

**ON THE RELATIONSHIP BETWEEN  
READING ANXIETY AND PERFORMANCE  
ON IELTS READING COMPREHENSION  
ITEM TYPES<sup>1</sup>**

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**Abstract**

This article reports a study investigating the existence of any statistically significant correlations between the reading anxiety level and L2 learners' overall performance on IELTS reading comprehension and on IELTS reading comprehension item types. Initially, 94 participants (73 females, 21 males) took part in this study. The Persian version of the Foreign Language Reading Anxiety Scale (FLRAS) was administered along with a General Training Reading Paper of IELTS. To exclude outliers, two box-and-whisker plots were drawn. As a consequence, just two individuals were excluded and the final sample consisted of 92 participants. Based on the Pearson product moment correlation, we found that there was a strong negative correlation between the reading anxiety level and overall performance on IELTS reading comprehension. It was also discovered that there was a significant negative correlation between the reading anxiety level and performance on IELTS reading comprehension item types including skimming, scanning, classification, table-completion, and true/false. The findings of the study have implications for L2 teaching and assessment.

**Keywords:** *Anxiety, foreign language, reading anxiety, foreign language reading anxiety scale, IELTS reading item types.*

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## 1. Introduction

With the advent of humanism in psychology, the focus of attention shifted to variables language learners bring to learning activities and such affective factors as emotions, feelings, anxiety, stress, motivation, and self-esteem came to be viewed as playing an important role in the learners' success or failure in language classrooms (Williams and Burden, 1997). One of the affective factors, which play an important role in learning second or foreign language, is anxiety. According to Brown (2007), anxiety plays a major affective role among the affective factors in second or foreign language acquisition. It is the most powerful predictor of students' performance among the affective factors (Liu & Huang, 2011). Anxiety is defined as "the subjective feeling of tension, apprehension, nervousness, and worry that are experienced by an individual," and the "heightened activity of the autonomic nervous system that accompanies these feelings" (Spielberger, 1976, p. 5). Early studies on language anxiety had an obvious focus on the language skill of speaking since speaking was considered as the most anxiety-provoking skill among all four language skills (e.g., Aida, 1994; Phillips, 1992; Young, 1986). Students were later found to have different anxiety levels related to different language skills and therefore anxiety research related to language skills other than speaking began to appear in 1990 (e.g., Cheng, Horwitz & Schallert, 1999; Saito, Horwitz, & Garza, 1999; Vogely, 1998). Foreign language reading anxiety did not draw researchers' attention until recently (Saito et al., 1999; Shi & Liu, 2006).

Reading used to be considered an individual activity that happens within a person's brain, and reading did not require the interaction that speaking did (Bernhardt, 1991). Readers were believed to have the advantage of rereading and thinking; as a consequence, affective factors in second language reading, such as anxiety, were neglected. However, reading is an active meaning constructing process from a sociocognitive perspective (Bernhardt, 1991) in that readers played an important role in reading comprehension. Readers interact with texts, which led to different interpretations of the text based on the readers' background knowledge and language knowledge. First language (L1) literacy, second language (L2) knowledge (e.g., word recognition skills, grammar knowledge, and discourse structure knowledge) and background knowledge were regarded the major factors that influence L2 reading performance (Coady, 1979; Grabe, 1991). Bernhardt (2005) found that L1 literacy and L2 language knowledge accounted for about 50% of the variance in reading performance and these two factors were insufficient to explain the variances in reading performance. She concluded that the role of affect such as anxiety had been neglected from the previous reading models, which might explain some more of the variance in reading performance.

In fact, anxiety affects foreign language reading performance, especially in international and high-stake exams like IELTS and TOEFL. IELTS, International English Language Testing System, is nowadays widely used as a certificating device and is claimed to be a reliable and strongly accountable measure of language proficiency by the organizations and educational centers that utilize it. It is required for anyone who wishes to pursue his education in an English speaking country or anyone who desires to migrate to or work in such countries. Consequently, it is quite evident that studies dealing with anxiety in IELTS are needed. Therefore, the current study tries to investigate the impact of reading anxiety on scores on the IELTS reading module.

## **2. Background**

### **2.1. Foreign Language Reading Anxiety**

Affective factors including anxiety might account for some variance in second language reading performance as mentioned by Bernhardt (2000, 2003, and 2005). She pointed out the importance of affective factors in second language reading besides the other two important variables: L1 literacy and second language knowledge such as vocabulary knowledge, syntactic and discourse knowledge. She acknowledged that studies conducted among cognate and noncognate languages, among children and adults had shown that L1 literacy explained 20% and second language knowledge accounted for 30% in a second language reading performance. Bernhardt (2005) commented that the 50% of the variance accounted for by these two variables was insufficient. She stated, "the role of affect and interest in second language test processing is yet to be understood" (p.137).

