Foreign Language Speaking Anxiety: A Study of Chinese Language Learners

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Abstract

This study investigates Chinese Language Speaking Anxiety and its associated factors among college-level students who learn Chinese as a foreign language (CFL) in the U.S. Although the Speaking Anxiety scores of the participants were not high on average, but frequency analyses showed that quite a number of learners experienced high levels of anxiety when speaking Chinese. The results of ANOVA analyses indicated that gender had a significant effect on Speaking Anxiety, but proficiency level and the elective-required status did not. Correlation and multiple regression results showed that perceived difficulty level of the Chinese language, self-perceived language learning ability, and self-perceived achievement in Chinese classes were significant predictors of Speaking Anxiety and altogether accounted for 21.4% of the variance in Speaking Anxiety.

Introduction

Anxiety has been identified as a common emotional reaction in foreign language classrooms. Researchers have found that one-third of foreign language learners experience at least a moderate level of foreign language anxiety (Horwitz, 2001). Researchers have also found that foreign language anxiety has a wide range of potential negative effects on foreign language learning (see Luo, 2013b for a detailed review). Therefore, foreign language teachers and scholars have been interested in finding out the causes of foreign language anxiety. Among the four skills, speaking has been recognized as the most anxiety-provoking. In spite of numerous studies on general foreign language anxiety, research exclusively focused on foreign language speaking anxiety has been scarce.

As China is playing an increasingly important role in world economy, a worldwide interest in learning the Chinese language has

emerged. Due to its character-based writing system and tonal nature, the Chinese language is a relatively difficult foreign language for most learners, which might lead to higher levels of anxiety. However, studies on Chinese language learners' foreign language anxiety in general and speaking anxiety in particular have not been rich. Thus, this study investigates CFL learners' speaking anxiety and its associated factors, hoping to provide some practical suggestions for language teachers and some meaningful recommendations for future research.

Research Background

The literature on anxiety generally distinguishes three types of anxiety: trait, situation-specific, and state anxiety (see Cattell & Scheier, 1963; MacIntyre & Gardner, 1989, 1991; Spielberger, 1966). Trait anxiety refers to a general tendency to become nervous in a wide range of situations (Spielberger, 1983). Since trait anxiety is a feature of an individual's personality, it is therefore stable over time. In other words, people with trait anxiety are anxious about many things under many circumstances. State anxiety is the feeling of worry or stress that takes place at a particular moment under a particular circumstance (Spielberger, 1983) and often accompanies physical signs such as perspiration, sweaty palms, dry mouth, muscle contractions and tension, and increased heart rate. A state anxiety is not stable and is likely to change from moment to moment and from circumstance to circumstance. A situation-specific anxiety is similar to trait anxiety in that it is stable over time, but it may not be consistent across situations. Rather, it is subject to change from situation to situation. Public speaking anxiety is an example of situation-specific anxiety.

Early studies on anxiety and language learning conceptualized foreign language anxiety as a transfer of other types of anxiety (i.e., trait anxiety, test anxiety, or public speaking anxiety) in the language learning context, which produced mixed and even contradictory results. At the time, some studies found negative relationships between anxiety and language achievement, some studies found no relationship, but others found positive relationships (Chastain, 1975; Kleinmann, 1977). Scovel (1978) argued that the inconsistent results of the early studies may be due to the fact that researchers used various constructs and measures of anxiety. Since that time, some researchers (e.g.

Gardner, 1985; Horwitz, Horwitz, and Cope, 1986) suggested that foreign language anxiety should be viewed as a situation-specific anxiety unique to foreign language learning and independent of other types of anxieties.

Horwitz, Horwitz, and Cope (1986) defined foreign language anxiety as "a distinct complex set of self-perceptions, beliefs, feelings, and behaviors related to classroom language learning arising from the uniqueness of the language learning process" (p.128). They also identified three anxieties related to foreign language anxiety - communication apprehension (McCroskey, 1970), fear of negative evaluation (Watson & Friend, 1969), and test anxiety (Sarason, 1978) - to help language teachers and scholars understand the nature of foreign language anxiety. In addition, they offered an instrument, the Foreign Language Classroom Anxiety Scale (FLCAS), to measure foreign language anxiety.

