

CHAPTER 2- THE LITERATURE REVIEW

1. Introduction

The following chapter deals with the definition of anxiety, its different types, and reviews the research on anxiety and second language in six parts: 1) foreign language anxiety as a situation-specific anxiety, 2) competing models of foreign language anxiety, 3) early studies, 4) foreign language anxiety and achievement, 5) cognitive effects of foreign language anxiety, and 6) foreign language anxiety and the four skills. Based on the review, conclusions will be drawn, which will allow us to ground our own research in what is known about the topic.

2. Anxiety

Anxiety is the subjective feeling of tension, apprehension, nervousness, and worry associated with an arousal of the autonomic nervous system (Spielberger, 1983). Many researchers carried out studies on anxiety, its different types and its relationship to foreign language learning, performance as well as the four language skills. (See sub-title 7. Foreign Language Anxiety and Achievement).

Researchers have provided many definitions for anxiety, each from his own point of view. Seligman, et al. (2001) defines anxiety as a physiological and psychological state characterized by cognitive, somatic, emotional and behavioral components. He stated that there are two types of anxiety, situational and characteristic. Language anxiety is situational anxiety.

According to Young (1990) Language anxiety is a complex, multidimensional phenomenon that manifests itself in students quite differently depending on ethnic background, prior language experience, learner personality, and classroom circumstances.

Some researchers had proposed a number of instruments to measure anxiety in different studies in an attempt to show the effect of anxiety on foreign language learning. The confusing results of these studies could be due to the instruments chosen to measure anxiety in the different studies. (Horwitz, et al., 1986; MacIntyre and Gardner, 1989; Jacob, 1996). These researchers also identified that language anxiety is a form of anxiety that is different from general anxiety.

3. Different Types of Anxiety

Jacob (1996) reported that anxiety has been studied in different areas from three perspectives. The first one is known as trait anxiety which considers anxiety as a general personality trait that is relevant across many situations. The second perspective examines the here- and- now experience of anxiety and this is known as state anxiety. The third perspective, situation specific anxiety, deals with the form of anxiety that coincides with a given situation.

Trait anxiety and state anxiety were clearly distinguished by Spielberger (1983). He defined trait anxiety as an individual's likelihood of becoming anxious in any situation. But state anxiety is the feeling of apprehension experienced at a particular point of time, for example prior to taking examinations.

4. Foreign Language Anxiety as a Situation-Specific Anxiety

Yung-nan Chiang (2006) stated that a breakthrough in language anxiety research continued for another decade after Scovel's (1978) review and a major breakthrough did not come about until Horwitz, Horwitz, and Cope (1986) published an influential study on foreign language anxiety. Horwitz et al.'s (1986) set the stage for subsequent language anxiety research by suggesting a situation-specific anxiety construct called Foreign

Language Anxiety that they postulated is responsible for students' negative emotional reactions to language learning. After the foreign language anxiety research suffered from ambiguities due to the confusing constructs for long time, they outlined a theoretical framework and offered a measure called the foreign language classroom anxiety scale (FLCAS) to identify Foreign Language Anxiety.

Yung-nan Chiang (2006) also reported that the conceptual foundations of the construct are based on parallels the authors found between the Foreign Language Anxiety and three performance anxieties: (1) communication apprehension; (2) test anxiety; and (3) fear of negative evaluation. After discussing these parallels, Horwitz et al. (1986) reiterate their position that foreign language anxiety is something more than the sum of these three component parts. They define foreign language anxiety as “a distinct complex of self-perceptions, beliefs, feelings and behaviors” resulting from inherent in-authenticity involved in presenting oneself through an immature command of the second language. (Horwitz et al., 1986: 128). This definition can be explained by saying that language anxiety is a situational anxiety that foreign or second language learner may encounter when dealing with different aspects of the foreign language.

In addition to filling the theoretical void about FL anxiety, the authors also filled the practical void in measuring and identifying this situation-specific anxiety. A review of the literature found only one instrument specifically designed to measure foreign language anxiety. Gardner, et al. (1979) developed five items to measure French class anxiety as part of their test battery on attitudes and motivation. Based on the clinical experiences reported by students in a “Support Group for Foreign Language Learning,” a 33-item FLCAS was developed and pilot tested. The items presented in this scale are reflective of communication apprehension, test anxiety, and fear of negative evaluation in foreign

language classroom. It was mainly due to these components that the FLCAS was adopted for the present study and not the other language anxiety instruments.