As Brantmeier (2005) explained, "Bernhardt's model is the first L2 reading model that directly attempts to explain transient variables, such as affect, in the L2 reading process" (p.67). Anxiety, as an important affect, might exist in the foreign language reading process and have an influence on the foreign language reading process and performance. In fact, Yamashita (2004) reported that anxiety in reading was higher in L2 than in L1, and that self-perception as a reader was more positive in L1 than in L2 among Japanese EFL students enrolled in his extensive English reading course. As a consequence, it is worthwhile to explore how prevalent foreign language reading anxiety is among foreign language learners, and how foreign language reading anxiety might affect foreign language reading performance. Saito et al. (1999) first raised the issue of foreign language reading anxiety, the anxiety that learners experience when reading a foreign language. They stated two reasons why reading can be anxiety provoking to foreign language learners: the unfamiliar writing scripts and unfamiliar cultural background. As it was mentioned before, word recognition is a very significant factor in the reading process. It can be imagined that learners will feel immediately anxious when they attempt to attach meaning to the foreign language words written in a very unfamiliar script. Unfamiliar cultural background might not cause immediate anxiety as unfamiliar writing scripts do; however, learners might find at some point of reading that they can decipher the words and make meaning out of a sentence but still cannot make sense of the whole reading passage owing to their unfamiliarity with the target language culture.

Saito et al. (1999) designed a Foreign Language Reading Anxiety Scale (FLRAS) to measure students' foreign language reading anxiety and made it clear that foreign language reading anxiety was related to but distinct from general foreign language anxiety. The theoretical range of the total score of the FLRAS was 20 to 100. Three hundred and eighty-three foreign language students registered in the first year French, Russian and Japanese participated in the study. A correlation coefficient of .64 was found between the FLRAS and the Foreign Language Classroom Anxiety Scale (FLCAS). As an illustration, the Foreign Language Classroom Anxiety Scale, which measures foreign language anxiety, was designed by Horwitz et al. (1986). The correlation coefficient found between the FLRAS and the FLCAS means that the two measures shared approximately 41% of the variance and 59% of the variance was not shared between the measures, indicating a differentiation between the two constructs. The mean and standard deviation of the FLRAS (M = 52.9, SD = 9.4) were slightly smaller than those of the FLCAS (M = 95.2, SD = 21.5). The theoretical range of the FLCAS is 33 to 165 and therefore the mean of 52.9 in FLRAS equals 87.3 in FLCAS. Saito et al. pointed out that reading was anxiety provoking to some foreign language learners although participants in general reported slightly less reading anxiety than general foreign language anxiety.

Based on the two possible sources of foreign language reading anxiety, unfamiliar writing scripts and cultural backgrounds, Saito et al. (1999) hypothesized that foreign language reading anxiety level was related to specific target languages and it varied by target language. In Saito et al., learners of Japanese were the most anxious when reading, followed by the learners of French, with the Russian learners experiencing the lowest levels of reading anxiety. Saito et al. proposed that levels of foreign language reading anxiety seemed to be related to specific writing systems.

Huang (2001) in her dissertation studied the foreign language reading anxiety of Chinese EFL learners in Taiwan using the FLRAS developed by Saito et al. (1999). A total of 236 freshmen enrolled in English classes participated in this study. Evidence showed that foreign language reading anxiety existed among the participants. In Huang's (2001) study, the FLRAS scores of the Chinese university students had a mean of 60.8 and a standard deviation of 10.7. Compared to the mean score of 52.9 with the standard deviation of 9.4 obtained in Saito et al. among American foreign language learners, Huang concluded that Chinese foreign language learners seemed to experience more reading anxiety than the American students in Saito et al. . Similarly, Shi and Liu (2006) used the FLRAS to investigate foreign language reading anxiety among Chinese university students learning English as a foreign language in mainland China. Chinese college students also reported slightly higher levels of foreign language reading anxiety ( $M = 57.02$ ) than the American students in Saito et al.

