A Cross-Sectional Study of Foreign Language Learning Anxiety among Freshmen at Akita University†

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ABSTRACT

Anxiety is an unpleasant emotional state that can be detrimental to the learning process by taking focus away from the task at hand. Learning to control anxiety and other detrimental emotions is one factor in becoming a more effective learner. The purpose of this baseline study was to assess comparative levels and primary sources of language anxiety among freshmen in 3 majors (Health Sciences, School of Education, and International Language and Culture Studies) at Akita University. A total of 69 students participated in the study. Two survey instruments were used: the Foreign Language Classroom Anxiety Scale (FLCAS) (Horwitz, Horwitz, & Cope, 1986) and a Background Information Survey. The findings of this study revealed that students in Health Sciences and School Education have higher levels of language anxiety than students majoring in International Language and Culture Studies. Moreover, the students in all majors surveyed in this study showed relatively high levels of anxiety compared to foreign language students in other FLCAS studies.

Key Words: English, English as a Foreign Language, Foreign Language Instruction

INTRODUCTION

Learning a foreign language well is a time and effort intensive endeavor that is enhanced by the ability to set goals, select strategies, and control and evaluate one's learning process. Part of controlling one's learning process is managing emotional factors, such as anxiety, that can interfere with learning. According to the Executive Summary of the Program in International Student Assessment (PISA) (Organization for Economic Co-operation and Development [OECD], 2003), effective learners are characterized as being well-motivated, confident in their ability and capacity to deal with difficult challenges, able to manage their emotions, and able to monitor their own learning progress. The report goes on to say, "Students who have become effective learners by the time they leave school, particularly those who have learned to regulate their own learning, are often considered more likely to continue to learn throughout life" (OECD, PISA, 2003 p.12). With these characteristics of effective learners in mind, it is curious to note that despite doing well on the international assessment test, "performing at world class standards in key subject areas" (OECD, PISA, 2005 p.1), many Japanese students reported a lack of confidence in their abilities. In fact, Japanese students
ranked as one of the lowest in self-concept and self-efficacy, and as one of the highest in anxiety among the 41 countries that took part in the assessment (OECD, PISA, 2003). It is not just the Japanese who tend to be highly anxious learners, as other "cross-cultural studies have suggested that Asians might be particularly susceptible to anxiety as a cultural group" (Nguyen, 1982; Schwarz & Birn, 1995; Sue & Morishima, 1982 as cited in Le, 2004).

Research into the issue of language anxiety has revealed that language anxiety is a critical factor in a learner's success or failure in foreign-language learning. According to Gardner and MacIntyre (1987), students who experience high levels of language anxiety and low self-evaluations, in spite of achievement, are more likely to discontinue their studies. Prior studies of Japanese English as a foreign language (EFL) learners (Burden, 2004; Kimura, Nakata & Okumura, 2001; Nagahashi, 2006; O'Donnell, 2003) revealed that many students experience both anxiety and low self-confidence, which inhibit their motivation and progress. Understanding the nature and effects of anxiety on learning, assessing students' levels of anxiety and taking steps to help reduce anxiety in the foreign language classroom is likely to help students not only in foreign language classroom situations, but also as they move towards becoming independent, life-long learners.

THE NATURE AND EFFECTS OF ANXIETY ON LEARNING

Anxiety refers to "a feeling that a real or imagined challenge will result in a negative outcome because we lack resources to respond successfully" (Sylwester, 2005, p.19). These feelings of apprehension, uneasiness, or fear are detrimental to the learning process because they interfere with cognitive processes by creating a physical state that calls for a reflexive, emotional response rather than a reflective, cognitive response. Threatening learning situations affect not only present learning but also future learning as well by creating negative feelings associated with memories of the experience (Janik, 2005; Schumann et al., 2004; Sylwester, 2005). Anxiety also diminishes one's ability to learn new concepts and remember new information. As Damasio remarks:

because the brain is a captive audience of the body, feelings are winners among equals. And since what comes first constitutes a frame a reference for what comes after, feelings have a say on how the rest of the brain and cognition go about their business. Their influence is immense (1994:159-160 as quoted in Stevick, 1999, p.47).

