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The Effect of Test Anxiety on the Performance of Armenian University Students Majoring in English

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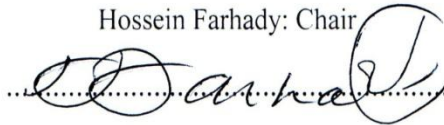**We hereby approve that this thesis**

By

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The Effect of Test Anxiety on the Performance of Armenian University
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be accepted in partial fulfillment for the requirements of the degree of
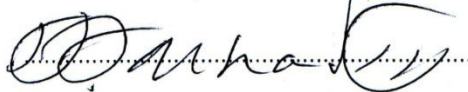**M.A. in TEFL**

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Dedication

This thesis is dedicated to my parents who have been a great source of motivation and inspiration to me throughout my life and have supported me all the way since the beginning of my studies.

Acknowledgements

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Abstract

Foreign language learners are believed to experience anxiety about taking tests. This study was designed to find the sources of test anxiety among Armenian university students majoring in English. It was also designed to investigate the relationship between test anxiety and students' performance and to explore the effect of coping strategies on their performance. To achieve these goals, *The Westside Anxiety Scale* was piloted and administered to 155 English major students at Yerevan State University in Armenia. According to students' scores on the questionnaire, they were divided into *high-test anxious* and *low-test anxious* groups. Moreover, the most test-anxious students (N=10) were selected to be interviewed in order to discover the possible sources of test anxiety and to construct the treatment according to those sources. Later, *high-test anxious* students were divided into *experimental* (N=30) and *comparison* (N=30) groups, with the experimental group receiving test anxiety reduction training. After the treatment, the participants took an achievement test and their scores on the test were used to measure the effect of the treatment.

The collected data were analyzed descriptively and statistically, and the results were as follows: such factors as bad past experience with tests, poor preparation, fear of a particular test format, fear of novelty and a highly evaluative situation, time insufficiency, and fear of instructor were revealed as test anxiety provoking factors. Second, findings showed that there was a clear negative relationship between foreign language test anxiety and students' performance. Third, it was revealed that anxiety treatment resulted in better performance. Based on the findings of this study, it was recommended that foreign language teachers should be aware of test anxiety, its causes and consequences, which could lead to its reduction.

Chapter 1: Introduction

"Language tests play a powerful role in many people's lives, acting as gateways at important transitional moments in education, in employment, and in moving from one country to another" (McNamara, 2000, p.4). "Tests are an important part of society and as society evolves test performance becomes an increasingly greater factor in determining success" (Spielberger & Vagg, as cited in Lawson, 2006, p.15). According to the American Test Anxiety Association, about 16--20% of American students have high-test anxiety, making it the most prevalent scholastic impairment in their educational settings today. Another 18% are troubled by moderately-high test anxiety. The same association reports that test anxiety accounts for about 7–8 % of the variance across the whole range of students, which is about equivalent to a 12-percentile span between the high vs. low anxiety students with the moderately-high and moderate anxiety students omitted. Considering the phenomenon of test anxiety as a problem also for Armenian EFL students, it seems necessary to conduct a research on this issue.

1.1 Theoretical Framework of the Study

The term 'test anxiety' as a scientific construct refers to the set of phenomenological, physiological and behavioral responses that accompany concern about possible negative consequences or failure of an exam or a similar evaluative situation" (Sieber et al. as cited in Ergene, 2003, p.313). For decades, researchers have been investigating test anxiety that students experience in their foreign language learning. For example, Horwitz and her colleagues (1986), who made significant contributions by developing an instrument to measure foreign language anxiety and by promoting interest in anxiety research among foreign language educators, found that test anxiety was one of the three types of language anxiety, and defined it as *apprehension over academic evaluation.* Later several studies

were conducted *(*MacIntyre and Gardner, 1989, 1991, 1994; Young, 1991; Thadphoothon, 2000; Aydin, 2006, 2008; Rezazadeh and Tavakoli, 2009*)* to understand the mechanism of test anxiety in language learning and to identify its effect on learners' performance. As a result, most of the studies have shown a negative relationship between test anxiety and language performance, which means that test anxiety is a debilitator in language learning. Discussing the sources of test anxiety, researchers mention the personality of an individual, or the situation in which s/he finds herself/himself (Scovel's study as cited in Allwright and Bailey, 1991). Moreover, factors such as teachers' attitude and evaluation, teacher-students interactions in class, parents' expectations, classmates' attitude, and students' own achievements are among the potential sources of students' test taking anxiety.

