

Linguistic Distance, Language Anxiety, and Coping Strategies: A Comparative Study of Chinese and Spanish-Speaking English Language Learners in Classroom Settings

TAO Jifen

Zhanjiang University of Science and Technology, Guangdong, China

KENNEDY Teresa J.

University of Texas at Tyler, Tyler, USA

HE Zhaomin

Changchun University of Finance and Economics, Changchun, China

LI Bai

Queensland University of Technology, Brisbane, Australia

This study explored the relationship between linguistic distance and language anxiety among English Language Learners (ELLs), and the strategies that ELLs and their teachers adopted to help cope with classroom language anxiety. It was hypothesized that Chinese ELLs may experience higher levels of anxiety than Mexican ELLs in English language classroom settings due to greater linguistic distance between Mandarin Chinese and English than between the Spanish and English languages. English classroom language anxiety of a sample of 108 Chinese and 72 Mexican undergraduate students was examined using the Foreign Language Classroom Anxiety Scale (FLCAS) in combination with two open-ended questions regarding strategies used to ease classroom language anxiety. Analyses of covariance were performed, the results of which showed significant differences. On average, the Chinese students reported higher levels of language anxiety than the Mexican students in classroom settings, and the same pattern was observed regarding various aspects of student language anxiety including communication apprehension, fear of negative evaluation, and test anxiety. Additionally, a gender difference was observed among the Mexican but not the Chinese students, with the Mexican female students experiencing a higher level of anxiety than their male counterparts. Student responses to the two open-ended questions echoed the statistical results, suggesting that language anxiety might be the consequence of language learning difficulty.

Keywords: coping strategies, English Language Learners (ELLs), foreign language anxiety (FLA), foreign language classroom anxiety (FLCA), Foreign Language Classroom Anxiety Scale (FLCAS), intercultural communicative competence (ICC), language score (LS), linguistic distance (LD), unwillingness to communicate (UTC)

TAO Jifen, M.A., associate professor, Department of Foreign Languages, Zhanjiang University of Science and Technology, Guangdong, China.

KENNEDY Teresa J., Ph.D., professor, College of Education and Psychology School of Education, University of Texas at Tyler, Tyler, USA.

HE Zhaomin, Ph.D., assistant professor, College of Foreign Languages, Changchun University of Finance and Economics, Changchun, China.

LI Bai, Ph.D., senior lecturer, Faculty of Business and Law, Queensland University of Technology, Brisbane, Australia.

Introduction

While conducting over 40 hours of classroom observations of post-graduate English language learners (ELLs) during the last two levels (6 & 7 in listening and speaking) at an intensive English language institute located in East Texas (in the southern region of the United States), it was noted that Hispanic ELLs generally appeared to be more actively participating in speaking activities than Chinese ELLs. Subsequent discussions with the Chinese students revealed general hesitations related to classroom participation activities that required speaking English. Research in language anxiety in classroom environments may offer some explanations.

According to Horwitz, Horwitz, and Cope (1986), since “complex and non-spontaneous mental operations are required in order to communicate at all, any performance in a L2 [second language] is likely to challenge an individual’s self-concept as a competent communicator and lead to reticence, self-consciousness, fear and even panic” (p. 128). This notion led to our investigation to better understand why Chinese ELLs may feel anxious when speaking English in a classroom setting and therefore not engage in speaking activities.

Language theories commonly assert that the learner’s native language can present challenges when they attempt to learn specific languages that are inherently different. The degree of similarity between their first language (L1) and the target language (L2) is referred to as linguistic distance (LD). Hart-Gonzalez and Lindemann (1993), in their *Index of Difficulty of Learning a Foreign Language*, explained that Spanish has a shorter linguistic distance from English compared to Chinese. Their finding is significant for this study, as subsequent research by Isphording and Otten (2013) reported that students face higher difficulty levels when learning a second language (L2) with a greater linguistic distance from their first language (L1).

This study examined the language anxiety levels of Chinese and Spanish learners of English to further establish the relationship between linguistic distance and language anxiety. Based on previous research, it was hypothesized that Chinese ELLs have a higher level of language anxiety than their Spanish-speaking counterparts. Given the greater linguistic distance between English and Chinese, as indicated by the *Index of Difficulty of Learning a Foreign Language*, we argue that this distance may lead to increased learning difficulties and, consequently, higher anxiety levels among Chinese ELLs. In addition, past research indicates a strong correlation between deliberate use of anxiety-reducing strategies and anxiety levels in the classroom (Alrabai, 2015). Therefore, the second objective of this research was to establish whether the strategies employed by ELLs and their teachers in two different cultural contexts could help explain the language anxiety differences, if any.

Linguistic Distance

Linguistic distance (LD) is defined as “the extent to which languages differ from each other” (Chiswick & Miller, 2005, p. 1) and “is based on a set of language scores (LS) measuring achievements in speaking proficiency in foreign languages” (Chiswick & Miller, 2007, p. 31). Hart-Gonzalez and Lindemann (1993), the authors of the study referred to above, assessed 43 languages in terms of their difficulty levels for average-ability English-speaking Americans. Their *Index of Difficulty of Learning a Foreign Language* rates languages on a range from a low score of 1.00, indicating the language would be harder to learn for an English-speaker, to a high score of 3.00, for languages that would be easier to learn. Research has found that immigrants from different language

backgrounds differ in their adjustment to the language of their host country, and one of the reasons may be the distance between their own language(s) and the language spoken in their host countries. LD, also referred to as language typology, is often used for language classification since it refers to the distance between languages and language families (Leusink, 2017).

According to this logic, one would assume that if it is difficult for a Chinese speaker to learn English, then Chinese would pose the same level of difficulty for native English speakers (Chiswick & Miller, 2005). According to the index, Spanish has an overall LS of 2.25, while Mandarin Chinese has a LS of 1.50, indicating that Spanish is closer to English in linguistic features than Chinese (Chiswick & Miller, 2005). Based on this analysis, language theorists expect that it would be relatively easy for Spanish-speakers to learn English but relatively difficult for Chinese-speakers to do the same since the grammar, vocabulary, and sound systems of the Spanish and English languages are much more similar than those of Chinese and English.

