Language Classroom Anxiety: Reading Anxiety and Reading Performance of Japanese EFL Learners

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Introduction
In the foreign language classroom, many learners experience anxiety which might prevent them from success in acquiring foreign languages. Anxiety is an affective factor where learners feel worried, nervous, and stressed when they learn a second language. Therefore, anxiety is often regarded as a negative factor and could interfere with students' learning processes and reading comprehension processes. This study focuses on foreign language classroom anxiety, foreign language reading anxiety, and reading comprehension performance of Japanese university-level EFL learners.

Literature review
Foreign Language Classroom Anxiety
Many researchers have studied the effects of anxiety on foreign language learning, especially classroom anxiety. Horwitz, Horwitz, and Cope (1986) designed the Foreign Language Classroom Anxiety Scale (FLCAS), which is reported to reflect and measure communication apprehension, test-anxiety, and fear of negative evaluation. Horwitz et al. (1986) found that many students had experienced concern with tasks in foreign language classes, and argued that foreign language classroom anxiety was "a distinct complex of self-perceptions, beliefs, feelings, and behaviors related to classroom language learning arising from the uniqueness of the language learning process" (p.128). Classroom anxiety is therefore one of the most important affective factors and could negatively impact learners’ speaking and communication performance.

Brown (2000) has suggested that there are two types of anxiety. One is trait anxiety. Trait anxiety is anxiety felt at a global level. The other is state anxiety, which is
anxiety experienced in particular settings. Brown also suggests that it is important to
determine whether learners’ anxiety arises from trait or state anxiety. MacIntyre and
Gardner (1994) have suggested that foreign language classroom anxiety influences
language learning in three stages: input anxiety when taking in information, processing
anxiety when learning and thinking, and output anxiety when speaking or writing in a
second or foreign language.

According to MacIntyre (1995), although anxiety is often seen as negative,
experiencing some anxiety could improve learners’ target language performance (see
Figure 1). However, he also argues that the extra effort might make anxiety a negative
influence. Similarly, Lightbown and Spada (2013) also suggested that anxiety is not
always bad, and some anxiety or tension could have a positive effect on learners and lead
to success in acquiring second languages.

![Figure 1. Model of the relationship between anxiety and performance (MacIntyre, 1995, Figure 1, p.92)](image)

It has been demonstrated that most students had often experienced foreign
language classroom anxiety. Lee (2011) investigated the relationships between
communication anxiety, test anxiety, and fear of negative evaluation among 225 EFL
freshmen in Taiwan, and found that most participants felt test and communication
anxieties. Tóth (2011) interviewed the five students who were regarded as the most
anxious of 117 EFL freshmen, and found that the five had felt high levels of anxiety in English classrooms. From the results of Lee and Tóth's studies, students experiencing high levels of anxiety might have difficulty in improving target language performance. Mahmood and Iqbal (2010) further showed that learners with high language classroom anxiety got lower scores for foreign language academic achievement than those who had average language classroom anxiety.

**Foreign Language Reading Anxiety**

Over the last two decades, a number of researchers have investigated the relationship between classroom anxiety and reading anxiety. However, while foreign language reading anxiety is related to classroom anxiety, it is also distinguishable from classroom anxiety (Saito, Horwitz, and Garza, 1999). In order to reveal reading anxiety as a specific phenomenon, Saito, et al. developed the Foreign Language Reading Anxiety Scale (FLRAS) and showed that there was a relationship between foreign language classroom anxiety and reading anxiety. Kuru-Gonen (2009) also found that the FLCAS and FLRAS were correlated. In other words, learners with high levels of language classroom anxiety are also likely to have high reading anxiety. Zhao (2008) further found a statistically significant negative correlation between reading anxiety and reading performance, indicating that learners with lower reading anxiety tended to get higher reading comprehension scores.