The first empirical findings using the FLCAS suggested that about one third of the students experienced a fair amount of foreign language anxiety in the language classroom. More importantly, two of the FLCAS items, “I feel overwhelmed by the number of rules you have to learn to speak a foreign language” (34%) and “I feel more intense and nervous in my language class than in my other classes” (38%), were endorsed by 34% and 38% of the students, respectively. These findings support their conceptualization that foreign language anxiety is a distinct set of beliefs, behaviors, perceptions, and feelings specific to foreign language learning and not merely a composite of other anxieties (Horwitz et al., 1986: 34).

Horwitz et al.’s (1986) study proved to be instrumental in ending the ambiguities of operational constructs and the lack of an L2-specific instrument long suffered by research on language anxiety. Subsequent studies using the FLACS or other situation-specific approaches have largely upheld Horwitz et al.’s view that foreign language anxiety is a distinct form of anxiety specific to L2 learning. Horwitz (1986) found a low correlation between the FLCAS and trait anxiety. MacIntyre and Gardner (1989) found foreign language anxiety to be independent of general anxiety. MacIntyre and Gardner (1991) employed factor analysis to investigate the relations among 23 anxiety scales, including trait anxiety, state anxiety, audience anxiety, communication apprehension, interpersonal anxiety, math anxiety, etc. Results showed that among these 23 anxiety variables, there were three clusters of anxieties. The first factor, labeled General Anxiety, included most of the anxiety scales. The second factor was found to be State Anxiety. Independent from the other two factors, the third factor Language Anxiety consisted of four L2-learning-specific anxiety measures.

5. Competing Models of Foreign Language Anxiety

Although most foreign language researchers have generally accepted the theory proposed by Horwitz et al. (1986), some have suggested either partial modification to or complete revision of Horwitz et al.'s (1986) theoretical framework. On the one hand, several studies employing factor analysis to unearth the subcomponents of foreign language anxiety have challenged Horwitz et al.'s conceptualization. MacIntyre and Gardner (1989) found that of the three components comprising Horwitz, et al.'s theory of foreign language anxiety, test anxiety did not emerge as an important factor. Aida (1994) found four underlying factors: 1) Speech Anxiety and Fear of Negative Evaluation, 2) Fear of Failing in Class, 3) Comfortableness in Speaking with Japanese People, and 4) Negative Attitudes Toward the Japanese Class. Wu (1994) found three underlying factors: 1) Low Self-esteem, 2) Fear of Communication and Negative Evaluation, and 3) Anxiety about the English Class. Cheng (1994) and Cheng, et al. (1999) found two underlying factors--Low Self-Confidence in English Speaking and General English Classroom Performance Anxiety, a finding that was replicated in Matsuda and Gobel (2001). As Macintyre and Gardner (1989, 1991), Aida (1994), and Wu (1994) argued, while speech anxiety and fear of negative evaluation are central components of foreign language anxiety, as Horwitz et al. hypothesized, test anxiety seems to be a general problem not specific to foreign language learning. Aida (1994) even suggested that items reflective of test anxiety be removed from the Foreign Language Anxiety Scale (FLACS) questionnaire, because they are not conceptually related to other foreign language anxiety components.

On the other hand, Sparks and Ganshow and their colleagues (1993, 1995, 2000, 2001) questioned whether foreign language anxiety could be completely independent of language achievement. They advocated their Linguistic Coding Differences Hypothesis (LCDH) as an alternative to account for poor foreign language achievement:

FL (foreign language) learning is based primarily on one's native language learning ability (i.e., language aptitude), students' anxiety about FL learning is likely to be a consequence of their FL learning difficulties, and students' language learning ability is a confounding variable when studying the impact of affective differences (e.g., anxiety, motivation, attitude) on FL learning. (Sparks, Ganschow, & Javorsky, 2000, qtd in Horwitz, 2001: 115).

In the same vein, Sparks et al. (2000) completely dismissed Saito et al.'s (1999) hypotheses about foreign language reading anxiety, which they saw as almost identical to Horwitz et al.'s (1986) hypotheses about general foreign language anxiety. Saito et al.'s explanation about FL reading anxiety was rejected on four grounds. First, in terms of reading acquisition research, Sparks et al. (2000) cited studies that find students' language-processing skill is the basis of reading words and reading comprehension, relationship between reading difficulty and poor phonological processing skills is significant, and the development of word decoding and reading comprehension in L1 and L2 is similar.

Second, in terms of the FLRAS, Sparks et al. (2000: 252) criticized the scale because it confounds interaction between language skills and anxiety in much the same way that Horwitz' FLCAS confounds interaction between an affective variable and students' language skills. For example, item 9 "I usually end up translating word by word when I'm reading (the FL)" indicates difficulty with decoding skills rather than anxiety. Thus, "the authors of the FLRAS cannot be certain whether their scale is measuring FL reading anxiety, FL reading skill, or both".