Some studies indicate that reading causes less anxiety than other tasks or language skills (Abu-Rabia, 2004; Brantmeier, 2005) among foreign language learners because readers can employ reading strategies to aid comprehension. Brantemier's (2005) results showed that of all language skills, speaking causes the most anxiety, followed by writing, then listening and reading. Abu-Rabia (2004) compared spelling-related and reading-related anxiety and found that students had more anxiety about spelling than reading. Abu-Rabia (2004) attributed the result to the fact that spelling was a productive skill that needed more creativity than reading, as he explained in the following:

The difference between the reading comprehension test and the spelling test are related to the level of difficulty that each test demands. Reading comprehension is an interactive compensatory process where the reader uses comprehension reading strategies, top-down reading, clues in the text, and redundancy of the text and may apply much guesswork based on prior knowledge or sentence context. But learners cannot use these strategies in spelling. There, they have to transfer phonological representations from working memory to orthographic units and such a process needs higher cognitive skills beyond the recognition level. (p. 718)

In a nutshell, foreign language reading anxiety is identified as a unique type of anxiety (Oh, 1990; Saito et al., 1999; Sellers, 2000). Foreign language reading anxiety is related to but distinct from general foreign language anxiety. Foreign language reading anxiety exists among foreign language learners and the reading anxiety level varies depending on the target languages (Huang, 2001; Saito et al., 1999; Sellers, 2000; Shi & Liu, 2006; Zhang, 2002). Foreign language reading anxiety seems to be related to the perceived difficulty level of reading materials (Brantemeier, 2005).

## **2.2. Foreign Language Reading Anxiety and Performance**

As MacIntyre (1995a) pointed out, "The effects of anxiety are not limited to problems encountered during speaking but pervade the entire language learning process". (p. 94). Studies in specific language skill anxiety have indicated that high levels of anxiety could have adverse effects on students' overall foreign language performance and on the special language skills (Cheng et al., 1999; Saito & Samimy, 1996; Sellers, 2000). Two studies have shown that foreign language reading anxiety interferes with both the reading process and reading performance (Sellers, 2000; Shi & Liu, 2006).

Sellers (2000) studied the relationship between language anxiety and reading in Spanish as a foreign language. The more anxious students recalled less passage content than the less anxious students did. Reading comprehension strategies were also found to be different according to anxiety levels based on the analysis of think-aloud interviews. Highly anxious students tended to use more local strategies, such as focusing on vocabulary, attention to syntax and translation. Less anxious individuals approached the text more holistically than did their anxious counterparts. Shi and Liu (2006) found that levels of foreign language reading anxiety were negatively correlated with scores on both a large-scale English test and English reading comprehension among Chinese EFL learners.

Brantmeier (2005) reported a lack of significant correlations among anxiety factors and reading comprehension performance. The author attributed the non-relation to the fact that students were familiar with the performance tasks: a writing composition based on a reading passage. The students were accustomed to reading individually before coming to class and they were routinely asked to write compositions based on what they read. In Mills, Pajares and Herron (2006), 95 college students enrolled in third and fourth semester French courses participated in the study, among which 66 were females and 29 were males. Students filled in self-efficacy instruments and anxiety instruments and took reading / listening tests. Neither foreign language reading anxiety nor foreign language reading self-efficacy was significantly related to foreign language reading proficiency among women, but negatively correlated to foreign language listening proficiency among men. The non-significant relation between foreign language reading anxiety and reading performance might be because the reading task was simple and anxiety would not have an effect for simple tasks (MacIntyre & Gardner, 1991a; Spielberger, 1966).

Briefly then, while some studies indicated that foreign language reading anxiety negatively affects foreign language reading process and also foreign language reading performance (Sellers, 2000; Shi & Liu, 2006), some found no significant relationship (Brantemier, 2005; Mills, Pajares & Herron, 2006). The relation between foreign language reading anxiety and reading performance might be influenced by reading task types and reading text difficulty levels.

## **3. Rationale of the Study**

This study has both theoretical significance and pedagogical implications. Anxiety related to specific language skills had not been studied thoroughly although students had reported to experience different levels of anxiety in relation to different language skills (Kim, 2000; Saito et al., 1999; Sellers, 2000; Vogely, 1998). In fact, foreign language reading anxiety as a specific skill has rarely been investigated. Thus, more research in this specific area is required. As a matter of fact, this study hopes to add empirical data to the study of foreign language reading anxiety.

Moreover, the foreign language reading anxiety among IELTS candidates has rarely been investigated and no studies have examined the relationship between reading anxiety level and performance on IELTS reading comprehension item types. In the first place, one of the robust and rigorous measures of English reading performance is the IELTS reading module. In fact, most IELTS candidates find reading to be one of the most difficult and anxiety provoking sections of IELTS owing to long passages and different item types. However, foreign language reading anxiety among IELTS candidates in IELTS reading module has rarely been investigated. Moreover, the IELTS reading module utilizes a variety of question types, for example, skimming, scanning, multiple-choice items, short-answer questions and some other types. This research tries to study if there is a relationship between reading anxiety level and different question types. In conclusion, this study contributes to the study of foreign language reading anxiety by revealing the relationship between foreign language reading anxiety and performance on IELTS reading comprehension item types.

