lies in the postulation of Dulewicz and Higgs (2000), suggesting that EQ may prove to be measurable and developable.

Since the emergence of EQ, there has been a multitude number of studies to delve into this beguiling notion. It has leaked into numerous educational and social studies to obtain further understanding of how it could be related to one's performance (Davoudi & Chavosh, 2016). The literature in this realm has demonstrated that language learners experience a variety of positive and negative emotions in their learning processes and English classes; enjoyment and pride (Goetz, Frenzel, Hall & Pekrun, 2008), fear (Ellis, 1994), and anxiety (Horwitz, Horwitz & Cope, 1986) are to name but a few. Some studies have been done on EQ and students' online learning readiness (e.g., Engin, 2017), EQ and language learning skills and strategies (e.g., Aki, 2006), EQ and EFL learners' achievement (e.g., Balasubramanian & Al-Mahrooqi, 2016; Lanciano & Curci, 2014; Pishghadam, 2009; Soodmand Afshar, & Rahimi, 2016), EQ and motivation to acquire English as a foreign language (e.g., Imai, 2010; Mendez Lopez and Pea Aguilar, 2013; Schutz & Pekrun, 2007), EQ and foreign language learning anxiety( e.g., Chao, 2003), EQ and multifarious parts of language ranging from skills, systems, subskills, and strategies (e.g., Abdolrezapour, 2016; Abdolrezapour & Tavakoli, 2012; Alavinia & Mollahosseini, 2012; Jalongo & Hirsh, 2010; Pahlavani & Asroush, 2013; Shao, Yu, & Ji, 2013; Soodmand Afshar & Rahimi, 2016), the results of all of which indicated the remarkable contribution of emotional intelligence to language learning and teaching.

### **Emotional Quotient and Spiritual Quotient**

Emotional Quotient and Spiritual Quotient (SQ) have been gaining traction in multifarious scientific studies during the past few decades, and ELT



has been no exception to this fledgling trend. The chief reason for the significance and popularity of the aforementioned variables lies in the fact that how strongly they can affect one's performance. Animasahun (2008) did an interesting study with a sample of 300 participants in south-western Nigeria to discern whether there is any meaningful correlation between 4 variables, namely: EQ, SQ, creativity, and self-efficacy. Having employed 5 reliable tools to measure the relationship between these variables, Animasahun (2008) pinpointed that there is a positive correlation between all the four variables, with EQ and SQ being the strongest, followed by creativity and self-efficacy in order. This distinctively demonstrates that EQ and SQ are inseparably intertwined, and should one of them either strengthen or weaken, the other is sure to be directly affected. The other invaluable outcome of this study is that creativity, one of the essential 21<sup>st</sup>-century skills, is too intricately interwoven with EQ and SQ, implying that the benefits of catering for such variables are manifestly manifold for language learners, if not any other.

Chin, Raman, Yeow, & Eze's (2012) study on prosperous entrepreneurs in Malaysia and what made them forge ahead compared to their counterparts is noteworthy as well. Chin et al. (2012) selected four variables for EQ, SQ, creativity, and innovation to see if these carry any meaningful correlation between each other and the potent entrepreneurs. Their findings were also well-aligned with Animasahun (2008), showing that EQ and SQ are unmistakable predictors to nurture creativity and innovation; in other words, the more the former factors are cultivated, the higher the possibility of the latter variables.

Galore are findings that have embarked on a quest to ascertain whether the relationship between SQ and EQ is reliable, among which King, Mara, and DeCicco (2012) study is remarkable. The researchers made an effort to detect

if King and DeCicco's (2009) self-report measure of spiritual intelligence was linked to other bits of intelligence, EQ in their case. The sample consisted of 420 Canadian adults who had earlier been shown to possess a powerful degree of SQ and EQ. The result proved that even though the variables (SQ and EQ) digressed at points, they overlapped in other areas, bearing out very many findings in the same vein. Despite this, Martin and Hafer (2009) tested five models' potential to elaborate on the relationship between EQ, SQ, and students' performance. With the assistance of a 16-item Wong Law Emotional Intelligence Survey, a modified version of Ashmos and Duchon's survey, and students' cumulative grade point average, the EQ, SQ, and performance were amassed, respectively. The results denied all of the proposed models categorically, indicating that there still is room for reaching a definitive answer.

In the end, it is safe to conclude that should policymakers and curriculum designers take note of the importance of EQ and SQ and how delicately they are associated, we can rest assured to have provided a congenial environment for the process of language learning, just like many other skills and professions. Having said that, there ought still to be more research conducted to help us construct a firm, unassailable deduction about the correlation between EQ and SQ in detail.

