THE EFFECTS OF COOPERATIVE LEARNING ON FOREIGN LANGUAGE ANXIETY: A COMPARATIVE STUDY OF TAIWANESE AND AMERICAN UNIVERSITIES

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This study investigated the level of foreign language anxiety in the classroom, plus the correlation between foreign language anxiety and cooperative learning attitudes and practice among university students at one university in the United States and three universities in Southern Taiwan. Two instruments (The Foreign Language Classroom Anxiety scale by Horwitz et al., 1986 and the Style Analysis Survey by Oxford et al., 1999a) were employed along with ten questions designed by the author: five sought to establish student perceptions of their classrooms’ cooperative atmosphere and five concerned students’ predilection towards cooperative learning. No significant correlation was found between foreign language anxiety and cooperative learning at the United States University. Of the three Southern Taiwan colleges, results from only one school showed a significant correlation. This was the only school that had a Taiwanese teacher.

Key Words: foreign language anxiety, cooperative learning, extrovert, Taiwan and American comparative study

INTRODUCTION

In view of the effect of foreign language anxiety on language acquisition and student comfort levels in foreign language classes, foreign language teachers are often confronted with how to alleviate anxiety. This study focused on the levels of foreign language anxiety students had and the extent to which selected factors in learning environments correlated to the foreign language anxiety.

A number of researchers have substantiated that there is an anxiety particular to language learning and that this anxiety has a debilitating effect on learning and achievement (Gardner, Smythe, & Lalonde, 1984; Horwitz, Horwitz, & Cope,
Students competent in other subjects may struggle and become anxious in a foreign language class (Ely, 1986). Campbell and Ortiz (1991) stated that the level of anxiety in language classrooms was “alarming.” Cooperative learning has been suggested as one possible means of reducing his anxiety in classrooms (Johnson, Johnson, & Holubec, 1990; Oxford, 1997; Slavin, 1991). This study surveyed student’s perceptions of the effect of cooperative learning on themselves and their foreign language classes.

A person’s language and sense of self are so closely bounded that “an attack on one is an attack on the other” (Cohen & Norst, 1989, p. 61). Language anxiety has been negatively correlated with SAT and GRE scores both written (Gardner, Lalonde, Moorcroft, & Evers, 1987) and oral (Young, 1990). It has also been correlated with TOEFL scores (Hackett, 1995), with Michigan English Placement Test (MEPT) scores (Chen, 2002) and with classroom grades (Aida, 1994; Horwitz, 1986; MacIntyre & Gardener, 1994a).

Foreign language anxiety is a universal phenomenon that inhibits students’ achievement in ESL and EFL classrooms. A student’s native language is his/her main coping mechanism, it defines their worth and identity (Allwright, Allwright, & Allwright, 1991; Horwitz et al., 1986; Young, 1999). Their native language is the tool that enables them to ask for help, express their frustrations, argue a point, explain an idea, and, in general, to socialize. Since they can not use their native language in a foreign language class, students are handicapped (Curran, 1960).

There has been some research that has studied the facilitating (verses the debilitating) aspect of anxiety in learning a foreign language (Alpert & Haber, 1960; Chastain, 1975; Scovel, 1978). However, this facilitation has only been found when using very simple grammatical structures. In all other cases, anxiety has been a debilitating factor in language acquisition (Ganschow, Sparks, Anderson, Javorsky, Skinner, & Patton, 1994; Oxford, 1999; Young, 1986).

Foreign language classroom anxiety is considered a situation-specific anxiety (MacIntyre, cited in Young, 1999). It is defined as the “worry and negative emotional reaction aroused when learning or using a second language” (Young, 1999). Some research has supported the view that language anxiety interferes with the acquisition, retention, and production of knowledge (Tobias, 1979, 1986).

Researchers and experts have proposed many factors that have an influence on foreign language anxiety. The most common factors in the literature are...
students’ motivation to learn (Bandura, 1997; Ryan & Deci, 2002), the beliefs students hold about language acquisition (Gregersen, 2003; Horwitz, 1986), students’ personalities (Dewaele & Furnham, 2000; Ehrman & Oxford, 1990, 1995), the way a teacher interacts with a students (Deci & Ryan, 1985; Vygotsky, 1986), students’ background in the language (Frantzen & Magnan, 2005), and learning in cooperative groups (Johnson, Johnson, & Holubec, 1990; Oxford, 1997; Slavin, 1991).