As the number of IELTS candidates increase around the world, it is important for instructors and researchers to be aware of relationship between reading anxiety level and L2 learners' performance on IELTS. In terms of pedagogical implications, the results of this study would help test-developers select less anxiety-provoking reading comprehension item types and instructors teach appropriate anxiety-coping strategies. As a matter of fact, this study aims to study the following research questions:

Q1. Is there any statistically significant correlation between reading anxiety level and L2 learners' overall performance on IELTS reading comprehension?

Q2. Is there any statistically significant correlation between reading anxiety level and L2 learners' performance on IELTS reading comprehension item types?

#### **4. Method**

##### **4.1. Participants**

The participants of this study were 94 students at Azad University, Damavand Branch as well as Safir Institute. Thirty participants out of 94 majored in TEFL (MA) and 14 majored in TEFL (BA) while other students majored in different subjects. Regarding the proficiency level, they were at upper-intermediate and advanced levels to be able to take the IELTS exam. The participants were of both genders (73 females and 21 males) and their ages ranged from 15 to 60 years. The number of participants at the beginning of the study was 94, but the study had an attrition of two participants. In fact, Based on the box-and-whisker plots of IELTS and anxiety scores just two participants were dropped out as outliers. According to the IELTS box-and-whisker plot, there were no outliers, but the one for anxiety scores determined two cases with scores of 23 and 25 as outliers. Consequently, 92 students out of 94 were considered for the final sample.

##### **4.2. Instrumentation**

Two instruments of this study were the Persian version of Foreign Language Reading Anxiety Scale (FLRAS) and a General Training Reading Paper of IELTS (University of Cambridge Local Examination Syndicate).

To operationalize the independent variable of the present study, say, to obtain reading anxiety scores, the Persian version of the Foreign Language Reading Anxiety Scale (FLRAS) was employed. In fact, the Foreign Language Reading Anxiety Scale (FLRAS) was designed by Saito et al. (1999) to measure the anxiety that students experience in reading

in a foreign language. The FLRAS was composed of 20 items, each of which was answered on a 5-point Likert scale, ranging from “strongly agree” to “strongly disagree”. The highest degree of anxiety received a 5 and the lowest received a 1. In calculating the total scores of the FLRAS, a numerical value was first given to each of the items in the FLRAS. For the negative statements, such as item 1 in the FLRAS “I get upset when I’m not sure whether I understand what I am reading in Chinese,” the scoring went after the following rule, “strongly agree” (5 points), “agree” (4 points), “neither agree nor disagree” (3 points), “disagree” (2 points) and “strongly disagree” (1 point). For the positive statements, such as item 12 in the FLRAS “I enjoy reading Chinese,” the scoring rule was reversed, i.e., “strongly agree” (1 point), “agree” (2 points), “neither agree nor disagree” (3 points), “disagree” (4 points) and “strongly disagree” (5 points). There were 20 items in the FLRAS and the possible range of scores was 20 to 100. A higher score indicate more anxiety on the students’ part.

Saito et al. (1999) tested the construct validity of the FLRAS by calculating the correlation between the FLRAS and the FLCAS (Foreign Language Classroom Anxiety Scale). A correlation coefficient of 0.64 ( $n = 383$ ,  $p < 0.01$ ) was found, which means that although there was a significant overlap between the two constructs, 59% of the variance was not shared by the two constructs. The FLRAS represented a construct that was related to but distinct from the construct represented by the FLCAS. Hsiao (2002) also used confirmatory factor analysis to analyze the construct validity of the Chinese version of the FLRAS and the result supported the unidimensionality of the scale and claimed that the scale was reliable and valid for eliciting reading anxiety of Chinese college foreign language learners. The FLRAS (Saito et al., 1999) had also been reported to have a good internal consistency of 0.86 (Cronbach’s alpha,  $n = 383$ ) among learners of French, Russian and Japanese in American universities. Moreover, Zhao examined and reported the internal consistency of the FLRAS with a Cronbach’s alpha value of 0.834.

Moreover, the FLRAS has been translated into Persian and the Iranian researchers have piloted it and measured the reliability of it. In fact, Shariati and Bordbar (2009) reported a rather high Cronbach’s alpha with the value of 0.88. In this study, the researcher utilized Shariati and Bordbar’s Persian version, whose reliability was examined and reported in their work.

Another instrument used in this study was a General Training Reading Paper of IELTS to collect data on the second variable of the study, that is performance on IELTS reading comprehension in general and that one on specific item types. An IELTS specimen test consisted of four modules of listening, reading, writing, and speaking. In this study, only “reading module from an IELTS specimen test” was employed. “The IELTS reading module” contained 38 questions including a variety of item types. The first four questions required the applicants to find the appropriate advertisement while the next six questions asked the test takers to search for a phone number from a list. These ten questions were classified as skimming item type. Questions 11 to 20 asked the test takers to locate information in the text, which were categorized as scanning item type. Questions 21 to 27 required the applicants to classify information that were named classification. Questions 28 to 31 asked the applicants to complete a table, which were called table-completion. Finally, the last seven questions were true/false items.

