Chinese Senior High EFL Learners’ Foreign Language Reading Anxiety: Profile and Sources

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Abstract

In comparison with other skill-specific foreign language anxiety, foreign language reading anxiety (FLRA) was a less-researched realm. The purpose of the study was to investigate the general profile and possible sources of FLRA in the under-explored Chinese senior high EFL students. The 60 participants were from 2 high schools in China. The study employed the “explanatory sequential mixed method design” (Creswell & Plano Clark, 2018). First, the quantitative data were collected via the adapted Foreign Language Reading Anxiety Scale (FLRAS) (Lu & Liu, M., 2015), and analyzed with SPSS. Then, based on participants’ scores on FLRAS (adapted), specific responses, and consent to further interviews, 4 subjects were selected as sources of qualitative data. The conclusions were drawn that (1) more than half the learners (78.33%) were generally exposed to little FLRA (M=2.57); (2) possible FLRA sources could be divided into 4 main categories, with overall 16 subsets: (a) individual factors (reading interest, self-expectation, reading strategy use, background knowledge); (b) textual factors (topic, task type, text length, tested vocabulary, grammar, text structure, rhetoric); (c) instructional factors (teaching method, evaluation); (d) situational factors (teacher-student dynamic, parental anticipation, peer pressure). Despite limitations such as limited sample size and scope, absence of further validation testing, and neglect of examination of background variables, the study purveyed valuable suggestions for language educators to enhance strategies addressing FLRA among Chinese EFL senior high learners. These suggestions included considering the impact of text structure and rhetorical devices on FLRA, prioritizing vocabulary instruction, and implementing anxiety-reducing interventions, e.g. the “flipped classroom model” (Gök et al. 2021). Furthermore, the study emphasized the need for further research on the more representative FLRA profile of Chinese young EFL learners, statistical examination of the relevance of various sources to FLRA, investigation of the relationship between background variables and FLRA among Chinese senior high EFL learners, and exploration of the universality and language-specific nature of different FLRA sources.

Keywords: foreign language anxiety, foreign language reading anxiety, reading anxiety sources

1. Introduction

Affect is a complex psychological and physiological state often characterized by a subjective experience, physiological arousal, and behavioral expression, which involves a range of feelings varying in intensity and duration. Emotions are normally triggered by various stimuli, including external events, thoughts, memories, or bodily sensations, and they play a crucial role in human experience, perception, decision-making, and social interactions. Affective variables (e.g., anxiety, self-perceptions), intertwined with cognitive (e.g., language aptitude, cognitive ability, study habits), personality (e.g., locus of control, individualism), and demographic (e.g., age, number of previous languages studied) variables, abound throughout foreign language learning, a typical socio-cultural activity, especially accounting for foreign language underachievement (Onwuegbuzie, 2000) concerned by language educators, curriculum designers, and policymakers. Anxiety, one of the potentially debilitating affective variables, was defined by Rachman, S. & Rachman, S.J (2013) as “a tense unsettling anticipation of a threatening but formless event; a feeling of uneasy suspense (p.2)”, involving “the interplay of vigilance, attention, perception, reasoning, and memory—the very meat of cognitive processing (p.1)”.

Foreign language anxiety (FLA), in recent decades, has received the proliferating attention of researchers in second
language acquisition (SLA), and a negative correlation between FLA and learners’ performance in a foreign language (FL) has been repeatedly testified (Dewaele et al., 2023; Liu, M., 2021; MacIntyre & Gregersen, 2012; Horwitz, 2010; Saito et al., 1999; Everson et al. 1994).

Limited emphasis has, however, been placed on the exploration of foreign language reading anxiety (FLRA) while most research focused on aural and oral aspects of language: listening and speaking (İşler & Yıldırım, 2022; Zhao et al., 2013; Kuru-Gönen, 2009; Saito et al., 1999), as from one’s instinct, reading seems to be less anxiety-provoking for afluence of opportunity for reflection and reconsideration (Saito et al., 1999) yet indigence of interactional spontaneity (Zhao et al., 2013). Indeed, reading is an inseparable section of quotidian language learning activity complicated by the application of a series of mechanisms including lower-level processing (word recognition, syntactic parsing, and semantic proposition encoding) and higher-level processing where cognitive resources are utilized to construct text comprehension (Grabe & Yamashita, 2022). Meanwhile, reading in a foreign language (FL) has been evinced to induce certain anxiety (Liu, W., 2023; Miao, & Vibulphol, 2021; Zhao et al., 2013; Saito et al., 1999). Therefore, reading anxiety necessitates heightened levels of concentration and to diminish the undermining impact of FLRA, its underlying sources require further discovery. Moreover, through conducting comparative research among English-speaking learners of Japanese, Russian, and French, Saito, Garza, & Horwitz (1999) have attested that FLRA is distinct from general FLA in its dependence on the target language and Liu, W. (2023) has noticed that insufficient attention has been granted to young language learners’ FLRA, whereas an excessive focus has been directed towards adult FL learners. Accordingly, the study attempted to investigate the general profile of Chinese senior high English-as-a-foreign-language (EFL) learners’ FLRA via a mixed-form questionnaire, the main part of which was a 29-item Foreign Language Reading Anxiety Scale (FLRAS) adapted by Lu & Liu, M. (2015) and to explore its possible sources with sequent semi-structured interviews.

2. Research Question
To fill the research void and fulfill the objective of the study, the following questions were of particular concern.
(1) What is the general profile of Chinese senior high EFL students’ FLRA?
(2) What are the possible sources of their FLRA?