Al-Shboul, Ahmad, Nordin, and Rahman (2013) investigated textual features and personal factors that might underlie reading anxiety in EFL (see Figure 2). The textual features were unknown vocabulary, unfamiliar topics and unfamiliar cultural content. The personal factors were fear of making errors and anxiety about reading effects. The results of the study indicated that the biggest factors in reading anxiety were unknown vocabulary and fear of making errors.
Figure 2. Model which shows the underlying factors of reading anxiety in English (Al-Shboul, Ahmad, Nordin, and Rahman, 2013, Figure 2, p. 51)

Studies on Reading Anxiety and Reading Performance in Second Language

While the relationship between language classroom anxiety and learner achievement has been researched for many years, research into the relationship between reading anxiety and reading performance is fairly recent. Two papers which have focused on the relationships between reading anxiety, classroom anxiety and reading performance and used the FLCAS and FLRAS are Zhao, Dynia, and Guo (2013) and Wu (2011).

Zhao, et al. (2013), examined the relationship between reading anxiety among learners of Chinese as a foreign language and reading performance. This study also focused on the learners’ backgrounds such as course level and gender, and the main sources of anxiety for learners in the classroom. Their participants were in three classes:
Elementary Level 1 for beginners, Elementary Level 2, and Intermediate Level. Zhao, et al. found a statistically significant negative correlation between reading anxiety and reading performance among participants in the Elementary Level 1 and Intermediate Level classes. In the Elementary Level 2 class, however, there was no significant relationship. As possible explanations for the lack of a statistically significant correlation at Elementary Level 2, different class teachers and a difference in the quality and degree of difficulty of the reading tests at Elementary Level 2 are considered.

In short, Zhao, et al. (2013) showed that learners with low reading anxiety levels and those who easily get high levels of reading anxiety can both get high scores on reading tests in a second language, so reading proficiency might not be necessarily be related to reading anxiety levels. However, as noted, this study had a weak point in that different tests were used in each class, and the quality of those tests is unknown.

Wu (2011) examined whether language classroom anxiety and reading anxiety influenced Taiwanese students’ reading performance or not. The participants were 91 freshmen studying EFL at a private university. Wu used a multiple-choice reading comprehension test (RCT) originally made by Hsu (2004, cited in Wu, 2011). Wu found that the correlation between language classroom anxiety and reading anxiety was significant. There was, however, no statistically significant relationship between the students’ reading performance and language classroom anxiety or reading anxiety. In spite of this, she claimed that her data indicated that the average reading test scores of students with low classroom anxiety and reading anxiety obtained higher reading comprehension scores than learners with medium or high anxiety. The reliability of the multiple-choice reading comprehension test was not reported.

Both of the above researchers have shown significant correlations between the FLCAS and FLRAS, which strongly suggest that foreign language classroom anxiety is related to reading anxiety.

**The purpose of this study**

The present study is a partial replication of Wu (2011) and aims to investigate the relationships between reading comprehension, foreign language classroom anxiety and reading anxiety with Japanese learners of English as a foreign language. The research
questions were:

1. Is there a relationship between EFL learners’ degree of language classroom anxiety and degree of reading anxiety?
2. Is there a relationship between degree of reading anxiety and reading comprehension?
3. Is there a relationship between language classroom anxiety and reading comprehension?
4. What factors make up the Foreign Language Classroom Anxiety Scale (FLCAS) and Foreign Language Reading Anxiety Scale (FLRAS)?

Subjects and Methods
Participants

The participants in this study were 94 freshmen students in intact classes taking the required Reading 1 course at Tokyo Woman’s Christian University in Tokyo, Japan. One class consisted of 24 learners in the Division of Mathematical Sciences, two consisted of learners in the Division of Human Sciences (44 learners altogether) and the fourth consisted of 24 learners in the Division of Global Social Sciences. The Mathematical Sciences learners were in the top proficiency stream, while the others were of slightly lower ability. The same Japanese teacher taught EFL reading to all four classes and they used the same textbook. Altogether, complete data was collected from 86 of the participants.

Instruments

Two questionnaires and a reading comprehension test were used in this study. One questionnaire was the Japanese version of the FLCAS (Horwitz, et al., 1986), translated by Yashima, Noels, Shizuka, Takeuchi, Yamane, and Yoshizawa (2009). The only change made was to substitute the term foreign language in the original with English as all the participants were studying English. The questionnaire consists of 33 statements and 5-point Likert scale levels of agreement, ranging from strongly agree (5 points) to strongly disagree (1 point). The minimum total score on the instrument is therefore 33 and the maximum 165.
The other questionnaire was the Japanese version of the Foreign Language Reading Anxiety Scale (FLRAS) designed by Saïto, et al. (1999) and translated into Japanese by Igarashi (2003). This questionnaire consists of 20 statements and 5-point Likert scale levels of agreement, ranging from strongly agree (5 points) to strongly disagree (1 point). The minimum and maximum scores on this instrument were 20 and 100, respectively.