The effects of anxiety on learning impact the quality of learning not only in the short-term, but are detrimental to future learning as well. Therefore, it is important for educators to be aware of the problem, identify some of the main sources of anxiety in their particular teaching situation, and take steps to help alleviate anxiety in their students.

METHODS

The purpose of this cross-sectional study was to assess levels and primary sources of foreign language anxiety among freshman students at Akita University.

Participants
There were 69 participants, 57 (82.6%) females and 12 (17.4%) males, in 3 majors: Group A (Health Sciences) (n=12), Group B (School Education) (n=26), and Group C (International Language and Culture Studies) (n=31) (Table 1). Ages ranged from 18 to 20 years. All students were freshmen enrolled in the author's English for Academic Purposes (EAP) and seminar
classes at Akita University. This baseline survey was conducted during the beginning of fall semester of 2006.

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>Major</th>
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<tbody>
<tr>
<td>A</td>
<td>12</td>
<td>Health Sciences</td>
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<tr>
<td>B</td>
<td>26</td>
<td>School of Education</td>
</tr>
<tr>
<td>C</td>
<td>31</td>
<td>International Language and Culture Studies</td>
</tr>
</tbody>
</table>

Survey Instruments

Two survey instruments were used: the Foreign Language Classroom Anxiety Scale (FLCAS) (Horwitz, Horwitz, & Cope, 1986) (Appendix A); and a Background Information Survey (Appendix B). The Foreign Language Classroom Anxiety Scale (FLCAS) was developed to assess students' levels of anxiety in a foreign language classroom situation. The FLCAS is a standardized 33-item survey that assesses levels of anxiety related to three areas: (1) communication apprehension, (2) test anxiety, and (3) fear of negative evaluation. This instrument was selected because it has demonstrated high internal reliability (r=0.93), significant correlation between each item and the total anxiety score, high test-retest reliability, and high validity. The survey was translated into Japanese courtesy of Professor Masako Sasaki. Scores for twenty-four statements, which were positively keyed for anxiety, were calculated using a 5-point scale with 1 being "strongly disagree" and 5 being "strongly agree" (e.g., Item 1 "I never feel quite sure of myself when I am speaking in my English class."). Scores for 9 statements, items 2, 5, 8, 11, 14, 18, 22 28, and 32, which were negatively keyed for anxiety, were calculated using a 5-point scale with 1 being "strongly agree" and 5 being "strongly disagree" (e.g., Item 2 "I don't worry about making mistakes in my English class."). Possible scores ranged from a minimum of 33 to a maximum of 165. Higher scores indicated a higher the level of anxiety.

In addition to the FLCAS, students also completed a Background Information Survey that was created by the author. They were asked to respond to questions concerning age, major, English and other foreign language learning experience, experience traveling/living abroad, the number of hours per week they spend outside of class studying English, purpose for studying English, the best way to learn English, and useful/not useful English language classroom activities. They were also asked to rate their English language proficiency.

Analytical Procedures

Data were collected during the beginning of the fall semester of 2006 and analyzed using Excel statistical software (Microsoft Corporation) and Sigmastat statistical software (Jandel Scientific). Means and standard deviations were calculated for each group to determine their levels of foreign language anxiety. Each item of the survey was analyzed to determine some of the primary sources of the students' anxiety. Results were later compared with information gained from the Background Information Survey and to other studies using the FLCAS. Data were statistically analyzed by unpaired t-testing and analysis of variance (ANOVA). p values < 0.05 were considered statistically significant.

RESULTS

Background Information Survey Results

The background questionnaire provided information on students' experience learning English and a self-assessment of their English language proficiency. Sixty-five out of the sixty-nine students who participated in this study completed the background survey. Information was unavailable for 4 students in Group C (International Language and Culture Studies).
because they did not complete the survey.