Second language acquisition theory based on Chomsky's theory of language universals and marked features (distance from the universal) sheds theoretical light on the notion of LD (Chomsky, 2015). The theory suggests that children are born into a language community where their brains "select" the form of each universal feature that corresponds to the specific language to which they are being exposed (Kennedy, 2006/2008; Kennedy & Reese, 2007). In other words, exposure to a specific language allows their brains to select those forms of universal grammar and corresponding phonetic sounds that fit their environmental situation. This process often referred to as parameter setting, occurs when language students must reset the parameters of their first language to achieve the features of the new language they wish to learn. According to Markedness Theory, all languages contain unmarked (the more common, regular, and broader linguistic elements) and marked elements (those that are irregular and less frequent) (Zhang & Tian, 2015). Differences between the marked features in the learner's first and second languages, as well as the degree of markedness, could cause ease or difficulties in foreign/second language acquisition and learning.

Many studies have supported both the Universal Grammar and Markedness Theories, providing insights into understanding certain linguistic phenomena. For example, the 2000 U.S. Census found that immigrants' language proficiency was negatively impacted by linguistic distance (Chiswick & Miller, 2007). Based on phonetic similarity between pairs of words across different languages, Isphording and Otten (2013) developed a novel way to measure linguistic distance. Using three countries' data sets on immigrants, they found that the higher the linguistic distance, the lower the reported language proficiency of each cohort.

Cognitive linguistics offers yet another perspective to understand how linguistic distance affects language learning. According to cognitive linguistics, language learning relies on the cognitive processes of encoding, storage, and retrieval. When learners must produce spontaneous speech on the spot, they can experience tremendous cognitive demands on all three processes listed above. This situation may lead to cognitive overload, causing learners to stop speaking altogether (Goh & Burns, 2012), especially in language classrooms when the speaking tasks tend to be complex, and the pace tends to move quickly. Under these circumstances, ELLs may not have enough time to process information effectively due to limited cognitive capacity for processing meaning and linguistic form simultaneously, and therefore may feel anxious when urged (or required) to answer questions in English. This is especially true when there are significant differences between their first language and English. These processes may be more complex for Chinese ELLs than for other ELLs, such as those whose native tongue

is French or Spanish, due to different parameter setting efforts, which tend to overload the working memory of Chinese learners of English. Since a positive correlation was shown to exist between foreign language anxiety and cognitive load (Chen & Chang, 2004, 2009), it is plausible to propose that Chinese ELLs may experience more anxiety than Spanish learners of English in a language learning classroom setting.

Foreign Language Anxiety

In 1986, Horwitz et al. first proposed the concept of foreign language anxiety (FLA) and defined it as “a distinct complex construct of self-perceptions, beliefs, feelings, and behaviors related to classroom language learning arising from the uniqueness of the language learning process” (p. 128). This conceptualization led to the introduction of the *Foreign Language Classroom Anxiety Scale* (FLCAS); an instrument designed to determine students’ anxiety in classroom environments that focus on foreign language learning. This concept and the scale triggered a considerable number of similar studies that focused on the uniqueness of foreign language anxiety. The findings of this body of research either supported that some types of anxiety are specific to foreign language learning, validated the FLCAS, or demonstrated the crippling or facilitating roles of classroom language anxiety in different contexts (e.g., Aida, 1994; Horwitz, 2017; Horwitz et al., 1986; MacIntyre, 2017; MacIntyre & Gardner, 1989).

Among many studies conducted in different language contexts, McCroskey, Fayer, and Richmond (1985) examined Spanish learners of English at a Puerto Rican university. A negative correlation was found between communication apprehension and the students’ self-rated proficiency in English, but no such correlation was found between the two variables in relation to Spanish, the participants’ first language. Liu and Jackson (2008) investigated Chinese ELLs in classroom settings, focusing on the relationship between the speaking anxiety experienced by learners and their unwillingness to communicate (UTC). They found that not only the participants’ UTC in class was correlated with their foreign language anxiety, but both were correlated with their self-reported English competency as well.

Additional studies have compared foreign language classroom anxiety (FLCA) experienced by different L1 learners and examined variables that impact FLA (Dewaele, Witney, Saito, & Dewaele, 2018; Jiang & Dewaele, 2019). They found that Asian learners have the highest levels of FLCA when compared to learners from Europe, the Americas, and Arab countries (Dewaele & MacIntyre, 2014), that learner-internal and teacher-related variables play important roles in students’ self-reported FLA (Jiang & Dewaele, 2019), and that female students report higher FLCA than their male peers (Dewaele et al., 2018; Jiang & Dewaele, 2019).

Despite the popularity and wide acceptance of language anxiety theory, some research raises questions about whether language anxiety causes language-learning difficulties or vice versa (Gao & Kennedy, 2019; MacIntyre, 1995; Sparks & Ganschow, 1991, 1995; Sparks, Ganschow, & Pohlman, 1989; Sang & Hiver, 2021). Among them, the debates between MacIntyre, Sparks and Ganschow serve as typical examples. Compared with more relaxed learners, anxious French learners in studies by MacIntyre and Gardner (1989, 1994) had trouble expressing their ideas in the classroom and were less confident in their foreign language abilities. After reviewing findings from research on anxiety in general and anxiety in language learning settings, MacIntyre (1995) concluded that language anxiety can be an important causal factor for language learning differences among learners, although MacIntyre (2017) later found the relationship between language anxiety and learning

difficulties to be bidirectional. However, Sparks and Ganschow (1991, 1995), suggest that FLCA might stem from both inadequate foreign language skills and deficiencies in the first language. To support their causal direction contention, Ganschow and Sparks (1996) examined 154 foreign language learners with different anxiety levels and concluded that “language variables differentiate good and poor foreign language learners, and that high, average, and low levels of anxiety may be a consequence of these language skill differences” (p. 207).

Anxiety arising from the process of acquiring a foreign language can stem from a multitude of factors. For example, the fear of making mistakes in pronunciation or grammar, the pressure to perform well on language assessments, and the discomfort of being immersed in unfamiliar cultural contexts can all contribute to language-related anxiety (Canney et al., 1999). Gao and Kennedy (2019) found that linguistic development correlates strongly with intercultural communicative competence (ICC), which entails the capacity to communicate effectively and appropriately in intercultural contexts, drawing upon one’s intercultural knowledge, skills, and attitudes. (p. 177). Learners’ enthusiasm and willingness to participate in learning experiences, along with their dedication to the learning process, are essential prerequisites for L2 development. In conjunction with the concepts of motivation and interest, engagement and investment offer a conceptual framework for understanding L2 learners’ committed involvement and effort, serving as counterparts to deliberate attention and active participation (Sang & Hiver, 2021; Xu, Sun, & Kennedy, 2016). Understanding the complex interplay between language anxiety, learning difficulties, intercultural competence, and learner engagement is crucial for educators and researchers to effectively support language learners in their journey towards proficiency and cultural fluency.