### **Method**

#### **Participants**

The sample of this study included 847 Iranian EFL students, of whom 610 were males and 237 females. The age range of our sample varied from 18 to 22, with participants majoring in more than 30 different fields of study, from humanities to science and engineering. All of our participants were

undergraduate students in their first year who also had to enroll for General English as a mandatory course for their semester. The respondents were selected through availability sampling from two universities in Iran. It must be noted that all participants had already been informed of the purpose of this research and partook in the study voluntarily.

**Instruments**

This study used two questionnaires for its instrumentation to gather the data and provide answers to the research questions. The questionnaires distributed to participants were The Spiritual Intelligence Self-Report Inventory (SISRI-24) and Brief Emotional Intelligence Scale (BEIS-10). The minutiae of tools are elaborated in detail further in this section.

***The Spiritual Intelligence Self-Report Inventory (SISRI-24)***

This questionnaire was designed by King and Decicco (2009). The questionnaire is comprised of 24 items on a 5-point Likert scale ranging from 0 (Not at all true of me) to 4 (Completely true of me). Basically, the questionnaire examines four spiritual quotient subscales: Critical Existential Thinking, Transcendental Awareness, Personal Meaning Production, and Conscious State Expansion, with the first two areas occupying seven queries and the latter two with five items each throughout the questionnaire. The score of the respondent is calculated by summing the total number of 24 questions, adding up to a maximum of 96. However, careful attention must be paid to item 6 as it undergoes a reverse coding procedure. The final figure demonstrates the participant's level of SQ, and the higher the score, the higher the intelligence. The questionnaire has been validated through two separate studies; the former dealt with exploratory factor analysis among 619 undergraduate university students with a mean age of 22.53, and the latter

© Shiraz University

contended with confirmatory factor analysis and validation among 305 undergraduate students with a mean age of 25.56. SISRI-24 had already gone through a validity and reliability process; nonetheless, as the psychometric properties of the Persian Translation of the inventory has not been rigorously reported in the EFL setting, the authors decided to appraise the reliability and validity of the questionnaire among Iranian EFL university students, and the ultimate results all bore out both the reliability and validity of the questionnaire.

***The Brief Emotional Intelligence Scale (BEIS-10)***

Davies et al. (2010) devised the Brief Emotional Intelligence Scale and is considered a reliable and valid instrument to assess participants' emotional ability. The questionnaire is comprised of 10 items on a 5-point Likert scale ranging from 1 (totally disagree) to 5 (completely agree). Essentially, the questionnaire underwent three stages to arrive at an ultimate version. The first stage was basically a revision of an already prepared Emotional Intelligence Scale developed by Schutte et al. (1998), in which a panel of experts examined 33 items, and 17 items were later regarded as insignificant and hence were discarded. In the second stage, confirmatory factor analysis was applied to a 5-factor solution as well as a unidimensional model in a sample of 955 student-athletes. Consequently, BEIS-10 was developed by the omission of two items from each factor with the most noticeable factor content, and the outcome led to a 10-item, 5-factor solution, namely appraisal of own emotions, appraisal of other emotions, regulation of own emotions, regulation of other emotions, and utilization of emotions. Finally, in stage 3, reliability of the questionnaire was attained through test-retest between 111 students in a 2-week gap to make BEIS-10 a valid and reliable source to be implemented.

The inventory had been translated and validated by Rahimi (in press). Nonetheless, its confirmatory factor analysis was once again done in this study.

**Procedures**

This research implemented a quantitative approach to collect its data. To do so, both questionnaires, BEIS-10 and SISRI-24, were initially translated into Farsi, were handed out to students, and subsequently went through a validation process. Two professional translators did the process of translation to ensure their accuracy and comprehensibility. The combination of the questionnaires led to a 34-item survey with some demographic information on top, which could benefit the aim of the study, such as their age, educational background, and years of learning English. However, the identification of the students remained anonymous.

Having translated the questionnaires into Farsi to ensure students' maximum comprehension of the queries, the merged questionnaire was subsequently administered to students. The completion of the questionnaire would take approximately 15 minutes, and hence respondents were asked to fill it out a quarter prior to the end of their classes. Once again, it is worth mentioning that all the participants were already informed of the purpose of this study and the completion of the questionnaire was conducted voluntarily and no participant was forced to do so. The first 30 questionnaires were examined to learn all the respondents had thoroughly gathered the definition of each statement and encountered no difficulty with the meaning of sentences. Once students' full comprehension was assured of the items in the questionnaire, the rest of them were administered among the students of the two universities.