3. Literature Review
3.1 Foreign Language Reading Anxiety
Since the 1970s, the realm of affect, particularly negative ones such as anxiety, has captured the interest of a growing multitude of researchers in SLA (Dewaele et al. 2017). Scovel (1978) labeled anxiety as “a state of apprehension, a vague fear that is only indirectly associated with an object (p134)” and appealed to researchers for a refined classification of the multifaceted construct—anxiety, after spotting contradictory results in early anxiety studies on SLA by Chastain (1975) and Kleinmann (1997) given inconsistencies in measures.

Therefore, a few detailed divides were created. According to Goodwin (1986), other than the abnormal, anxiety could facilitate character building, creativity enhancement, and augmented awareness of life’s possibilities. MacIntyre and Gardner (1991) generalized 3 approaches to anxiety studies from trait, state, and situation-specific perspectives. Spielberger (1983) branced anxiety into trait anxiety—a more enduring predisposition towards experiencing anxiety across various situations and state anxiety—transient feelings of unease or worry in response to a specific situation, which is measured by State-Trait Anxiety Inventory (STAI) (Spielberger et al., 1970). Furthermore, Horwitz et al. (1986) initiated the situation-specific foreign language classroom anxiety (FLCA) composed of communication apprehension, test anxiety, and fear of negative evaluation and designed a 33-item 5-point Likert scale—Foreign Language Classroom Anxiety Scale (FLCAS) later employed by considerable researchers.

In the same vein, FLA, generally defined as “a distinct complex of self-perceptions, beliefs, feelings, and behaviors related to classroom language learning arising from the uniqueness of the language learning process (Horwitz et al., 1986, p128)” can be partitioned in line with specific skills: speaking, listening, reading, writing, interpreting, etc. Reading anxiety is “a separate and distinct phenomenon in language learning (Seller, 2000, p517)”. One of the first attempts to delve into FLRA was made by Saito et al. (1999), who utilized FLCAS and a self-developed 20-item FLRAS and came to the conclusions: (1) FLRA differed from general FLA in varying with target language concerning varied writing systems, so that large language distance between L1 and L2 may intensify the anxiety level. (2) Reading, the seemingly less anxiety-provoking process, induced anxiety and deserved more attention. (3) Learners’ FLRA rose with increased self-perception of reading difficulty and declined reading performance. Thereafter, FLRAS has been utilized or adapted in pursuit of reading anxiety
causes or general profile of FLRA.

Furthermore, several researchers conducted FLRA-relevant studies on Chinese EFL university students. Lu and Liu, M. (2015) derived a 29-item FLRAS from the 20-item FLRAS (Saito et al. 1999), via which they discovered that more than half of the investigated reported little anxiety which differs from the finding of Miao and Vibulphol (2021) who employed an adapted version of English as a Foreign Language Reading Anxiety Inventory (EFLRAI) developed by Zoghi (2012) and identified a general moderate level of FLRA among subjects. Alongside this, a longitudinal study investigated the predictive effects of FLRA on students’ English reading performance, shedding light on the long-term adverse implications of FLRA on reading performance and the moderately anxious profile of the subjects (Liu, M., & Dong, 2022). As a result, to discover reasons for such differences, more relevant investigations have to be conducted. Additionally, a meta-analysis examined the correlates of FLRA, highlighting its multifaceted nature and the various factors associated with this type of anxiety (high-evidence correlates: language anxiety and reading performance; low-evidence correlates: reading self-efficacy and reading strategy) (Li, R., 2021). Strategies to overcome FLRA among globalized EFL learners have also been investigated, with the internalization of more comprehensible reading materials, the promotion of more enjoyable reading circumstances, and the inducement of more relevant reading strategies being identified as potential effective strategies (Wijaya, K.F., 2022).

As abovementioned, Chinese is an ideographic language while English is a typical language featuring alphabets, research on FLRA of Chinese EFL learners or English Chinese-as-a-foreign-language learners may deliver a distinctive landscape from that of learners of other languages and with different native languages, which is worth further exploration. Plus, Liu, W. (2023) has claimed that young Chinese EFL learners are currently understudied, hence, whose general profile of FLRA was explored in the study.

3.2 Foreign Language Reading Anxiety Sources

Possible reasons for FLRA have been incrementally discovered since FLRA caught the attention of researchers (e.g. Turkish EFL learners: İşler & Yıldırım, 2022; Subaşı, 2014; Kuru-Gönen, 2009; Indonesian EFL learners: Limeranto & Subekti, 2021; American Korean-as-a-foreign-language learners: Joo & Damron, 2015; American Chinese-as-a-foreign-language learners: Zhao et al., 2013). Nevertheless, considering a lack of research on the origins of Chinese EFL learners’ FLRA, it awaits further systematic answers.

Among diverse categorizations, having investigated 50 Turkish first-year university students via quantitative data from FLCAS and FLRAS, followed by guided interviews and learning dairies of 25 randomly selected subjects, Kuru-Gönen (2009) produced a comprehensive catalog that contained three aspects: personal factors, reading text, and reading course. Therefore, the sequent literature on sources of FLRA is extended from three dimensions: personal factors, text-related factors, as well as course-related factors.