Students’ motivation and beliefs are often part of their long-established psyche (Deci & Ryan, 1987). Each student can attach a different functional significance to the same event (Deci & Ryan, 1987). A teacher may have a positive influence on his/her students’ motivations and beliefs over time, but students’ needs at the beginning of a foreign language class require more immediate intervention and support (Horwitz, 1986; Rogers, 1983; Young, 1999). Since teachers are in a position of authority, they can establish cooperative learning groups to provide this support (Slavin, 1991).

Literature on students’ background in the language distinguishes between true-beginners—students with no previous study of the language, and false-beginners—students who have already studied the language, either in high school or in college (Frantzen & Magnan, 2005). Students’ personalities and backgrounds are other factors to be considered, including personality extroversion and introversion, as these affect the student learning styles that impact foreign language anxiety (Eysenck & Eysenck, 1985; Young, 1999).

In view of the effect of foreign language anxiety on language acquisition and student comfort levels in foreign language classes, foreign language teachers are confronted with trying to alleviate anxiety. This study focused on the levels of foreign language anxiety students had and the extent to which selected factors in learning environments correlated to the foreign language anxiety.

METHOD

Purpose of the study and research questions

The purpose of this study was to identify how motivation, student beliefs, student personality, teacher interactions, student-background in the language, and cooperative learning influenced levels of foreign language anxiety among foreign language students at a university in the United States (the University of South Dakota) and three colleges in Southern Taiwan. Selected cooperative learning attitudes and practices were analyzed in relation to foreign language
anxiety. The study focused on whether or not cooperative learning had an effect on foreign language classroom anxiety for the majority of students. More specifically, this study attempted to answer the following questions:

1. What is the level of anxiety in foreign language classrooms?
2. What is the relationship between students’ foreign language classroom anxiety and cooperative learning attitudes?
3. What is the relationship between students’ foreign language classroom anxiety and their perceptions of the use of cooperative learning practices?

Participants

The sample for the research consisted of 385 students in one American university and in three Taiwanese universities. There were 152 foreign language students from classes at the University of South Dakota during spring 2006, and 233 foreign language students from classes in 3 colleges in Southern Taiwan during the fall of 2007 (54 students at Wen Zao University, 76 students at Kun Shan University, and 103 students at Far East University). Age was not used as a demographic since, in the literature, it was not considered as important as gender, language background, and learning style. Table 1 shows a summary of respondents’ demographic data.

Table 1: Summary of respondents’ demographic data

<table>
<thead>
<tr>
<th></th>
<th>Number of students at USD</th>
<th>Number of students in Taiwan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>50</td>
<td>89</td>
</tr>
<tr>
<td>Female</td>
<td>99</td>
<td>140</td>
</tr>
<tr>
<td>Unknown</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>152</td>
<td>233</td>
</tr>
<tr>
<td>Language Background</td>
<td></td>
<td></td>
</tr>
<tr>
<td>False-beginner</td>
<td>123</td>
<td>196</td>
</tr>
<tr>
<td>True-beginner</td>
<td>26</td>
<td>32</td>
</tr>
<tr>
<td>Unknown</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>152</td>
<td>233</td>
</tr>
<tr>
<td>Learning Style</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extroverts</td>
<td>104</td>
<td>27</td>
</tr>
<tr>
<td>Introverts</td>
<td>33</td>
<td>10</td>
</tr>
<tr>
<td>Neither</td>
<td>15</td>
<td>196</td>
</tr>
<tr>
<td>Total</td>
<td>152</td>
<td>233</td>
</tr>
</tbody>
</table>
The class sizes ranged from six to 30 students. Foreign language teachers appointed a proctor student to administer the surveys along with student cover letters which explained the students’ rights.

**Instruments**

The instrument used in this study was a composite of portions of two well-established surveys, plus 10 more questions created for the study pertaining to cooperative learning and two demographic questions. There were 50 items on this instrument (see Appendix). Two instruments (The Foreign Language Classroom Anxiety scale by Horwitz et al., 1986 and the Style Analysis Survey by Oxford et al., 1999a) were employed, along with ten questions designed by the author: five sought to establish student perceptions of their classrooms’ cooperative atmosphere and five concerned students’ predilection towards cooperative learning. The first two demographic questions concerning gender and language background, plus the last 20 questions regarding introversion/extroversion learning style were included to allow for the influence of these factors in students’ anxiety level. This survey took students only 15 to 20 minutes to complete and a Chinese translation was used for the Taiwanese students in order to avoid testing fatigue. The survey was translated into Chinese by one of the full-time language teachers at Far East University in Tainan, Taiwan, and the accuracy of the Chinese was checked by two other full-time teachers in the applied foreign language department.