Third, in terms of problems in research design, the authors faulted Saito et al. for failing to select their subjects randomly. This failure not only weakens the study's internal validity, but ultimately undermines the conclusion that a given FL is associated with higher levels of FL reading anxiety. Fourth, the authors judged measuring variance in language skills to be the most glaring problem in Saito et al.'s study because they failed to measure

and control the participants' level of native or FL reading skill. Without measuring those capabilities, the authors argued that Saito et al. could not know whether their subjects "had normal language processing capabilities" (Sparks, et al., 2000: 253). They suggested that only by including controls for native and FL language ability variables can FL researchers who study affective variables rid themselves of "a serious methodological weakness" and be certain of the role of affective variables in FL learning. (Sparks, et al., 2000: 253)

Responding to Sparks et al.'s arguments, Horwitz (2000, 2001) argued that anxiety is a well-documented source of interference in all kinds of learning and, in the case of foreign language learning, there should be no exception. The participants in their studies were college students with at least average language aptitude. Most importantly, the LCDH was based upon an outdated and simplistic view of language learning that requires only sound-symbol correspondence. To conceptualize foreign language anxiety as a result of poor language learning ability is easy; "the challenge is to determine the extent to which anxiety is a cause rather than a result of poor language learning" (Horwitz, 2001: 118).

6. Early Studies

Early studies on language anxiety mostly adopted the "anxiety transfer" (Scovel, 1978) approach, i.e., language anxiety was seen as a transfer of state or trait anxiety, and produced conflicting results. Four studies were examined in Scovel's (1978) classic review: First, Tucker et al. (1976) found French language class anxiety to be significantly negatively related to one of four performance indices, but not related to three other indicators. Then, Swain and Burnaby (1976) reported a negative correlation between language anxiety and one measure of children's oral proficiency, but no relationships with

other proficiency measures. The third study that was reviewed (Chastain, 1975) used the trait anxiety scale to assess the anxiety levels of college beginning learners of French, German and Spanish. This study reported positive, negative, and near zero correlations between anxiety and second language learning in the three languages. The last study was carried out by Kleinman (1977), who examined facilitating and debilitating anxiety among Spanish-speaking and Arabic-speaking ESL students and found positive correlations between facilitating anxiety and Arabic-speaking students' willingness to attempt difficult linguistic structures in English as predicted, but did not find any negative relationships between debilitating anxiety and performance. A more recent study by Young (1986) adds more confusion to the findings: After language ability was controlled, no relationship was found between state anxiety and oral proficiency in French, German, and Spanish in an unofficial oral proficiency interview.

Reviews of the early research on language anxiety indicate that anxiety facilitates performance, that anxiety hinders performance, and that there is no relationship between anxiety and performance. Be it trait anxiety, state anxiety, or test anxiety, studies using the "anxiety transfer" approach showed confusing results, both within and across studies (Scovel, 1978; MacIntyre & Gardner, 1989). Scovel (1978) recognized the conflicting findings to the problem of construct ambiguities. This vagueness and confusing results were due to the use of invalid measure of anxiety. This study also suggested that researchers should be specific about what type of anxiety is being studied. Horwitz et al. (1986) attributed the confusing findings in earlier studies to inadequate conceptualizations of anxiety and the absence of a valid and reliable anxiety measure specific to foreign language learning. In their views, researchers had "neither adequately defined foreign

language anxiety nor described its specific effects on foreign language learning”. (Horwitz et al., 1986: 125).

7. Foreign Language Anxiety and Achievement

Foreign Language Anxiety as measured by the FLCAS or its variations has been found to one of the best predictors of language achievement. Several studies using specific measures of language anxiety have yielded a consistent moderate negative correlation between anxiety and language achievement, regardless of the target language. That means the higher the anxiety the lower the achievement and vice versa. In the first study using the FLCAS, Horwitz (1986) found a significant moderate correlation between foreign language anxiety and the grades American university students expected in their first semester language class as well as their actual final grades.

Using a non-Western language to test Horwitz et al’s construct of foreign language anxiety through an adapted version of the FLCAS, Aida (1994) found a significant negative correlation between foreign language anxiety and final grades among American second-year Japanese students ($r = -.38, p < .01$), and a significant main effect for anxiety, with the low anxiety group receiving significantly higher grades than high anxiety group.

In the Asian EFL context, similar results were also obtained in studies involving both high school students and college students. Cheng (1994) found the FLCAS was the best predictor of Taiwanese senior high school students’ English proficiency. Kim (2000) found significant negative relationships between FLCAS scores and final grades of Korean college EFL learners in both reading and conversation classes.