Coping Strategies for Language Anxiety

Many studies have discussed strategies that language learners and teachers employ to reduce or cope with foreign language classroom anxiety (Alrabai, 2015; He, 2017). In relation to teachers’ strategies, most of the research describes implementation procedures aimed at alleviating communication apprehension (Effiong, 2016; Young, 1992), with only a few studies examining the effectiveness of these strategies (Alrabai, 2015; He, 2017). For example, Young’s (1992) interviews with foreign language specialists recommended the following top four strategies: (1) more pair and group work, (2) asking open-ended questions, (3) focusing on students’ meaning rather than form and errors, and (4) allowing learners to voluntarily answer questions. In order to evaluate the effectiveness of these recommendations, He (2017) elicited anxiety-reducing strategies from both university ELLs and their teachers in China and found that teachers’ personal characteristics, such as being humorous and patient, engaging students in pair and group work, as well as providing a safe and supportive learning environment, seemed to be the most important in alleviating Chinese students’ language anxiety in classroom settings.

Other studies have investigated coping strategies employed by students. Based on Kondo and Yang’s (2004, p. 262) five categories of anxiety-reducing strategies elicited from students (preparation, relaxation, positive thinking, peer seeking, and resignation), Abdurahman and Rizqi (2021) examined Indonesian students’ dynamic use of anxiety-coping strategies while giving oral presentations in their English class. Their findings revealed that students used different strategies at different stages of their presentation, and strategies also differed between low-anxiety and high-anxiety students. Despite the interesting findings reported in these past studies, the critical component missing in the literature is a comparison between anxiety coping strategies of different L1 groups.

In summary, the literature covering linguistic distance, language anxiety, and strategies coping with language anxiety showed that the degree of linguistic distance between a learner's L1 and target language can block or facilitate language proficiency development and that the debate on the causal relationship between classroom anxiety and language learning difficulties is still unsettled even though teachers implement effective strategies to reduce their students' classroom language anxiety. Nevertheless, the majority of studies employed quantitative methodologies, with only a limited number incorporating open-ended inquiries. Furthermore, very few studies focused on investigating the correlation between linguistic distance and language anxiety, or on the self-initiated and/or teacher-initiated coping strategies reported by foreign language learners from different cultural groups.

Therefore, our research examined the relationship between linguistic distance (LD) and foreign language anxiety (FLA) by comparing the anxiety levels of Chinese ELLs and Mexican ELLs to contribute evidence for the causal direction debate and to learn whether Chinese ELLs sustain a higher-level of difficulty in learning English due to greater LD between Mandarin Chinese and English, which may in turn lead to more cognitive effort in parameter resetting in comparison to the Spanish ELLs. It was therefore hypothesized that Chinese ELLs may experience higher degrees of language anxiety in the language classroom than Mexican ELLs due to additional cognitive effort spent. If our hypothesis held true, the observed differences in English language speaking performance between the Chinese and Mexican students could be explained. In addition, anxiety-coping strategies from both groups of students were also elicited to determine the extent to which the Chinese students and the Mexican students may differ in regard to their coping strategies. This information could provide a better understanding of the underlying reasons for students' responses to the survey questions, and practical strategies they and their teachers utilized to reduce classroom foreign language anxiety.

This study attempted to answer the following two research questions:

1. Due to linguistic distance, did Mandarin-speaking Chinese ELLs experience higher degrees of foreign language classroom anxiety than Spanish-speaking Mexican ELLs, adjusting for student gender and years of learning English?
2. What general coping strategies do Chinese and Mexican ELLs employ to overcome language-learning anxiety in their respective second language classroom settings, and what coping strategies do their teachers encourage and support?

Methods

Participants

This study involved a total of 175 university students, with 67 from a regional university located in the eastern part of Mexico's Yucatán Peninsula and 108 from a regional university located in the northeast part of China. Both groups in the sample were from randomly selected majors and classes, different in age, $t(75.15) = -3.91$, $p < 0.001$, gender, $\chi^2(1) = 4.22$, $p = 0.04$, level, $\chi^2(3) = 90.83$, $p < 0.001$, and years of English learning, $t(102.10) = 10.05$, $p < 0.001$. Mandarin Chinese and Spanish were confirmed to be the primary native languages respectively and both groups (96% Chinese and 92% Mexican students) identified English as their first foreign language. Refer to Table 1 for detailed participant information.

Table 1

Participant Demographic Information by Country

	China (<i>N</i> = 108)	Mexico (<i>N</i> = 67)	Total (<i>N</i> = 175)
Age (<i>M</i> , <i>SD</i>)	19.37, 0.83	20.6, 2.49	19.84, 1.77
Gender (#, %)			
Male	22, 20.4%	23, 34.4%	45, 25.7%
Female	86, 79.6%	44, 65.7%	130, 74.3%
Level (#, %)			
Freshman	1, 0.9%	22, 32.8%	23, 13.1%
Sophomore	107, 99.1%	23, 34.3%	130, 74.3%
Junior	-	10, 14.9%	10, 5.7%
Senior	-	12, 17.9%	12, 6.9%
Years of learning English (<i>M</i> , <i>SD</i>)	10.61, 2.50	5.39, 3.77	8.61, 3.97

Survey Instrument

The FLCAS (Horwitz et al., 1986) measures anxiety levels experienced by the learners in the classroom. The scale consists of 33 statements and three subscales: Communication Apprehension (CA: 11 items), Test Anxiety (TA: 15 items), and Fear of Negative Evaluation (FNE: 7 items). Participant responses were rated on a five-point Likert-type scale ranging from 1 = strongly disagree to 5 = strongly agree. The mean was used as the scale and component scores with higher and lower values indicating higher and lower levels of foreign language classroom anxiety respectively. A mean of around three was considered as slightly anxious with below three as less anxious, and above four as fairly anxious. The instrument consistently demonstrated sound psychometrical properties (e.g., Horwitz et al., 1986; Spielberger, 1983). Both the Chinese and Spanish versions of the scale showed strong reliability (Chinese: $\alpha = 0.89$; Spanish: $\alpha = 0.93$) and confirmed the three-factor model of the FLCAS (Cao, 2011; Arnaiz & Guillén, 2012). The Cronbach's α s from the sample in this study were adequate for both the overall scale (0.94) and the three subscales, i.e., CA (0.85), TA (0.86), and FNE (0.82). When broken down, responses from both the Chinese and Mexican groups showed satisfactory internal consistency for the overall scale (0.93 and 0.94) and the subscales, i.e., CA (0.80 and 0.87), TA (0.87 and 0.87), and FNE (0.73 and 0.87). In order to obtain a better understanding of the student responses to the FLCAS items, two open-ended questions based on the existing literature on anxiety-reducing strategies in foreign language classrooms were created to explore coping strategies students and teachers used to promote calm participation and successful performance in class.