After the introduction of the FLCAS and a number of other measures of foreign language anxiety (e.g. Gardner, 1985; MacIntyre & Gardner, 1994), researchers were able to measure foreign language anxiety relatively more precisely. Studies in a variety of language learning contexts have found that approximately one-third of students studying a foreign language experience at least a moderate level of foreign language anxiety (e.g. Aida, 1994; Horwitz, Horwitz & Cope, 1986; Horwitz, 2001; Le, 2004). In addition, a large number of studies have investigated the relationship between foreign language anxiety and second language achievement. These studies generally report a consistent moderate negative relationship between measures of language anxiety and language achievement (Horwitz, 2001).

Speaking has been generally recognized as the most anxiety-provoking skill associated with foreign language learning. For example, Horwitz, Horwitz and Cope (1986) identified communication apprehension to be conceptually relevant to foreign language anxiety. Among many other researchers, Palacios (1998) found that speaking caused the most anxiety among the learners. Price (1991) reported that the most anxiety-provoking thing in learning a foreign language, according to her students, was to speak the target language in front of their peers.

To date, the FLCAS has been the most widely used instrument to measure foreign language learners' general anxiety in foreign language classrooms. Although the FLCAS includes quite a number of items addressing students' anxious feelings of speaking the foreign language in the classroom setting, many other items in the FLCAS tap students' general anxious feelings towards foreign language learning, anxiety associated with listening, test anxiety, or attitude towards foreign language learning. Therefore, the FLCAS does not exclusively measure foreign language speaking anxiety and there have been very few studies focused on foreign language speaking anxiety.

Due to the big differences between Chinese and English, it is widely recognized that Chinese is a challenging language for Americans to learn. The Foreign Service Institute (FSI) of the Department of State has defined four categories of foreign languages on the basis of the difficulty for native speakers of English. According to the FSI, the most commonly taught languages—Spanish and French—are both Category I languages, whereas the less commonly taught languages, such as Japanese, Chinese, Korean, and Arabic, on the other hand, are classified as Category IV. According to FSI figures, students need to take 1320 hours of instruction in a Category IV language to reach Level 2 (limited working proficiency)⁵ in comparison with only 480 hours of instruction in Category I languages (Walker, 1989).

The high difficulty level of the Chinese language may be an important source of anxiety among English-speaking learners of Chinese (Luo, 2012). In particular, unlike English, Chinese is a tonal language. The need of paying attention to tones while speaking a foreign language may cause extra anxious feelings. However, studies on anxiety among CFL learners are very rare. There are only two published studies (Luo, 2013a; Zhao and Whitchurch, 2011) on Chinese language learning anxiety among college-level students in the United States. There have been no studies exclusively focusing on Chinese language learners' anxiety associated with speaking.

⁵ According to the FSI Absolute Language Proficiency Rating Scale, a person with limited working proficiency of a language is able to satisfy routine social demands and limited work requirements.

Research Questions

In order to fill the gap, the present study attempts to adopt an instrument exclusively focused on speaking anxiety and investigate U.S. college-level CFL learners' speaking anxiety and its associated factors. The research questions include the following:

- 1. Are U.S. college-level CFL learners anxious when speaking Chinese?
- 2. What is the influence of background variables such as gender, proficiency level, and elective-required status on U.S. college-level CFL learners' speaking anxiety?
- 3. How is CFL learners' speaking anxiety related to their perceived difficulty level of the Chinese language, self-perceived achievement, and self-perceived language learning ability?

Methods

Participants

Participants were 257 (147 males, 110 females) CFL learners with an age range of 15 to 59 (M = 21.3, SD = 4.7) at two large public universities in the U.S. One university is in southwestern U.S. and the other is in midwestern U.S. 112 participants were from the southwestern university and 145 participants were from the midwestern university. They were taking credit-bearing Chinese language courses at the two universities. 128 (49.8%) participants were taking the Chinese course as an elective and 129 (50.2%) participants were taking it as a required course.

Among the 257 participants, 45 (17.5%) participants were freshmen, 65 (25.3%) were sophomores, 78 (30.4%) were juniors, 55 (2145%) were seniors, 7 (2.7%) were graduate students, and 7 (2.7%) indicated other categories. 186 (72.4%) of the participants were white, 4 (1.6%) were Chinese American, 26 (10.1%) were Asian but not Chinese American, 19 (7.4%) were Asian international students, 16 (6.2%) were Hispanic, 1 (0.4%) was African American, and 5 (1.9%) were from other ethnic backgrounds.