1.2 Purpose of the Study

English as a foreign language is extensively taught at primary, secondary and higher educational institutions of Armenia. Particularly, more than 3000 students study English as their first or second profession in three state universities of Armenia: Yerevan State University, Yerevan State Linguistic University after V. Brusov, and Armenian State Pedagogical University. Taking into consideration the fact that foreign language test anxiety is different from other types of anxieties (Horwitz, Horwitz, and Cope, 1986) and affects not only students' attitude and language learning, but is also considered to have more debilitating than facilitating effects, an investigation and detailed analysis of foreign language anxiety is necessary and significant for Armenian students who learn English as a foreign language. Moreover, so far no research has been conducted in the field of foreign language test anxiety in the Armenian EFL settings. Therefore, it seems reasonable to conduct such research among Armenian EFL university students and

respond to this lack. However, in order to investigate this phenomenon we need to establish a solid background with supporting data. Hence, the first purpose of this study is to figure out the sources of test anxiety among Armenian EFL university learners. The second purpose is to examine the relationship between test anxiety and learners' performance. The third purpose is to explore the effect of coping strategies on their performance. Thus, this MA thesis will examine the following research questions:

Research Questions

1. What are the sources of test anxiety among Armenian university students majoring in English?

2. Is there any relationship between Armenian university students' test anxiety majoring in English and their performance in English tests?

3. Does anxiety treatment (anxiety reducing strategies) result in a decrease in anxiety levels and better performance?

Research Hypothesis

2. There is a negative relationship between Armenian university students' test anxiety majoring in English and their performance in English tests.

3. There is no relationship between anxiety treatment and decrease in students' anxiety levels and better performance.

1.3 Overview of the Study

The remainder of this thesis is structured as follows:

Chapter two is a review of the literature concerning Foreign Language Test Anxiety, which provides a theoretical framework for the study from the historical perspective.

Chapter three provides insight into the research design and methodology used in the study, describing the components of the triangulated investigation undertaken to gather the data.

Chapter four presents the results of the study. The data results are presented in the form of statistical tables followed by a discussion.

Chapter five discuses the conclusions drawn from the study, the proposed contribution the study has made to EFL practice, the limitations of the study, applications to, and implications for Armenian EFL settings and suggestions for further research.

Chapter 2: Literature Review

The purpose of this chapter is to present theoretical background and research conducted on foreign language test anxiety. The procedures will be to:

1. explain the concept of anxiety

2. introduce types of anxiety

3. discuss the effect of students' anxiety on their performance

4. present the relationships between individual learner variables and foreign language test anxiety

5. discuss the possible sources of foreign language test anxiety and offer suggestions for coping with them

2.1 General Description of Anxiety

"*Anxiety* as an affective state is defined as an uncomfortable emotional state in which one perceives danger, feels powerless, and experiences tension in the face of an expected danger. According to (Horwitz, Horwitz and Cope 1986, p. ii), it is a subjective feeling of tension, apprehension, nervousness, and worry associated with the arousal of the autonomic nervous system". The autonomic nervous system (ANS) directs all activities of the body that occur without a person's conscious control. The ANS is predominantly an efferent system transmitting impulses from the Central Nervous System (CNS) to peripheral organ systems. It is a part of the peripheral nervous system that functions to regulate the basic visceral (organ) processes needed for the maintenance of normal bodily functions. The autonomic nervous system functions in an involuntary, reflexive manner; for example, we do not notice when blood vessels change size or when

our heart beats faster, however certain events, such as emotional stress, fear and sexual excitement change the level of autonomic activity (Bakewell, 1995).

2.2 Types of Anxiety

Research on anxiety suggests that anxiety can be classified into three types: *trait anxiety*, *state anxiety* and *situation-specific anxiety* (Ellis 1994; Brown 1994). Scovel (as cited in Ellis, 1994) views *trait anxiety* as an aspect of personality. However, "according to Spielberger, *trait anxiety* is defined as a motive or acquired behavioral disposition that predisposes an individual to perceive a wide range of objectively nondangerous circumstances as threatening, and to respond to these circumstances with anxiety state reactions" (Chan & Wu, 2004, p.291). "Trait anxiety can be difficult to isolate and measure directly because it is not typically manifested in behavior. It can be defined as relatively stable individual differences in anxiety proneness, that is, to differences in the disposition to perceive a wide range of stimulus situations as dangerous or threatening, and in the tendency to respond to such threats with state anxiety reactions" Spielberger (as cited in Lawson, 2006, p.24). "*State anxiety* can be defined as an apprehension that is experienced at a particular moment in time as a response to a definite situation" Spielberger (as cited in Ellis, 1994, p.480).

Finally, the last of the three types, *situation-specific anxiety* is related to apprehension unique to specific situations and events and unlike *trait* and *state* anxieties, *situation-specific* anxiety requires the respondents to assign their anxiety to particular sources (Ellis, 1994). According to Horwitz et al. (1986), MacIntyre and Gardner (1991, 1994), *Foreign Language Classroom Anxiety* (FLCA) belongs to situation-specific anxiety. Horwitz et al. (1986) identified it as a conceptually distinct variable in foreign language learning and interpreted it within the context of existing theoretical and

empirical work on specific anxiety reactions. They identified three types of language anxiety, that is, (1) *Communication apprehension,* arising from learners' inability to adequately express mature thoughts. *(2) Fear of negative social evaluation,* arising from the learner's need to make a positive social impression on others. *(3) Test* anxiety or apprehension over academic evaluation (Horwitz, et. al, 1986). Based on these three components they developed the Foreign Language Classroom Anxiety Scale (FLCAS) to measure these three causes and found out that language anxiety was distinct from other types of anxiety. "Foreign language anxiety is a distinct complex of self-perceptions, beliefs, feelings, and behaviors related to classroom language learning arising from the uniqueness of the language learning process" (Horwitz et al.,1986 p,128). The development of Foreign Language Anxiety (FLA) scale was a significant contribution, which promoted interest in research on anxiety and concern for learners' anxiety among Foreign Language (FL) educators and was widely used by researchers to measure foreign language learners' anxiety and to examine the effect of anxiety on learning in different contexts.