Having obtained the data, the authors subsequently set out to analyze them. To do so, they made use of SPSS 23 and AMOS 23. The variables of the study, SQ & EQ, were initially introduced to the software, and then their internal reliability was calculated by means of Cronbach Alpha one by one. Moreover, to acquire the construct validity of our variables, they used AMOS 23, and the proposed model was specified. After, they examined the proposed model for each intelligence to discern whether it was well-aligned with our data; in other words, model fit was investigated. Once the reliability and validity of our variables were assessed, a model was defined for AMOS, including both intelligences under investigation and their correlation. Consequently, multiple regression analysis was run using AMOS software, the results of which will be discussed in the next section.

### Results

#### Exploratory factor analysis

Exploratory factor analysis (EFA) was initially done (principal component analysis, direct oblimin rotation) to assess the extent to which SISRI inventory is valid and reliable in the EFL setting since the psychometrics of the question in language learning context was not reported. To do EFA, a sample of 400 participants was considered. Statement 6, due to its marked effect on lowering the reliability of the scale, was removed. Also, statements 7, 14, and 16, and then statements 5 and 20, were omitted because their loading was less than 0.4. That led to the extraction of three factors which could totally explain 57.23 of the variances. The KMO and Bartlett's test results are reported in Table 1; for more information on the extracted factors, see Appendix A.



Table 1  
*KMO and Bartlett's Test for SISRI*

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.928
Bartlett's test of sphericity	Approx. Chi-Square	3237.501
	df	153
	sig.	.000

The results of principal component analysis (direct oblmin) indicated that statements 1, 2, 3, 4, 8, 9, 10, 13, and 15 were loaded on the first factor and that statements 17, 18, 21, 22, 23, and 24 were loaded on the second factor. The statements 11, 12, and 19 were also loaded on the third factor. The scree plot obtained for this inventory is shown in Figure 1.

© Shiraz University

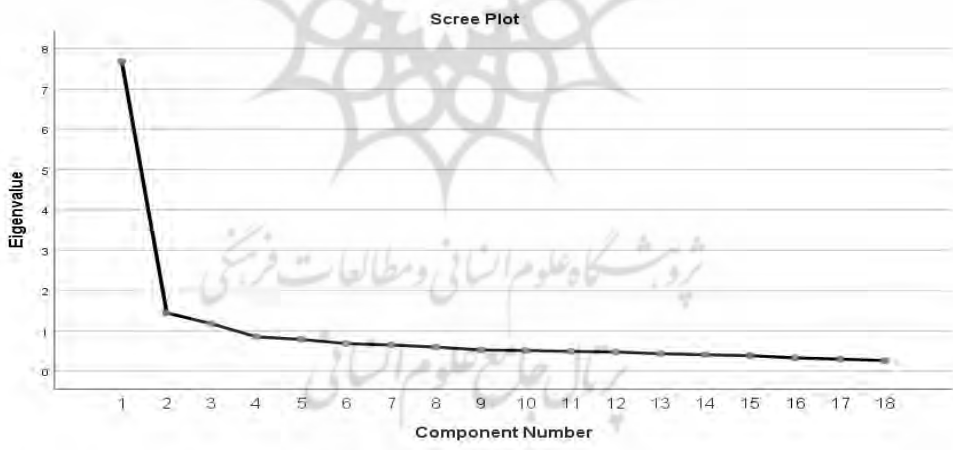


Figure 1  
*The Scree Plot of the SISRI Data*

### Confirmatory Factor Analysis

The analysis of data was followed by defining three hypothesized models for AMOS. Initially, a model was defined based on the results obtained from EFA as for SISRI, i.e., a three-factor model including 18 statements. Analysis was done on a sample of 447 participants. Next, Since the psychometrics of BEIS was once appraised by Rahimi (in press) in the language learning context, we just confirmed the existing model in our sample. This time, CFA was done on a sample of 847 participants. Last but not least, a model was defined based on the correlation between the subcomponents of the two intelligences under investigation so as to verify the model and proceed with further regression analysis. CFA was again done on a sample of 847 participants. The results of ML (maximum likelihood) estimation revealed that all the hypothesized models were sufficiently adequate and were well fitted with our data to proceed with further investigation. The model fit indices are reported in Table 2.

Table 2

*The Fit Estimates Obtained for Three Models Under Investigation*

Fit indices	SISRI	BEIS	The total model
CMIN/DF	3.330	2.765	2.840
X <sup>2</sup> P-value	.000	.000	.000
RMSEA	.072	.046	.050
PNFI	.665	.538	.767
PCFI	.712	.544	.809
GFI	.896	.984	.891
AGFI	.865	.966	.898
IFI	.827	.980	.886
CFI	.825	.980	.897

As can be seen in Table 2, the fit indices were virtually acceptable, and the AMOS results verified all three models. Nonetheless, since a number of goodness indices of SISIRI were less than 0.9, UL (unweighted least squares) was also done (NFI= .93, RFI= .92, GFI= .96, AGFI= .95, RMR= .07). The three defined models are presented in appendices B, C, & D.

