

## ***An Instrument for EFL Reading Anxiety: Inventory Construction and Preliminary Validation***

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This article is an account of the development of a new measure entitled *English as a Foreign Language Reading Anxiety Inventory* (EFLRAI) that indicates levels of EFL reading anxiety among non-English major students. It also discusses the concept of foreign language reading anxiety and defends the development of such a measure specifically related to tertiary-level settings where English is taught as a foreign language and, most importantly, where reading anxiety is believed to impact non-English majors' reading performance. First, two intact classes consisting of 61 students were recruited from Islamic Azad University – Ahar Branch located in the eastern Azerbaijan province of Iran. Based on the qualitative data analysis of questionnaire interviews, an initial pool of items was generated for the new instrument that comprised three anxiety-provoking factors. Then, the preliminary draft of the EFLRAI was pilot-tested on a group of 33 students. Finally, it was used in the major study that had been planned for further refinement and evaluation. A sample of 251 non-English major students enrolled in the same university participated in the major study. Given the internal consistency, test-retest reliability, and construct validity indices obtained, it was found that the EFLRAI exhibits acceptable reliability and adequate validity.

**Key words: reading anxiety, scale development, validation.**

Affect has in no uncertain terms been a primary emphasis of recent pedagogical trends in second or foreign (L2) language teaching. As is evident by now, modern-day language education has ‘shifted from an interest in the mechanisms of language to an interest in the mechanisms of the language learner’ (Grenfell & Macaro, 2007, p. 26). In light of such a marked shift in perspective, language learners’ emotional states are commonly regarded as a *sine qua non* of the learning process. Experts now recognize that a disturbed emotional state would act as a deterrent to effective learning of any kind (Deutsch, 2004), particularly to language learning (Krashen, 1985). Admittedly, the science of education would be unsuccessful if it merely focused on emotionless minds. Perhaps, it would suffice to quote the emphatic statement made by LeDoux (1996) as an indicator of the significance attached to *affect*: “Minds without emotions are not really minds at all” (p. 26).

Recent years have witnessed various lines of research that attempted to probe such affective variables as self-esteem, anxiety, and motivation in learning in general and in L2 education in particular. On a general note, among these variables, anxiety has received unprecedented attention in the field of psychology. In fact, the rich literature on anxiety is an indication of the fact that research on anxiety has come of age now. The psychological construct of anxiety has been defined and conceptualized in almost similar ways. According to the Counseling Dictionary (Gladding, 2000, p. 11), anxiety refers to ‘mental and physical nervousness and uneasiness, often resulting in increased tension, usually associated with pressure to please, fear of failure, or the unknown’. What is implied from the definition of anxiety is that it is in large part an unpleasant emotional reaction which may inhibit effective performance.

The most common perspective on anxiety emerged in the early 1960s. Cattell and Schier (1963) introduced a two-way categorization of anxiety i.e. trait anxiety and state anxiety. Whereas trait anxiety refers to a major character trait or a disposition to become nervous in a wide range of situations, state anxiety (which is often used interchangeably with situated

anxiety) arises in response to a particular situation (Oxford, 1999). However, nowadays there is a great tendency to make a distinction between state anxiety and context-specific (situational) anxiety (Horwitz, 2001; MacIntyre, 1999). As MacIntyre (1999) points out, situation-specific anxiety is applied to a specific type of context. It is stable over time, yet it can vary in intensity across situation. Thus, one can be expected to experience anxiety in one situation, but not in the others. By contrast, state anxiety is the transient state of anxiety that may not be stable over time, but similar to context-specific anxieties it is most likely to occur in a particular type of context or situation.

## **ANXIETY AND L2 EDUCATION**

In the field of L2 education, studies on anxiety have prompted researchers to form a new concept of anxiety particularly for L2 settings i.e. 'foreign language anxiety', or simply language anxiety. Horwitz, Horwitz and Cope (1986) first conceptualized the general foreign language classroom anxiety as a related, but at the same time, unique type of anxiety that is specific to L2 language learning settings. Language anxiety is commonly viewed as fear or apprehension experienced by a language learner while performing in the second or foreign language (Gardner & MacIntyre, 1993). Horwitz et al. (1986, p. 31) contended that foreign language anxiety is 'a distinct complex of self-perceptions, beliefs, feelings, and behaviours related to classroom language learning arising from the uniqueness of the language learning process'. Seen in this light, it can be said that language anxiety bears a close resemblance to situational anxiety (Horwitz, 2001; MacIntyre, 1999).