2.2.1 Communication *apprehension*.

"According to McCroskey (1984), communication apprehension is defined as a person's level of fear or anxiety associated with either real or anticipated communication with another person or persons. McCroskey (1984) points out that typical behavior patterns of communicatively apprehensive people are communication avoidance and communication withdrawal" (Aida, 1994, p.156). According to Horwitz, et al. (1986, p. 128), "communication apprehension is a type of shyness characterized by fear of or anxiety about communicating with people". They submit the construct of communication apprehension to their conceptualization of foreign language anxiety. They consider that

interpersonal interactions are the major emphasis in the English class. In a foreign language classroom, language learners' oral tasks include not only learning a second language but also performing the language. Therefore, communication apprehension in a foreign language context is different from that in other context. They state that the special communication apprehension permeating foreign language learning derives from the personal knowledge that one will certainly have difficulty understanding others and making oneself understood. Moreover, according to them, because of that knowledge, many talkative people are silent in a foreign language class. However, they also discuss the opposite situation, when self-conscious speakers may find that communicating in a foreign language makes them feel as if someone else is speaking and they therefore feel less anxious.

Oral communication consists of two components: listening and speaking. Speaking is anxiety-provoking in foreign language activities (MacIntyre & Gardner, 1991c). Daly (1991) and Young (1986) find that most students are particularly anxious when they have to speak a foreign language in front of their class. As to listening, it is a problem for language learners, too. Foreign language learners usually have difficulty understanding others. Because of the lack of control of oral communication, communication apprehension emerges (MacIntyre & Gardner, 1991c). Cebreros (2003) investigated levels of communication apprehension in terms of speaking anxiety and listening anxiety. The results showed that speaking the language seemed to be difficult for a large amount of students. For example, 45% of the students felt overwhelmed by the number of rules they had to learn to speak a foreign language. Moreover, 45% of students also showed their reticence to volunteer answers in the language class, and the same percentage of students said that they trembled when they knew that they were going to be called on in class. As far as the manifestations of speaking anxiety are concerned, it was

revealed that 39% of the students got nervous and confused when they spoke in the foreign language classroom. Discussing the listening anxiety, Cebreros (2004) stated that anxiety reactions were not as frequent as those corresponding to *speaking anxiety*, since only about 25% of the students felt restless when they did not understand what the teacher said in the foreign language. Further, she found that the level of *listening anxiety* increased considerably when error correction was involved in the process, since 57% of the students said that they got upset when they did not understand what the teacher was correcting.

2.2.2 Fear of negative evaluation.

Watson & Friend defined fear of negative as "an apprehension about others' evaluations, avoidance of evaluative situations, and the expectation that others would evaluate oneself negatively" (as cited in Horwitz et al., 1986, p. 128). According to Horwitz et al. (1986), fear of negative evaluation may occur in any social, evaluative situation such as interviewing for a job or speaking in a foreign language class. They suggest that students' fear of negative evaluation is provoked by the nature of the FL classroom, where students' performances were continually evaluated by the only fluent speaker, the teacher. However, students may also be highly sensitive to the evaluations of their peers.

Kitano (2001) investigated two potential sources of the anxiety of college learners of Japanese in oral practice: (a) an individual student's fear of negative evaluation, and (b) his or her self-perceived speaking ability. The focus of this study was limited to the anxiety that students experience during oral practice in the FL classroom as the situation of speaking the target language in a classroom was identified as highly anxiety provoking. The participants in the study consisted of 212 students enrolled in Japanese language

courses at two major state universities in the Midwestern, United States. A 70-item multiple-choice was created for the study. It contained (a) a background questionnaire, (b) the Fear of Negative Evaluation Scale, (c) the Japanese Class Anxiety Scale, and (d) three kinds of self- ratings of Japanese speaking ability: Self-Rating Can-Do Scale (SR-CDS), Self-Rating for the Current Level of Study, and Self-Rating Expected Perception by the Japanese. The results showed that there was a positive correlation between an individual's fear of negative evaluation and his or her anxiety level.