#### **4.3. Procedure**

A total of 94 participants (73 females, 21 males) took part in this study by convenience sampling in Azad University, Damavand Branch and Safir Institute.

All participants were introduced to the purpose and procedures of the study prior to administering the instruments. Following this step, the participants took “the IELTS reading module” and were familiarized with the FLRAS and provided some guidance on how to complete it. The Persian version of the FLRAS was utilized without any interval between. The purpose of using the Persian version was to eliminate the possible effect of difficulty with reading comprehension on the responses made by students, and to make sure that all the participants from different levels of proficiency would clearly understand every question and give answers that truly indicate their feelings and attitudes. Needless to say that such a measure was not necessary or even desirable in the case of some proficient students, since their language proficiency was observably high enough not to cause such problem. In fact, since these two measures were attached to each other, the students were instructed to do the reading test within the time limit and to fill the questionnaire next. The time set for “the IELTS reading module” was 60 minutes, which is the standard time available to IELTS test takers in an authentic test. In addition, the administration of the FLRAS took approximately 10 minutes. The participants’ scores on the IELTS test were used as an indicator of their level of reading proficiency and those on the FLRAS were used as an indicator of reading anxiety level. “The IELTS reading module” was scored according to the keys provided with the specimen material. Moreover, the FLRAS was scored according to likert type scales.

## 5. Results

Table 1 summarizes the descriptive results of the IELTS test and anxiety scores.

**Table 1** Descriptive statistics of the IELTS test and anxiety scores

	N	Mean	Std. Deviation	Variance	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Test	94	21.65	8.316	69.155	-.564	.249	-.609	.493
Anx	94	50.83	11.168	124.723	.033	.249	.422	.493
Valid N (listwise)	94							

On average, the participants scored 21.65 out of 38 in “the IELTS reading module” and the average anxiety score was found to be 50.83 out of 100.

To find the answer to the first question of the study, that is, the relationship between reading anxiety level and overall performance on IELTS reading comprehension, Pearson product moment correlation was used. Table 2 summarizes the result of correlation analysis.

**Table 2** Pearson correlation between reading anxiety and overall performance on IELTS reading comprehension test

<b>Correlations</b>		
	Test	Anx
Pearson Correlation	1	-.502**
Test Sig. (2-tailed)		.000
N	92	92
Pearson Correlation	-.502**	1
Anx Sig. (2-tailed)	.000	
N	92	92

. Correlation is significant at the 0.01 level (2-tailed).

As table 2 shows, there is a significant negative correlation between the two variables with a value of -0.502.

As a matter of fact, since “the IELTS reading module” contained 38 questions including a variety of item types, i.e., skimming, scanning, classification, table completion, and true/false, five different correlation values were reported for the second question of the study, that is, the relationship between reading anxiety level and L2 learners’ performance on IELTS reading comprehension item types.

Table 3 gives the actual values of the Pearson correlations between reading anxiety level and performance on IELTS reading comprehension item types.

**Table 3** Pearson Correlations between reading anxiety scores and item types’ scores

<b>Correlations</b>					
Item Types	Skimming	Scanning	Classification	Table Completion	True/False
Anxiety	-.539**	-.476**	-.387**	-.401**	-.277**

\*\* Correlation is significant at the 0.01 level (2-tailed).

As table 3 indicates, there are significant negative correlations between reading anxiety level and performance on IELTS reading comprehension item types including skimming, scanning, classification, table-completion, and true/false.

## **6. Discussion**

### **6.1. IELTS Reading Comprehension in General**

According to the data, the null hypotheses advanced from the research questions were rejected. As mentioned above, the results indicated that there was a negative, significant correlation between reading anxiety level and performance on IELTS reading comprehension in general with a value of -0.502. Actually, this finding concerning the relationship between anxiety and reading performance converges with not only opinions pointed out much earlier but also studies conducted in the past. As an illustration, Bernhardt mentioned that affective factors including anxiety might explain some variance

in second language reading performance (2000, 2003, and 2005). She acknowledged the importance of affective factors in second language reading. She stated, "the role of affect and interest in second language test processing is yet to be understood" (p.137). Indeed, Yamashita (2004) reported that anxiety in reading was higher in L2 than in L1 and self-perception as a reader was more positive in L1 than in L2 among Japanese EFL students enrolled in his extensive English reading course. Consequently, it is worthwhile to explore how prevalent foreign language reading anxiety is among foreign language learners and how foreign language reading anxiety might influence foreign language reading performance.