The institutional review board approved the study and student consent was obtained. The questionnaire was delivered in English via the online survey tool Qualtrics® with simplified Mandarin Chinese (Cao, 2011) and Spanish translations (Pérez-Paredes & Martínez-Sánchez, 2000-2001) presented together to ensure consistent understanding. Students' responses to the two open-ended questions were mostly in the students' native languages. The students were instructed that the FLCA questionnaire should be completed with their current English language classroom in mind.

Statistical Analyses

The students' responses were exported as SPSS® data files. All analyses were conducted in SPSS® by the third author. Data screening was first performed for entry accuracy before the nine FLCAS questions (i.e., 2, 5, 8, 11, 14, 18, 22, 28, and 32) were reversely coded. Cronbach's alphas were calculated for both the overall scale (33 items) and the three subscales with the sample as a whole and by country respectively. Descriptive statistics

were obtained to summarize the participant demographic information, which was also examined by country for comparability. Based on the comparability test results, two-way analyses of covariance (ANCOVA) were performed on both the FLCAS scale, subscale scores with country, and gender being the grouping variables, and years of English learning the covariate. Bonferroni correction was applied to control for Type I error rate.

In analyzing the qualitative data, basic content analysis method was followed (Drisko & Maschi, 2016) since most students' answers to the two open-ended questions were one or two sentences long. The first author using students' words coded the data inductively. The fourth author further checked the resulting categories of strategies and the data. After coding the data, the number and percentage of students reporting the same/similar themes for each question were calculated (Drisko & Maschi, 2016).

Results

FLCA of Chinese and Mexican College Students

The students' scale ratings provided a substantial profile of their foreign language classroom anxiety. On average, the Chinese students ($M = 3.03$, $SD = 0.50$) reported a higher level of the overall FLCA mean score than the Mexican students ($M = 2.71$, $SD = 0.66$), which was considered as slightly anxious according to Horwitz's standard (2008). Similar patterns were observed across the three subscale scores and most of the 33 items between the two groups. The Chinese students were slightly anxious (>3) on Communication Apprehension and Fear of Negative Evaluation but not on Test Anxiety, whereas the Mexican students' scale and component scores were mostly below three. While the Chinese students did not report Test Anxiety ($M = 2.90$, $SD = 0.55$), their scores were still higher than those of the Mexican students ($M = 2.65$, $SD = 0.64$). Specifically, among all 33 items, Item 22 ("I don't feel pressure to prepare very well for language class") by the Chinese group ($M = 2.41$, $SD = 0.83$) and Item 5 ("It wouldn't bother me at all to take more foreign language classes") by the Mexican group ($M = 1.66$, $SD = 0.92$) had the lowest student ratings. The highest item ratings were Item 9 ("I start to panic when I have to speak without preparation in language class") by the Chinese students ($M = 3.6$, $SD = 0.86$) and Item 10 ("I worry about the consequences of failing my foreign language class") by the Mexican students ($M = 4.06$, $SD = 1$). Meanwhile, alongside the average trends, the standard deviations revealed slightly greater individual differences in Mexican students' responses than the Chinese students.

Linguistic Distance and FLCA

The two-way ANCOVA results showed significant main effects of country and gender as well as significant covariate effects for both the FLCA and two of the three subscale scores except Test Anxiety (TA), which only Country had a significant main effect. The Country*Gender interaction effect was only significant for FNE, $F(1,168) = 7.61$, $p = 0.006$, $\eta_p^2 = 0.04$, observed power = 0.78. However, while these effects were statistically significant, the effect size statistics indicated the Country main effect was the largest. Specifically, the differences between the Chinese and Mexican student responses were the largest in CA ($\eta_p^2 = 0.17$) and smallest in TA ($\eta_p^2 = 0.08$). An evaluation of the model showed the homogeneity assumption was violated, so caution should be taken when interpretation and inferences are made. Except for the Gender*Country interaction term on all scale and subscales, the observed power for the gender main effect on TA, and Years of Learning on TA and FNE, were all above 0.8 indicating acceptable robustness against Type II error (Cohen, 1992).

The Gender*Country interaction descriptive statistics showed the anxiety levels were similar across gender within the Chinese group but different in the Mexican group for the FLCA scale and subscale scores. The male students in the Mexican group had significantly lower levels of anxiety than the female students, a finding that

echoes the findings of Dewaele et al. (2018) and Jiang and Dewaele (2019). See Figure 1 and Table 2 for the detailed means and information regarding standard error of the means.