Aydin (2008) also investigated the sources and levels of fear of negative evaluation as well as language anxiety among Turkish students as EFL learners, and determined the correlation between them. The instruments used to collect data consisted of a questionnaire asking the participants about their age, gender, and grades; a foreign language anxiety scale (FLAS) adapted from Horwitz (1986), and a scale for fear of negative evaluation (FNE) developed by Leary (1983). A foreign language anxiety scale and a scale for fear of negative evaluation were administered to a sample group of 112 foreign language learners. The collected data were used to provide a descriptive and correlational analysis. The results of the analysis indicated that EFL learners suffered from language anxiety because of certain anxiety-provoking factors. First, the findings reveal that learners experienced language anxiety when they were not prepared for the lesson. Second, communication apprehension felt towards teachers, peers and native speakers was also considered as an anxiety-provoking factor. Third, for most of the students, teachers' questions and corrections in the classroom environment were among the factors intensifying their anxiety. It was also revealed that, among other sources arousing anxiety were fear of speaking during classes, concerns about making mistakes, fear of failing classes, test anxiety, and negative attitudes towards English courses. The learners also suffered from fear of negative evaluation. First of all, foreign language

learners had the fear of leaving negative impressions on others. Besides others' negative thoughts and the fear of making verbal or spelling mistakes, they had also a fear of being disapproved of by others.

2.2.3 Foreign language test anxiety.

"The term 'test anxiety' as a scientific construct refers to the set of phenomenological, physiological and behavioral responses that accompany concern about possible negative consequences or failure of an exam or a similar evaluative situation" Sieber et al's study (as cited in Ergene, 2003, p.313). Horwitz et al. (1986) found that test anxiety was a type of performance anxiety arising from a fear of failure. According to the authors, test-anxious students often put unrealistic demands on themselves and feel that anything less than a perfect test performance is a failure. Students who are test-anxious in foreign language class experience considerable difficulty since tests and quizzes are frequent and even the brightest and most prepared students often make errors. From the point of view of medical science, *test anxiety* can be defined as a state when the student's heart starts to beat rapidly, the blood pressure goes up, digestion is slowed down, breathing rate increases, the rate of perspiration increases, and adrenalin is released in the body giving an overall excited effect.

According to Zeidner's definition (as cited in Chapell's, Bladning's, Silverstein's, Takashashi's, McCann's, Newman's and Gubi's study, 2005) test anxiety is a multidimensional construct that has been defined as "the set of phenomenological, psychological, physiological, and behavioral responses that accompany concern about possible negative consequences or failure on an exam or similar evaluative situation" (Chapell et al., 2005, p.268). "T*est anxiety* is characterized by uneasiness, apprehension, hopelessness, and expectations of failure. It is experienced before, during, or after an

examination and is commonly attributed to concern, worry, or fear" Seiber; Zeidner, (as cited in Lawson, 2006, p.18). Sarason (1984) defined anxiety as "a complex state that includes cognitive, emotional, behavioral, and bodily reaction" (Sarason, 1984, p.931). According to him, the test anxious person experiences self-pre-occupying worry, insecurity, and self-doubt in evaluative situations. As a result, these internal distractors lessen the attention to the task and contribute to relatively low performance. He found (1984) that under neutral conditions high and low test anxious students performed equally. However, when an evaluative component was introduced, a flag indicating danger went up for those who were prone to test anxiety. MacIntyre & Gardner (1991), who share the same opinion related to evaluative situations, have defined test anxiety as a state marked by temporary reactions, such as *worry and nervousness* to an academic or evaluation situation. Following the same idea, Wine (as cited in Sarason, 1984) has suggested that test anxiety might fruitfully be reconceptualized primarily in terms of cognitive and attentional processes aroused in evaluative settings.

Further research shows that researchers have distinguished between *worry* and *emotionality*. "*Worry* refers to the cognitive side of anxiety (preoccupations, concerns); *emotionality* refers largely to a person's awareness of bodily arousal and tension" (Sarason, 1984, p.931). Spielberger & Vagg's study (as cited in Lawson, 2006) demonstrated how expectation of successful performance and worry were negatively correlated. Wine's study (as cited in Lawson, 2006) revealed that highly anxious students who performed poorly on an exam scored high on worry, suggesting that poor performance was attributed to worry based cognitions (e.g., self-blame for potential failure), and this in turn distracted the student from the task at hand (e.g., the exam). Students who scored high on worry often concerned themselves with past exam disasters and berated themselves for not studying properly or for forgetting the answers to simple

exam questions. At the same time, emotionality was conceptualized as the student's awareness of his or her physiological and autonomic arousal during a testing situation (e.g., nervousness, tension, perspiration) Liebert & Morris (1967). Both high test-anxious and low test-anxious students experienced emotionality; however, they differed in the intensity of physiological arousal (e.g., heart rate). For example, Deffenbacher (as cited in Lawson, 2006) examined 156 students and found that among them there were both high-test anxious students and low-test anxious students. High test-anxious students had more elevated heartbeats (e.g., $M = 79$ beats/min) compared to the low test- anxious students (e.g., $M = 70$ beats/min) during an evaluative situation. Morris and Liebert (as cited in Lawson, 2006) reported that emotionality was unrelated to test performance, while worry was negatively related to test performance among a college sample.

So far, we have seen that operationally, *test anxiety* can be defined differently in various fields. However, in this study test anxiety will be defined as participants' scores on the questionnaire *Westside Test Anxiety Scale*.