3.2.1 Personal Factors

Regarding personal factors, learners’ foreign language proficiency, background knowledge, learning disability, age, gender, and self-assessment of ability have been intensely examined. Miao and Vibulphol (2021) concluded that lower foreign language proficiency and lack of background knowledge perturb foreign language learners. Li, R. (2021) meta-analyzed FLRA and its correlates, confirming that language proficiency and age negatively interrelate with FLRA—reading performance inverse correlation. Tsai and Li, Y. (2012) proved that reading ability, one dimension of language proficiency, was contrarily associated with reading anxiety for Chinese EFL college freshmen. Proper reading strategy use is one of the defining components of reading ability, the lack of which aggravates learners’ reading anxiety. (İşler & Yıldırım, 2022; Li, R., 2021; Limeranto & Subekti, 2021; Lu & Liu, M., 2015; Lu & Liu, M., 2011). Meanwhile, background knowledge consists of cultural and language knowledge, both of which can be acquired personally or vicariously. Saito et al. (1999) pointed out unfamiliar culture as one of the potential causes of FLRA. Furthermore, in research on reading anxiety of U.S. Korean-as-a-foreign-language college students, Joo and Damron (2015) identified experience with Korea as one of the invitations to FLRA. As for language knowledge, Brantmeier (2005) detected Spanish-as-a-second-language advanced learners’ ascending anxiety confronting immediate communication tasks, which is, to some extent, in accord with the result of the research by Fazio et al. (2020) on second-language learning difficulties in Italian children that reading difficulties subsided with greater phonological awareness, which is part of language knowledge. Learning disability was also testified. Chung et al. (2023) discovered that Chinese adolescents with dyslexia underwent an elevated degree of reading anxiety. Gender, a demographic variable, was under investigation as well (e.g. Lu & Liu, M., 2015; Joo & Damron 2015; Zhao et al. 2013). Lu and Liu, M. (2015) found that Chinese university EFL male learners were exposed to higher anxiety while reading than their counterparts. Self-assessment of ability is another personal factor
reading comprehension exercises were, meanwhile, assigned. As the majority of Chinese young English learners, reading-related skills were focused on in the “Reading” part of all the five modules of one textbook and daily the age range from 15 to 17 years old and accomplished one term session of English learning during which claimed to play a no less important role in intensifying learners’ perturbation towards reading (İ). Chinese university EFL learners were vocabulary-related. At the same time, complex linguistic structures were and Vibulphol (2021) spotted that two of the three key factors contributing to the arousal of higher anxiety in Chinese young EFL learners mainly from textual features, including unknown and unfamiliar words and Miao barrier to the understanding of reading materials (Saito et al. 1999). Plus, Liu, W. (2023) derived the FLRA of information on topics is another catalyst for reading anxiety (Subaşı, 2014). Cultural discrepancy also acts as a ş between learners and texts (İ)

3.2.2 Text-related Factors

About text-related factors, Kuru-Gönen (2009) enlisted 5 subcategories: (uninteresting or difficult) topics, unknown cultural content, unknown vocabulary, complex linguistic structures, and format of the text. As it pertains to topics as potential sources of reading anxiety, topic familiarity was incorporated for its interference between learners and texts (İşler & Yıldırım, 2022; Limeranto & Subekti, 2021). The dearth of background information on topics is another catalyst for reading anxiety (Subaşı, 2014). Cultural discrepancy also acts as a barrier to the understating of reading materials (Saito et al. 1999). Plus, Liu, W. (2023) derived the FLRA of Chinese young EFL learners mainly from textual features, including unknown and unfamiliar words and Miao and Vibulphol (2021) spotted that two of the three key factors contributing to the arousal of higher anxiety in Chinese university EFL learners were vocabulary-related. At the same time, complex linguistic structures were claimed to play a no less important role in intensifying learners’ perturbation towards reading (İşler & Yıldırım, 2022; Subaşı, 2014; Kuru-Gönen, 2009; Saito et al. 1999). Lastly, Kuru-Gönen (2009) deliberated on the format of the text: text length, the writing type that seemingly resonated with Subaşı’s (2014) “genre of the text”. Likewise, Pekrun et al. (2009) found that FLRA was significantly related to writing genres of reading materials, with students reporting higher levels of anxiety when reading academic texts compared to leisure texts. Figurative language is a latent source as well (İşler & Yıldırım, 2022), and the font of writing was, in some subjects’ words, expected to be “big enough”.

By the same token, a few researchers noticed the written forms of language but from orthographic representation or logogram and focused on the unfamiliarity of scripts, especially when learners’ L1 and L2 are non-cognate languages (Zhao et al., 2013; Saito et al. 1999). On another note, Oh (1992) researched L2 reading assessment methods with data from EFL university freshmen in Korea, revealing that the subjects’ exposure to reading anxiety levels differed with varied reading task types, as the students sensed higher anxiety facing cloze and think-aloud procedures than comprehension questions and recall tasks, due to learners’ unfamiliarity with and perception concerning the validity of the assessment methods, and the difficulty level of specific tasks.

3.2.3 Course-related Factors

Course-related factors encompass 4 perspectives: reading course, teacher-student dynamic, students’ mutual comparison, and exam (or evaluation). Firstly, in Kuru-Gönen’s (2009) research, most of the highly anxious Turkish EFL university learners agreed to include the unsuitable “course book” as a potential source. The inability to select the materials (Kuru-Gönen, 2009) and diminishing reading pleasure (İşler & Yıldırım, 2022), due to the courses’ compulsory nature, aggravated learners’ apprehension towards FL reading. Also, Saito and Samimy (1996) revealed an antithetical connection between instructional levels and FLA levels which might be attributed to a greater emphasis on reading and writing in higher courses. Secondly, many students reported that a negative classroom atmosphere, teachers’ passion deficit, and inappropriate relations between classmates or friends magnified the perturbation (Kuru-Gönen, 2009), while some subjects complained about the origins of uneasiness: competitive behaviors, such as self-comparison to others, teacher’s harsh manner in correction and clarification during learners’ answering session, and teaching procedures with tedious materials (Subaşı, 2014). What’s more, with exams a common measurement of learners’ progress, students confessed that the major concern whether passing or flunking, was one of the chief sources of anxiety (Kuru-Gönen, 2009; Subaşı, 2014).