The final instrument was the reading comprehension test which Wu (2011) used in her research. It consisted of two reading passages and 20 multiple-choice questions. Participants spent 20 minutes taking the reading test.

Procedure

The data was collected at the beginning of a regular reading class. The participants first took the reading test, and then the FLCAS and FLRAS. The total time taken was about 30 minutes.

Data analysis

The data were analysed using R (R Core Team, 2015). Specifically, correlations between the FLCAS, FLRAS, and the reading comprehension test were found. Principal Components Analyses of the FLCAS and FLRAS with oblimin rotation were also carried out to investigate their structure. Because the number of participants was low for this kind of analysis, to ensure stable factors, a higher than conventional component loading of .55 or over was used to decide if an item loaded on to a component (Stevens, 2002).

Results

Table 1 shows the mean scores, standard deviations, medians, minimums, and maximums of the three instruments. The mean score for classroom anxiety (FLCAS) was 3.37, and the mean item score for reading anxiety (FLRAS) was 2.99, on a scale ranging from one to five. The reliability (Cronbach’s alpha) of the FLCAS was 0.91 and the FLRAS 0.83, which indicates that both scales are reliable. As for the RCT, the mean score was 0.79 (79%). However, the reliability (Cronbach’s alpha) of the reading
comprehension test was low, 0.45.

Table 1: Descriptive statistics for the FLCAS, FLRAS, and RCT

<table>
<thead>
<tr>
<th>Section</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Median</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language anxiety (FLCAS)</td>
<td>86</td>
<td>3.37</td>
<td>0.60</td>
<td>3.29</td>
<td>2.03</td>
<td>4.52</td>
</tr>
<tr>
<td>Reading anxiety (FLRAS)</td>
<td>86</td>
<td>2.99</td>
<td>0.61</td>
<td>3.02</td>
<td>1.60</td>
<td>4.10</td>
</tr>
<tr>
<td>Reading comprehension test (RCT)</td>
<td>86</td>
<td>0.79</td>
<td>0.11</td>
<td>0.80</td>
<td>0.50</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Table 2 shows the correlations between the reading comprehension test, foreign language classroom anxiety and reading anxiety. The correlation between language classroom anxiety and reading anxiety is 0.626 ($p = 0.000$), which indicates a strong, positive relationship. In other words, learners with high language classroom anxiety scores tend to have high reading anxiety scores. In Wu (2011), the correlation between language and reading anxieties was 0.68, which is similar to the present study. The relationships between the reading comprehension test and the two anxiety questionnaires were negative but not statistically significant. The correlation between language classroom anxiety and reading comprehension was -0.148 ($p = 0.175$), and that between reading anxiety and reading comprehension -0.193 ($p = 0.070$).

Table 2: Correlations and Significance for Reading Comprehension Test (RCT) and the Anxiety Questionnaires (FLCAS and FLRAS)

<table>
<thead>
<tr>
<th></th>
<th>RCT</th>
<th>FLCAS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FLCAS ($r$)</strong></td>
<td>-0.148</td>
<td>0.626</td>
</tr>
<tr>
<td><strong>p-value</strong></td>
<td>0.175</td>
<td>0.000</td>
</tr>
<tr>
<td><strong>FLRAS ($r$)</strong></td>
<td>-0.193</td>
<td>0.070</td>
</tr>
<tr>
<td><strong>p-value</strong></td>
<td>0.000</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Table 3 shows the results of the principal components analysis of the FLCAS. There were three components. Seven items loaded on to Component 1, which accounted for 18% of the total variance. Items 4 (It frightens me when I don’t understand what the teacher is saying in the foreign language), 15 (I get upset when I don’t understand what the teacher is correcting), and 29 (I get nervous when I don’t understand every word the language teacher says) show the degree to which teachers make learners anxious.
Table 3: Principle Component Analysis of the FLCAS (Items loadings: ≥ .55)