## 6.2. Item Types

As mentioned before, the second question of this study tried to investigate the possibility of any relationship between anxiety and sub variables of IELTS reading comprehension, i.e., item types. In fact, in this part, the results of the study with regard to item types are discussed.

### 6.2.1. Skimming

As we have seen, the highest correlation with reading anxiety level is assigned to skimming with a value of -0.539. In fact, it might be due to three reasons: task difficulty, task familiarity, and sequencing.

Skimming, that is, reading quickly to get the gist of a passage is a top-down skill (Scrivener, 2011). In fact, a top-down processing, a knowledge-driven process, involves using higher-level information (context and whole words) to support lower-level processes (respectively, word and phoneme recognition) (Field, 2003). Actually, skimming involves meaningful process of information by reader. Moreover, research findings showed that the reading task was made more complicated when the questions asked for implicit information that needed inference (Alderson, 2000) and skimming seems to be this kind of task. Likewise, Spielberger (1966) stated that high anxiety impeded learning when the task became difficult. Regarding all these reasons, the test takers experience a high level of anxiety through skimming. As the discussion goes, it is supposed that skimming and scanning are the two most difficult item types in this study so the highest correlation is attributed to these ones. As a matter of fact, the second factor might be task familiarity. Obviously, test-takers become more anxious when encountering unfamiliar tasks. In this respect, Oh (1992) investigated the effect of reading assessment methods on anxiety level, he found that cloze and think-aloud were more anxiety provoking than comprehension and recall tasks. Oh considered students' familiarity with the assessment methods as one of the reasons for experiencing much anxiety. As an illustration, cloze and think-aloud might be less familiar to students and thus provoked more anxiety. Actually, skimming is not as common as other task types in school and institute books and it is the most unfamiliar of all tasks in this study; therefore, it might be more anxiety provoking. Considering all of these explanations, it is explicable that the highest correlation belongs to skimming. Regarding the third reason, i.e. sequencing, Bachman asserted that the sequence in which the different parts were presented might have also influenced test takers' performance (Bachman, 1995). Supposedly, test takers experience the highest anxiety at the beginning of the test, which is skimming in this one (items number 1 to 10). As an illustration, skimming is the first order item. Consequently, the highest correlation with reading anxiety level is attributed to the skimming item type.

### **6.2.2. Scanning**

As I have shown, reading anxiety level yielded the second correlation of the item types with scanning with a value of -0.476. As a matter of fact, it might be due to the same three reasons: task difficulty, task familiarity, and sequencing.

Scanning, defined as moving eyes quickly over the text to locate a specific piece of information for example a name, address, fact, price, date etc without reading the whole text (Scrivener, 2011), is a top-down process. Although scanning is involved with finding individual points from the text without reading carefully through every word of the text, the way that a reader finds that information involves some degree of processing of the overall shape and structure of the text. Moreover, the reader moves his eyes quickly over the whole page and searches for key words or clues from the textual layout and the content that will enable him to focus in on smaller sections of the text that he is likely to get answers from (Scrivener, 2011). Obviously, scanning involves meaningful process of information by reader like skimming. Although it seems that scanning is the same as skimming regarding task difficulty, the second correlation with a value of -0.476 is assigned to it. In the next two paragraphs, the researcher tries to justify this issue. In fact, the second factor seems to be task familiarity. Task familiarity and its effect on test takers' performance is described in the skimming section. Apparently, scanning is more familiar than skimming to test takers. As an illustration, scanning is a common reading task in most of books and exams; therefore, it might be less anxiety provoking than skimming. The third factor, supposedly, affecting the correlation value between reading anxiety level and scanning item type is sequencing. In this exam, scanning items (items number 11 to 20) are in the second order so test takers' anxiety might be alleviated as the test went on. Briefly then, although scanning is the same as skimming regarding task difficulty, due to being more familiar to students and being at the second order, scanning correlation value is close to skimming item type but a little bit lower with a value of -.476.

### **6.2.3. Table Completion**

As it was mentioned before, reading anxiety level and scores on table completion yielded the next correlation with a value of -0.401. In fact, it might be owing to the same three reasons: task difficulty, task familiarity, and sequencing.