Foreign language anxiety is a complex construct that can greatly impact achievement in foreign language learning (Onwuegbuzie, Bailey, & Daley, 1999). However, as Arnold and Brown (1999) assert, unfortunately 'it is not always clear how foreign language anxiety comes into being' (p. 9). Since the main source of anxiety in foreign language classrooms has remained unknown, its measurement has also been a challenging task for most anxiety

researchers. This may explain why various questionnaire-type scales have been developed and employed in language anxiety research (for example, Gardner's (1985) French Class Anxiety Scale and Horwitz et al.'s (1986) Foreign language Classroom Anxiety Scale).

A point worth re-stating here is that general foreign language classroom anxiety, as is often argued, focuses overwhelmingly on L2 learners' oral performance within the classroom setting (Kuru-Gonen, 2007). However, to look into other factors contributing to language anxiety, experts in the field have extended their theories of anxiety to other skill areas in language. In actual fact, they have attempted to distinguish skill-specific language anxiety from general language anxiety. To this end, numerous empirical investigations were carried out to examine specific types of anxiety in L2 listening (Kim, 2000; Vogely, 1998), L2 writing (Cheng, 2004; Cheng, Horwitz, & Schallert, 1999; Leki, 1999), and L2 reading (Saito, Horwitz, & Garza, 1999; Sellers, 2000).

Although the role of affect in L2 reading has been highlighted in a few theories on reading such as Bernhardt's (2000, 2003) model of L2 reading, it appears that anxiety has still remained an under-appreciated, affective variable in this domain (Kuru-Gonen, 2007; Sanz cited in Deutsch 2004). The paucity of attention to anxiety in L2 reading exists at the time when a new concept, namely, '*foreign language reading anxiety*' has come into being. Saito et al. (1999) pioneering this concept assert that *foreign language reading anxiety* is a distinct type of anxiety that is experienced by L2 learners 'as a result of actual difficulties in text processing rather than the reading difficulties stemming from anxiety reactions' (p. 215). Saito et al. hold that the sources of difficulties are related to L2 writing system and L2 learners' perceptions of the difficulty of reading in a foreign or second language.

Based on this perspective, Saito et al. (1999) also developed an instrument by which they claimed that they were able to gauge L2 reading anxiety i.e. the foreign language reading anxiety scale (FLRAS). This measure is said to measure levels of reading anxiety in terms of two text-processing parameters: (a) unfamiliar writing systems and (b) unfamiliar ideas (cultural proficiency)

in text. Since Saito et al.'s (1999) landmark work, although not large in number, the concept of L2 reading anxiety has been examined in various research studies in which the FLRAS has been adapted as a primary tool of measuring this particular, new construct (Hayati&Ghassemi, 2008; Kuru-Gonen, 2007; Seller, 2000).

That said, it seems that limited efforts have been made to assess and fine-tune the existing L2 reading anxiety scales. The burgeoning interest in affective variables present in the recent models of L2 reading speaks to the need of further exploration of reading anxiety and also to the development of a related instrument measuring this complex phenomenon in given L2 contexts which are considered to be conducive to anxiety reactions. In brief, this study's intent is to introduce a new measure specifically designed for a survey of reading anxiety of non-English major students who are believed to be apt to undergo anxiety reactions over comprehending written English.

## **RATIONALE FOR THE CURRENT STUDY**

The foreign language reading anxiety scale (FLRAS) already exists in the L2 reading literature. Its psychometric properties, as reported in Saito et al. (1999), appears to be at a satisfactorily acceptable level, namely, an internal consistency coefficient of .86 (Cronbach's alpha,  $n = 383$ ) and concurrent validity of .64 (Pearson product-moment correlation coefficient,  $n = 383$ ). However, there still seems to be room for further improvement of the FLRAS if we intend to deepen our understandings into the relationship between anxiety and English as a foreign language (EFL) reading in various pedagogical settings. What is more, as Saito et al. (1999) hold, further research is still warranted in order to find out 'exactly why students feel anxious about reading' (p. 217).

Some may wonder why another measure of L2 reading anxiety is needed and whether the existing instrument (i.e. FLRAS) is sufficient. In what follows, the researcher will provide a few explanations and also spell out the

reasons for the necessity of constructing and employing an EFL reading anxiety measure particularly tailored for non-English major students in the context of tertiary education.

The pertinent literature demonstrates that no attempt has been made to date to design an EFL reading anxiety scale specifically for undergraduate, non-English majors i.e. for those whose fields of study are other than English-related majors and are typically required to study English in EGP (English for General Purposes) courses. It is reported that many students who pass the university entrance exam enter tertiary education underprepared with respect to their EFL reading abilities (Dreyer & Nel, 2003; Haghani, 2004; Martínez, 2008). Since they lack overall reading comprehension abilities, the students feel anxious when they are required to read texts in English (Mirhassani & Hosseini, 2006; Rahemi, 2009). As such, they have problems with reading and understanding EFL texts.