### Reliability of the Inventories

The internal consistency of the variables under investigation – SQ & EQ – was calculated via SPSS version 23 and was equal to 0.92 and 0.80, which were deemed to be desirable concerning the models at hand. The details are demonstrated in Table 3.

Table 3  
*Reliability Indices of SISRI (18 items) & BEIS (10 items)*

Factor	N of items	Cronbach's alpha
CET	9	.89
CSE	6	.79
PMP	3	.74
Total	18	<b>.92</b>
A of own	2	.670
R of own	2	.715
A of others	2	.477
R of others	2	.667
Utilization	2	.647
Total	10	<b>.807</b>

Concerning SQ, as can be seen in Table 3, the internal consistency among the nine items comprising the Critical Existential Thinking subscale equaled 0.89, which is a high estimate of internal reliability. As to the six and three

items making up Conscious State Expansion and Personal Meaning Production subscales, the reliability indices, equal to 0.79 and 0.74 respectively, were virtually adequate to substantiate the internal consistency among the items. The reliability of the scale, as a whole, was found to be 0.92, confirming the consistency of the scale. The reliability indices of the five subscales of EQ, on the other hand, were not that high, ranging from 0.47 to .67, probably due to the limited number of statements comprising each factor. Nonetheless, the internal consistency of the whole scale turned out to be 0.80, indicating a rather high consistency.

#### Multiple regression analysis

Following the confirmation of the three hypothesized models, the regression model of the fitted data was developed (Appendix E). The correlation between the variables is summarized in Table 4. Prior to doing MRA, 87 outliers were found in the data; thus, the analysis was followed by a sample of 739.

Table 4  
*Correlation Between the Eight Subcomponents Under Investigation*

	A own	R own	A other	R other	Utilization	CET	CSE	PMP
A own	1							
R own	.413**	1						
A other	.347**	.309**	1					
R other	.273**	.378**	.432**	1				
Utilization	.333**	.324**	.438**	.507**	1			
CET	.250**	.286**	.210**	.157**	.270**	1		
CSE	.161**	.193**	.204**	.154**	.250**	.615**	1	
PMP	.133**	.176**	.217**	.083*	.146**	.596**	.514**	1

The results of regression analysis revealed that the first factor of SISRI model, i.e., critical existential thinking, could predict both appraisal and regulation of own emotions ( $p < .001$ ). This factor could also predict the utilization of emotions ( $p = .003$ ). Likewise, the second factor, i.e., critical state consciousness, could predict the utilization of emotions ( $p = .011$ ). It was also found that the third factor, namely personal meaning production, could predict appraisal of other emotions ( $p < .001$ ). Thus, five relationships were found to be statistically significant.

### Discussion

Intelligence has long been of paramount importance in learning and teaching, and though it has traditionally been narrowed down to solely IQ, today, there is no doubt that there are at least eight types of intelligence that have to be considered inside the classroom. That is to say, students' multiple intelligences have to be considered when identifying language learning and styles; a teacher whose main focus is limited to only one type of intelligence in the classroom, i.e., verbal/linguistic, would not benefit the whole learning potential of the students. Luo & Huang (2018) found that ESL teachers were interpersonally, intrapersonally, musically, and naturalistically competent, while bodily and spatially, they were poorly intelligent. In a similar way, Dolati & Tahriri (2017) found that only logical-mathematical intelligence can exert influence on the types of activities that teachers use inside the classroom, while other types of intelligence are not determinant in shaping class practices. Alsalhi (2020) also indicated that only three groups of students could well exploit science textbooks, namely, verbally-linguistically, spatially-visually, and logically-mathematically competent learners, as the three mentioned types of intelligence comprised three-fourths percent of the books. The results of the

studies done in recent years reveal room for improvement in actual classroom practices, even though a surfeit of research has already been done on the role of multiple intelligences in learning and teaching.