**Data Analysis**

This study utilized the data gathered by the survey instruments to answer the research questions. The data obtained from the returned surveys were analyzed, and responses to the research questions were made using descriptive and inferential statistics, including item means, standard deviations, t tests, and the Pearson product-moment correlation coefficient.

Research Question 1 utilized descriptive statistics. The means and standard deviations were determined for the anxiety levels of the students. Research Question 2 concerned the relationship between language anxiety and cooperative learning attitudes. Research Question 3 concerned the relationship between language anxiety and cooperative learning practices. Both these questions used the Pearson product-moment correlation coefficient to determine the significance of their relationships.
RESULTS

The following information reports findings based on the three research questions that guided the study. The findings are presented in tabular form and accompanied by analysis and description of relevant data.

Level of Anxiety in Foreign Language Classrooms at USD

This section of the study analyzes data for Research Question One regarding the level of anxiety in foreign language classrooms at USD and the Taiwanese schools based on the 385 student responses to survey items 3 through 20 on the survey. The individual statements and means for each question on the foreign language anxiety section of the survey can be found in Table 2.

Table 2: Level of anxiety in foreign language classrooms

<table>
<thead>
<tr>
<th>General statements about students’ anxiety</th>
<th>USD (n = 152)</th>
<th>TAIWAN (n = 233)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. I never feel quite sure of myself when I am speaking in my foreign language class.</td>
<td>3.32 1.11</td>
<td>2.89 1.01</td>
</tr>
<tr>
<td>4. I don’t worry about making mistakes in language class.</td>
<td>3.49 1.10</td>
<td>3.02 1.06</td>
</tr>
<tr>
<td>5. It frightens me when I don’t understand what the teacher is saying in the foreign language.</td>
<td>3.11 1.05</td>
<td>3.08 1.02</td>
</tr>
<tr>
<td>6. I keep thinking that the other students are better at languages than I am.</td>
<td>3.12 1.09</td>
<td>3.57 .97</td>
</tr>
<tr>
<td>7. I start to panic when I have to speak without preparation in language class.</td>
<td>3.29 1.11</td>
<td>3.36 1.05</td>
</tr>
<tr>
<td>8. It embarrasses me to volunteer answers in my language class.</td>
<td>2.84 1.11</td>
<td>3.06 1.02</td>
</tr>
<tr>
<td>9. I would not be nervous speaking in the foreign language with native speakers.</td>
<td>3.91 1.05</td>
<td>3.24 1.04</td>
</tr>
<tr>
<td>10. I get upset when I don’t understand what the teacher is correcting.</td>
<td>3.01 .90</td>
<td>3.30 1.00</td>
</tr>
<tr>
<td>11. I feel confident when I speak in foreign language class.</td>
<td>3.27 .99</td>
<td>3.16 .89</td>
</tr>
<tr>
<td>12. I am afraid that my language teacher is ready to correct every mistake I make.</td>
<td>2.41 .99</td>
<td>2.68 .99</td>
</tr>
<tr>
<td>13. I always feel that the other students speak the language better that I do.</td>
<td>2.97 1.11</td>
<td>3.40 .95</td>
</tr>
<tr>
<td>14. I feel very self-conscious about speaking the foreign language in front of other students.</td>
<td>3.05 1.12</td>
<td>2.91 1.02</td>
</tr>
</tbody>
</table>
With few exceptions, students did not agree that they were nervous in their foreign language class. Only on question 9 did they indicate that they were nervous at USD and only on question 6 in Taiwan. At USD they indicated that speaking in the foreign language with native speakers would cause them some anxiety at USD (M = 3.90), while in Taiwan they indicated they were nervous when thinking that other students were better at the target language (M = 3.57). According to Horwitz, et al. (1986), only those students who marked agree or strongly agree to the general statements about anxiety were highly anxious. The results of this study indicated that modern foreign language students at USD during the spring semester 2006, and in three universities during the fall of 2007 in Southern Taiwan, were not highly anxious. Most of the responses were in the average to anxious range. Students at USD only disagreed with two statements. They slightly disagreed that they were worried about their language teacher correcting every mistake they made (M = 2.41) on question 12, and they slightly disagreed that they were afraid that other students would laugh at them (M = 2.31) on question 18. At three universities in Southern Taiwan, no one disagreed that they were anxious.