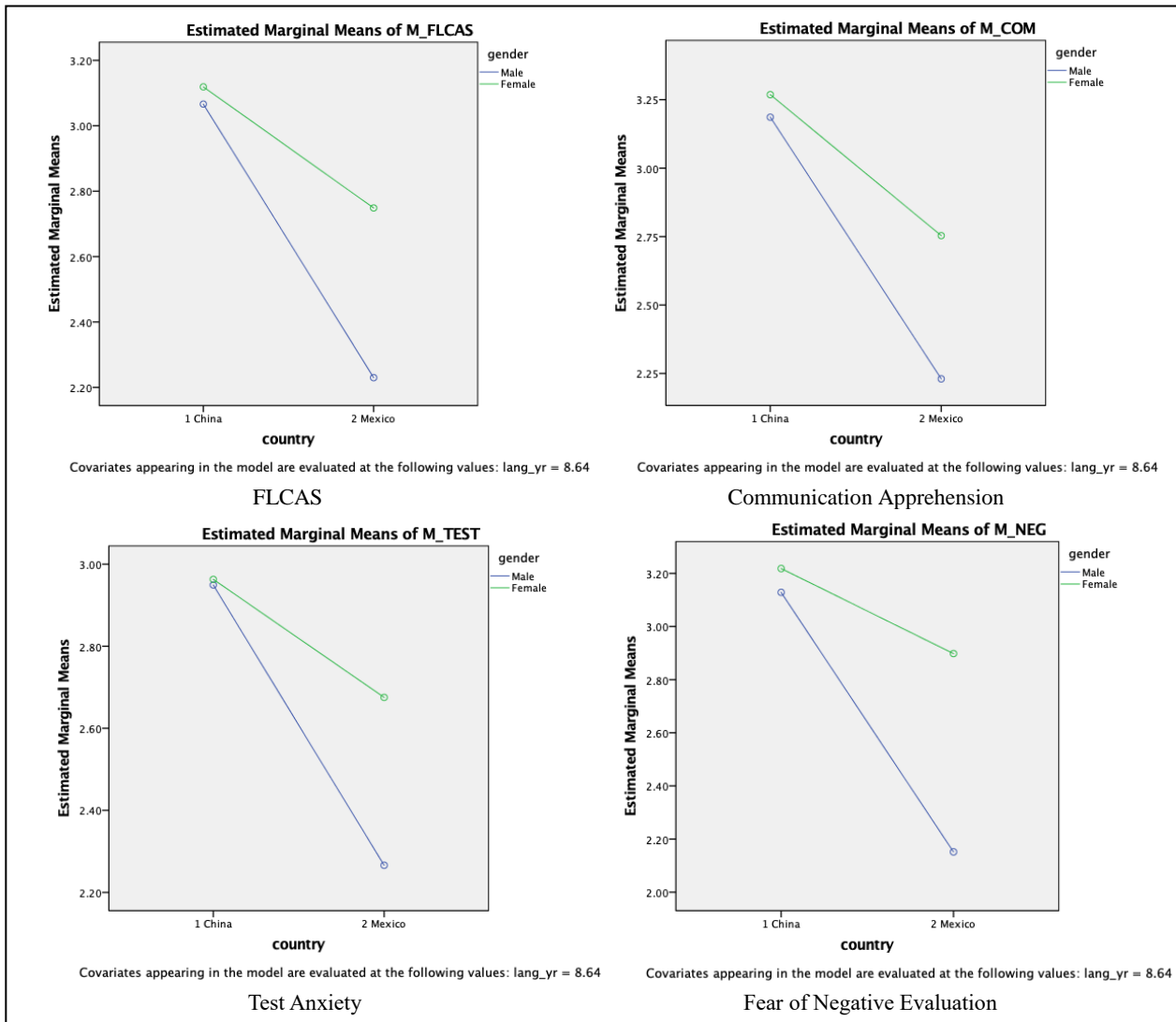


Figure 1. Profile plots of the Gender*Country interaction effect in the FLCA scale and subscale scores with Years of Learning English as the covariate.

Table 2

Descriptive Statistics of the Gender*Country Interaction Effect in the FLCA Scale and Subscale Scores With Years of Learning English as the Covariate (M, SE)

		Male	Female
FLCA	China	3.07, 0.12	3.12, 0.06
	Mexico	2.23, 0.12	2.75, 0.09
CA	China	3.18, 0.12	3.27, 0.07
	Mexico	2.23, 0.13	2.75, 0.10
TA	China	2.95, 0.12	2.96, 0.07
	Mexico	2.27, 0.13	2.68, 0.10
FNE	China	3.12, 0.14	3.22, 0.08
	Mexico	2.15, 0.15	2.90, 0.12

Strategies That Helped Students Cope With FLCA

In total, 102 Chinese and 65 Mexican students responded to the two open-ended questions. Major strategies were identified, and the corresponding frequencies were counted. The results are summarized below.

Question 1: What personal coping strategies help you calmly participate and excel in class? There were 167 students that responded to this question (102 Chinese students out of 108 and 65 Mexican students out of 67). Data reported indicated that 48% of the Mexican ELLs preferred to preview, review, and practice on their own; 40% used relaxation strategies, such as breathing deeply and remaining confident to calm down, which was in line with one of the relaxation strategies reported by language students in Kondo and Yang (2004). The remaining 12% did not offer clear answers. In regard to the Chinese group, more than 90% of the Chinese ELLs preferred preview, review, and practice to study hard, and less than 10% used strategies, such as taking a deep breath, eliciting feelings of self-assurance, and finding suitable study partners.

Question 2: What strategies does your teacher use that help you calmly participate and excel in class? As a whole, the Chinese ELLs' responses ($N = 102$) focused more on their teacher creating a lively class atmosphere and involving students in class activities through humorous language usage, group work, or games, which coincided with He's (2017) investigation on anxiety reducing strategies for Chinese-speaking English learners. In contrast, the Mexican ELLs ($N = 65$) generally preferred receiving direct support from the teacher, such as being provided with reading materials along with videos to facilitate their learning, having the teacher explain everything thoroughly, and partaking in more opportunities to respond to questions. Both groups attributed equal importance to receiving positive feedback from teachers and maintaining a harmonious relationship with the teacher, a finding that supports one of the top four recommendations language specialists offer to language teachers (Young, 1992).

Discussion

The descriptive statistics included in our research showed that the Chinese ELLs experienced a higher level of anxiety than the Mexican ELLs with a large effect size. Similar patterns were observed in the three aspects of language anxiety with neither group suffering test anxiety. These research findings support our hypothesis that Chinese ELLs may experience higher levels of language anxiety than Mexican ELLs in language classroom settings due to greater linguistic distance between Mandarin Chinese and English, providing evidence to suggest a positive relationship between linguistic distance and language learning anxiety. Therefore, one could infer that cognitive load generated by encoding and decoding during parameter-resetting for a greater first-to-second language linguistic distance very likely led to higher levels of language learning anxiety. In other words, language-learning difficulty resulting from more cognitive processing efforts may result in language learning anxiety. Our findings also corroborate previous studies about the FLCA scores of Chinese (slightly above 3) and North Americans (slightly above 2.5), as well as higher FLA of Chinese and Asian groups in comparison with learners from other parts of the world (MacIntyre, Dewaele, Macmillan, & Li, 2019; Dewaele & MacIntyre, 2014; Jiang & Dewaele, 2019). The different gender effects on FLA in the Chinese and Mexican groups from our study also reflect the inclusiveness about the findings in this regard (Dewaele et al., 2018; Jiang & Dewaele, 2019). Despite the above similarities, our study is different from previous research in that it is one of the few that studied FLA from the perspective of linguistic distance.