4. Research Design

4.1 Participants

60 EFL learners, currently studying from 19 classes at 2 senior high schools in Suzhou, China, participated voluntarily in the study, with 53 from Senior 1, 3 from Senior 2, and 4 from Senior 3. All the participants were in the age range from 15 to 17 years old and accomplished one term session of English learning during which reading-related skills were focused on in the “Reading” part of all the five modules of one textbook and daily reading comprehension exercises were, meanwhile, assigned. As the majority of Chinese young English learners,
the subjects haven’t received formal English education until the third grade.

4.2 Instruments

The study employed the “explanatory sequential mixed method design” (Creswell & Plano Clark, 2018), according to which the quantitative data were gleaned first via a mixed-form questionnaire (see Appendix A), consisting of a 5-item background questionnaire, a 29-item FLRAS with 4 forced-choice items inserted at certain intervals and an item of willingness consultation for further interviews. Then, the qualitative data were garnered through semi-structured interviews for better command and exploration based on the former quantitative data.

The background questionnaire contained 5 items, to collect some basic information about the respondents for further contact, like name, school, grade, class, and age.

The applied 29-item FLRAS was developed by Lu & Liu, M. (2015) and derived from the original 20-item FLRAS devised by Saito et al. (1999) with certain deletions, for example, “I have to know so much about English history and culture in order to read English” and extensions, to fit the current context better. These items could be categorized into 4 dimensions: low interest, knowledge anxiety, reading difficulties, and low confidence. For the avoidance of ambiguity, the 29-item FLRAS is mentioned as FLRAS (adapted) in the following part.

The 4 evenly distributed and varying forced-choice items, such as “For this item, please choose ‘Strongly Agree (SA)’”, were inserted every 6 items in the FLRAS (adapted) to screen the unqualified and invalid data due to some insouciance in filling in the questionnaire. The combination of the 5-point FLRAS (adapted) and 4 forced-choice items formed the main body of the entire questionnaire, below which the options from “Strongly Disagree (SD)” to “Strongly Agree (SA)” were set for respondents to choose from. Direct and inverse value was assigned to the FLRAS (adapted) from SD to SA, and the question-specific scoring aligned with the intended interpretation of the construct.

At the end of the questionnaire, a consultation of willingness for a further interview was included to ensure that the following contact as a source of qualitative data is of the subjects’ own volition.

The semi-structured interviews followed a list of pre-determined questions based on the questionnaire results in terms of the 4 dimensions, and were in light of the related literature abovementioned, yet maintained flexibility in the probing of responses by asking follow-up questions in line with the actual interaction to grasp a deeper and detailed understanding of the interviewees’ experiences and opinions.

4.3 Data Collection

The entire questionnaire was translated into Chinese and double-checked by professionals proficient in both languages and then administered to the senior high EFL learners at 2 schools within a week after they finished their final exam via the online platform—Sojump, together with a brief introduction of this study in Chinese. The significance of authentic reflection of their mental state on the questionnaire was reiterated during this process. After the analysis of data from FLRAS (adapted), semi-structured interviews were conducted with some participants who were found to be exposed to comparatively high anxiety and granted consent to further interviews to figure out the possible sources of FLRA. A list of interview questions was prepared ahead, through several discussions and rehearsals to ensure the validity of the questions for the research purpose and the prevention of accidents during interviews. All the interviews were held online via Tencent Meeting individually and notification and consent of recording were sent at every commencement.

4.4 Data Analysis

The quantitative data were analyzed with the aid of SPSS 27. Reliability coefficients, and mean and standard deviation of responses to the FLRAS (adapted) were calculated to examine the internal consistency and reliability of the scale, delve into the respondents’ anxiety levels, as well as to screen the candidates for the following semi-structured interviews.

As for the qualitative data, the interviews were transcribed and then inspected with the constant comparison method (Barney, 1965), for which the researchers identified and coded the recurring themes from the participants’ sharing. Thereafter, the themes are classified into different categories, the properties and dimensions of which were then determined. During such processes, categories were continuously integrated and refined in line with their identified characteristics and variances, as more data were collected and analyzed.
5. Results

5.1 Results of Quantitative Data

5.1.1 Reliability Test of FLRAS (Adapted)

After conducting the reliability test on the 29-item FLRAS (adapted), the internal consistency or reliability was assessed with both the alpha and omega coefficients. The obtained Cronbach’s alpha coefficient was .922 (> 0.7, N=60), while the McDonald’s omega value was .924 (>0.7, N=60) (see Table 1). These values indicated a high level of internal consistency among the items of the scale, suggesting that the scale was reliable for measuring FLRA.