<table>
<thead>
<tr>
<th>Items</th>
<th>Component 1</th>
<th>Component 2</th>
<th>Component 3</th>
<th>Communality</th>
</tr>
</thead>
<tbody>
<tr>
<td>15) I get upset when I don’t understand what the teacher is correcting.</td>
<td>0.77</td>
<td></td>
<td></td>
<td>0.57</td>
</tr>
<tr>
<td>25) Language class moves so quickly I worry about getting left behind.</td>
<td>0.76</td>
<td></td>
<td></td>
<td>0.60</td>
</tr>
<tr>
<td>29) I get nervous when I don’t understand every word the language teacher says.</td>
<td>0.72</td>
<td></td>
<td></td>
<td>0.53</td>
</tr>
<tr>
<td>04) It frightens me when I don’t understand what the teacher is saying in the foreign language.</td>
<td>0.71</td>
<td></td>
<td></td>
<td>0.53</td>
</tr>
<tr>
<td>22) I don’t feel pressure to prepare very well for language class.</td>
<td>-0.68</td>
<td></td>
<td></td>
<td>0.43</td>
</tr>
<tr>
<td>16) Even if I am well prepared for language class, I feel anxious about it.</td>
<td>0.65</td>
<td></td>
<td></td>
<td>0.62</td>
</tr>
<tr>
<td>21) The more I study for a language test, the more confused I get.</td>
<td>0.63</td>
<td></td>
<td></td>
<td>0.49</td>
</tr>
<tr>
<td>18) I feel confident when I speak in foreign language class.</td>
<td>0.85</td>
<td></td>
<td></td>
<td>0.68</td>
</tr>
<tr>
<td>01) I never feel quite sure of myself when I am speaking in my foreign language class.</td>
<td>-0.78</td>
<td></td>
<td></td>
<td>0.68</td>
</tr>
<tr>
<td>32) I would probably feel comfortable around native speakers of the foreign language.</td>
<td>0.68</td>
<td></td>
<td></td>
<td>0.52</td>
</tr>
<tr>
<td>14) I would not be nervous speaking the foreign language with native speakers.</td>
<td>0.67</td>
<td></td>
<td></td>
<td>0.41</td>
</tr>
<tr>
<td>13) It embarrasses me to volunteer answers in my language class.</td>
<td>-0.62</td>
<td></td>
<td></td>
<td>0.59</td>
</tr>
<tr>
<td>27) I get nervous and confused when I am speaking in my language class.</td>
<td>-0.55</td>
<td></td>
<td></td>
<td>0.60</td>
</tr>
<tr>
<td>31) I am afraid that the other students will laugh at me when I speak the foreign language.</td>
<td>0.56</td>
<td></td>
<td></td>
<td>0.37</td>
</tr>
<tr>
<td>12) In language class, I can get so nervous I forget things I know.</td>
<td>0.55</td>
<td></td>
<td></td>
<td>0.44</td>
</tr>
</tbody>
</table>

Eigenvalue 5.92 4.50 2.38
Proportion variance (%) 18 14 7
Cumulative variance (%) 18 32 39
Students’ anxiety about participation and preparation are reflected in Items 16 (Even if I am well prepared for language class, I feel anxious about it), 22 [negative loading] (I don’t feel pressure to prepare very well for language class), and 25 (Language class moves so quickly I worry about getting left behind). Item 21 (“The more I study for a language test, the more confused I get”) reflects learners’ anxiety about language tests. The highest loading for this component were Items 15 and 25. Component 1 reflected anxiety about tasks that learners often do in English classes. It was labeled *Fear or worry about English classes or English tests*.

Component 2 consisted of six items and accounted for 14 % of the variance. It appeared to reflect confidence in speaking with native speakers: Items 14 (I would not be nervous speaking the foreign language with native speakers) and 32 (I would probably feel comfortable around native speakers of the foreign language). In addition, Items 1 [negative loading] (I never feel quite sure of myself when I am speaking in my foreign language class), 13 [negative loading] (It embarrasses me to volunteer answers in my language class), 18 (I feel confident when I speak in foreign language class), and 27 [negative loading] (I get nervous and confused when I am speaking in my language class) reflect a lack of tension about speaking in language classes. The item with the highest loading on component 2 was Item 18. The name given to Component 2 was *Positive feelings about speaking English*.