Responses from both groups to the two open-ended survey questions echoed these statistical results and past studies regarding students' coping strategies (Kondo & Yang, 2004; He, 2017). Comparative analyses of student responses to the first question revealed that the Chinese ELLs used more previewing, reviewing, and practicing coping strategies in class than the Mexican ELLs who reported using more specific relaxation strategies than the Chinese ELLs, including breathing deeply and remaining confident in an attempt to calm down and excel in class. This finding coincides with descriptive statistical results about the lowest and highest ratings reported by the Chinese and Mexican ELLs respectively. The Chinese group gave the lowest rating to the item "I don't feel pressure to prepare very well for language class" (2.41) and the highest rating to "I start to panic when I have to speak without preparation in language class" (3.6). This suggests a negative relationship between preparation and language anxiety for Chinese ELLs. That is, the more prepared they were for their English class; the less anxious they felt during class. The same relationship between preparation and language anxiety was also observed in the Mexican group; however, these students' ratings suggested that preparation did not affect them as much as it did their Chinese counterparts. For example, Item 22 "I don't feel pressure to prepare very well for language class" was rated 2.57 (2.41 by Chinese ELLs); Item 9 "I start to panic when I have to speak without preparation in language class" 3.12 (3.6 by Chinese ELLs); and Item 33, "I get nervous when the language teacher asks questions which I haven't prepared in advance" 3.17 (3.46 by Chinese ELLs). In addition, compared to 48% of the Mexican students, more than 90% of the Chinese ELLs reported using preview, review, and self-practice to reduce anxiety, a finding that suggests Chinese students may suffer more cognitive overload than their Mexican peers since preview, review, and self-rehearsal are cognitive strategies commonly adopted by language learners (O'Malley & Chamot, 1990) even though Chinese educational tradition stresses the criticality of effort making. By adopting such strategies, the Chinese ELLs may wish to better coordinate meaning and form of the L2 that is very different from their L1 (Skehan, 1998) to minimize cognitive overload. Their use of these cognitive strategies seems to support our hypothesis that it may be the linguistic distance that caused their anxiety. This conclusion may be particularly convincing given that the Chinese participants had studied English for an average of 10 years as compared to their Mexican counterparts who had studied English for an average of five years. Since cognitive overload is generally regarded as a source of hindrance to classroom communication (Lucas, 2000), linguistic distance could also explain in part the statistical results depicting the large difference in communication apprehension between the two groups ($\eta_p^2 = 0.17$), with the Chinese group suffering a higher-level of anxiety than the Mexican group. Meanwhile, the coping strategies of review and self-practice enabled both Chinese and Mexican ELLs to prepare well before examinations, hence accounting for no reporting of test anxiety among these students.

Interestingly, though, the Mexican group gave the lowest rating to the item "It wouldn't bother me at all to take more foreign language classes" (1.66) and scored the highest rating to the item "I worry about the consequences of failing my foreign language class" (4.06). These data suggest that the Mexican ELLs were less anxious about participating in additional foreign language classes and were more concerned with their academic achievement. In addition, as a result, during the process of learning a foreign language in class they reported utilizing various relaxation strategies to reduce their anxiety level to achieve better academic results.

The research of Borjian (2015) offers some explanations regarding why these Mexican students may be concerned about their academic achievement. According to Borjian, in Mexico, English proficiency is generally perceived to be the primary route toward upward economic mobility. Since most students are often not aware of the economic impact that English plays in their future early on in their academic careers, they therefore do not

actively seek to learn English until they are in upper secondary school or enrolled in college. This explanation, coupled with the interview data provided by the Mexican students describing the general requirement/mandate to earn a certificate, such as TOFEL, IELTS, GRE, and Cambridge Business English, for graduation purposes, at least in part explains why these Mexican ELLs did not mind taking more language classes but did worry about the consequences related to failure. This may lead one to conclude that Mexican ELLs would suffer from a certain level of language anxiety in the classroom due to these perceived pressures. However, results in this study did not show significant language anxiety among the Mexican group, suggesting that cognitive load resulting from factors other than cultural implications might result in anxiety.

Comparative analyses of the responses to the second open-ended question also supported our statistical results. Collectively, the Chinese ELLs focused more on a relaxing classroom environment created by the teacher using humorous language and games, along with the teacher's attempts to involve all students in the class using cooperative learning strategies and group work. This corroborates findings from He (2017) where teachers' characteristics were rated the highest among anxiety-reducing strategies at Chinese universities and findings regarding small group work (Young, 1992). In contrast, the Mexican ELLs reported that they generally received more direct instruction and guidance from their teachers, such as answering students' questions and offering clear explanations, and complementing reading materials with video to make the class more interesting. This suggests that Chinese ELLs may be experiencing anxiety in class and need their teachers to create a more relaxing classroom environment aimed at facilitating their learning process, while Mexican ELLs appeared to not feel as anxious in class and were more concerned about their teachers easing the cognitive challenge related to language acquisition than about extrinsic factors such as classroom atmosphere.

The Chinese ELLs surveyed were mainly second-year college students who are required to take English courses for two years. As one of the authors teaches English at the Chinese college, she is aware that in order to create a lively and relaxing classroom atmosphere, program teachers are required to collectively prepare each lesson, resulting in comprehensive resources that the classroom teacher can draw upon. A typical teaching design includes a language demonstration on each topic, audio and video materials for in-class practice, and other assorted activities that Chinese teachers can choose to use. In addition, responses to the two open-ended questions indicated that Chinese teachers made efforts to make the classroom-learning environment relaxing to relieve students' anxiety, whereas Mexican teachers focused more on providing clear explanation of language and grammatical points to achieve the same purpose. Although this seems to contradict research findings that a relaxing learning environment is conducive to easing students' FLCA and increasing participation (He, 2017), it is supported by Jiang and Dewaele (2019) that the better predictor of FLCA is learner-internal variables rather than teacher factors such as teacher's humor or making jokes during classes. We therefore conclude that it might be the difference between first language and target language rather than classroom environmental variables that may play a key role in the different levels of anxiety experienced by both groups.

Conclusion

Results from both the quantitative and qualitative data suggest that language anxiety could be the consequence of language learning difficulty due to linguistic distance. The statistical results of this study supported our hypothesis: Mexican ELLs, whose linguistic distance is smaller, experienced lower levels of anxiety than the Chinese ELLs surveyed. It is plausible that language anxiety may be caused by linguistic distance; that is, more cognitive load from cognitive encoding and decoding, i.e., resetting the parameter of a first language

to achieve the features of a second language, may lead to higher levels of language learning anxiety. The qualitative data revealed that linguistic distance more than factors related to cultural background and classroom environment may result in anxiety. The anxiety-related reticence of Chinese students in the second/foreign language classroom, therefore, may be due to more complex cognitive processing efforts.