Table 1. Reliability coefficients of FLRAS (adapted)

<table>
<thead>
<tr>
<th>Types</th>
<th>Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cronbach’s alpha (α)</td>
<td>.922</td>
</tr>
<tr>
<td>McDonald’s omega (Ω)</td>
<td>.924</td>
</tr>
</tbody>
</table>

5.1.2 Profile of Chinese Senior High EFL Learners’ FLRA

As abovementioned, the FLRAS (adapted) was a 5-point, 29-item scale and the value assignment was question-specific. The default score distribution was as follows: Strongly Disagree (SD) 1 point, Disagree (D) 2, Neutral (N) 3, Agree (A) 4, and Strongly Agree (SA) 5 respectively, which technically defines the possible maximum overall score as 145 and the minimum 29. Items concerning self-confidence in English reading, such as “I read to know more about the world” complied with an inverse value assignment. Generally, the higher the individual mean score of all responses was, the more anxious respondents were when dealing with English reading while the mean score of all the responses revealed the central tendency. For a 5-point scale, the mid-point 3 was the central divide for anxiety exposure, below (3 included) which the respondents generally feel low (no/little) anxiety, as most of their responses were SD/D or SA/A. A score, higher than 3 yet no more than 4, manifested moderate anxiety while above 4 demonstrated high anxiety.

There were altogether 60 valid questionnaire responses after a deletion with references to the results of 4 forced-choice items and redundancy. As presented in Table 2, to investigate the profile of participants’ English reading anxiety, mean (M=2.57) and standard deviation (SD=1.08) were computed. The mean score, 2.57 was below 3, which showed that most of the participants were exposed to no/little anxiety while reading in English. The maximum individual mean score of responses was 3.38, an indicator of moderate anxiety, and the minimum score, 1.21, displayed no or little anxiety in English reading. Meanwhile, 21.67% of the participants experienced moderate English reading anxiety and 78.33% low reading anxiety in English.

Table 2. Analysis of FLRA (adapted): mean, standard deviation, and percentage distribution (N=60)

<table>
<thead>
<tr>
<th>Types</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean (M)</td>
<td>2.57</td>
</tr>
<tr>
<td>Standard Deviation (SD)</td>
<td>1.08</td>
</tr>
<tr>
<td>Maximum Mean</td>
<td>3.38</td>
</tr>
<tr>
<td>Minimum Mean</td>
<td>1.21</td>
</tr>
<tr>
<td>High Anxiety (%)</td>
<td>0</td>
</tr>
<tr>
<td>Moderate Anxiety (%)</td>
<td>21.67</td>
</tr>
<tr>
<td>Low Anxiety (%)</td>
<td>78.33</td>
</tr>
</tbody>
</table>

All the statistics in Table 1 were rounded up to 2 decimal places for quick estimation, clarity, and easy understanding.

Moreover, the participants were ranked in a descending sequence concerning their mean response scores. Participants in the top 1/3 fell into the potential candidates for further interviews.

5.2 Results of Qualitative Data

Based on the willingness for subsequent interviews, the researchers enlisted 4 participants for qualitative exploration of FLRA sources via semi-structured interviews: Subject A (Rank:4, M=3.24), Subject B (Rank 7, M=3.17), Subject C (Rank: 11, M=3.00), and Subject D (Rank: 16, M=2.93). Statistically, Subject A, B, and C
experienced moderate FLRA while Subject D underwent low FLRA. Even if 2.93 is below the mid-point, it, however, is only 0.07 away from 3 and there were a few cases where single scores exceeded 3, one such item as “I feel intimidated whenever I see a whole page of English in front of me”. Table 3 displays four categories of FLRA sources from interviews, below which is a detailed analysis of the transcriptions, and attention should be paid that different sources can be concluded from the same material with varied perspectives, one of which is presented as supporting evidence for specific subcategories.

Table 3. Foreign language reading anxiety sources

<table>
<thead>
<tr>
<th>Categories</th>
<th>Sources</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual Factors</td>
<td>Reading Interest</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Self-expectation</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Reading Strategy Use</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Background Knowledge</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Topic</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Task Type</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Text Length</td>
<td>2</td>
</tr>
<tr>
<td>Textual Factors</td>
<td>Tested Vocabulary</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Grammar</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Text Structure</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Rhetoric</td>
<td>1</td>
</tr>
<tr>
<td>Instructional Factors</td>
<td>Teaching Method</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Evaluation</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Teacher-student Dynamic</td>
<td>4</td>
</tr>
<tr>
<td>Situational Factors</td>
<td>Parental Anticipation</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Peer Pressure</td>
<td>4</td>
</tr>
</tbody>
</table>

5.2.1 Individual Factors

Four subsets: (1) reading interest, (2) self-expectation, (3) reading strategy use, and (4) background knowledge were revealed under individual factors.

The interview analysis indicated that learners’ lack of interest could lead to anxiety. The subject’s original interest dwindled when facing unfamiliar topics or words, accompanying confusion, hesitation, and depleting motivation and enthusiasm, as stated below.

“I am generally interested in English reading, but when I encounter unfamiliar topics or words, I become less interested. I do not know how to continue reading, resulting in hesitation and blank-mindedness, and I do not know which option to choose...” (Subject C)

Secondly, individuals’ high expectations fueled reading anxiety. One participant mentioned he or she would be frustrated with any unexpected lost mark as in the following sentences.

“I only allow one-point loss in English ‘Reading Comprehension’. If I make too many mistakes, it will easily hurt my self-confidence.” (Subject D)

In addition, according to the interviews, inappropriate use of reading strategies was one of the main causes of FLRA. Over-concentration on a select few challenging areas rather than employing a strategic approach of skipping or prioritizing certain tasks as well as habitual over-dependence on dictionaries hindered the reading process and aroused anxiety. The subsequent are the evidential experiences.