The results of the present study are well in line with Chan & Siu (2016), King & DeCicco (2009), Ogunsola, Fontaine, & Jan (2020) as to the psychometric properties of the SISRI inventory, indicating that the questionnaire (18 statements) could safely be employed in appraising spirituality of university EFL students. As to the relationship between EQ and SQ, the findings of the study confirmed Animusahun (2008) regarding the close correlation between EQ and SQ. They are also in line with Chin, Raman, Yeow, & Eze (2012), who claimed the association between the two types of intelligence under investigation to be strong. The given study also found that these two types of intelligence could well predict creativity, innovation, and self-efficiency among the learners. Putting the results of the given studies and the present one together, we can conclude that critical thinking, consciousness expansion, and personal meaning production can predict the regulation and utilization of one's emotions. In turn, the emotionally-balanced language learning practices can foster creativity and self-efficiency in language learners. The results of the study were also in line with King & DeCicco (2012) who in their conceptualization of spiritual intelligence well denoted a close association among SQ, EQ, and empathy; if the finding of the given study is integrated with the current results, we can conclude that the higher the teachers are spiritually intelligent, the greater their emotional intelligence, and the deeper their empathy towards the students.

Though criticality was broadly defined in the SQ model as to the existence of reality, it can be narrowed down in language classes to the following strategies: deduction, inference, and logical conclusion.



Visualization in the form of storytelling is one of the techniques that teachers can use in order to raise the critical thinking skills of learners, thereby affecting their appraisal and regulation of emotions. The more learners can regulate their emotions, the better they can learn a language. Storytelling can also improve the language skills of the learners. That is to say, entering deep levels of consciousness on a self-controlled basis can also contribute to how learners can know and utilize their emotions in language classes. Personal Meaning Production (PMP) could also facilitate the appraisal of emotions in other language learners. This can be of big help to language teachers. If our teachers can personally find the purpose of their teachings inside the classes, they would recognize their students' emotions better, thus improving teacher-student interactions.

### Conclusion

The present study was set up to ponder whether there would be a predictive relationship between two forms of intelligence, i.e., spiritual intelligence and emotional intelligence, among language learners. If we can conclude that spirituality dimensions can predict the emotionality of the learners, then fostering this spiritual intelligence seems to be a need when it comes to the close relationship between emotion and cognition. A 34-item questionnaire was merged from two already validated and reliable sources to make up a new questionnaire assessing the two variables, and then it was translated into Farsi to ensure full comprehension of the respondents so as to evaluate their relationship among Iranian EFL learners. The results indicated that CET could predict the appraisal and regulation of own emotions. It was also found that conscious state expansion could affect the appraisal of own emotions and utilization of emotions.

Generally, suppose we can raise teachers' awareness as well as that of Iranian EFL students' that spiritual intelligence can be instrumental in their learning process. In that case, we can expect to witness more sophisticated language learners intellectually. That being said, the responsibility to commence working on our EFL learners' SQ does not merely fall on teachers. Materials writers are also accountable for devising exercises that encompass a wider range of intelligence, not only EQ, and touch upon these realms from time to time. Types of activities that are goal-oriented in a way that needs careful planning and clear vision are the ones to enhance EFL learners' SQ. As a case in point, we can encourage teachers to practice process writing more and more in classes. Honestly speaking, process writing is not practiced as much as product writing in Iranian English classes since most instructors are interested in the final draft and cannot give stage-by-stage feedback to assist learners. In process writing, students are required to envision what they expect to gain by the end of the exercise and are led throughout the activity by step-by-step guidance from their tutor. This is unmistakably highlighted in the spiritual quotient that if learners are already cognizant of the goal they want to achieve and not solely engaged in aimless exercises, they stand a better chance to accomplish that task with more ease and passion.

There are a number of suggestions for those who aim to conduct similar research studies. First, this study collected data quantitatively. It is recommended that future research be done using a quantitative and qualitative method to discern whether participants' performance or level of intelligence can change in a fixed period of time. Furthermore, there could be experimental research studies on language learners in which there are tasks contending with students' SQ to see if such exercises have any significant effect on language learners' emotional intelligence as well as proficiency performance.

### References

- Abdolrezapour, P. (2016). Improving learners' oral fluency through computer-mediated emotional intelligence activities. *ReCALL*, 29(1), 80-98.
- 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.
- Aki, O. (2006). Is emotional intelligence or mental intelligence more important in language learning? *Journal of Applied Science*, 1(6), 66-70.
- Alavinia, P., & Mollahosseini, 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.
- Alsalmi, N. R. I. (2020). The representation of multiple intelligences in the science textbooks and the extent of awareness of science teachers at the intermediate stage of this theory. *Thinking Skills and Creativity*, 38, 1-15.
- Amram, Y., & Dryer, D. C. (2008). *The integrated spiritual intelligence scale (ISIS): Development and preliminary validation*. Paper presented at the 116<sup>th</sup> Annual Conference of the American Psychological Association, Boston, MA, USA.
- Animasahun, R. A. (2008). Predictive estimates of emotional intelligence, spiritual intelligence, self-efficacy and creativity skills on conflict resolution behavior among the NURTW in south-western Nigeria. *Pakistan Journal of Life and Social Sciences*, 6(2), 68-74.
- Antunes, R. R., Silva, A. P., & Oliveira, J. (2018). Spiritual intelligence self-assessment inventory: Psychometric properties of the Portuguese version of SISRI-24. *Journal of Religion, Spirituality & Aging*, 30(1), 12-24.
- Arnold, J., & Fonseca, C. (2004). Multiple intelligence theory and foreign language learning: A brain-based perspective. *International Journal of English Studies*, 4(1), 119-136.
- Balasubramanian, C., & Al-Mahrooqi, R. (2016). Emotional intelligence in language instruction in Oman: The missing link. *RELC Journal*, 47(2), 145-160.
- Carroll, J. B. (1993). *Human cognitive abilities: A survey of factor-analytic studies*. New York: Cambridge University Press.
- Chan, A. W. Y., & Siu, A. F. Y. (2016). Application of the Spiritual Intelligence Self-Report Inventory (SISRI-24) among Hong Kong university students. *International Journal of Transpersonal Studies*, 35(1), 1-12.