The majority of students in the study (80%, n=52) began studying English as a foreign language in the first year of junior high school at the age of 12 or 13. Twelve students (18.4%, n=12) began studying English at an earlier age. One student began studying English in the first year of high school at the age of 15. The majority of the students (83%, n=54) had never attended an English language school. Over half of the students, (53.8%, n=35), had been taught by a native English teacher at some point. The majority of the students (83%, n=54) had never traveled outside of Japan, and no one had lived abroad for more than six weeks. Most students (83%, n=54) reported having studied another foreign language besides English, but all students in Group C (International Language and Culture Studies) except one (96%, n=26) reported having studied another language.

In response to the question "How many hours do you study English outside of class per week?", 36.9% (n=24) reported spending one hour or less studying outside of class per week, 32% (n=21) reported spending one to two hours per week, 13.8% (n=9) reported spending two to four hours per week, and 7.6% (n=5) students reported spending over four hours per week. The rest of the students did not respond. Purposes for studying English ranged from a general interest in English to usefulness in future employment. Most students (72%, n=47) said they enjoyed studying English, but 26% (n=17) responded negatively. One student did not respond. Watching movies, listening to music, reading and talking to native English speakers topped the list of favorite ways to learn English. The minority of students (15%, n=10) reported having a bad experience learning English, but most (81.5%, n=53) did not.

In rating their English language proficiency, students ranked their abilities in reading and listening higher than their abilities in speaking and writing, as anticipated. Students seem to be most confident in their reading skill, as reflected by 44.6% (n=29) indicating "good" reading skills and 55.4% (n=36) indicating "fair" or "poor." Similarly, 44.6% (n=29) indicated "excellent" or "good" listening skills and 55.4% (n=36) indicated "fair" or "poor." Only 20% of students (n=13) reported "good" writing skills and 80% (n=52) reported "fair" or "poor." Students reported a low proficiency in speaking with only 13.8% (n=9) indicating "good" and 86.2% (n=56) indicating "fair" or "poor" (Table 2).

Table 2. Results of student self-assessment of English language proficiency (n=65)

<table>
<thead>
<tr>
<th>Skill</th>
<th>Excellent</th>
<th>Good</th>
<th>Fair</th>
<th>Poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading</td>
<td>0 (0%)</td>
<td>29 (44.6%)</td>
<td>29 (44.6%)</td>
<td>7 (10.8%)</td>
</tr>
<tr>
<td>Listening</td>
<td>2 (3.1%)</td>
<td>27 (41.5%)</td>
<td>25 (38.5%)</td>
<td>11 (16.9%)</td>
</tr>
<tr>
<td>Writing</td>
<td>0 (0%)</td>
<td>13 (20%)</td>
<td>28 (43.1%)</td>
<td>24 (36.9%)</td>
</tr>
<tr>
<td>Speaking</td>
<td>0 (0%)</td>
<td>9 (13.8%)</td>
<td>31 (47.7%)</td>
<td>25 (38.5%)</td>
</tr>
</tbody>
</table>

The three groups differed in their self-assessment of speaking skills, which ranked lowest of the four skills. Health Sciences students (Group A) indicated the lowest proficiency rating with 50% (n=6) indicating "poor." School of Education students (Group B) ranked between Group A and Group C with 38.5% (n=10) indicating "poor." International Language and Culture Studies students (Group C) showed a slightly higher level of self-assessed proficiency with 33.3% (n=9) indicating "poor" speaking skills (Table 3).

The responses to the last four questions on the survey assessed students' perceptions of the length of time that it takes to become proficient in English, the best way to learn English, and what they considered the most and least useful
classroom activities. Students were realistic about the amount of time that it takes to become proficient, since the majority (67.7%, n=44) responded that it takes five years or longer. The majority (52%, n=34) of students think that the best way to learn English is to talk to native speakers of English or to live in an English speaking country. As for most useful and least useful, the majority of students (63%, n=41) indicated that speaking activities were the most useful English language classroom activities, whereas only working on one skill (34%, n=22) or only listening to the teacher lecture (20%, n=13) were the least useful activities.