“Sometimes I encounter a new word that I can hardly infer its meaning from the context. I jitterily racked my brain to find the answer, taking up time that otherwise should be spared on other exercises.” (Subject A)

“I get used to consulting dictionaries when encountering new words in my homework. But during the exam, I can’t turn to it when reading and I was so nervous, suppressing my impulse, with the clock ticking and my heart breaking in helpless silence.” (Subject D)

Finally, background knowledge was also found to be closely related to reading anxiety. All four participants
reported that the situation turned harsh when dealing with either unknown language or cultural knowledge. In the shown case, the student was discouraged in front of the culture-loaded word—“bridge”, the imagery of which carries symbolic significance beyond its practical purpose, as bridges have been used as metaphors for “bond-establishing”, as in the phrase “bridge the gap”.

“Once, according to the reading material of the ‘Reading & Writing Integration’ task, two brothers quarreled with each other. Then, after a craftsman built a bridge between them one day, they were on good terms again. I didn’t get it at that time. So, it discouraged me from further writing, leaving me a deep impression even till today.” (Subject C)

5.2.2 Textual Factors

The interviewees claimed that when coping with reading, certain features of the texts stymied cognition and induced anxious feelings, including (1) topic, (2) task type, (3) text length, (4) tested vocabulary, (5) grammar, (6) text structure, and (7) rhetoric.

First of all, it was found that unfamiliar and unknown topics compounded comprehension, which aggravated reading anxiety. According to the participants, recurring unfamiliar terminologies about science and technology or obscure cultural and historical concepts normally constitute the themes of the texts, thwarting the overall understanding and triggering apprehension.

“On the subject matter of reading, it drives me crazy when I come across expository texts involving introductions of new technologies and a lot of names. I get frustrated easily with unfamiliar terms and the messy logical relationship between these names... Also, I am worried about comprehension if there are any cultural and historical concepts of the topic that I haven’t met before.” (Subject A)

Moreover, in the case of different task types, the level of induced anxiety varied. For the investigated learners, task types with more requirements of reasoning intensified perturbation like “Sentence Integration”, followed by “Cloze” and then “Reading Comprehension” as the least anxiety-provoking of the three. Noticeably, clear subtitles reduced dread. Additionally, higher-value assignments to task types brought greater self-dissatisfaction.

“My very nightmare is ‘Sentence Integration’ where I have to put the given seven statements into the five blanks in the passage. And it’s extremely nerve-wracking when there’s no given subtitle, which means more logical reasoning is needed... ‘Cloze’ comes next. It requires patience and if I misunderstand the context, I’ll make a lot of mistakes... ‘Reading Comprehension’ is the least demanding of the three, especially the first article and articles with clear subtitles.” (Subject D)

“‘Reading Comprehension’ is assigned with so many scores that if I make too many mistakes in that section, I will be given a shattering blow’ by myself.” (Subject A)

Text length played an important role in anxiety-provoking as well. Lengthy reading materials symbolized huge uncertainty which aggrieved readers.

“When I see a fairly long article, I don’t even want to continue reading. It’s so challenging with so great uncertainty waiting ahead.” (Subject B)

As for tested vocabulary, unknown words especially when inference can barely be drawn from contexts, and differentiation among words with similar yet nuanced meanings dread the readers.

“With the interference of new words, I can easily forget the topic after reading and I don’t even know where to find the answer. It brings a lot of unease.” (Subject A)

“I think the main problems of text comprehension are about words. Sometimes, words cannot be deduced according to the context, which makes me restless.” (Subject D)

“As for ‘Cloze’, there are too many blanks to fill, and then sometimes certain choices have similar meanings to be discerned and differentiated, which I can do nothing but agonize over.” (Subject C)

Alongside, most respondents’ perturbation stemmed from complex grammatical structures, such as word omissions and clauses.

“When reading, it tortures me when I encounter some words omitted from a sentence, keeping me away from understanding.” (Subject B)

“I feel that the correct answers could be directly elicited from texts in junior high and sentences were simple in grammar while reading texts in senior high are beset with complex syntactic structures. For example, long sentences with a bunch of clauses attached are a big headache for me.” (Subject D)
Similarly, such complex text structures as the flashback, which disrupted the readers’ reading fluency, to some extent, tormented the readers. “Some reading materials are not narrated in completely natural chronological order, for example, with a sudden flashback in the second paragraph. In that case, I don’t know when the event in the text happened, which makes me feel nervous and anxious.” (Subject B)

Lastly, unawareness of rhetorical devices, like the flashback, blocked the participants from overall comprehension and aggravated apprehension. “Sometimes I come across articles with humorous style. It worries me as it’s hard to understand the overall meaning of the article as long as I can’t get it.” (Subject B)

5.2.3 Instructional Factors

Instructional sources of FLRA were divided into two aspects: (1) teaching methods, and (2) evaluation.

Teachers’ teaching methods in the feedback section may have an important impact on students’ FLRA. The interviewed students reported that the teachers’ “whole-class corrective feedback” style, a prevalent teaching approach in China, where the teacher identifies common mistakes or misconceptions among the students and addresses them collectively, providing explicit feedback and clarification to the entire class, engendered tension and isolation.

“When offering feedback on reading exercises, the teacher always focuses on common errors of the class. And if my mistake is not the common type, I’ll get so nervous and feel marginalized from the class.” (Subject B)

Furthermore, the exam is a typical measure of personal progress. However, the open display of personal achievement, a not uncommon phenomenon in Chinese schools, brought a lasting detriment to self-assessment and confidence. Also, the time-limited features of exams can be one of the sources of anxiety.

“Usually, the teacher announces the rankings of our grades after tests or exams. If my performance is not very good, I will be so depressed and humiliated. For me, the next time I do English reading, I will have a certain sense of fear and worry about the performance.” (Subject C)

“I feel better when doing reading homework than at exams, as the limited time of exam wears me out. Once I didn’t finish within the limit, I got so sad and I’m afraid history will repeat itself...” (Subject A)

5.2.4 Situational Factors

(1) Teacher-student dynamic, (2) parental anticipation and (3) peer pressure constituted situational factors of FLRA sources.