- Chao, C. (2003). *Foreign language anxiety and emotional intelligence: A study of EFL students in Taiwan* (Unpublished doctoral dissertation). Texas A & M University, US.
- Chin, S.T.S., Raman, K., Yeow, J. A. & Eze, U.C. (2012). Relationship between emotional intelligence and spiritual intelligence in nurturing creativity and innovation among successful entrepreneurs: A conceptual framework. *Procedia Social and Behavioral Sciences*, 57, 261 – 267.
- Das, S. (2015). Is life satisfaction driven by spiritual intelligence? A study amongst the students pursuing doctoral degrees after leaving jobs in corporate houses. *Imperial Journal of Interdisciplinary Research*, 1(4), 114–125.
- Davies, K. A., Lane, A. L., Devonport, T. J., & Scott, J. A. (2010). Validity and reliability of a Brief Emotional Intelligence Scale (BEIS-10). *Journal of Individual Differences*, 31(4), 198–208.
- Davoudi, M., & Chavosh, M. (2016). The relationship between multiple intelligences and listening self-efficacy among Iranian EFL Learners. *English Language Teaching*, 9(6), 199-212.
- Dhani, P., & Sharma, T. (2016). Emotional intelligence: History, models and measures. *International Journal of Science Technology and Management*, 5(7), 189-201.
- Dolati, Z., & Tahriri, A. (2017). EFL teachers' multiple intelligences and their classroom practice. *SAGE Open*, 7(3), 1-12.
- Dulewicz, V., & Higgs, M. (2000). Emotional intelligence: A review and evaluation study. *Journal of Managerial Psychology*, 15(4), 341–372.
- Ellis, R. (1994). *The study of second language acquisition*. Oxford: Oxford University Press.
- Emmons, R. A. (2000). Is spirituality an intelligence? Motivation, cognition, and the psychology of ultimate concern. *International Journal for the Psychology of Religion*, 10(1), 3–26.
- Engin, M. (2017). Analysis of Students' Online Learning Readiness Based on Their Emotional Intelligence Level. *Universal Journal of Educational Research*, 5(12), 32-40.
- Gardner, H. (1983). *Frames of mind: The theory of multiple intelligences*. New York: Basic Books.
- Gardner, H. (1991) *The unschooled mind: How children think and how schools should teach*. New York: Basic Books.

- Gardner, H. (2000). A Case against spiritual intelligence. *International Journal for the Psychology of Religion*, 10(1), 27-34.
- Gayathri, N., & Meenakshi, K. (2013). A literature review of emotional intelligence. *International Journal of Humanities and Social Science Invention*, 2(3), 42-51.
- Goetz, T., Frenzel, C. A., Hall, N. C., & Pekrun, R. (2008). Antecedents of academic emotions: Testing the internal/external frame of reference model for academic enjoyment. *Contemporary Educational Psychology*, 33(1), 9-33.
- Goleman, D. (1995). *Emotional intelligence*. United States: Bantam Books.
- Herrnstein, R., & Murray, C. (1994). *The bell curve: Intelligence and Class Structure in American Life*. New York: Free Press.
- Horwitz, E. K., Horwitz, M. B., & Cope, J. (1986). Foreign Language Classroom Anxiety. *The Modern Language Journal*, 70(2), 125-132.
- Imai, Y. (2010). Emotions in SLA: New Insights from Collaborative Learning for an EFL Classroom. *The Modern Language Journal*, 94(2), 278-292.
- Jalongo, M. R., & Hirsh, R. A. (2010). Understanding reading anxiety: New insights from neuroscience. *Early Childhood Education Journal*, 37(6), 431-435.
- Jyadi, J. (2013). Teacher competence, spiritual intelligence with self-determination mediation theory as the organization. *Humanitas*, 9(1), 34-42.
- King, D. B., & DeCicco, T. L. (2009). A viable model and self-report measure of spiritual intelligence. *The International Journal of Transpersonal Studies*, 28(1), 68-85.
- King, D. B., Mara, C. A., & DeCicco, T. L. (2012). Connecting the spiritual and emotional intelligences: Confirming an intelligence criterion and assessing the role of empathy. *International Journal of Transcendental Studies*, 31(1), 11-20.
- Lanciano, T., & Curci, A. (2014). Incremental Validity of Emotional Intelligence Ability in Predicting Academic Achievement. *The American Journal of Psychology*, 127(4), 447-46.
- Luo, M. N., & Huang, M. (2018). ESL teachers' multiple intelligences and teaching strategies: Is there a linkage? *TESOL Journal*, 10(1), 1-14.
- Martin, T. N., & Hafer, J. C. (2009). Models of emotional intelligence, spiritual intelligence, and performance: A test of Tischler, Biberman, and McKeage. *Journal of Management, Spirituality & Religion*, 6(3), 247-257.