In summary, the results of the Background Information Survey revealed that the students surveyed in this study show a uniform EFL background with all but one student having completed at least six years of English language education before entering Akita University. Most students had somewhat limited contact with native English speakers prior to entering the university as the majority of the students had never traveled outside of Japan and only slightly more than half had been taught by a native speaker of English at some point. Most students had never had a bad experience learning English and the majority (72%) indicated that they enjoyed English. Although most of the students seemed to have a positive attitude towards learning English, the majority of students (68.9%) spent two hours or less studying English outside of class per week. Among the four language skill areas (reading, listening, writing, and speaking) students ranked speaking skill lowest with 86.2% responding either "fair" (47.7%) or "poor" (38.5%) skills.

**Foreign Language Classroom Anxiety Scale (FLCAS) Results**

All 69 students completed the Foreign Language Classroom Anxiety Scale (FLCAS). The results give some insight into the levels and sources of anxiety that our students are experiencing in the EFL classroom. The findings in Table 4 show that Health Sciences majors (Group A) and School of Education majors (Group B) had higher levels of foreign language classroom anxiety (scores of 109.8 ± 13.7 and 106.8 ± 18.4, respectively) compared to International Language and Culture Studies majors (Group C) (93.9 ± 18.3). The results of a one-way ANOVA (pairwise multiple comparison procedures [Tukey Test]) showed statistically significant differences between FLCAS scores for

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>Major</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Low/High</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>12</td>
<td>Health Sciences</td>
<td>109.8#</td>
<td>13.7</td>
<td>91/131</td>
</tr>
<tr>
<td>B</td>
<td>26</td>
<td>School of Education</td>
<td>106.8##</td>
<td>18.4</td>
<td>79/149</td>
</tr>
<tr>
<td>C</td>
<td>31</td>
<td>International Language and Culture Studies</td>
<td>93.9</td>
<td>18.3</td>
<td>67/135</td>
</tr>
<tr>
<td>Total</td>
<td>69</td>
<td>All Participants</td>
<td>101.5</td>
<td>18.8</td>
<td>67/149</td>
</tr>
</tbody>
</table>

#p=0.027 vs Group C by Tukey one-way ANOVA, ##p=0.021 vs Group C by Tukey one-way ANOVA
Groups A or B and Group C (Group A vs. Group C, \( p=0.027 \); Group B vs. Group C, \( p=0.021 \)).

The top five sources of foreign language classroom anxiety are shown in Table 5. All items (18, 33, 23, 1, and 9) were related to communication apprehension. The number 1 source of anxiety was a lack of confidence when speaking English in class.

Students in this study at Akita University had higher anxiety scores compared to published results for students surveyed in other foreign language programs (Table 6). The other programs include Perez-Paredes & Sanchez's (2000) study of Spanish students learning English in Spain, Aida's (1994) study of foreign students learning Japanese in Japan, and Horwitz's (1986) study of American students learning Spanish in the United States. The reasons for this difference are unknown, but cultural differences cannot be excluded.

DISCUSSION

The goal of this cross-sectional, baseline study was to assess levels and primary sources of language anxiety among Akita University freshmen in three majors, Health Sciences, School of Education, and International Language and Culture Studies. Qualitative and quantitative analyses of the data reveal that many students in freshmen EFL classes are experiencing moderate to high levels of language anxiety. Health Sciences and School of Education majors reported a significantly higher level of anxiety than International Language and Culture Studies majors. The reason for this difference in levels of anxiety is perhaps due to less experience learning other foreign languages and less goal relevance in relation to their major. Analyses of each of the 33 items in the FLCAS revealed that the primary source of students' anxiety comes from communication apprehension, a finding that correlates with the results of the self-evaluation of speaking skills. These results suggest that the language

### Table 5. Top five sources of anxiety (n=69)

<table>
<thead>
<tr>
<th>Ranking</th>
<th>Statement</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>18</td>
<td>3.93</td>
<td>0.73</td>
</tr>
<tr>
<td>2</td>
<td>33</td>
<td>3.83</td>
<td>0.91</td>
</tr>
<tr>
<td>3</td>
<td>23</td>
<td>3.78</td>
<td>0.89</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>3.75</td>
<td>1.03</td>
</tr>
<tr>
<td>5</td>
<td>9</td>
<td>3.72</td>
<td>0.98</td>
</tr>
</tbody>
</table>

**Statements 18, 33, 23, 1, and 9:**
18. I feel confident when I speak in my English class. (Score indicates disagreement with statement)
33. I get nervous when the English teacher asks questions which I haven't prepared in advance.
23. I always feel that the other students speak English better than I do.
1. I never feel quite sure of myself when I am speaking in my English class.
9. I start to panic when I have to speak without preparation in my English class.