Likewise, several studies have found a negative relationship between language anxiety and outcome measures other than final grades. Trylong (1987) observed a negative

correlation between anxiety and teachers' ratings of achievement. Using both a language classroom anxiety measure and language use anxiety scale, Gardner and MacIntyre (1993) reported significant negative relationships between anxiety and several language performance measures such as a cloze test, a composition test, and an objective French proficiency test.

In sum, studies employing specific language anxiety measures to investigate language achievement have shown that negative relationships between anxiety and achievement hold across different instructional levels and with different target languages. These findings further substantiated Gardner and MacIntyre's (1993: 183), quoted by Yung-nan Chiang (2006), claim that "the best single correlate of achievement is Language Anxiety".

8. Cognitive Effects of Foreign Language Anxiety

In contrast with the large number of studies examining the relationship between anxiety and achievement, only a small number of studies have investigated the effects of anxiety on cognitive processing in second language acquisition. On the whole, these studies have shown the debilitating effects of anxiety on different stages of language learning and processing.

Horwitz, et al. (1986) investigated the subtle effects of induced anxiety on second language learners' target language processing. Twenty students, equally divided into two groups, were asked to describe the content of ambiguous pictures in the second language. The experimental group was treated coldly and led to believe their performance would be videotaped by the experimenters to increase anxiety arousal. The control group was treated warmly and was not videotaped. The participants in the experimental group were found to

be significantly less interpretive in their descriptions of the ambiguous pictures than their less anxious counterparts.

Based upon Tobias' three-stage model of cognitive process, MacIntyre and Gardner (1989, 1991, 1994) developed three stage-specific language anxiety scales to investigate the effect of language anxiety on cognitive input, processing, and output. MacIntyre and Gardner (1989) found anxiety to influence both the learning (input/ processing) and the production (output) of French vocabulary.

MacIntyre and Gardner (1994) examined the arousal of anxiety caused by the introduction of a video camera at various points in a vocabulary-learning task with 72 students of first-year university French courses. They found that there were significant increases in state anxiety in all three groups when the video camera was introduced, and concomitant deficits in vocabulary acquisition were observed, and that the control group, who had not been exposed to anxiety arousal, performed best at all stages of learning.

MacIntyre and Gardner (1994) expanded their previous efforts to investigate the more subtle effects of language anxiety on cognitive processing through task-specific performance. Modeled after Tobias' three-stage cognitive processing, a new three-part anxiety measure was developed to account for the role played by anxiety at each of the three stages. Significant negative correlations were found between grades and scores on each of the Input, Processing, and Output anxiety scales. More importantly, the resultant scores and correlations with task performance demonstrated the pervasive effects of anxiety on second language processing. Each of the scales showed similar patterns of correlations with each of the specific performance measures. Significant correlations were found between input anxiety and the Word Span and T-scope tasks, suggesting that anxious students experienced more difficulty holding discrete verbal items in short-term memory,

were more cautious in making their judgments, and used strategies that seemed to compensate for the potential effects on accuracy. Similar results occurred for the three measures representing the second stage, suggesting that the increased efforts at the Processing stage during the learning trials eventually reduced the effects of anxiety at the Output stage. Significant negative correlations were also found between Output anxiety and Output performance, indicating the interference of language anxiety in students' abilities to retrieve proper second language items.

9. Foreign Language Anxiety and the Four Skills

Although Horwitz et al.'s (1986) proposal for a situation-specific approach has inspired a large number of studies on foreign language anxiety, the vast majority of these studies have been concerned with oral performance and relied on a general foreign language learning anxiety measurement dominated by speaking components. It was not until the late 1990s that researchers took the spirit of the situation-specific approach one step further and began to investigate anxieties specific to each of the four language skills.

The study by Saito, Horwitz, and Garza (1999) was one of the first to explore the possibility of a distinct form of anxiety in response to foreign language reading. The researchers offered a new instrument called the Foreign Language Reading Anxiety Scale Anxiety (FLRAS) to measure this new construct. With a sample of 383 students of French (N=192), Japanese (N=114), and Russian (N=77), they found (a) approximately 59% of the variance is not shared by the FLRAS and the FLCAS, confirming that foreign language reading anxiety is indeed distinguishable from general FL anxiety; (b) the levels of reading anxiety varied according to the specific target language, with learners of Japanese the most anxious, the French participants in between, and the Russian participants perceiving the

lowest level of reading anxiety; and (c) a significant difference in reading anxiety levels existed among the three groups, showing that students' level of reading anxiety increased with the perceived difficulty of reading in the foreign language.