According to Lawson (2006), almost everyone has experienced test anxiety at one time or another; however, some students experience anxiety to such an extent that it interferes with their test performance, and as a result, academic performance is seriously affected. "In general, anxiety like many other factors has a curvilinear effect on *performance*. Low levels help whereas high levels hurt" (Gass & Selinker, 1994, p. 258). However, what is performance? Brown (1994) defined performance as "the overtly observable manifestation or realization of competence" (Brown, 1994, p. 31). According to him (1994), in judging responses on various tests, teachers need to be attentive to the discrepancy between performance on a given day or in a given context and competence in a second language in general. Ellis, (1994, p.718) states that, "Performance refers to the

actual use of language in either comprehension or production". In this study operationally defined, performance is the manifestation of the test score.

2.3 The Effect of Students' Anxiety on their Performance

Much research (e.g., Bailey, 1983; Horwitz, et al., 1986; Ely, 1986; MacIntyre & Gardner, 1994; Young, 1991; Aida, 1994), has been conducted to understand the mechanism of anxiety in foreign language learning and to find the relationship between anxiety and achievement in the learning of different foreign languages. When we explore the effect of anxiety, an important insight to which we can refer is the distinction between *debilitative* and *facilitative anxiety* Alpert and Haber (as cited in Brown, 1994). "The factor of task difficulty affects learners to develop a facilitating or a debilitating anxiety. MacIntyre (1995) claims that only when a given task is relatively simple, foreign language anxiety could be facilitating" (Chan & Wu, 2004, p. 294). According to Allwright and Bailey (1991), when we know that success is guaranteed, we do not think about the possibility of failure, and in fact, we do not feel anxious, but when we know that success in not guaranteed and possibility of failure depends on us, we do our best to succeed, and in this case, facilitative anxiety helps us. On the other hand, when we know that no matter how hard we try, we are most likely to fail, the debilitative anxiety makes it even more difficult for us to produce our best. In other words, *facilitative anxiety* is considered as a positive factor, which helps us to get the job done, while *debilitative anxiety* is a negative tension, which impedes our actions.

There have been some studies, which found neutral and positive relationships between anxiety and second language achievement. For example, in Bailey's study of competitiveness and anxiety (as cited in Na, 2007), it was found that facilitative anxiety was one of the keys to success, and closely related to competitiveness. Similarly, in

Baoyan's study (as cited in Na, 2007) of English learners in Taiwan, the results showed that there was no relationship between anxiety and learning achievement.

However, most research studies (e.g., Horwitz, 1986; MacIntyre & Gardner, 1994) have shown a negative relationship between anxiety and language achievement, which means that anxiety is a debilitator in language learning. Horwitz (1986) reports sizeable negative correlations (around -.5) between foreign language classroom anxiety and final grades achieved by American university students. Horwitz et al. (1986) suggest that anxious students feel uniquely unable to deal with the task of language learning. The authors continue on asserting that language anxiety can cause students to postpone language study indefinitely or to change majors. The findings suggest that significant foreign language anxiety is experienced by many students in response to at least some aspects of foreign language learning. A majority of the statements reflective of foreign language anxiety scale (nineteen of thirty-three items) were supported by a third or more of the students surveyed, and seven statements were supported by over half the students. Taking into account the number of students who expressed a need for a student language-support group Horwitz et al., (1986) suggest that many people experience harsh reactions to foreign language learning and that anxious students are common in foreign language classrooms.

Similarly, Gardner, Moorcroft, and MacIntyre (1987) found a significant relationship between various measures of anxiety and scores on a word production task, but they did not find any relationship between the anxiety measures and free speech quality. In 1991, they found that speaking is by far the main agent of anxiety-arousal, and that students with high anxiety perform worse than those with low anxiety. Later, MacIntyre and Gardner (1994) based on a study of 97 college students that were learning French, concluded that compared with more relaxed learners, those with anxiety find it more

difficult to express their own views and tend to underestimate their own abilities. They also found that in the three stages of language acquisition, that is, input, processing and output, anxiety and learning achievement are negatively correlated. Similarly, Bailey, Onwuegbuzie & Daley (2000) tried to identify a combination of variables that might be correlated with the three types of anxiety: input, processing, and output. The *canonical correlation* analyses revealed that students with the highest levels of anxiety at the input, processing, and output stages tend to be older; have lower expectations of their achievement in foreign language courses, low perceived global self-worth, low perceived scholastic competence, low perceived intellectual ability, and low perceived job competence; and have taken few or no high school foreign language courses. Academic achievement acted as a suppressor in the model by increasing the predictive power of the independent variables.