### Table 6. Comparative studies of FLCAS

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<tr>
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<tbody>
<tr>
<td>n</td>
<td>69</td>
<td>198</td>
<td>96</td>
<td>108</td>
</tr>
<tr>
<td>Nationality of Students</td>
<td>Japanese</td>
<td>Spanish</td>
<td>Various</td>
<td>American</td>
</tr>
<tr>
<td>Foreign Language</td>
<td>English</td>
<td>English</td>
<td>Japanese</td>
<td>Spanish</td>
</tr>
<tr>
<td>Student's Level</td>
<td>False beginners</td>
<td>False beginners</td>
<td>Beginners</td>
<td>Beginners</td>
</tr>
<tr>
<td>FLCAS Mean Score</td>
<td>101.5*, #</td>
<td>89.07</td>
<td>96.7**</td>
<td>94.5</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>18.79</td>
<td>18.98</td>
<td>22.1</td>
<td>21.4</td>
</tr>
</tbody>
</table>

*\( p<0.001 \) vs Perez-Paredes & Sanchez by Tukey one-way ANOVA, #\( p<0.05 \) vs Horwitz by Dunnett's ANOVA, **\( p=0.013 \) vs Perez-Paredes & Sanchez by Tukey one-way ANOVA
anxiety is related to low proficiency in speaking skills, a result that is not surprising considering the limited opportunities most students have to develop speaking skills prior to entering the university. It is also interesting to note that despite the anxiety-inducing effect that speaking English produces in the majority of students surveyed, these same students indicated that speaking practice was the most useful classroom activity. These findings suggest that the students are not only acutely aware of their deficiency in this skill area but are motivated to improve. Therefore, EFL instructors may wish to take note of these findings and provide students with more opportunities to practice speaking skills in a non-threatening, supportive environment. This could mean incorporating more pair and group activities, which takes some of the pressure off the individual, and refraining from error correction that inhibits the production of language. Further investigation of this issue should focus on effective interventions for reducing anxiety associated with communication apprehension.

CONCLUSION

In conclusion, the results of this study indicate that the students surveyed show relatively high levels of foreign language anxiety compared to students in other studies using the FLCAS. In particular, students majoring in Health Sciences and the School of Education were significantly more anxious learners than students in International Language and Culture Studies. It has been well documented that anxiety negatively impacts the quality of learning, both in the short-term and in the long-term. Therefore, it is important for EFL instructors to be aware of the problem of language anxiety, identify some of the main sources of anxiety in their particular teaching situation, and to take steps to help alleviate anxiety in their students. This strategy has the potential to improve the learning environment for our students and enhance their academic success.

REFERENCES


APPENDIX A

1. I never feel quite sure of myself when I am speaking in my English class.
2. I don’t worry about making mistakes in my English class.
3. I tremble when I know that I’m going to be called on in my English class.
4. It frightens me when I don’t understand what the teacher is saying in the English class.
5. It wouldn’t bother me at all to take more English language classes.
6. During English class, I find myself thinking about things that have nothing to do with the course.
7. I keep thinking that the other students are better at English than I am.
8. I am usually at ease during my English class.
9. I start to panic when I have to speak without preparation in my English class.
10. I worry about the consequences of failing my English class.
11. I don’t understand why some people get so upset over English class.
12. In English class, I can get so nervous I forget things I know.
13. It embarrasses me to volunteer answers in my English class.
14. I would not be nervous speaking English with native speakers.
15. I get upset when I don’t understand what the teacher is correcting.