Component 3 accounted for 7 % of the variance. It consisted of two items. Items 31 (I am afraid that the other students will laugh at me when I speak the foreign language) and 12 (In language class, I can get so nervous I forget things I know) reflect negative feelings about performance in foreign language classes. Thus, this component was named *Negative feeling about foreign language classes*.

Table 4 shows the results of the principal component analysis of the FLRAS. In this analysis, only two components were found. Three items loaded on to Component 1, which accounted for 17% of the variance. Items 12 (I enjoy reading English), 13 (I feel confident when I am reading in English), and 14 (Once I get used to it, reading English is not so difficult) were concerned with learners’ confidence and enjoyment while reading. This component was labeled *Confidence and enjoyment of reading English*.

Component 2, which accounted for 16% of the total variance, included Items 3
Table 4: Principal Components Analysis of the FLRAS (Items loadings: \( \geq .55 \))

<table>
<thead>
<tr>
<th>Items</th>
<th>Component 1</th>
<th>Component 2</th>
<th>Communality</th>
</tr>
</thead>
<tbody>
<tr>
<td>13) I feel confident when I am reading in English.</td>
<td>0.86</td>
<td>0.68</td>
<td></td>
</tr>
<tr>
<td>14) Once I get used to it, reading English is not so difficult.</td>
<td>0.77</td>
<td>0.60</td>
<td></td>
</tr>
<tr>
<td>12) I enjoy reading English.</td>
<td>0.67</td>
<td>0.58</td>
<td></td>
</tr>
<tr>
<td>10) By the time I get past the funny letters and symbols in English, it's hard to remember what you're reading about.</td>
<td>0.91</td>
<td>0.73</td>
<td></td>
</tr>
<tr>
<td>3) When I'm reading English, I get so confused I can't remember what I am reading.</td>
<td>0.65</td>
<td>0.52</td>
<td></td>
</tr>
</tbody>
</table>

Eigenvalue

<table>
<thead>
<tr>
<th>Proportion Variance (%)</th>
<th>Cumulative Variance (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>16</td>
</tr>
<tr>
<td>32</td>
<td></td>
</tr>
</tbody>
</table>

(When I'm reading English, I get so confused I can't remember what I am reading) and 10 (By the time I get past the funny letters and symbols in English, it's hard to remember what you're reading about). These items reflect learners’ inability to remember what they have read. This component was named Fear of not remembering reading content.

Discussion

The first research question was about the relationship between foreign language classroom anxiety and reading anxiety of EFL learners, and the results indicate that that the two are quite strongly and positively correlated. The results also suggest that foreign language classroom anxiety may be somewhat more common than reading anxiety.

The second and third research questions asked about the relationships between the two anxiety variables and reading comprehension. The results indicate that that there is, as expected, a negative correlation between the two anxiety measures and reading comprehension but neither of these reached statistical significance. One explanation for this might be the poor quality of the items on the reading comprehension test, which is
reflected in the low reliability of the instrument. In addition, a close look at the test items shows that, apart from Items 1, 2, 3, and 4, the items appear to test vocabulary and not understanding of the content of the reading passages. Wu (2011) asked two English teachers to check the test and they said that it was based on what was taught in classes, which clearly included a lot of vocabulary instruction. In other words, the reading comprehension test used is not really a measure of reading comprehension.

A principal components analysis of the FLCAS produced three components which offer insight into EFL learners’ classroom anxiety. Component 1, which was labeled Fear or worry about English or English tests, captured the worry toward teachers, classes, and tests in an English class. This factor overlapped with Factor 3 Anxiety about not understanding everything taught in class in Yashima, et al. (2009), with both including Items 4, 15, 22, and 29. There was also overlap with one of the four factors, Anxiety about foreign language learning processes and situations, found by Pérez-Paredes and Martínez-Sánchez (2000–2001).

Component 2 reflected confidence in speaking in foreign language classes and overlapped with another of the factors (Lack of confidence in speaking English in class) found in Yashima, et al. (2009). However, Item 11 (I don’t understand why some people get so upset over foreign language classes) did not load onto this component in the present study. Component 3 was named Negative feelings about foreign language classes, and included negative attitudes in classrooms. Item 6 (During language class, I find myself thinking about things that have nothing to do with the course) did not load onto Component 3, perhaps because it is not relevant to foreign language classroom anxiety.