In this study, participants' language proficiency was classified according to their current instructional level: first-year Chinese, "elementary level"; second-year Chinese, "intermediate level"; and

third-year Chinese, "advanced level". In the present sample, there are 141 (54.9%) elementary-level students, 76 (29.6) intermediate-level students, and 40 (15.6%) advanced students. A summary of sample distributions could be found in Table 1.

Table 1 Sample Distributions

Number Participants Gender Female 110 Male 147 School	Table I Sample Dist	ributions
Gender 110 Male 147 School 145 The Midwestern University 112 Elective-Required Status 128 Elective 128 Required 129 Year in College 45 Freshman 45 Sophomore 65 Junior 78 Senior 55 Graduate 7 Other 7 Ethnicity White 186 Asian 49 Hispanic 16 African American 1 Other 5 Proficiency Level Elementary Elementary 141 Intermediate 76		
Female 110 Male 147 School		Participants
Male 147 School 145 The Midwestern University 112 Elective-Required Status 128 Elective 128 Required 129 Year in College	Gender	
School The Midwestern University 145 The Southwestern University 112 Elective-Required Status Elective 128 Required 129 Year in College Freshman 45 Sophomore 65 Junior 78 Senior 55 Graduate 7 Other 7 Ethnicity White 186 Asian 49 Hispanic 16 African American 1 Other 5 Proficiency Level 5 Elementary 141 Intermediate 76	Female	110
The Midwestern University 145 The Southwestern University 112 Elective-Required Status 128 Required 129 Year in College *** Freshman 45 Sophomore 65 Junior 78 Senior 55 Graduate 7 Other 7 Ethnicity White 186 Asian 49 Hispanic 16 African American 1 Other 5 Proficiency Level Elementary Elementary 141 Intermediate 76	Male	147
The Southwestern University 112 Elective-Required Status 128 Required 129 Year in College	School	
Elective-Required Status 128 Required 129 Year in College	The Midwestern University	145
Elective 128 Required 129 Year in College Freshman 45 Sophomore 65 Junior 78 Senior 55 Graduate 7 Other 7 Ethnicity White 186 Asian 49 Hispanic 16 African American 1 Other 5 Proficiency Level Elementary Elementary 141 Intermediate 76	The Southwestern University	112
Required 129 Year in College Freshman 45 Sophomore 65 Junior 78 Senior 55 Graduate 7 Other 7 Ethnicity White 186 Asian 49 Hispanic 16 African American 1 Other 5 Proficiency Level 141 Intermediate 76	Elective-Required Status	·
Year in College Freshman 45 Sophomore 65 Junior 78 Senior 55 Graduate 7 Other 7 Ethnicity White 186 Asian 49 Hispanic 16 African American 1 Other 5 Proficiency Level Elementary Intermediate 76	Elective	128
Freshman 45 Sophomore 65 Junior 78 Senior 55 Graduate 7 Other 7 Ethnicity White 186 Asian 49 Hispanic 16 African American 1 Other 5 Proficiency Level Elementary Intermediate 76	Required	129
Sophomore 65 Junior 78 Senior 55 Graduate 7 Other 7 Ethnicity White 186 Asian 49 Hispanic 16 African American 1 Other 5 Proficiency Level 141 Intermediate 76	Year in College	
Junior 78 Senior 55 Graduate 7 Other 7 Ethnicity White 186 Asian 49 Hispanic 16 African American 1 Other 5 Proficiency Level 141 Intermediate 76	Freshman	45
Senior 55 Graduate 7 Other 7 Ethnicity White 186 Asian 49 Hispanic 16 African American 1 Other 5 Proficiency Level 141 Intermediate 76	Sophomore	65
Graduate 7 Other 7 Ethnicity Tethology White 186 Asian 49 Hispanic 16 African American 1 Other 5 Proficiency Level 141 Intermediate 76	Junior	
Other 7 Ethnicity White 186 Asian 49 Hispanic 16 African American 1 Other 5 Proficiency Level 141 Intermediate 76	Senior	55
Ethnicity 186 Asian 49 Hispanic 16 African American 1 Other 5 Proficiency Level 141 Intermediate 76	Graduate	7
White 186 Asian 49 Hispanic 16 African American 1 Other 5 Proficiency Level 141 Elementary 141 Intermediate 76	Other	7
Asian 49 Hispanic 16 African American 1 Other 5 Proficiency Level 141 Elementary 141 Intermediate 76	Ethnicity	
Hispanic 16 African American 1 Other 5 Proficiency Level 141 Elementary 141 Intermediate 76	White	186
African American 1 Other 5 Proficiency Level Elementary 141 Intermediate 76	Asian	49
Other 5 Proficiency Level Elementary 141 Intermediate 76	Hispanic	16
Proficiency Level Elementary 141 Intermediate 76	African American	1
Elementary 141 Intermediate 76	Other	5
Intermediate 76	Proficiency Level	
	Elementary	141
Advanced 40	Intermediate	76
	Advanced	40