Supposedly, the table completion item type might be very similar to scanning in this study regarding task difficulty. In fact, scanning consists of locating a specific piece of information for example a name, address, and date etc. without reading the whole text. As an illustration, items number 28 to 31 asked the applicants to complete a table by moving their eyes quickly over the text to locate a specific date. Although table completion is very similar to scanning in this study, locating just one kind of information, namely a date might be easier than locating various information. Therefore, it might indicate that table completion is simpler than scanning resulting in lower anxiety. This analysis is in convergence with the results of MacIntyre and Gardner (1991b) who found that anxiety tended not to impair performance on simple cognitive tasks. Regarding task familiarity, table completion is not familiar to students as much as scanning. As an illustration, table completion is not a common reading task in books and exams. Therefore, it might be expected to be more anxiety provoking than scanning, but this is not the case. In fact, this result might be a bit of surprise but this might be explicable considering task difficulty factor explained in the preceding paragraph and sequencing one described in the succeeding paragraph. In respect of sequencing, table completion items (items

number 28 to 31) were in the fourth order so the test takers' anxiety might be diminished as the test went on. Briefly then, although table completion is not familiar to the test takers, owing to being simpler than scanning (due to locating just one kind of information in the text) and being at the fourth order, the table completion correlation value is lower than the scanning one with a value of -0.401.

#### 6.2.4. Classification

As we have seen, reading anxiety level and scores on classification yielded the fourth correlation with the value of -0.387. Seemingly, the same three tentative factors including task difficulty, task familiarity, and sequencing might explain this result.

Accounting for task difficulty for this item type requires a brief description of classification item type. As an explanation, seven different buildings (presented as items) were expected to be classified in five different locations (presented as responses). That is to say, each item might have been answered with five choices so each one might have been considered as a multiple-choice item with five possible answers. Definitely, test takers might use guessing as a probable way to respond multiple-choice item type. Obviously, the multiple-choice item type encourages test takers to guess and inhibits them from expressing creativity or demonstrating original and imaginative thinking, making them simpler. Tobias (1986), in convergence with this result asserted that, if the task is relatively simple, anxiety might have little effect on processing. Therefore, the fourth correlation value (-0.387) assigned to classification item type, which may be considered multiple-choice item type with five possible answers, might be explicable. Regarding task familiarity, classification item type is neither a prevalent task in exams nor familiar to students as much as other item types. Thus, it might be expected to be more anxiety provoking than at least skimming and scanning. In fact, this is not the case due to task difficulty factor described in the preceding paragraph and sequencing one in the succeeding paragraph. With respect to sequencing, classification-type items (items number 21 to 27) were in the third order so the participants' anxiety might be decreased as the test went on. In a nutshell, in spite of the fact that classification is not familiar to the participants, because of being easier than skimming, scanning, and table completion (due to similarity to multiple-choice item type) and being at the third order, classification correlation value is lower than skimming, scanning, and table completion with a value of -0.387.

#### 6.2.5. True/false

As I have shown the least correlation value was observed between reading anxiety level and true/false item type with a value of -0.277. In fact, it might be due to the same three probable reasons: task difficulty, task familiarity, and sequencing.

Concerning task difficulty, true/false item type might have been regarded as a multiple-choice item type with two possible answers and they would encourage guessing. So guessing might be utilized more easily than for classification item type because participants have a 50 percent chance of giving a correct answer for each item. Seemingly, true/false items rely heavily upon rote memorization of isolated facts, thereby trivializing the importance of understanding those, resulting in simplicity and ease. This result is in convergence with MacIntyre and Gardner (1991a) and Spielberger who asserted that the non-significant relation between foreign language reading anxiety and reading performance might be because the reading task was simple and anxiety did not have an influence on simple tasks (MacIntyre&Gardner, 1991a; Spielberger, 1966).

Consequently, the fifth correlation value, that is, -0.277 is attributed to true/false items. Regarding task familiarity, true/false item type may be the most popular of all other ones due to apparent simplicity and ease of construction. Apparently, true/false items might be not only a common task in exams but also familiar to students much more than other ones. Therefore, it might be the least anxiety provoking of five different types. Concerning sequencing, true/false items (items number 32 to 38) were in the fifth order so the participants' anxiety might be diminished as the test went on. Equally important, some participants even did not try the last items due to time limitation. As a result of what has been discussed, owing to being the simplest, being the most familiar, and being the last items, true/false item type correlation value is the lowest with a value of -0.277.

### **7. Implications of the Study**

The implications of this study are directed toward such areas as test development, teaching and syllabus design.

In terms of test development, this study indicates that test developers should consider the role of affective factors including attitudes, motivation, and anxiety especially with respect to language proficiency tests such as IELTS or TOEFL. On the one hand, language proficiency tests are often used to inform decisions as to the acceptance or rejection of candidates into academic or occupational programs. As a result, the educational and social consequences of these tests for candidates' future lives cannot be ignored. On the other hand, a negative significant correlation value (-0.502) regarding the relationship between reading anxiety level and overall performance on IELTS reading comprehension might support the claim that, just as many other learner variables, anxiety is not considered in the design of standardized tests. This is in agreement with Stemler et al.'s (2009) argument that many high-stake tests "are not aligned with modern theories of student learning and cognitive processing" (p.235). The contention stated above supports the claim that current proficiency tests favor one group of test takers at the detriment of other groups. Stemler et al. argue that a key advantage to using an expanded theory of cognitive-processing skills in test construction is that by catering a test to a broad range of cognitive skills, there is the possibility that those who failed the test otherwise might have better opportunities to demonstrate their content area mastery (p.238). They further point out that to the extent to which these tests are aligned with theories of cognitive and educational psychology, one can claim that the results are construct-valid. To sum up, considering all these issues requires that test developers consider all the learner variables and be more scrupulous in test development.