Therefore, there needs to be a new measure that can encompass those aspects of reading anxiety typically experienced by English as a foreign language learners (as is the case here) in the context of tertiary education. In relation to the learning strategy questionnaires that are employed in affect-related investigations, Macaro (2007) argues for devising measures that are specifically aimed at particular populations rather than utilizing 'other internationally recognized instruments' (p. 240). LoCastro (1994) also emphatically notes that general inventories are not transferable across socio-cultural domains and that their outcomes can be less valid than claimed.

As is the case with anxiety, in the broadest sense of the word, foreign language anxiety sometimes also arises from the unknown (Arnold & Brown, 1999). The same speculation is most apparently applicable to foreign language reading anxiety. There are, perhaps, certain unknown individual variables that give rise to anxiety in L2 reading and most probably vary from one particular situation to another. It is the author's considered belief that it is within a particular context that we should look for anxiety-producing factors. Apparently, what is anxiety-provoking for one in a given L2 context may be of little or no effect on another in a different L2 context. In actuality, it is

these situational variables that matter most when the issue of anxiety is taken into account in L2 reading.

Furthermore, as DeVellis (1991, p. 11) notes, utilization of adequate measures in research 'are a necessary condition for valid research'. It should be noted that research on the role of anxiety in L2 learning has yielded somewhat inconsistent results. According to Cheng (2004), one possible explanation could be that inadequate anxiety instruments have been utilized. In the case of L2 reading anxiety, it can be said that the available measure (i.e. FLRAS) is limited to only two generalized factors influencing L2 reading: writing system and background proficiency of the target language. Perry, Ball, and Stacy (2004) hold that such generalized measures are not appropriate and also may not have relevance for particular populations in particular contexts.

Overall, since L2 reading is seen as an intrinsically complex process (Hudson, 2007), there cannot seem to be only one or two causal factors accounting for anxiety reactions in L2 reading. The author maintain that foreign language reading anxiety can be best understood if it were considered a multi-faceted, or rather multi-dimensional construct as the other types of anxiety in general (e.g., health anxiety) are typically conceived of. Ferguson (2009, p. 277) asserts that such a multi-dimensional account of anxiety is capable of taking 'the existence of additive multi-causal agents' into consideration. Therefore, because it is not theoretically clear-cut what the causal agents of L2 reading anxiety are, it could be enlightening and most informative to look into L2 learners' actual experiences of reading anxiety in a particular context. In so doing, we can ground the theoretical basis of L2 reading anxiety into L2 learners' experiences that lead to anxiety reactions. This could in turn help us develop an instrument that is not too generalized in nature, but rather is context-appropriate. As such, a measure of EFL reading anxiety that takes into account the situationally multi-dimensional, anxiety-provoking factors in EFL reading seems to be required for undergraduates at tertiary education.

In view of the issues discussed, the present study aimed to construct a self-report measure of EFL reading anxiety based on university EFL students'

anxiety experiences. Since the current trend in L2 anxiety research is to explore into and identify the possible sources of anxiety in various L2 skills (Horwitz, 2001), this kind of research can contribute to the furtherance of our knowledge of EFL reading anxiety in general and capture the nature of EFL reading anxiety in particular. To recap, the research question that directed this study was: What experiences of reading anxiety in class do university students have while reading in English as a foreign language?

## **RESEARCH METHODOLOGY**

### **Participant Information**

As is often the case, item generation for questionnaire-type scales can be best achieved by means of investigating the experiences that various members of the intended population self-report prior to the construction of a certain scale (Oppenheim, 1999). Accordingly, two classes with 61 students from Islamic Azad University — Ahar Branch located in the eastern Azarbaijan province of Iran were randomly selected for the preliminary study. Classes were reselected after obtaining verbal consent from the academic administration office of the university and the instructors of the classes. At the time (i.e. in the academic year of 2010-2011) all the selected students were studying different undergraduate programs offered by the Faculty of Humanities. Of the 61 participants, 63.9 per cent were males ( $n = 39$ ), with a mean ( $SD$ ) age of 23 (2.97) years, and 36.1 per cent females ( $n = 22$ ) with a mean ( $SD$ ) age of 21 (1.91) years. They were all bilingual – they were able to speak both Azeri and Farsi. Students' proficiency level of English was also estimated through self-reports placed in the first section of the interview questionnaire. Results showed that the self-reported English proficiency level of students was considerably low.