In the teacher-student dynamic, certain expectations from the teachers can serve as a motivator for students to strive for excellence. However, in the words of the interviewee, overly high expectations from teachers and parents exacerbated anxiety and pressure.

“My parents and teacher have certain expectations of my English performance. In addition, I am always praised by my English teacher in front of the whole class. If I fail the exam, it will be much too humiliating. And if the score is very low, I’ll be under great pressure.” (Subject D)

For some of the participants, peer pressure drove them into anxious self-doubting.

“After finishing my reading, I tend to compare my answers with my classmates. If I find that mine is different than that of the majority, most time, I will be baffled about whether to change it. It seems that my answer is right, but I am not sure. I am very anxious then and sometimes feel stuck in self-doubting.” (Subject D)

6. Discussion

6.1 Profile of Chinese Senior High EFL Learners’ FLRA

Analysis with statistics gleaned from the FLRAS (adapted) indicated that more than half the subjects (78.33%) experienced little FLRA (M=2.57), which was consistent with one of the results of the study presented by Lu and Liu, M. (2015) on 1072 EFL freshmen and sophomores from 5 universities in China with the FLRAS (adapted) (M=2.52). A different outcome was produced by Liu, M., and Dong (2022) with data from 71 freshmen from a university in Beijing as a general moderate level of FLRA in three stages (M1=2.99, M2=3.15, M3=2.87). Similarly, Miao and Vibulphol (2021) researched 459 EFL students (non-English majors) from four different Chinese universities with the EFLRAI (Zoghi, 2012) and discovered a medium-level FLRA in the investigated (M=2.78), resonant with the finding (medium level: approximately 81%) of a study by Liu, W. (2023) on 137 Chinese young (under 12) EFL learners with an adapted 20-item FLRAS from Saito et al. (1999). The
differences in results from above can be attributed to the varied educational backgrounds of the subjects, sample size and scope, scales of measurement, and hierarchical categorization of ultimate results.

6.2 FLRA Sources

The possible sources of FLRA generalized from the interview transcriptions testified to what has been mentioned in the literature review. (Self-expectations & Parental Anticipation: Kuru-Gönen, 2009; Reading Strategy Use: İşler & Yıldırım, 2022; Li, R., 2021; Limeranto & Subekti, 2021; Lu & Liu, M., 2015; Lu & Liu, M., 2011; Background Knowledge: Saito et al., 1999; Joo and Damron, 2015, etc.; Task Type: Oh, 1992; Text Length: Kuru-Gönen, 2009; Tested Vocabulary: Liu, W., 2023; Miao & Vibulphol, 2021; Grammar: İşler & Yıldırım, 2022; Subaşı, 2014, etc.; Teaching Method & Teacher-student Dynamic: Kuru-Gönen, 2009; Subaşı, 2014; Evaluation: Kuru-Gönen, 2009; Subaşı, 2014; Peer Pressure: Kuru-Gönen, 2009)

However, text structure and rhetorical devices have rarely been identified as potential FLRA sources in previous studies. For the former, the flashback, a common literary device, with the function of purveying background information, revealing character motivations, or creating suspense, disrupts the original text structure and when readers pay no attention to the sudden change in the chronological order, it may yield a more detrimental outcome than beneficial effects. The latter one, rhetoric, is the art of using language effectively and persuasively, within which humor can be a powerful implement to engage audiences, make messages more memorable, or create favorable impressions. Originally used to make a point, defuse tension, or establish rapport with the audience, however, humor can act like a burden in English exercises or textbooks. Moreover, contrary to what Fazio et al. (2020) have tested, the researchers of the study noticed that all 4 participants in the interviews denied that a lack of phonological awareness stymied their reading process when they could adopt an expedient “imagined” one, with unfamiliar vocabulary their major concern, in line with the findings of Liu, W. (2023) and Miao and Vibulphol (2021).

7. Suggestions and Limitations

With the potential sources deliberated, language educators can, accordingly, devise enhanced strategies to tackle the debilitating side of learners’ FLRA as a certain amount of Chinese EFL senior high learners underwent a moderate level of FLRA. Firstly, instructors should take the rarely identified FLRA causes in previous studies--text structure and rhetorical devices into consideration when imparting reading skills. Secondly, for Chinese EFL senior high learners, the priority of reading instruction should be given to vocabulary rather than knowledge concerning phonics. Furthermore, teachers can implement anxiety-relieving interventions for example, the “flipped classroom model” which was certified as efficient by Gök et al. (2021).

Despite the study being one of the few studies that tapped into FLRA, a comparatively less-researched skill-specific FLA, and the under-explored group, young Chinese EFL learners, several limitations existed, the major of which was a small sample size. 60 is more than what the common belief prescribes—30, which is allegedly enough to make reasonable statistical inferences but the sample size has to be proven as sufficient in the detection of meaningful effects and reduction of the risk of drawing false conclusions through scientific tools like G*Power. Additionally, to explore a more representative landscape of FLRA in the target group, the sample scope should be broadened with equal distribution. Furthermore, validity testing such as Confirmatory Factor Analysis (CFA) or Exploratory Factor Analysis (EFA) should be run to further ensure the reliability of FLRA (adapted) and its accurate reflection of the respondents’ FLRA. Lastly, the research design fails to account for the potential influence of background variables such as gender, age, and language proficiency on anxiety levels.