Saito et al.'s (1999) findings about reading anxiety received further support from Mastuda and Gobel (2001). Targeting 252 English majors in Japan, Mastuda and Gobel (2001) found no significant correlation between the FLCAS and the FLRAS as a whole. However, further factor analysis and correlation analysis found that FLCAS1 (General English Classroom Performance Anxiety) was significantly related to FLRAS1 (Familiarity with English Vocabulary and Grammar) and FLRAS3 (Language Distance). In addition, FLCAS2 (Low Self-Confidence in Speaking English) was significantly related to two of the three factors underlying reading anxiety: Reading Confidence/Enjoyment (FLRAS2) and Language Distance (FLRAS3).

With 433 Taiwanese English majors as participants, Cheng, Horwitz, and Schallert (1999) investigated the anxiety specific to L2 writing as measured by the Second Language Writing Apprehension Test (SLWAT). They found whereas second language classroom anxiety was a more general type of anxiety about learning a second language with a strong speaking element, second language writing anxiety was a language-skill-specific anxiety. Despite their distinctness, low self-confidence seemed to be an important component of both anxiety constructs. Finally, both anxiety measures were significantly correlated with writing achievement, with the writing anxiety scale being more strongly associated with writing achievement than general foreign language anxiety.

With 140 college students of Spanish, Vogely (1998) documented the sources of foreign language listening comprehension (LC) anxiety using a student self-reported questionnaire. She found four main sources of LC anxiety: 1) some characteristics of LC

input (51%), including nature of the speech, level of difficulty, lack of clarity, lack of visual support, and lack of repetition; 2) process-related aspects (31%), including inappropriate strategies, lack of processing time, can't study LC, and can't check answers; 3) instructional factors (13%), including lack of practice, "the test thing," and uncomfortable environment; and 4) personal and interpersonal attributes (13%), including fear of failure/nervousness and instructors' personality.

Kim (2000) recruited 253 Korean university EFL learners in order to examine the relationship between general foreign language anxiety, as measured by the FLCAS, and foreign language listening anxiety, as measured by an instrument she developed, The Foreign Language Listening Anxiety Scale (FLLAS). She found that a majority of Korean college EFL learners experienced foreign language listening anxiety, that listening anxiety contained two factors: Tension and Worry over English Listening (FLLAS1) and Lack of Self-Confidence in Listening (FLLAS2), that listening anxiety is significantly related to both general foreign language anxiety and listening proficiency; and that foreign language listening anxiety is related to but independent from general foreign language anxiety ($r=.7$).

Kim's (2000) findings regarding listening anxiety were further supported by Elkhafaifi (2005). Focusing on 233 postsecondary students of Arabic as a foreign language, Elkhafaifi (2005) found general foreign language anxiety as measured by the FLCAS and foreign language listening anxiety as measured by the Foreign Language Listening Anxiety Scale (FLLAS), an instrument adapted from Saito et al.'s (1999) FLRAS. He found that foreign language listening anxiety and general foreign language anxiety were separated but related phenomena ($r=.66$, $p,.01$), and that both anxiety measures were significantly correlated with achievement, with the listening anxiety scale more strongly related to listening grade than the FLCAS.

Thus, it appears that language anxiety is a form of anxiety not only specific to second language learning, but also specific to the language skills to be acquired. That is, foreign language learners may experience different levels of anxiety depending on whether it is the listening, speaking, reading or writing skill that is being learned.

10. Conclusion

In sum, while the direction of causation between anxiety and achievement is far from certain, and some issues, both practical and theoretical, are yet to be settled, research on anxiety and foreign language learning indicates that foreign language anxiety is a distinct form of anxiety specific to the situation of learning a foreign language. Studies that treat foreign language anxiety as a manifestation of other more general types of anxiety are incapable of capturing the relationship between anxiety and foreign language learning. In contrast, studies using a situation-specific approach generally show not only a consistent, negative relationship between anxiety and foreign language achievement, but also the detrimental effects of language anxiety on cognitive processes. Furthermore, the situation-specific approach has found that in addition to the speaking-dominated general foreign language anxiety as originally conceptualized by Horwitz et al. (1986), language anxiety is specific to the skills of reading, writing, and listening: the more skill-specific the language anxiety measures, the stronger their associations with students' achievement in that skill to be learned. Therefore, although consensus is pending regarding the exact underlying structure of foreign language anxiety, consensus is building that foreign language anxiety is not the sum or transfer of other types of general anxiety, but a form of anxiety specific to the situation of foreign language learning.