The participants were asked to fill out an open-ended, exploratory questionnaire that provided both biographical details and information on their



anxiety experiences when reading in English. Later, once prepared, the inventory with its initial items was pilot-tested on a different group of 33 students who were similar to the intended population.

Finally, for the validation and selection of the inventory items, the sample students ( $n = 251$ ) recruited from eight classes were required to complete the resultant inventory twice at an interval of four weeks. The researcher randomly selected the sample from two faculties at the same university – the Faculty of Engineering and the Faculty of Humanities. Of the 251 sample students, 53.4 per cent were males ( $n = 134$ ), with a mean (*SD*) age of 24 (3.96) years, and 46.6 per cent females ( $n = 117$ ) with a mean (*SD*) age of 22 (2.51) years. The participating students either had already taken their EGP course or were taking it at the time of conducting the study. The majority of the sample students self-reported their English proficiency level as low (68.7% = Poor; 19.2% = Fair; 6.8% = Good; 5.3% = Excellent).

### **Instrumentation**

An exploratory interview questionnaire containing three open-ended questions was prepared in students' official L1 language (i.e. Farsi). The questionnaire intended to gain qualitative data on students' EFL reading experiences through their self-report. The questions required respondents to explain (a) the situations in which reading in English provoke anxiety, (b) the reasons for their anxiety reactions, and (c) the problems they have when attending EFL classes. Two university lecturers expert on EFL reading were consulted about the formulation of the above questions. Students were required to answer the questions in 45 minutes; however, most of them completed the questionnaire in approximately 30 minutes. Respondents were allowed to leave any questions unanswered wherever found them irrelevant or when they did not wish to respond. Nonetheless, most of the students answered the questions thoroughly and provided explanations rich in content.

Ultimately, the textual data obtained were used in the qualitative analysis, through which the researcher intended to develop the EFL reading anxiety

inventory for non-English undergraduates.

### ***EFLRAI's Development and Item Generation Procedures***

Students' self-reports were analyzed using the constant comparative method in which two types of coding are performed: (a) open coding (theme identification) and (b) axial coding (Strauss & Corbin, 1998). During open coding, the data was broken into discrete parts, closely examined, and compared for similarities and differences. Events and actions that were found to be conceptually similar were grouped into categories. Then, during axial coding, the identified categories were refined and narrowed down with regard to the subcategories. Further, the data was re-categorized around the refined/narrowed themes. Upon completion of the data coding, many similarities emerged in the ways respondents reported their perceptions about anxiety reactions in EFL reading.

To recap, students' self-reports were used as 'hard' data on which the researcher was able to draw as a framework for the intended instrument. In fact, they helped generate an initial pool of EFL reading anxiety inventory items. Given the qualitative data analysis carried out, three major categories (i.e. factors) related to EFL reading anxiety were identified and metaphorically labelled as below:

- Top-down Reading Anxiety (TRA)
- Bottom-up Reading Anxiety (BRA); and
- Classroom Reading Anxiety (CRA).

While the first factor, (TRA), is mainly reader-specific and relevant to the reader, the second factor, (BRA), is text-specific in nature; and the third factor, (CRA), is associated with the variables that has nothing to do with the text and the reader. In fact, CRA factors are context-relevant and arise from the classroom settings where the teacher, reader, and text interact (see Results section for more details).

Additionally, the subcategories identified helped to formulate 30 items for

the preliminary draft of the EFLRAI, which was later content-validated by a panel of three experts in the field of EFL reading. The initial version of the EFLRAI was pilot-tested on a group of 33 students from the same university where the preliminary study was carried out. The pilot-testing was conducted particularly with the intention of (a) determining the readability of the statements and (b) preparing the primary make-up of the EFLRAI. Based on the advisory panels' comments and the pilot respondents' feedbacks, three items that were considered too specific, inappropriate, or repetitious were deleted. Accordingly, the primary version of the EFLRAI with 27 items was developed.

### **EFLRAI's Validation Procedures**

On completion of pilot-testing, the EFLRAI was used in the major study that had been planned for further refinement and evaluation. As was mentioned earlier, a sample of 251 non-English major students enrolled in Islamic Azad University – Ahar Branch participated in the major study. Primarily, at the first assessment, 264 students filled out the EFLRAI. However, because 13 of them were absent during the second administration of the inventory, the researcher decided to exclude them from the study.