- Mayer, J. D. (2000). Spiritual Intelligence or Spiritual Consciousness? *International Journal for the Psychology of Religion*, 10(1), 47-56
- Méndez Lopez, M. G., & Pea Aguilar, A. P. (2013). Emotions as learning enhancers of foreign language learning motivation. *Profile*, 15(1), 109-124.
- Ogunsola, K. O., Fontaine, R. A. H., & Jan, M. T. (2020). A cross-cultural adaptation and psychometric validation of SISRI-24 among Malaysian teachers. *The International Journal of Human Potentials Management (IJHPM)*, 2(1), 1-22.
- Pahlavani, P., & Asroush, M. (2013). The Relationship between emotional intelligence (EQ) and the EFL learners' oral translation performance. *Iranian EFL Journal*, 9(5), 39-50.
- 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.
- Polemikou, A., Zartaloudi, E., & Polemikos, N. (2019). Development of the Greek version of the Spiritual Intelligence Self-Report Inventory-24 (KAPN): Factor structure and validation. *Mental Health, Religion & Culture*, 22(10), 1033-1047.
- Schutz, P. A., & Pekrun, R. (2007). *Emotion in education*. San Diego: Elsevier
- 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.
- Sokhandani, M. (2016). Role of spiritual intelligence in defensive styles of nursing students. *International Journal of Interdisciplinary Studies and Research*, 6(4), 73-82.
- 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.
- Vygotsky, L. S. (2000). *Thought and language*. Cambridge: MIT Press.
- Zarrinabadi, Z., Isfandyari-Moghaddam, A., Erfani, N., & Ahmadi Tahour Soltani, M. (2018). The codification of spiritual intelligence measurement model in librarianship and medical information science students of medical universities in Iran. *Journal of Education and Health Promotion*, 7(59), 1-6.
- Zohar, D. (2010). Exploring spiritual capital: An interview with Danah Zohar. *Spirituality in Higher Education Newsletter*, 5(5), 1-8.



### Appendix A

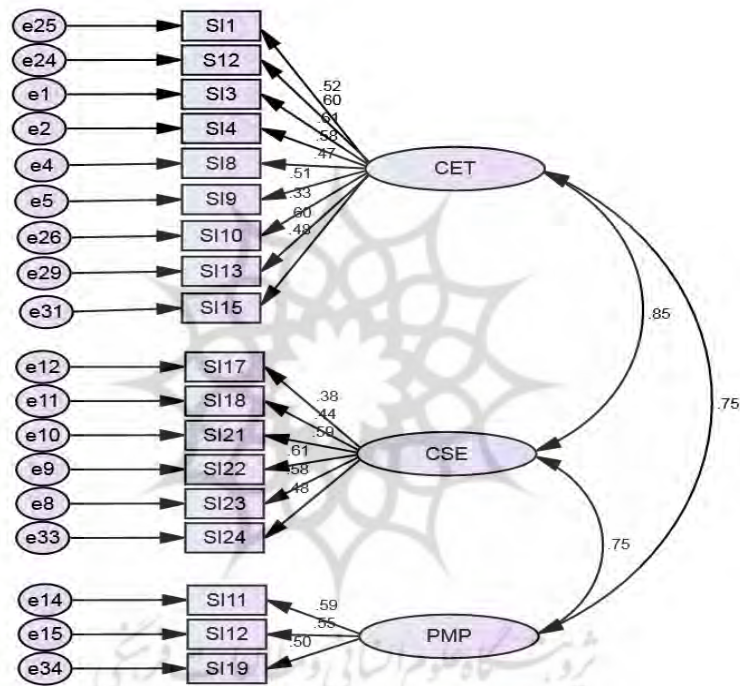
#### *Pattern Matrix and Extracted Factors*