Instruments

The instruments for this study included the Chinese Language Speaking Anxiety Scale (Horwitz, Horwitz, and Cope, 1986; Luo, 2011) and a Background Questionnaire. The background questionnaire not only elicited participants' background information such as gender, age, ethnicity, year of college, proficiency level, etc., but also asked participants to estimate a grade they expected to get in the Chinese class and to rate their perceived foreign language learning ability, and their perception of the difficulty level of the Chinese language on a 1-5 Likert scale.

The Chinese Language Speaking Anxiety Scale is an 8-item self-report measure adapted from Horwitz, Horwitz, and Cope (1986)'s Foreign Language Classroom Anxiety Scale. The 8 items, reflecting learners' anxiety experiences associated with speaking Chinese, are scored on a 5-point Likert Scale, ranging from *strongly disagree* to *strongly agree* (strongly disagree = 1; disagree = 2; neither agree nor disagree = 3; agree = 4; strongly agree = 5). The Chinese Language Speaking Anxiety Scale was found to be highly reliable. The internal consistency reliability (using Cronbach's Alpha) of this scale was .91 (Luo, 2011).

Chinese Language Speaking Anxiety was calculated as the sum of the number of items in the scale (i.e., 8). Negatively phrased items were coded reversely. The possible range of score for Chinese Language Speaking Anxiety is 8-40.

Data Analysis Methods

For descriptive analyses of Chinese Language Learning Anxiety, means and standard derivations and the frequencies of the responses (i.e., strongly disagree, disagree, neutral, agree, strongly agree) of the 8 items in the Chinese Language Speaking Anxiety Scale were calculated and compared.

In terms of the influence of background variables on Chinese Language Speaking Anxiety, three-way ANOVA analyses were used to compare Chinese Language Learning Anxiety among different subgroups of CFL learners. The background variables included gender, Chinese language proficiency level, and elective-required status. Before the ANOVA tests were conducted, the Kolmogorov-Smirnov test along with skewness and kurtosis statistics were performed with the score of Chinese Language Speaking Anxiety to see whether the data were normally distributed.

For the analysis of relationships between anxiety and other variables related to Chinese learning (i.e. perception of the difficulty level of the Chinese language, self-perceived achievement, self-perceived language learning ability), correlation analyses and multiple regression analyses were used to determine how CFL learners' speaking anxiety was predicted by these variables.

Before multiple regression analyses were conducted, the researcher checked Cook's distance and Leverage values for outliers, examined the P-P plot for normality of residuals, plotted the standardized residuals against the standardized predicted values to check linearity and equality of variances, and studied the correlation matrix of all the independent variables for multicollinearity. All these tests indicated that multiple regression was appropriate for the present data.

Results and Discussion

Chinese Language Speaking Anxiety

In order to answer research question 1, the researcher calculated the means and standard deviations of Chinese Language Speaking Anxiety and counted the frequencies of the responses of the items in the anxiety scale.

Means and Standard Deviations

The means and standard derivations of Chinese Language Speaking Anxiety are shown in Table 2. In order to compare the score of Chinese Language Speaking Anxiety with foreign language anxiety scores found in other studies, the researcher divided the means by 8, i.e., the number of items in the scale, and calculated the mean item response for Chinese Language Speaking Anxiety.