Correlation of Foreign Language Anxiety and Cooperative Learning Attitudes

The results regarding Research Question two show the correlation between the cooperative learning attitudes and foreign language anxiety of students in foreign language classrooms at USD and at the three universities in Southern Taiwan. As the significance for these two characteristics was greater than .05, there appears to be no statistically significant relationship between cooperative learning attitudes and foreign language anxiety. For USD, the Pearson
Correlation was $r = -0.087$, $p = 0.289$ and for Taiwan the Pearson Correlation was $r = 0.108$, $p = 0.081$.

**Correlation of Foreign Language Anxiety and Cooperative Learning Practices**

The results regarding Research Question three focus on the correlation between the cooperative learning practices of students in foreign language classrooms at USD and the three Taiwanese universities with foreign language anxiety. The significance for the correlation between foreign language anxiety and cooperative learning practice was larger than .05 at USD. This suggests that there was no link between these two variables, but it was significant for the correlation for the Taiwanese schools which were much less than .05. For USD, the Pearson Correlation was $r = -0.065$, $p = 0.429$ and for Taiwan the Pearson Correlation was $r = 0.197$, $p = 0.001$.

The results report the level of language anxiety and the perception of cooperative practices of students in this study. The data illustrate the relatively low anxiety level of foreign language students (compared to anticipated anxiety as identified in the literature) and a strong perception that classroom activities were conducted in a cooperative learning mode. No significance was found at the University of South Dakota. A very large positive significance was found at the three Southern Taiwan Schools indicating that foreign language anxiety increases the more that cooperative practices are used in the classrooms in the Southern Taiwan universities.

**DISCUSSION**

An interesting finding was that foreign language anxiety and cooperative learning showed no relationship in the US school, and a positive relationship in the Taiwanese schools. These results do not appear to support the literature in which cooperative learning has been considered as a means of coping with foreign language anxiety by numerous authorities and researchers and should have a negative relationship (Campbell and Oritz, 1991; Casado & Dereshiwsky, 2001; Dornyei, 1994; Frantzen & Magnan, 2005; Oxford, 1997, 1999b; Young, 1999). The lack of relationship between this anxiety and cooperative learning in the US school may be explained by the admission of USD language teachers that they have already incorporated cooperative learning as part...
of their teaching methods. Since cooperative learning has been the existing norm, its immediate effect was not perceived by the students.

The positive significance found at the three Southern Taiwan Schools indicates that foreign language anxiety increases the more that cooperative practices are used in the classrooms in the Southern Taiwan universities. On further investigation it was found that two schools, Far East University and Kun Shan, showed no significance, whereas Wen Zao showed a very significant relationship. One interesting findings is that the Wen Zao University professor was Taiwanese, whereas the Far East and Kun Shan University professors were both from the United States. This finding could suggest further study on the influence of professors from one’s own country teaching a foreign language, or possibly a study on the interactions of Taiwanese professors with their students.

In relation to foreign language anxiety for foreign language students at the University of South Dakota and the three Southern Taiwan universities, there were no significant differences between males versus females and true-beginners versus false-beginners. The findings also showed that, in relation to cooperative learning attitudes for this population, there were no significant differences between males versus females, true versus false-beginners, and extroverts.

Since it was not established whether or not students were averse to cooperative learning (see table 2), the positive correlation could be a motivation anxiety (Chastain, 1975; Kleinmann, 1977), not the debilitating anxiety introduced by Horwitz (1986). Another possibility is that Taiwanese students interpreted the anxiety questions from Horwitz’s FLA survey as a contrast from their more typical lecture-based classes where nothing is required of them while they are in class. A final explanation could be that the literature has not measured the positive effect of cooperative learning on FLA, and that that effect might only be an ameliorating effect, not the elimination of foreign language anxiety.