Component	Factor 1	Factor 2
SI1	.803	
SI2	.843	
SI3	.786	
SI4	.762	
SI8	.576	
SI9	.558	
SI10	.557	
SI11		
SI12		
SI13	.655	
SI15	.623	
SI17		.546
SI18		.623
SI19		
SI21		.641
SI22		.876
SI23		.612
SI24		.620
%Variance	42.68	8.03

*Note.* Extracted by Principal component analysis; rotated by oblimin with Kaiser Normalization. Absolute values below .4 were removed.

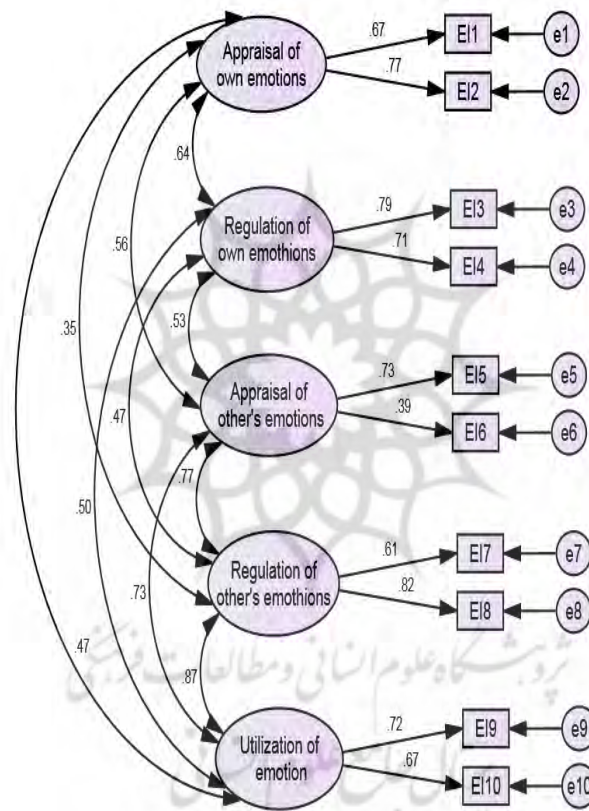
Appendix B

CFA for three-factor model for SISRI-24 (18 items)



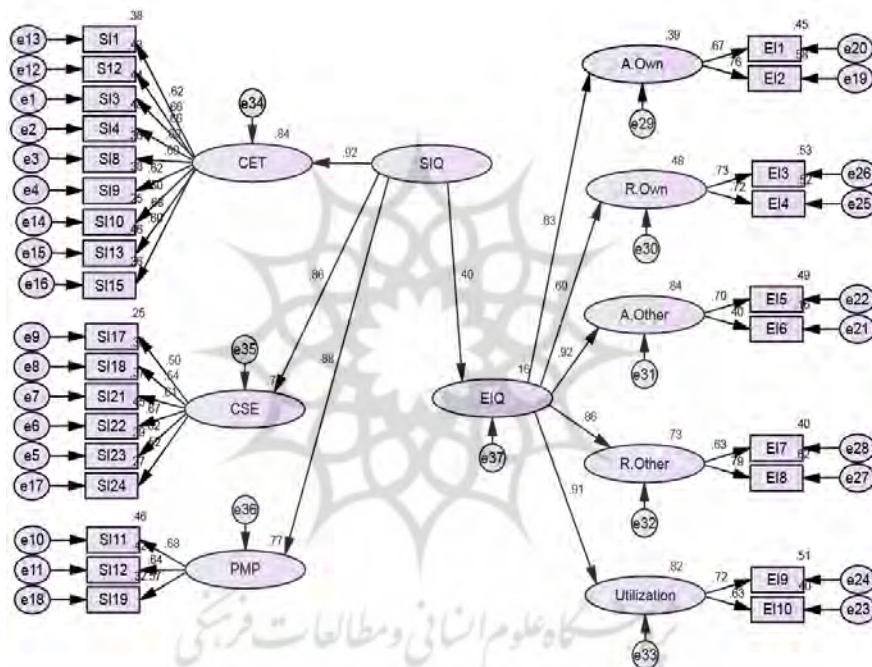
Appendix C

CFA for five-factor model for BEIS-10 (10 items)



Appendix D

CFA for total eight-factor model for SISRI-24 and BEIS-10 (34 items)



Appendix E

Multiple regression analysis model developed in AMOS