There have also been studies conducted to find a negative correlation between anxiety and the four aspects of language learning, especially speaking and listening. For example, Thadphoothon (2000) discusses the relationship between test anxiety, students' perceived English ability and their speaking test scores. He presents a classification of perception made by Arthur S. Reber (1995), which involves *attention, constancy*, *motivation*, *organization*, *set, learning, illusion, distortion and hallucination.* Another concept related to self-perception that Thadphoothon discusses is *perceived self-efficacy,* which according to Bandura (as cited in Thadphoothon, 2000 p.14) is "people's judgments of their capabilities to organize and execute courses of action required to attain designated types of performances". Further, Thadphoothon mentions that *Perceived English Ability* is a broad construct and in his study it refers to an overall English ability. Presenting the methods of the research, he states that the participants were 43 undergraduate students (mainly female) enrolled in a basic English course at

Dhuraijpundit University. Before their speaking test, students were asked to complete two questionnaires on *Test Anxiety* and *English Self-concept.* The first one was Perceived English Ability (PEA), a 27-item scale, adapted from the scale Perceived Mathematics Ability, which was developed by Thassanavijitwong (1996). The scale ranged from 1 (Not True) to 3 (True). The internal consistency reliability (Cronbach's a) was .88. The second was Test Anxiety (TA) scale consisting of 20 items and ranging from 1 (almost never) to 4 (almost always). Discussing the findings, Thadphoothon (2000) states that there is a strong relationship between the students' self-perception and their levels of test anxiety. According to him, the students who were sure of their knowledge of English experienced lower test anxiety compared with those who perceived themselves as having little ability in English. Thus, he suggests that students can reasonably evaluate their own English ability and should be encouraged to do so regularly, as when they are aware of their abilities, they will also realize their needs. However, there was not sufficient data to support a salient relationship between the students' levels of test anxiety and their actual test performance, that is, the relationship between test scores, test anxiety, and perceived English ability.

Aydin et al. (2006) studied the test anxiety levels of Turkish students as EFL learners and investigated its reasons, effects and results on foreign language learning. The participants in the study were 114 students from the English Language Department of Necatibey Education Faculty of Balikesir University, Turkey. Of the participants, 20 were male and 94 were female students. The mean of their ages, ranging between 18 and 23, was 20.46. The group consisted of 24 first-, 30 second, - 28 third- and 32 fourth-year students. The instrument used to gather descriptive data consisted of three parts: a background questionnaire, a test anxiety scale adapted from Sarason's (1984) Test Anxiety Scale, and a survey, which contained four questions on students' attitude towards

test anxiety. After finding the test anxiety level, the survey was given to the participants two weeks later, taken back in one week and finally the results were analyzed descriptively. The results showed that the participants usually had test anxiety. Six of the items were correlated significantly with the overall achievement scores of the learners. According to the findings, the higher the scores were, the lower the level of test anxiety was. In other words, the students who have high scores feel more confident and relaxed than the ones who have lower scores. The results also showed that EFL learners worry during test taking and sometimes think that other students are better. The students felt anxious when they studied for a test. In addition, before and after tests, students were unconfident and assumed that they would do the test better after some time passed from the real test situation.

Chan & Wu (2004) investigated foreign language anxiety of EFL elementary school students in Taiwan and found to what extent foreign language anxiety was correlated to students' English learning experience and English achievement. The researchers used questionnaires, interviews, classroom observations, and document collection as data collection tools. The data was analyzed through Descriptive Statistics. ANOVA and Posteriori Comparisons were used to explore the differences in language anxiety level between students with different English learning experiences. In addition, Pearson's Product-Moment Correlation was used to analyze the correlation between English learning achievement and English learning anxiety. The analysis of the questionnaires showed that the tendency of foreign language anxiety among EFL students of elementary school existed. The application of FLCAS scale adopted from Horwitz (1986) showed that test anxiety, fear of being less competent, and fear of speaking in English were three main constructs of students' anxiety. This finding corresponded with the three components of foreign language anxiety of Horwitz et al. (1986). Moreover, they also

found that insufficient preparation, speaking English with native English speakers, and fear of making mistakes made students anxious. After identifying learners' foreign language anxiety, ANOVA was applied to analyze the differences in language anxiety levels among different variables. Six variables that affected anxiety level were obtained. Correlataional analysis between foreign language anxiety level and English learning achievement ($r = -.279$), showed that there was a significant negative correlation between the score of the FLCAS and the final score. That is, the higher the learners' anxiety level, the lower the English learning achievement would be. Then, through a combinational analysis of multiple data sources, they found that low proficiency, fear of negative evaluation, competition of games, anxious personality, and pressure from students themselves and their parents were the five sources of language anxiety. Third, tests, speaking in front of others, spelling, incomprehensible input, and speaking to native speakers were the five anxiety-provoking situations. Fourth, both teachers and students thought that the balance of instructional language helped to lower foreign language anxiety. Finally, the study revealed that teachers' awareness of foreign language anxiety is insufficient.

Piniel (2006) and Na (2007) investigated foreign language anxiety among school students thus filling the gap of research that was missing. "In spite of the growing number of research dealing with FLA, the majority of the studies mentioned above have involved the participation of mainly college or university students in a second language or a foreign language setting, in all cases dealing with the acquisition of one foreign/second language" (Horwitz, Horwitz & Cope, 1991; Horwitz & Young, 1991; MacIntyre & Gardner, 1994). In other words, there are limited numbers of studies involving secondary school students albeit it is in this milieu that most learners are compulsorily introduced to studying foreign languages. (Piniel, 2006, p.3). "In China, similar research has also been

conducted with different groups of people. Most of them, however, were college students. High school students, who are still at a comparatively low level of English proficiency and thus more easily experience a feeling of uneasy suspense, are overlooked by most researchers" (Na, 2007, p.1) .