Of course the positive correlation could indicate a debilitating anxiety. Kitano’s 2001 study suggested that “an individual student’s anxiety was higher as he or she perceived his or her ability as lower than that of
peers” (p. 549). A cooperative environment would be rife with anxiety for these students. He also found that advanced-level students scored higher on anxiety than did lower-level students. Kitano was doing his studies on American students in Japanese classes and he considered that the extreme differences and difficulty level of a language may play an important part in this anxiety. Higher level thinking is required for the acquisition of radically new phonetic sounds, language roots, and grammatical structures. Languages that have similar alphabets, sounds, and structures may be more conducive to rote memorization and disciplined practice for learning as opposed to the discovery process required in learning a language vastly different from one's native language. The higher level thinking would put anxiety-prone students in an even more vulnerable state within a cooperative peer situation.

CONCLUSION
The results of this study revealed that there is some anxiety in foreign language classrooms. However, while there was a relationship between students’ foreign language classroom anxiety and their perceptions of the use of cooperative learning practices, a similar relationship between students’ foreign language classroom anxiety and cooperative learning attitudes was not found.

Based on these findings, it can be concluded that cooperative learning does not have an ameliorating effect on foreign language anxiety. At the same time, it is still important that cooperative learning should be an integral part of most language classrooms. It enables students to use the target language more often, encourages communication with others in the language, creates an environment for stimulating classroom activities, and gives variety to language learning.

In addition, there may be a noteworthy observation for future studies. A very large percentage of students reported to be extroverts at USD (82.9%), while in the Taiwanese schools only 12% of the students indicated that they were extrovert (27 students) and only 4% of the students indicated that they were introverted (10 students). Therefore a larger scale of research might be conducted with regards to cross-cultural studies on this issue.
REFERENCES


APPENDIX
Survey Instrument
Please fill in the appropriate box on the answer sheet:
1. Gender:
   o 1 Male
   o 2 Female
2. Did you study this foreign language before attending this class?
   o 1 Yes
   o 2 No

Please fill in the appropriate box on the answer sheet:
1=Strongly Disagree; 2=Disagree; 3=Neither agree nor disagree; 4=Agree;
5=Strongly agree

3. I never feel quite sure of myself when I am speaking in my foreign language class.
4. I don’t worry about making mistakes in language class.
5. It frightens me when I don’t understand what the teacher is saying in the foreign language.
6. I keep thinking that the other students are better at languages than I am.
7. I start to panic when I have to speak without preparation in language class.
8. It embarrasses me to volunteer answers in my language class.
9. I would not be nervous speaking in the foreign language with native speakers.
10. I get upset when I don’t understand what the teacher is correcting.
11. I feel confident when I speak in foreign language class.
12. I am afraid that my language teacher is ready to correct every mistake I make.
13. I always feel that the other students speak the language better than I do.
14. I feel very self-conscious about speaking the foreign language in front of other students.
15. I get nervous and confused when I am speaking in my language class.
16. I get nervous when I don’t understand every word the language teacher says.
17. I feel overwhelmed by the number of rules you have to learn to speak a foreign language.
18. I am afraid that the other students will laugh at me when I speak the foreign language.
18 The Effects of Cooperative Learning on Foreign...

language.

19. I would probably feel comfortable around native speakers of the foreign language.

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

21. I know most of the names of students in my class.

22. I enjoy learning with other students in smaller groups of three to six peers in class.

23. Being part of a small group of three to six helps me learn better in class.

24. Working in groups is often a waste of time in class.

26. In language class, we often study in groups.

27. My language teacher mostly lectures.

28. My language teacher likes to have students work in groups.

29. In our group activities, we mostly do dialogues planned by the teacher.

30. The teacher gives small groups time to control their own conversation in the usage.

31. I prefer to work or study with others.

32. I make new friends easily.

33. I like to be in groups of people.

34. It is easy for me to talk to strangers.

35. I keep up with personal news about other people.

36. I like to stay late at parties.

37. Interactions with new people give me energy.

38. I remember people’s names easily.

39. I have many friends and acquaintances.

40. Wherever I go, I develop personal contacts.

41. I prefer to work or study alone.

42. I am rather shy.

43. I prefer hobbies or sports that I can do by myself.

44. It is hard for most people to get to know me.

45. People view me as more detached than sociable.

46. In a large group, I tend to keep silent.

47. Gatherings with lots of people tend to stress me.

48. I get nervous when dealing with new people.

49. I avoid parties if I can.

50. Remembering names is difficult for me.