In order to determine the final composition of the instrument and to also assess the psychometric characteristics (reliability and validity) of it, the EFLRAI was administered on the sample students ( $n=251$ ) on two separate occasions (after a 4-week interval). At the second administration, the FLCAS (the foreign language classroom anxiety scale) was also used as a criterion for the construct validity of the newly developed inventory (EFLRAI). To ensure the quality with which the measures were administered, the researcher himself administered the measures at the research site. Below is an account of the procedures carried out to assess the psychometric properties of the EFLRAI.

Two measures of reliability were analyzed. At the first assessment, internal consistency was computed by Cronbach's Alpha ( $\alpha$ ), which provides an

indication of the degree of convergence between the different items hypothesized to represent the same construct. The internal consistency coefficient was estimated both for the EFLRAI's total score and for each section's subscore.

At the second administration, test-retest reliability was computed. This kind of reliability index examines the variation between two administrations of the instrument, and measures the capacity of the scores to remain consistent over time. The reliability of the inventory was then estimated by a Pearson product-moment correlation coefficient ( $r$ ) which indicates the strength of the linear relationship between the two sets of scores.

Finally, the construct validity of the EFLRAI was calculated with the use of a different version of the inventory i.e. the FLCAS (the foreign language classroom anxiety scale). In fact, at the second assessment, the EFLRAI was administered simultaneously with the FLCAS, which had been back-translated into Farsi. Similar to Saito et al.'s (1999) work, attempts were made to take into account the issues of concurrent and discriminant validity since the overall construct validity of the scale was needed to be established. The Pearson correlation ( $r$ ) was, therefore, employed to estimate the strength of the correlation between the two sets of scores.

## RESULTS

As a first step, normal distribution was checked. Normal probability plots indicated that none of the distributions were significantly different from normal. The EFLRAI total score was computed as the sum of the points assigned to the responses of the 27 items. The EFLRAI mean differences between administrations were computed with the dependent-samples  $t$ -test. Mean ( $SD$ ) of the total EFLRAI score was calculated 70.25 (14.91) for the first survey, and 70.35 (14.90) for the second. Overall, results showed that there was no statistically significant difference between the first survey and the second survey,  $t(250) = -.527, p > .05$  (two-tailed).

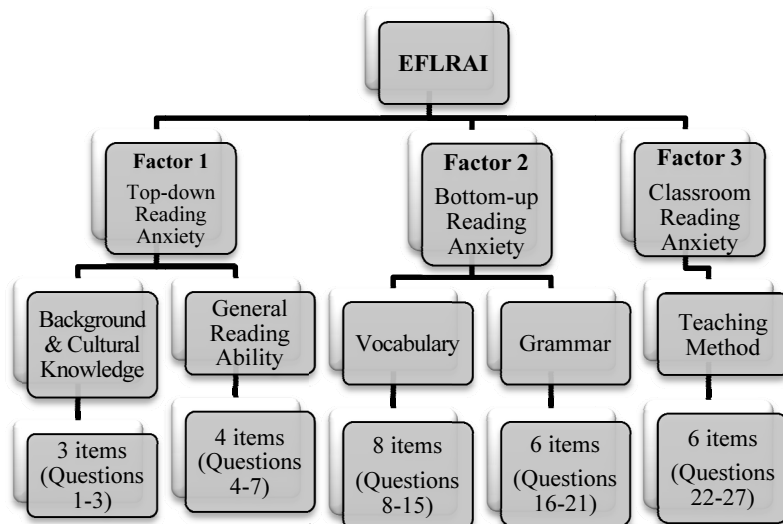
The internal consistency was measured with Cronbach's alpha. Cronbach's alpha for the total EFLRAI score was .89 ( $n = 251$ ). The Corrected Item-total Correlation values were all greater than .3. This was indicative of a fairly respectable reliability of the EFLRAI. In addition, the internal consistency coefficients in three subscores of the EFLRAI were .77 for TRA subscore, .84 for BRA subscore, and .75 for CRA subscore, suggesting decent Cronbach's alpha coefficients in each subdivision of the measure. As the resultsshow, the EFLRAI is measuring a single underlying construct.

Another measure of reliability i.e. the test-retest reliability of the EFLRAI was examined using a Pearson product-moment correlation coefficient. A very large Pearson's correlation coefficient was observed between the first assessment and the second assessment of the EFLRAI ( $r = .97$ ,  $n = 251$ ,  $p < .05$ ), suggesting the stability and reliability of the EFLRAI over time.