Particularly, Na (2007) investigated the general situation of Chinese high school students' foreign language anxiety and the effects of anxiety on Foreign Language learning. The subjects of the study were 115 second-year high school students (56 males and 59 females), who were from a science and an art classes of a high school in Shandong Province. The instruments used to gather the data consisted of a questionnaire assessing students' anxiety level and an achievement test. The questionnaire consisted of two parts. The first part aimed to collect personal information of the participants, while the second one was the Chinese version of FLCAS designed by Horwitz (1986). The test was the final exam administered at the end of the semester, which was applied to assess students' achievement in English. Data was analyzed through the SPSS program. The results of the descriptive analyses indicated that the high school students had a feeling of anxiety and a fear of negative evaluation in their English classrooms. It is important to note that the results of the correlation analysis indicated that anxiety and English achievement were only correlated in terms of test anxiety and the correlation was negative (-.277, p=0.039<0.05). Since the coefficient of anxiety for English classes was -0.232, which approached the significant level of -0.25, the students from the science class were divided into two groups according to their English scores in the final exam. A t-test was then employed to see if there were any significant differences in the anxiety of English classes between these two groups. The results of the analysis showed that anxiety of English classes affected high school students' English achievement (p=0.037< 0.05). Hence, the author concluded that anxiety played a debilitative role in language learning. The possible

explanation was that each student usually had 6-8 English classes each week and took a test every three units. Moreover, in each term they had two large-scale exams a mid-term exam and a final. Therefore, some students with poor English achievement were anxious about English classes and tests. According to Na (2007), high anxiety can make learners become discouraged, lose faith in their abilities, escape from participating in classroom activities, and even give up the effort to learn a language well. Therefore, the learners with high anxiety often have low achievement, which in its turn makes learners more anxious about learning.

Similarly to Na's research, Piniel (2006) investigated foreign language anxiety by questioning its stability across different foreign languages among secondary school students and explored what learners perceive as possible causes of their feelings of FLCA.

The participants of the study were 61 ninth-year students studying at a grammar school in Budapest, who were learning two foreign languages simultaneously, as according to the school's curriculum, all ninth year students should have studied two foreign languages. The first language was the one, which students had learnt before entering secondary school, and the second was the language students chose and began to learn at the secondary school without having had any previous training in that given language.

In order to answer the proposed questions, a two-phased study consisting of a quantitative survey and a qualitative case study was carried out. Validated Hungarian translation of standardized anxiety scales, namely the Foreign Language Classroom Anxiety Scale (FLCAS) of Horwitz, et al. (1986) and State Trait Anxiety Inventory (STAI) Sipos, Sipos & Spielberger (1994), were used to investigate the relationship between the differences of Foreign Language Classroom Anxiety (FLCA) experienced in

the two different foreign language classrooms, controlling students' levels of trait anxiety. Interviews were conducted with six participants who did not possess high levels of trait anxiety, but demonstrated high levels of anxiety in one of the foreign language classrooms. The quantitative data was analyzed with the help of the SPSS (2004) statistical program, while the data analysis of the interviews followed the steps of qualitative content analysis, seeking common patterns in the responses. The results of the statistical analysis showed that in a sample of 61 secondary school students studying two foreign languages simultaneously demonstrated significantly different levels of foreign language classroom anxiety. The analyzes of the FLCAS items receiving a high score of four or five revealed two main categories of the causes of anxiety: the general discomfort felt in the foreign language classroom, and students' fear of negative evaluation from the part of the teacher rather than from their peers. The results of the interviews seem to support the above with the role of the teacher surfacing as the overall influential factor behind the general feelings of anxiety and fear of negative evaluation. The results also suggested that FLCA could appear in spite of positive experiences with the target culture or the target language prior to formal instruction as in one of the student's case.

Chapel et al. (2005) investigated the relationship between test anxiety and academic performance in large samples of undergraduate and graduate students, and the results indicate that test anxiety is associated with reductions in GPA at both educational levels. Since they found that there was no significant difference in total test anxiety between master's students and doctoral students, the analysis included all graduate students. Particularly, female graduate students had significantly higher anxiety scores than male graduate students. There was a significant negative relationship between graduate student anxiety scores and cumulative GPA. The low-test-anxious group had higher GPAs than the high-test-anxious group. Low-test female and male undergraduates