英語の授業で、先生の言っていることが理解できないと落ち着かなく不安になる。
英語の授業を増やしても全然苦にならない。
英語の授業中、授業とは全く関係の無いことにについて考えていることがある。
他の生徒の方が自分より英語ができるといつも思っている。
英語の授業中はだいてい緊張せずに不安がない。英語の授業で準備無しに英語で話さなくてはならなくなるとあわて出してしまう。
英語の授業の単位を落としてもしまいかないと不安である。
英語の授業となると落ち着かなくなる人がいるが、私にはその理由が理解できない。
英語の授業で自分で進んで答えるのは恥ずかしく当感してしまう。
英語で話しても緊張しないだろう。
英語の授業で、先生が間違いを直している内容を理解できないと動揺する。
16. Even if I am well prepared for English class, I feel anxious about it.

17. I often feel just not going to my English class.

18. I am afraid that my English teacher is ready to correct every mistake I make.

19. I can feel my heart pounding when I am going to be called on in my English class.

20. I don't feel pressure to prepare very well for my English class.

21. The more I study for an English test, the more confused I get.

22. I don't feel pressure to prepare very well for my English class.

23. I always feel that the other students speak the English language better than I do.

24. I feel very self-conscious about speaking English in front of other students.

25. English class moves so quickly I worry about getting left behind.

26. I feel more tense and nervous in my English class than in any other class.

27. I get nervous and confused when I am speaking in my English class.

28. When I am on my way to English class, I feel very sure and relaxed.

29. I get nervous when I don't understand every word the English teacher says.

30. I feel overwhelmed by the number of rules you have to learn to speak English.

31. I am afraid that other students will laugh at me when I speak English.

32. I would probably feel comfortable around native speakers of English.

33. I get nervous when the English teacher asks questions which I haven't prepared in advance.

APPENDIX B

Background Information Questionnaire
Please answer the following questions or mark the appropriate response.

1. What is your name, age, and student ID number?
2. What year are you in?
3. What is your major?
4. What age did you start to study English?
5. How many years have you studied English?
6. Have you ever studied in an English language school (GEOS, Nova, YMCA, ECC, etc.)? Where and how long?
7. Have you ever been taught by a native
English speaker? Where and how long?
8. Have you ever traveled outside of Japan? Where and how long?
9. Have you ever lived outside of Japan? Where and how long?
10. Have you ever studied a foreign language other than English? What language and how long?
11. How many hours do you study English outside of class per week?
12. Why do you study English?
13. Do you enjoy studying English? Why or why not?
14. What is your favorite way to study English?
15. Have you ever had a bad experience learning English? What happened?
16. How do you rate your proficiency in English?
   Listening
   Excellent ___ Good ___ Fair ___ Poor ___
   Speaking
   Excellent ___ Good ___ Fair ___ Poor ___
   Reading
   Excellent ___ Good ___ Fair ___ Poor ___
   Writing
   Excellent ___ Good ___ Fair ___ Poor ___
17. How long do you think it takes to become proficient in English?
18. What is the best way to learn English?
19. What types of English language classroom activities do you think are useful in helping you learn English?
20. What types of English language classroom activities do you think are not useful in helping you learn English?

日本語抄録
不安という不快な精神状態は、目前の課題に対する集中を妨げることで、学習過程に悪影響を及ぼしかねない。不安といった感情を統御することを身につければ、効果的な学習が可能となる。この基礎研究の目的は、秋田大学に所属する三松（保健学科、学校教育課程、国際言語文化課程）の一年生が抱く言語不安を比較評価することにある。総数69名の学生がこの研究に協力した。採用した調査法は、「外国語教室不安尺度」(Horwitz, Horwitz, and Cope, 1986, による the Foreign Language Classroom Anxiety Scale, 略して FLCAS) と「経験情報による調査法」(Background Information Survey) である。この研究結果が示すところによれば、保健学科と学校教育課程の学生が国際言語文化課程の学生より高い水準の言語不安を抱いている。さらに、この研究に協力した学生は、本論以外の FLCAS 研究と比較して、高い水準の不安を示した。

キーワード：外国語としての英語，外国語学習不安，外国語教育

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