Ultimately, in an attempt to statistically establish the overall construct validity of the EFLRAI, it was deemed appropriate to investigate the relationship between the EFLRAI and the FLCAS so as to ascertain its concurrent and discriminant validity (Saito et al., 1999). To that end, the Pearson's correlation coefficient of the two measures was calculated ( $r = .63$ ,  $n = 251$ ,  $p < .05$ ). The  $r$  value obtained indicated that there is a positive correlation between the foreign language anxiety and EFL reading anxiety. Despite the positive overlap, it can be argued that there is a considerable amount of discrimination between the two measures, as well. In fact, this can become evident when a coefficient of determination ( $r$ -square) is calculated and interpreted as the percentage of shared variance. Hence, a correlation coefficient of .63 suggests that 39 per cent of the variance is shared by the two measures (concurrent validity). However, the remaining 61 per cent of the variance can be attributable to a certain factor that differentiates the two constructs (discriminant validity).

### EFLRAI's Basic Features

The EFLRAI has three sections that match the three factors emerged in students' self-reports (see Appendix). Each section contains specific variables that in turn give rise to the anxiety factor identified. For the sake of clarity, Figure 1 displays the final make-up of the EFLRAI in detail.



**FIGURE 1**  
**Graphic Representation of EFLRAI**

As shown in Figure 1, the first factor i.e. Top-down Reading Anxiety (TRA) which is mainly reader-specific, is divided into two subcategories: (a) readers' background & cultural knowledge and (b) their general reading ability, while the subcategories constituting the second factor, Bottom-up Reading Anxiety (BRA), are text-specific in nature. They are, in fact, related

to EFL vocabulary and grammar. The third perceived, anxiety-provoking factor i.e. Classroom Reading Anxiety (CRA) is made up of the subcategories quite distinct from reader- and text-related factors. It concerns the setting in which the first and second factors interact. Put differently, how the reading lesson (text) is delivered (by the teacher) to the student (reader) is of relevance.

In addition to the introductory section of the EFLRAI providing background information (age, gender, and English proficiency level) on respondents, the instrument lists 27 items in three sections. The items are rated on a 4-point Likert format, corresponding to 1 (totally disagree), 2 (somewhat disagree), 3 (somewhat agree), and 4 (totally agree). After the pilot-testing, it was found that the middle option of 'neither agree nor disagree' had remained virtually unused; therefore, the advisory panel commented that this response-choice could be left out. The EFLRAI somewhat resembles the FLRAS in terms of wording. In fact, it is modeled after the statements used for the FLRAS. Scores range from a low of 27 to a high of 108, with higher scores reflecting greater perceived reading anxiety.

## DISCUSSION

The study intended to mainly demonstrate that the EFLRAI is an established and well-validated instrument to measure non-English major students' EFL reading anxiety. In view of internal consistency, the EFLRAI's Cronbach's alpha ( $\alpha = .89$ ) suggests that the items on this instrument conform to a homogeneous measure. Also, test-retest reliability for the total EFLRAI score obtained an acceptable correlation coefficient ( $r = .97$ ). In addition, the EFLRAI achieved a good level of construct validity in terms of both concurrent validity and discriminant validity.

Moreover, given the guiding research question of the present study (i.e. What experiences of reading anxiety in class do university students have while reading in English as a foreign language?) important findings were

obtained. The results suggest that three main sources account for non-English major students' EFL reading anxiety reactions in tertiary education. The first source is related to the reader and encompasses both the readers' background/cultural knowledge and their general reading ability. This type of anxiety source is within the readers and can be considered as personal. The second one is text specific and has to do with the reading text. In fact, the textual elements such as the vocabulary and grammatical levels of the text give rise to reading anxiety. The third anxiety-provoking source is related to the context in which the readers and the text meet, namely the classroom and the way the reading lesson is delivered.

The above findings compare well with a qualitative study carried out by Kuru-Gonen in 2005, as cited in Kuru-Gonen (2007). In an attempt to identify the sources of EFL reading anxiety, Kuru-Gonen found out that there are three main sources of EFL reading anxiety in the Turkish EFL context, namely, (a) the personal factors, (b) the reading text, and (c) the reading course. The sources identified in Kuru-Gonen's study closely resemble the three factors emerged in the present study, which account for reading anxiety reactions among Iranian undergraduates.

The EFLRAI can also help anxiety researchers avoid the 'valid-test' fallacy – a problem that occurs when we elicit information on language learning behaviour (Norris & Ortega, 2003). In fact, the 'valid-test' fallacy arises when a measure is employed for a population that it is not suited. In most anxiety research studies, this problem continues to happen. However, by means of the EFLRAI, we could shun this drawback with undergraduate EFL students.

A few explanations seem warranted here for the above assertion. This inventory is situated and context specific in the sense that it was within a particular context that anxiety-producing factors were studied. The EFLRAI was developed on the basis of non-English majors' actual experiences of reading anxiety in the context of tertiary education. As it is specifically aimed at this particular population, results obtained from this inventory can be transferrable across this population; therefore, its outcomes can be considered



more valid than its counterpart.