This research is significant as it may provide evidence for the causal direction debate of language learning anxiety and language learning difficulty from the perspective of linguistic distance. In addition, it is one of the few studies that compare the language anxiety between learners of different L1s (Chinese and Spanish) learning the same L2 (English). The result also holds teaching implications. When teachers of English to speakers of other languages design lessons, especially speaking lessons where the learners' L1 is distant from English, they should consider designing pre-work for students to prepare for the class activities and carry out multi-model classroom activities, as well as small group activities, to ease learner's anxiety (Kennedy, 2001, 2002; Kondo & Yang, 2004). Teachers can also guide students to think about their achievements in foreign language learning (Jin, Dewaele, & MacIntyre, 2021) and encourage them to practice relaxation techniques.

Limitations of the study include the small sample size and uneven group sizes between the Mexican ELLs in comparison to the Chinese ELLs. In addition, the research findings may have been affected by the different number of years spent studying English between the members of the sample groups. However, it is important to note that the statistical results of this study found no significant differences in language anxiety between the Mexican ELLs and the number of years they had studied English. The average years of English learning of the sampled Chinese students were approximately twice those of the Mexican students, further supporting our conclusion that Chinese students' higher anxiety may be attributed to linguistic distance. Future research should include a larger sample and compare students whose L1s are other than Chinese and Spanish as well as learners of foreign languages other than English. Additional variables not directly observed in this research could be studied, such as the participants' motivation of learning a foreign language, the materials and resources used during classroom instruction, and the teaching experience of the language teachers.

References

- Abdurahman, N. H., & Rizqi, M. A. (2021). Indonesian students' strategies to cope with foreign language anxiety. *TESOL Journal*, 12(1). Retrieved from <https://doi.org/10.1002/tesj.571>
- Aida, Y. (1994). Examination of Horwitz, Horwitz, and Cope's construct of foreign language anxiety: The case of students of Japanese. *The Modern Language Journal*, 78(2), 155-168.
- Alrabai, F. (2015). The influence of teachers' anxiety-reducing strategies on learners' foreign language anxiety. *Innovation in Language Learning and Teaching*, 9(2), 163-190.
- Arnaiz, P., & Guillén, F. (2012). Foreign language anxiety in a Spanish university setting: Interpersonal differences. *Revista de Psicodidáctica*, 17(1), 5-26.
- Borjian, A. (2015). Learning English in Mexico: Perspectives from Mexican teachers of English. *The CATESOL Journal*, 27(1), 163-173.
- Canney, G., Kennedy, T. J., Shroeder, M., & Miles, S. (1999, February). Instructional strategies for K-12 limited English proficiency (LEP) students in the traditional classroom. *The Reading Teacher*, 52(5), 540-544. Retrieved from <https://eric.ed.gov/?id=EJ579287>
- Cao, Y. (2011). Comparison of two models of foreign language classroom anxiety scale. *Philippine ESL Journal*, 7(7), 73-93.
- Chen, I. J., & Chang, C. C. (2009). Cognitive load theory: An empirical study of anxiety and task performance in language learning. *Electronic Journal of Research in Educational Psychology*, 7(2), 729-746.
- Chen, T. Y., & Chang, G. B. Y. (2004). The relationship between foreign language anxiety and learning difficulties. *Foreign Language Annals*, 37(2), 279-289.

- Chiswick, B. R., & Miller, P. W. (2005). Linguistic distance: A quantitative measure of the distance between English and other languages. *Journal of Multilingual and Multicultural Development*, 26(1), 1-11. Retrieved from <https://doi.org/10.1080/14790710508668395>
- Chiswick, B. R., & Miller, P. W. (2007). The critical period hypothesis for language learning: What the 2000 US Census says. *Discussion Paper, No. 2575*. Institute for the Study of Labor (IZA), Bonn. Retrieved from <https://www.econstor.eu/bitstream/10419/33715/1/527494895.pdf>
- Chomsky, N. (2015). *Aspects of the theory of syntax: 50th anniversary edition*. Cambridge, Massachusetts: The MIT Press.
- Cohen, J. (1992). A power primer. *Psychological Bulletin*, 112(1), 155-159.
- Drisko, J., & Maschi, T. (2016). *Content analysis*. Oxford: Oxford University Press.
- Dewaele, J. M., & MacIntyre, P. D. (2014). The two faces of Janus? Anxiety and enjoyment in the foreign language classroom. *Studies in Second Language Learning and Teaching*, 4(2), 237-274. doi:10.14746/ssl1t.2014.4.2.5
- Dewaele, J. M., Witney, J., Saito, K., & Dewaele, L. (2018). Foreign language enjoyment and anxiety: The effect of teacher and learner variables. *Language Teaching Research*, 22(6), 676-697.
- Effiong, O. (2016). Getting them speaking: Classroom social factors and foreign language anxiety. *TESOL Journal*, 7(1), 132-161. Retrieved from <https://doi.org/10.1002/tesj.194>
- Ganschow, L., & Sparks, R. L. (1996). Anxiety about foreign language learning among high school women. *The Modern Language Journal*, 80(2), 199-201.
- Gao, S., & Kennedy, T. J. (2019). Intercultural competence development of Chinese students after a short-term study abroad experience. *Sino-US English Teaching*, 16(5), 177-196. Retrieved from <http://www.davidpublisher.org/Public/uploads/Contribute/5d15683e89544.pdf>
- Goh, C. C. M., & Burns, A. (2012). *Teaching speaking: A holistic approach*. New York: Cambridge University Press.
- Hart-Gonzalez, L., & Lindemann, S. (1993). Expected achievement in speaking proficiency, 1993. School of Languages Studies, Foreign Services Institute, Department of State, Mimeo.
- He, D. (2017). How to cope with foreign language speaking anxiety effectively? The case of university students in China. *Electronic Journal of Foreign Language Teaching*, 14(2), 159-174.
- Horwitz, E. K. (1986). Preliminary evidence for the reliability and validity of a foreign language anxiety scale. *TESOL Quarterly*, 20(3), 559-562.
- Horwitz, E. K. (2008). *Becoming a language teacher: A practical guide to second language learning and teaching*. Boston, MA: Pearson.
- Horwitz, E. K. (2017). On the misreading of Horwitz, Horwitz, and Cope (1986) and the need to balance anxiety research and the experiences of anxious language learners. In C. Gkonou, M. Daubney, and J. M. Dewaele (Eds.), *New insights into language anxiety: Theory, research and educational implications* (pp. 31-50). Bristol, UK: Multilingual Matters.
- Horwitz, E. K., Horwitz, M. B., & Cope, J. A. (1986). Foreign language classroom anxiety. *The Modern Language Journal*, 70(2), 125-132.
- Isphording, I. E., & Otten, S. (2013). The costs of Babylon—Linguistic distance in applied economics. *Review of International Economics*, 21, 354-369. Retrieved from <https://doi.org/10.1111/roie.12041>
- Jiang, Y., & Dewaele, J. M. (2019). How unique is the foreign language classroom enjoyment and anxiety of Chinese EFL learners? *System*, 82, 13-25.
- Jin, Y., Dewaele, J. M., & MacIntyre, P. D. (2021). Reducing anxiety in the foreign language classroom: A positive psychology approach. *System*, 101, 102604. Retrieved from <https://doi.org/10.1016/j.system.2021.102604>
- Kennedy, T. J. (2001). Preparing teachers for educating linguistically diverse students. *NWATE Northwest Passage: Journal of Educational Practices*, 1(1), 51-55. Retrieved from <https://pdxscholar.library.pdx.edu/cgi/viewcontent.cgi?article=1207&context=nwjte>
- Kennedy, T. J. (2002). Classroom practices for literacy development of English language learners. *NWATE Northwest Passage: Journal of Educational Practices*, 2(1), 35-39. Retrieved from <https://pdxscholar.library.pdx.edu/cgi/viewcontent.cgi?article=1121&context=nwjte>
- Kennedy, T. J. (2006/2008). Language learning and its impact on the brain: Connecting language learning with the mind through content-based instruction. In *50 Years of Foreign Language Annals: A Retrospective. Content-Infused Learning: Making Connections to Other Disciplines and the Professions*. (Reprinted from *Foreign Language Annals*, 39(3), 471-486; 2006). Retrieved from [https://pericles.pericles-prod.literatumonline.com/doi/toc/10.1111/\(ISSN\)1944-9720.content-infused-learning](https://pericles.pericles-prod.literatumonline.com/doi/toc/10.1111/(ISSN)1944-9720.content-infused-learning)