Table 2 Means and Standard Deviations of Chinese Language Speaking Anxiety

Anxiety Type	Mean	Standard	Mean	Item
		Deviation	Response	
Speaking Anxiety	21.8	7.3	2.725	

As can be seen from Table 2, the mean item response for Chinese Language Speaking Anxiety (M=2.7256) is not very high, indicating that the CFL learners in this sample, on average, were only slightly anxious in speaking Chinese. Luo (2013a) found the mean item response of general Chinese Language Learning Anxiety was 2.58, lower than that of Chinese Language Speaking Anxiety found in this study. This finding could indicate that speaking Chinese is more anxiety-provoking than learning Chinese in general, but it could also be due to the fact that the sample in Luo (2013a)'s study included a large number of heritage learners while the participants in this study were non-heritage CFL learners.

In Zhao and Whitchurch's (2011) study, participants were all English-speaking CFL learners and the mean item response for these learners' general foreign language anxiety is 2.69⁷, a little lower than the CFL learners' Speaking Anxiety in this study. This result seems to further indicate that CFL learners are particularly anxious in speaking Chinese. However, since the participants in these two studies were different, this conclusion is still premature.

Frequency Analyses

The participants' responses to the 8 items in the Chinese Language Learning Anxiety Scale are reported in Table 3. All frequencies and percentages refer to the number of students who agreed or strongly agreed (or disagreed or strongly disagreed) with statements indicative of Chinese language learning anxiety to the nearest whole number. Percentages may not total to 100 due to rounding.

⁶ The range of mean item response is 1-5.

⁷ Zhao and Whichurch (2011) did not report the mean item response of anxiety directly. The mean item response of 2.69 is a result of calculation based on the data reported in their study.

Table 3 Frequency Analyses of Chinese Language Speaking Anxiety Items

SD D N A SA

1. I start to panic when I have to speak without preparation in my Chinese class.

24 (9.3%) 63 (24.5.5%) 54(21.0%) 84 (32.7%) 32 (12.5%)

2. It embarrasses me to volunteer answers in my Chinese class.

68 (26.5%) 81 (31.5%) 57 (22.2%) 36 (14.0%) 15 (5.8%)

3. I can feel my heart pounding when I'm going to be called on in my Chinese class.

63 (24.5%) 73 (28.4%) 53 (20.6%) 45 (17.5%) 23 (8.9%)

- 4. I get nervous and confused when I am speaking in my Chinese class. 38 (14.8%) 81 (31.5%) 73 (28.4%) 53 (20.6%) 12 (4.7%)
- 5. I am afraid that the other students will laugh at me when I speak Chinese. 102 86 (33.5%) 35 (13.6%) 23 (8.9%) 11 (4.3%) (39.7%)
- 6. I feel confident when I speak in my Chinese class.

18 (7.0%) 63 (24.5%) 87 (33.9%) 64 (24.9%) 25(9.7%)

- 7. I always feel that the other students speak Chinese better than I do. 34 (13.2%) 57 (22.2%) 51 (19.8%) 70 (27.2%) 45 (17.5%)
- 8. I feel very self-conscious about speaking Chinese in front of other students.

36 (14.0%) 74 (28.8%) 57 (22.2%) 61 (23.7%) 29 (11.3%) Note: SA=strongly agree, A=agree, N=neither agree nor disagree, D=disagree, SD=strongly disagree. All percentages refer to the number of students who agreed or strongly agreed (or disagreed or strongly disagreed) with statements indicative of CFL anxiety to the nearest whole number. Percentages may not total to 100 due to rounding.

Although the mean item response of speaking anxiety among CFL learners in the present study was not extremely high on average (M=2.725), quite a number of learners did experience a high level anxiety while speaking Chinese (see Table 3). For example, 116 (45.2%) learners agreed or strongly agreed with the item "I start to panic when I have to speak without preparation in my Chinese class" and 68 (26.4%) learners endorsed the item "I can feel my heart pounding when I'm going to be called on in my Chinese class".

Anxious students showed low confidence in speaking Chinese. 81 (31.5%) participants disagreed or strongly disagreed with statements such as "I feel confident when I speak in my Chinese class". Anxious

students seemed to be concerned with peers' opinions as they endorsed items such as "I feel very self-conscious about speaking Chinese in front of other students" (35%), and "I always feel that the other students speak Chinese better than I do" (44.7%). Peer competition seemed to be an important cause of speaking anxiety in Chinese classes.