Furthermore, the available inventory (i.e. FLRAS) was originally designed to measure anxiety related to foreign language (French, Japanese, and Russian) reading. Such an inventory has frequently used in the context of English as a foreign language. As was argued before, generalized inventories are not suitable in various settings, since they have little relevance for particular populations in particular contexts. Nevertheless, the EFLRAI can be employed to measure non-English majors' EFL reading anxiety reactions at the tertiary-level education.

Also, what distinguishes the EFLRAI from the FLRAS is that the FLRAS measures levels of reading anxiety in terms of two text-processing parameters; however, the EFLRAI draws on the multi-dimensional anxiety-producing factors in EFL reading. In fact, the results reveal that EFL reading anxiety is not a unidimensional construct, but a combination of different factors arousing anxiety in reading English.

Surprisingly enough, the outcomes of this research runs counter to previous studies in that in the current research the variable of the foreign language writing system was not found to account for reading anxiety as it had been in other reading-related anxiety studies, e.g., Hayati and Ghassemi (2008) and Saito et al. (1999). As a result, the English writing system was not included as a factor in the EFLRAI. Further research is indeed needed to shed light on the possible effects of graphic features of text on EFL learners' reading anxiety.

Additionally, the EFLRAI can have several practical applications in instructional settings. The information that can be drawn from the EFLRAI should help the debate about reading anxiety as a distinct variable in foreign language learning. In this study, levels of EFL reading anxiety were found to vary according to three different, but interrelated factors that provoke EFL reading anxiety i.e. (a) text related, (b) reader-relevant, and (c) context-specific factors. The EFLRAI can, therefore, be employed in different ways to boost the experience of EFL reading teaching and learning. The EFLRAI can help the classroom practitioner understand the impact that learners'

reading anxiety has on the efficacy of reading instruction. Given the extent to which each factor identified in the EFLRAI is involved, instructors can improve EFL reading effectiveness by designing instructional strategies through which anxiety is reduced. In other words, by gaining more insights into students' anxiety experiences, reading instructors can identify where anxiety occurs and modify their teaching strategies. For instance, if it is found out that CRA (Classroom Reading Anxiety) accounts most for students' anxiety reactions, delivery of the reading lesson in group format could most probably have a significantly positive impact on students' perceptions toward reading in a second/foreign language.

Reading experts hold that gender as an important variable plays a significant part in L2 reading (Brantmeier, 2004; Hayati & Ghassemi, 2008). In a recent study, Hayati and Ghassemi (2008) found out that females are far more apt to experience reading-related anxiety than males. As such, the EFLRAI can be employed to help determine whether males and females vary in terms of degrees of anxiety that they experience in EFL reading. Appropriate teaching strategies could, accordingly, be adopted for students with respect to their gender. If the first category TRA (Top-down Reading Anxiety), for example, is found to account for male students' reading anxiety reactions, appropriate fix-up strategies of reading instruction could be adopted to increase their background and cultural knowledge on the reading material and their general reading ability.

## **CONCLUSION**

In closing, results of this investigation reveal that the EFLRAI exhibits acceptable reliability and adequate validity. The acceptable psychometric properties of this newly developed instrument seem to lend support to its usefulness in EFL contexts. By introducing the EFLRAI, it is hoped that the present study can help increase the knowledge base around the assessment of EFL reading anxiety. However, given the fact that the EFLRAI is at its initial

stage of development, a caveat may be of relevance here. Although reliability appears to be determined easily with a relatively simple indicator, validity is almost always a continuous process (construct validation); thus, confirmation in future research is warranted. Such studies will definitely contribute to further fine-tuning and improvement of the EFLRAI.

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**Appendix**  
**English Version of EFL Reading Anxiety Inventory (EFLRAI)**  
**EFLRAI, ©M. Zoghi, 2012**

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This questionnaire does **not** intend to gauge your EFL reading ability. Nor is it a test that you can score high or low. In fact, this questionnaire helps us help you i.e. by knowing about your true responses, we will be able to find out when you undergo anxiety while reading in English. This may enable us to be well-prepared in your future English classes. Thus, your cooperation can certainly make a big difference. Thanks for your time in advance.

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**Age:** ..... **Gender:** Male  Female

**Current Proficiency in English:**

**Poor**       **Fair**       **Good**       **Excellent**

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**Directions:** Statements 1–27 refer to how you feel about reading in English. Please read all of the statements and tick the option that describes you by indicating whether you (1) totally disagree, (2) somewhat disagree, (3) somewhat agree, or (4) totally agree.