Saito, et al. (1999) argued that the reliability of the FLRAS was good and Cronbach’s alpha was 0.86. However, Miyanaga (2005) and Matsuda, et al. (2001) claimed that Items 10 (By the time I get past the funny letters and symbols in English, it’s hard to remember what you’re reading about) and 11 (I am worried about all the new symbols I have to learn in order to read in English) were not related to the FLRAS because the participants were university freshmen in Japan and had been learning English for over six years, so the letters or symbols in the English alphabet would be well-known to them. The same is true for the participants in the present study. Further, Item 19 might also not be related to reading anxiety because it refers to culture and
ideas, which are not directly related to reading anxiety.

A principal components analysis of the FLRAS found two components. Component 1 was related to confidence in reading English. Component 2 captured the learners' fear of not remembering the content of a reading passage. Matsuda and Gobel (2001) found three factors in the reading anxiety questionnaire. The items in their Factor 2, which was labeled *Reading confidence and enjoyment*, overlapped with Component 1 in the present study. Items 12, 13, and 14. However, in the present study, this component did not include Items 3 and 18. Miyanaga (2005) tried to improve FLRAS by removing Items 10 and 11, and obtained a similar factor (Factor 2) to Component 1 that consisted of Items 12, 13, 14, and 20, and which was labeled *Lack of confidence and enjoyment*.

**Conclusions**

The present study confirmed the strong relationship between language classroom anxiety and reading anxiety in Japanese EFL learners and the acceptably high reliability of both the FLCAS and FLRAS. However, it found no significant relationships between either of them and reading comprehension, most probably due to the low reliability and lack of content validity of the reading comprehension test used.

One weakness of this and previous studies is that the reading comprehension test used (Wu, 2011) is not a valid or reliable reading test. Future research into reading comprehension and anxiety should not use this test, but instead use a test that has been shown to be both valid and reliable.

Finally, there are some poor items in the FLCAS and FLRAS. Although principal components analysis found three components in the FLCAS and two in the FLRAS, many items did not load on to any of them, and some items on the FLRAS do not appear to be appropriate for participants who have studied English for several years, or might be unrelated to reading anxiety. Both instruments need modification, and future research needs to construct a clearer theory of foreign language classroom anxiety (Pérez-Paredes and Martínez-Sánchez, 2000–2001) and reconsider the construct of reading anxiety. Future research should also use more participants than were used in this study.
References


要旨

本研究は、日本人英語学習者の教室内不安、英文読解に対する不安そして英文読解の理解度についての関係性を調査し、さらに因子分析で外国語教室内不安尺度と外国語読解不安尺度から抽出されたものもまとめたものである。「英文読解への不安と英文読解の理解度」に関して先行研究では、Wu（2011）は外国語不安と外国語読解不安との間の重要な相関関係を示し、両方の不安度が低い学習者ほど英文読解テストで高い得点を得ることができることを指摘した。しかし、二つの不安尺度と英文読解能力との関係性はなかったと主張している。また、Zhao, Dynia, and Guo（2013）では中国語を第二言語として学習しているアメリカの学習者を対象に外国語読解不安と英文読解能力の関係性を調査した。その結果、初級クラス I と中級クラスからはその関係性を発見できたが、初級クラス II のみ重要な相関関係は見られなかった。外国語不安と外国語読解不安の関係性に関しては、Wu（2011）と同じく第二言語不安を感じやすい人は第二言語読解不安を経験やすいといった重要性を示した。

本研究では、東京女子大学の Reading 1 を履修している 94人の大学一年生を対象にアンケート調査と20分間の選択式の英文読解テストを実施した。分析した結果、3つの結果が示された。1つ目は外国語不安度が高い学習者は英文読解に対する不安度も高いことがわかった。2つ目は英文読解能力、外国語不安そして外国語読解不安との間の重要な関係性は見つからなかったことである。3つ目は因子分析により、外国語不安尺度からは3因子が見つかり、それぞれを「英語の授業やテストに対する不安」「英語を話すことへの肯定的な感情」そして「英語の授業への否定的な感情」と名付けた。また、外国語読解不安尺度からは2因子が抽出され、「英文読解への自信と楽しさ」と「読んだ英文の内容を忘れることへの不安」と名付けた。