The Influence of Background Variables

In order to answer research question 2, a three-way ANOVA was used to compare mean differences in Chinese Language Speaking Anxiety with students' background characteristics as independent variables. The background variables examined here included: 1) gender, 2) proficiency level, and 3) elective-required status.

Before the ANOVA analyses were conducted, the researcher examined the normal distribution together with Skewness and Kurtosis to see whether the score of Chinese Language Speaking Anxiety was normally distributed. Results showed that the absolute values for the Skewness (.152) and Kurtosis (.303) were lower than 2, indicating the scores of Chinese Language Speaking Anxiety satisfactorily formed normal distribution. In addition, The Levene's test for the three-way ANOVA test (p = .817) was not significant, suggesting that there was not sufficient evidence to indicate that the assumption of homogeneity of variance/covariance had been violated. All these results indicated that ANOVA analyses were appropriate for the current data.

Results of the three-way ANOVA analyses by gender, proficiency level, and elective-required status showed that there were no significant differences in Chinese Language Speaking Anxiety by proficiency level (df = 2, F = .578, p = .562) or the elective-required status (df = 1, F = 3.225, p = .074), but there were significant differences by gender (df = 1, F = 5.996, p = .015). None of the interactions between the three background variables was significant.

In other words, beginning-level, intermediate-level, and advanced-level students were not significantly different on Chinese Language Speaking Anxiety. Students who selected Chinese as an elective course and those who took Chinese as a required course did not differ significantly on Speaking Anxiety either. Female and male

learners experienced significantly different amounts of Chinese Language Speaking Anxiety.

A close examination of the means and standard deviations of Speaking Anxiety for each group showed that elementary-level students were the most anxious (M=22.31, SD=7.44), followed by intermediate-level students (M=21.38, SD=6.90), with advanced-level students (M=21.10, SD=7.68) being the least anxious. The Elective Group (M=22.39, SD=6.89), on average, were more anxious than the Required Group (M=21.30, SD=7.70) in speaking Chinese. Female CFL learners (M=23.34, SD=7.04) were more anxious about speaking Chinese than their male counterparts (M=20.72, SD=7.34).

Many studies have explored the influence of proficiency level on foreign language anxiety. For example, in Liu's (2006) study of EFL learners in China, more proficient students tended to be less anxious. Zhao and Whitchurch (2011) found that elementary college-level CFL learners in the U.S. were a little more anxious than the intermediate learners, but the difference was not significant. Luo (2013a) found that proficiency level had a significant effect on general Chinese Language Learning Anxiety and that students' anxiety levels decreased as their proficiency level increase. All these studies seem to suggest that exposure to the target language helps reduce foreign language anxiety.

The finding that the Elective Group were more anxious about speaking Chinese than the Required Group was surprising. Students who take Chinese as a required course are likely to feel more pressed to perform well in Chinese classes, so the researcher thought these students should experience more anxiety than their counterparts. In contrast with the finding of this study, Aida (1994) did find that the Required Group had a significantly higher level of general foreign language anxiety than the Elective Group among Japanese language learners. Therefore, more studies on the effect of the elective-required status on foreign language anxiety are needed.

It is worth mentioning that female and male students' general foreign language anxiety levels in Chinese classes were reported not to be significantly different in Zhao and Whitchurch's (2011) study. However, they also found female (M=2.84) were more anxious in Chinese classes than male (M=2.56) students. It seems that Chinese

instructors may need to pay special attention to female students' emotional needs in Chinese classes.

Relationship between Speaking Anxiety and Other Learning Variables

For the analysis of the relationship between Chinese Language Speaking Anxiety and other variables (i.e. perceived difficulty level of the Chinese language, self-perceived achievement, and self-perceived language learning ability), correlation and multiple regression analyses were used.

Participants were asked to provide a grade they expected to get in the Chinese class (which was used to indicate self-perceived achievement) and to rate their perceived difficulty level of the Chinese language and their self-perceived language learning ability on a 1-5 Likert scale.

The results of correlation analyses show that CFL learners' Speaking Anxiety had a significant positive correlation with perceived difficulty level of the Chinese language (r = .342, p = .0001) and a significant negative correlation with perceived language learning ability (r = -.311, p = .001) and self-perceived achievement in Chinese classes (r = -.303, p = .0001). In other words, students who perceived Chinese to be more difficult were more anxious; students who expected to get a higher grade and who perceived themselves to be better at learning languages tended to experience less anxiety in speaking Chinese.