---

**1. I do not feel at ease when the title of the text is unfamiliar to me.**

(1) totally disagree   (2) somewhat disagree   (3) somewhat agree   (4) totally agree

**2. It is worrying to me when the ideas expressed in the text are culturally unclear.**

(1) totally disagree   (2) somewhat disagree   (3) somewhat agree   (4) totally agree

**3. I get upset when I lack the previous knowledge about the ideas expressed in the text.**

(1) totally disagree   (2) somewhat disagree   (3) somewhat agree   (4) totally agree

**4. I worry when I cannot get the gist of the text although no new vocabulary items or grammatical points exist in the text.**

(1) totally disagree (2) somewhat disagree (3) somewhat agree (4) totally agree

**5. When I cannot recognize minor ideas (details) of the text is worrying to me.**

(1) totally disagree (2) somewhat disagree (3) somewhat agree (4) totally agree

**6. I am nervous when I cannot spot the main idea of a certain paragraph.**

(1) totally disagree (2) somewhat disagree (3) somewhat agree (4) totally agree

**7. It bothers me when I cannot express my opinions or feelings about the text.**

(1) totally disagree (2) somewhat disagree (3) somewhat agree (4) totally agree

**8. I feel uneasy when I cannot figure out meanings of unknown words.**

(1) totally disagree (2) somewhat disagree (3) somewhat agree (4) totally agree

**9. It bothers me when I encounter a lot of words whose meanings are unclear.**

(1) totally disagree (2) somewhat disagree (3) somewhat agree (4) totally agree

**10. I get upset when I cannot figure out the meaning of a word that I feel I have seen before.**

(1) totally disagree (2) somewhat disagree (3) somewhat agree (4) totally agree

**11. It bothers me when I feel unable to look up a word in the dictionary.**

(1) totally disagree (2) somewhat disagree (3) somewhat agree (4) totally agree

**12. I get confused when the word that I know has a different meaning in the sentence.**

(1) totally disagree (2) somewhat disagree (3) somewhat agree (4) totally agree

**13. I get upset when I come across idioms that are unfamiliar to me.**

(1) totally disagree (2) somewhat disagree (3) somewhat agree (4) totally agree



**14. It makes me feel uneasy when an unfamiliar is made up of several parts or syllables.**

(1) totally disagree (2) somewhat disagree (3) somewhat agree (4) totally agree

**15. I feel worried when the unknown word is difficult to pronounce.**

(1) totally disagree (2) somewhat disagree (3) somewhat agree (4) totally agree

**16. I am nervous when a certain sentence is long and has a complex structure,**

(1) totally disagree (2) somewhat disagree (3) somewhat agree (4) totally agree

**17. When a certain sentence is grammatically unfamiliar is worrying to me.**

(1) totally disagree (2) somewhat disagree (3) somewhat agree (4) totally agree

**18. It bothers me when a passive voice is used in a sentence.**

(1) totally disagree (2) somewhat disagree (3) somewhat agree (4) totally agree

**19. I feel upset when the tense of a certain sentence is unclear to me.**

(1) totally disagree (2) somewhat disagree (3) somewhat agree (4) totally agree

**20. I worry when I am unable to recognize different parts of speech such as adjectives, adverbs, or connective words.**

(1) totally disagree (2) somewhat disagree (3) somewhat agree (4) totally agree

**21. I get confused when what I know about a grammatical point does not make any sense.**

(1) totally disagree (2) somewhat disagree (3) somewhat agree (4) totally agree

**22. It bothers me when the instructor calls on me to read out.**

(1) totally disagree (2) somewhat disagree (3) somewhat agree (4) totally agree

**23. It worries me when the instructor calls on me to translate a piece of an English text into our first language.**

(1) totally disagree (2) somewhat disagree (3) somewhat agree (4) totally agree

**24. When the instructor asks me reading comprehension questions is worrying to me.**

(1) totally disagree (2) somewhat disagree (3) somewhat agree (4) totally agree

**25. It upsets me when the instructor chooses uninteresting texts to read in class.**

(1) totally disagree (2) somewhat disagree (3) somewhat agree (4) totally agree

**26. It makes me feel uneasy when the instructor corrects my pronunciation or translation mistakes.**

(1) totally disagree (2) somewhat disagree (3) somewhat agree (4) totally agree

**27. I am nervous when the instructor uses English as a medium of instruction and hardly ever makes use of our first language.**

(1) totally disagree (2) somewhat disagree (3) somewhat agree (4) totally agree

**Thank you for taking time to complete this questionnaire.**

**We appreciate your comments.**