For further studies, more representative research on the general FLRA profile of Chinese young ELF learners is welcomed. Meanwhile, the relevance of several sources with FLRA should be statistically examined and compared. Also, the relationship between background variables and FLRA among Chinese senior high EFL learners is worth further revelation. Moreover, researchers can explore the universality of certain sources and discern the language-specific nature of others.

8. Conclusion

The study investigated the general profile of the Chinese EFL senior high learners’ FLRA and then explored potential FLRA sources. The major conclusions are as follows.

(1) More than half the learners (78.33%) were generally exposed to little FLRA (M=2.57).

(2) Possible FLRA sources could be divided into 4 main categories, with overall 16 subsets: (a) individual factors (reading interest, self-expectation, reading strategy use, background knowledge); (b) textual factors (topic, task type, text length, tested vocabulary, grammar, text structure, rhetoric); (c) instructional factors (teaching method, evaluation); (d) situational factors (teacher-student dynamic, parental anticipation, peer pressure).
Even with limited sample size and scope, lack of further validation testing, and neglect of examination on background variables, the study offered suggestions for language educators on strategy enhancement to address FLRA among Chinese EFL senior high learners by considering the influence of text structure and rhetorical devices on FLRA and prioritizing vocabulary instruction, or with anxiety-reducing interventions, such as the “flipped classroom model”. Moreover, the thesis highlighted the need for further investigation of the more representative FLRA profile of Chinese young EFL learners, statistical examination of the relevance of various sources to FLRA, investigation of the relationship between background variables and FLRA among Chinese senior high EFL learners, and exploration of the universality and language-specific nature of different FLRA sources.

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References


**Appendix A**

**The Mixed-form Questionnaire**

<table>
<thead>
<tr>
<th>Items</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>I. Background Questionnaire</strong></td>
<td></td>
</tr>
<tr>
<td>Name:</td>
<td></td>
</tr>
<tr>
<td>School (e.g. XXX High School):</td>
<td></td>
</tr>
<tr>
<td>Grade (e.g. Senior 1):</td>
<td></td>
</tr>
<tr>
<td>Class (e.g. Class 1):</td>
<td></td>
</tr>
<tr>
<td>Age:</td>
<td></td>
</tr>
<tr>
<td><strong>II. FLRAS (Adapted)</strong></td>
<td>SD D N A SA</td>
</tr>
<tr>
<td>1. <em>I am usually at ease reading in English.</em></td>
<td>SD D N A SA</td>
</tr>
<tr>
<td>2. <em>I have a difficult time understanding what I have read in English.</em></td>
<td>SD D N A SA</td>
</tr>
<tr>
<td>3. <em>A person can explore the world just by reading.</em></td>
<td>SD D N A SA</td>
</tr>
<tr>
<td>4. I need help in reading in English.</td>
<td>SD D N A SA</td>
</tr>
<tr>
<td>5. I start to panic when I am asked to read a text aloud in my English class.</td>
<td>SD D N A SA</td>
</tr>
<tr>
<td>6. No matter how hard I try, I just can't read well in English.</td>
<td>SD D N A SA</td>
</tr>
<tr>
<td>7. <em>For this item, please choose SA.</em></td>
<td>SD D N A SA</td>
</tr>
<tr>
<td>8. I get frustrated when I read in English.</td>
<td>SD D N A SA</td>
</tr>
<tr>
<td>9. When I read in English, I understand the words; I just can't put them</td>
<td>SD D N A SA</td>
</tr>
</tbody>
</table>
together to get meaning.

10. Looking at books in English makes me upset and/or nervous. SD D N A SA
11. I can read English, but I don't feel like it. SD D N A SA
12. I start to panic when I have to read silently in class. SD D N A SA
13. Learning new words can be the most difficult part of reading in English. SD D N A SA
14. *For this item, please choose SD. SD D N A SA
15. ‘I enjoy reading in English even though I may not understand everything I read. SD D N A SA
16. I quickly forget what I have read even if I have just read it. SD D N A SA
17. ‘I read to know more about the world. SD D N A SA
18. I don't know enough English to read well. SD D N A SA
19. I do not enjoy reading in any language, English or Chinese. SD D N A SA
20. ‘I don't need help in reading English. SD D N A SA
21. *For this item, please choose SA. SD D N A SA
22. I get upset when I'm not sure whether I understand what I am reading in English. SD D N A SA
23. I feel intimidated whenever I see a whole page of English in front of me. SD D N A SA
24. I am nervous when I am reading a passage in English when I am not familiar with the topic. SD D N A SA
25. I get upset whenever I encounter unknown grammar when reading English. SD D N A SA
26. When reading in English, I get nervous and confused when I don't understand every word. SD D N A SA
27. It bothers me to encounter words I can't pronounce while reading English. SD D N A SA
28. *For this item, please choose SD. SD D N A SA
29. I usually end up translating word by word when I'm reading English. SD D N A SA
30. I am worried about all the new symbols I have to learn in order to read English. SD D N A SA
31. ‘Once you get used to it, reading English is not so difficult. SD D N A SA
32. The hardest part of learning English is learning to read. SD D N A SA
33. I would be happy just to learn to speak English rather than having to learn to read as well.

III. Willingness Consultation for Further Interviews

Would you like to participate in the follow-up online interview? Yes No

Note: (1) SD= Strongly Disagree, D=Disagree, N=Neutral, A=Agreement, SA=Strongly Agreement. (2) Items marked with an asterisk (*) beside their serial numbers follow the inverse value assignment. (3) Items with a hashtag (#) are forced-choice statements.

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