The multiple regression analysis was performed to further examine how Chinese Language Speaking Anxiety could be predicted by the three variables. Before the multiple regression analysis was conducted, the researcher checked Cook's distance and Leverage values for outliers, examined the P-P plot for normality of residuals, and plotted the standardized residuals against the standardized predicted values for linearity and equality of variances. The results of these tests suggested that multiple regression was an appropriate analysis for the current data.

The results of multiple regression showed that the three variables were all significant predictors of Speaking Anxiety. They, as a whole, had a significant relationship with Chinese Language Speaking Anxiety, F(3, 253) = 22.9, p = .0001, and explained 21.4% of the

variance in Speaking Anxiety. Considering a large number of other variables (e.g. learners' personality, classroom environment, teaching materials, teaching methods, etc.) could affect learners' anxiety experiences in Chinese classes, the 21.4% of variance explained by the three variables is considerable.

The squared partial correlation coefficients were often recommended to assess the relative contribution of individual variables in multiple regression analysis (e.g. Cohen, 1988). From the partial correlation coefficients (see Table 4), it can be seen that perception of the difficulty of Chinese was the best predictor of Chinese Language Speaking Anxiety, explaining 7.5% of the variance, followed by self-perceived language learning ability and self-perceived achievement, accounting for 4.84% and 4.28% of the variance respectively.

Table 4 Multiple Regression Model for Predicting Speaking Anxiety

				<u> </u>
Variable	Standardized			Partial
	Coefficients			correlation
	Beta	t	Sig.	coefficients
(Intercept)		8.677	.000	
Language Learning	209	-3.588	.000	220
Ability				
Self-perceived	196	-3.358	.001	207
Achievement				
Difficulty of Chinese	.261	4.539	.000	.274

Model R=.463; R Square=.214; Adjusted R Square=.205; Std. Error=6.52; F (3, 253) =22.9, p=.0001

Conclusion and Implications

This study found that College-level CFL learners in the U.S. were not highly anxious about speaking Chinese on average (M = 2.725), but frequency analyses showed that quite a number of CFL learners experienced high levels of anxiety in speaking Chinese, indicating that Chinese Language Speaking Anxiety should be taken into serious consideration in Chinese instruction.

The finding that CFL learners' Speaking Anxiety decreased as their proficiency level increased may suggest that exposure to the target language could help reduce learners' Speaking Anxiety. Therefore, Chinese instructors may need to find ways to increase learners' exposure to the Chinese language. For example, involving students in the local Chinese community, setting up a Chinese Table, and building virtual Chinese community online for the students could all be effective strategies to increase language exposure.

In this study, female students are found to be significantly more anxious in speaking Chinese than male students. Chinese instructors may need to take this finding into consideration when conducting Chinese classes. In order to alleviate female students' uncomfortable experience in Chinese classes, Chinese instructors may need to pay more attention to female students' emotional reactions and avoid those anxiety-provoking practices (such as calling on students to answer questions, speaking in front of the class, etc.) on female students if necessary.

This study also found Speaking Anxiety to be positively correlated with perceived difficulty level of Chinese and negatively correlated with self-perceived language learning ability and selfperceived achievement in Chinese classes. Since students who perceive the Chinese language to be less difficult tend to be less anxious in Chinese classes, an orientation workshop demystifying the Chinese language at the beginning of Chinese classes may be able to get the students mentally and emotionally prepared for Chinese classes. In addition, effective strategies for teaching tones and characters, the two most difficult features of the Chinese language, should be enforced in Chinese classes. As CFL learners' self-perceptions of language learning ability and achievement were reported to be negatively correlated with their anxiety levels, it may be helpful if Chinese teachers could encourage the students and build up their confidence in Chinese classes. Effective methods for encouragement include praising the students in front of their classmates, constant acknowledgement of their progress, and regular individual meetings to track each student's challenges and progress.

This study explored CFL learners' anxiety associated with speaking and produced some meaningful results. Future studies could investigate CFL learners' anxiety when learning the other three skills, namely, listening, reading and writing and study whether the four skills are equally anxiety-provoking. In order to help reduce CFL learners' anxiety in learning Chinese, researchers could explore the sources of

CFL learners' anxiety. For this purpose, an interview study on highly anxious learners is recommended.

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