- Kennedy, T. J., & Reese, S. (2007, November). Using your cerebro: A look at research on foreign language learning and the brain. *The Language Educator*, 2(6), 32-35. American Council on the Teaching of Foreign Languages (ACTFL).
- Kondo, D. S., & Yang, Y. L. (2004). Strategies for coping with language anxiety: The case of students of English in Japan. *ELT Journal*, 58(3), 258-265.
- Leusink, J. (2017). *Influence of linguistic distance on foreign language attrition*. Retrieved from https://theses.uhn.ru.nl/bitstream/handle/123456789/4936/Leusink%2C_Jennifer_W._1.pdf?sequence=1
- Liu, M., & Jackson, J. (2008). An exploration of Chinese EFL learners' unwillingness to communicate and foreign language anxiety. *The Modern Language Journal*, 92(1), 71-86.
- Lucas, L. (2000). *Hong Kong set to abandon rote learning*. Retrieved from <http://mathforum.org/epigone/mathed-news/prixyimbray>
- MacIntyre, P. D. (1995). How does anxiety affect second language learning? A reply to Sparks and Ganschow. *Modern Language Journal*, 79(1), 90-99.
- MacIntyre, P. D. (2017). An overview of language anxiety research and trends in its development. In C. Gkonou, M. Daubney, and J. M. Dewaele (Eds.), *New insights into language anxiety: Theory, research and educational implications* (pp. 11-30). Bristol, UK: Multilingual Matters.
- MacIntyre, P. D., & Gardner, R. C. (1989). Anxiety and second-language learning: Toward a theoretical clarification. *Language Learning*, 39(2), 251-275.
- MacIntyre, P. D., & Gardner, R. C. (1994). The effects of induced anxiety on three stages of cognitive processing in computerized vocabulary learning. *Studies in Second Language Acquisition*, 16, 1-17.
- MacIntyre, P. D., Dewaele, J.-M., Macmillan, N., & Li, C. (2019). The emotional underpinnings of Gardner's attitudes and motivation test battery. In A. H. Al-Hoorie and P. D. MacIntyre (Eds.), *Contemporary language motivation theory: 60 years since Gardner and Lambert (1959)* (pp. 57-79). Bristol, UK: Multilingual Matters.
- McCroskey, J. C., Fayer, J., & Richmond, V. P. (1985). Don't speak to me in English: Communication apprehension in Puerto Rico. *Communication Quarterly*, 33, 185-192.
- O'Malley, J. M., & Chamot, A. U. (1990). *Learning strategies in second language acquisition*. Cambridge University Press. Retrieved from <https://www.cambridge.org/core/books/learning-strategies-in-second-language-acquisition/FA9872A0F0155A215D5A33C0BEAC46AB>
- Pérez-Paredes, P., & Martínez-Sánchez, F. (2000-2001). A Spanish version of the foreign language classroom anxiety scale: Revisiting Aida's factor analysis. *Revista Española de Lingüística Aplicada/Spanish Journal of Applied Linguistics*, 14, 337-252.
- Sang, Y., & Hither, P. (2021). Engagement and companion constructs in language learning: Conceptualizing learners' involvement in the L2 classroom. In P. Hiver, A. H. Al-Hoorie, and S. Mercer (Eds.), *Student engagement in the language classroom* (pp. 17-37). Clevedon: Multilingual Matters.
- Skehan, P. (1998). *A cognitive approach to language learning*. Oxford: Oxford University Press.
- Sparks, R. L., & Ganschow, L. (1991). Foreign language learning differences: Affective or native language aptitude differences? *The Modern Language Journal*, 75(1), 3-16.
- Sparks, R. L., & Ganschow, L. (1995). A strong inference approach to causal factors in foreign language learning: A response to MacIntyre. *The Modern Language Journal*, 79(2), 235-244.
- Sparks, R., Ganschow, L., & Pohlman, J. (1989). Linguistic coding deficits in foreign language learners. *Annals of Dyslexia*, 39, 179-195.
- Spielberger, D. (1983). *Manual for the state-trait anxiety inventory*. Palo Alto, CA: Consulting Psychologist Press.
- Xu, J., Sun, Z., & Kennedy, T. J. (2016). EFL adult learners' vocabulary motivation in intensive English language programs in the USA. *TexELT: Texas English Language Teaching*, 5(1), 60-81. Retrieved from https://www.academia.edu/40753115/Understanding_Korea_For_Effective_University_EFL_Instruction
- Young, D. J. (1992). Language anxiety from the foreign language specialist's perspective: Interviews with Krashen, Omaggio Hadley, Terrell, and Rardin. *Foreign Language Annals*, 25(2), 157-172.
- Zhang, Y., & Tian, F. (2015). Study on markedness in linguistics. *Sino-US English Teaching*, 12(9), 667-671.