Concerning teaching, it is important that the instructors be careful with the affective factors in their classes. As an illustration, it is necessary that they teach appropriate anxiety-coping strategies. Moreover, since the results of this study indicate that students experience more anxiety confronting items, which involve meaningful processing of information, it is recommended that instructors work on inference questions preferably. Moreover, it is advisable to have students' minds work as a web. Another probable helpful recommendation is presenting different kinds of tasks in class to familiarize students with various item types.

With respect to syllabus design, it is recommended that syllabus designers utilize items that require information inference more than simple questions in their materials to bring up readers capable of meaningful processing information to not be anxious encountering questions that require implying information like skimming and scanning. Another probable suggestion may be utilizing different kinds of questions with various sequencing.

## 8. Conclusion

One of the affective factors, which play an important role in learning second or foreign language, is anxiety. Early studies on language anxiety had an obvious focus on the language skill of speaking since speaking was considered as the most anxiety-provoking skill among all four language skills (e.g., Aida, 1994; Phillips, 1992; Young, 1986). In fact, anxiety research related to language skills other than speaking began to appear in 1990 (e.g., Cheng, Horwitz & Schallert, 1999; Saito, Horwitz, & Garza, 1999; Vogely, 1998). Saito et al. (1999) first raised the issue of foreign language reading anxiety, the anxiety that learners experience when reading a foreign language. Saito et al. (1999) designed a Foreign Language Reading Anxiety Scale (FLRAS) to measure students' foreign language reading anxiety and made it clear that foreign language reading anxiety was related to but distinct from general foreign language anxiety. In a nutshell, foreign language reading anxiety is identified as a unique type of anxiety (Oh, 1990; Saito et al., 1999; Sellers, 2000).

This study tried to investigate the possibility of any relationship between reading anxiety level as operationalized by Foreign Language Reading Anxiety Scale (FLRAS) and the performance on reading comprehension item types as measured by General Training Reading Paper of IELTS. The null hypotheses advanced from the research questions were rejected and it was found that there was a significant negative correlation between reading anxiety level and overall performance on IELTS reading comprehension. It was also found that there were significant negative correlations between reading anxiety level and performance on IELTS reading comprehension item types including skimming, scanning, classification, table-completion, and true/false.

In fact, foreign language reading anxiety as a specific skill has rarely been investigated although it is identified as a unique type of anxiety. Thus, more research in this specific area is required. Anxiety indeed affects foreign language reading performance, especially in international and high-stakes exams like IELTS and TOEFL. IELTS is nowadays widely used as a certifying device and is claimed to be a reliable and strongly accountable measure of language proficiency by the organizations and educational centers that utilize it. As a matter of fact, as the number of IELTS candidates increase around the world, it is important for instructors and researchers to be aware of the relationship between reading anxiety level and L2 learners' performance on IELTS.

At this point, however, an account of the limitations and delimitations of the study seems in order. First and foremost, the participants of this study were limited to advanced and upper-intermediate EFL learners, and other language proficiency levels were not included. Furthermore, the participants were all Iranians, so the results may not be generalized to learners of other nationalities. In addition, this study did not tackle gender as a variable in determining the effect of anxiety, thus the findings may not be generalizable in a gender-specific manner. Finally, this study focused solely on reading comprehension item types and did not take account of other aspects of reading, e.g. actual or perceived difficulty of a text.

Further research in this area may be carried out tapping into other aspects of the relationship between anxiety and L2 learning. First, similar studies can be conducted to investigate the possibility of any relationship between anxiety and language skills other than reading, i.e. listening, writing, speaking, and knowledge of grammar. Furthermore, researchers in language testing can address the relationship between anxiety and performance on different test methods such as cloze, dictation, and other measures of

language proficiency. Future studies can also examine the relationship between anxiety and feedback types. One more fascinating area would be the relationship between such factors as cultural, occupational, and academic backgrounds and the performance on language proficiency test in general and different item types in particular. Further studies are also required to investigate the relationship between other learners variables including, but not limited to, personality traits and performance on language proficiency tests in general and item types in particular. Last, but not least, the present study was conducted on a sample of EFL learners at upper-intermediate and advanced levels of language proficiency. Similar studies can be replicated with learners at other language proficiency levels.

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