had cumulative GPAs averaging 3.35 and 3.22 respectively, whereas high-test female and male undergraduates had cumulative GPAs averaging 3.12 and 2.97 respectively. It becomes obvious that the low-test-anxious undergraduates' GPA was one third of a letter grade above from high-test anxious undergraduates' GPA. Hence, the author concluded that the relationship between test anxiety and academic performance was weaker in graduate students. The authors raised the question whether test anxiety was a clinically significant phenomenon and referred to Zuriff (1997) for the answer. "The most important criterion of clinical significances for the purpose of accommodation is the degree to which the test anxiety impairs performance. A student whose knowledge and skills warrant a grade of A- but who gets only a B + on exams because of anxiety, s/he is not clinically impaired and may not deserve accommodations despite the subjective distress. On the other hand, if that same student manages only Cs and Ds on exams, then the impairment is significant, and the test scores clearly do not reflect the students' knowledge." Zuriff's study (as cited in Chapell et al., 2005, p.272). Taking into account the criteria defined by Zuriff (1997), test anxiety did not approach clinical significance among the undergraduates and graduates as the difference in GPA were only equal to the difference between an A- and B+.

Thergaonkar & Wadkar (2007) studied the relationship between test anxiety and parenting style. Democratic attitude of parents, acceptance of parents by the child, parental attitude regarding academics, parental expectations and gender-stereotyped perceptions of parents regarding academics were evaluated in the domain of parenting style among sample of 207 students and 200 mothers. The students were administered the Test Attitude Inventory (TAI), Test of Democratic Attitude of the Parents (TDAP), and Test of Acceptance of the Parent by the Child (TAPC). The results of the study indicated statistically significant negative correlations between test anxiety and democratic attitude

of parents and acceptance of parents. Statistically significant negative correlations were also observed between the worry and emotionality components of test anxiety attitudes of mothers and fathers. Worry rather than the emotionality component of test anxiety had a statistically significant negative correlation with acceptance of parents. There was no statistically significant correlation between test anxiety and attitudes and expectation of mothers towards their child's performance. Therefore, Thergaonkar & Wadkar (2007) suggest that the perception of parental warmth reduces the threat in evaluative experiences. It also emphasizes the importance of acceptance of parents by the child. Stagner suggested that "acceptance leads to identification which in turn gives the child relief from feelings of helplessness as well as a sense of strength. This may help the child in academic achievement and reduce test anxiety" (as cited in Thergaonkar & Wadkar, 2007, p.11). Worry rather than emotionality component of test anxiety had a statistically significant negative correlation with acceptance of parents. According to the analysis, rejection of parents may represent a situation of conflict and of insecure attachment. It may lead to perception of evaluative situations as threatening to the self and hence to worries. However, the fact that all correlations of this study were below 0.4 (and were significant because of the large sample size) suggests the need to evaluate other predictors of test anxiety.

2.4 The Relationships between Individual Learner Variables and Foreign Language Test Anxiety

Correlational studies have also sought to establish relationships between individual learner variables and language test anxiety. Young (1991) states that according to some previous findings, a relationship between anxiety and foreign or second language performance existed. However, other findings suggested no relationship between anxiety

and performance. According to her, the problem with much of that research was that the relationship between anxiety and language learning/performance could not be viewed without taking into account a variety of variables, such as language learning, anxiety definitions, anxiety measures, age of participants, language skills and research design.

Aydin et al. (2006) found that of the 22 items presented in Test Anxiety Scale (TAS), six were correlated with the *age* of the participants. The findings show that younger students are more worried while taking a test (p=.04) and affected more negatively than older ones (p=.04). Additionally, during test taking, the older the learners are, the more confident and relaxed they are (p=.006). Older ones are more confident even when they have bad grades (p=.01) and not prepared well (p=0.01). Conclusively, during the tests, the younger ones assume more they will fail (p=.01). It was found that there was a significant relationship between the grade of the subjects and eight of the items in the scale. The findings pointed out that the level of test anxiety decreased when the level of grade increases. The first year students were the most worried while taking a test (p=.01) and when they are prepared well (p=.03) among the participants in second, third and fourth grades. It was also found that the first grade students were the least confident and relaxed when they knew that they would take a test (p=0.002) and their performance was affected the most negatively by tests (p=.003). During the tests, only first year students thought unrelated things about the class (p=.002), they did not feel confident even if they had good grades (p=.03), they were not sure if they would succeed (p=.002) and thought that they would fail (p=.00).

The above-mentioned findings (Aydin et al., 2006) are congruent with Aidin's findings of 2008, where he found that younger learners were more anxious about tests than the older ones. In addition, negative attitudes towards English courses were a source of language anxiety only for younger learners and students' grades were correlated with

communication apprehension with teachers and peers as well as test anxiety. Finally, elder learners had a lower degree of fear towards leaving a bad impression, disapproval by others, and making mistakes than the younger students did.

In contrast to Aydin's findings (2008), Kitano (2001) reported that fear of negative evaluation influenced anxiety more strongly for advanced-level students than for intermediate and elementary level students and more for students who had spent at least some time in Japan than for students who had never been to Japan. The author explained this result by explaining that advanced level instruction sought to develop more authentic and sophisticated communication skills in an exclusively Japanese language environment, which increased the difficulty of instruction in advanced-level classes and might cause some students to fear the possibility of being negatively evaluated by their teachers or peers more strongly than they did at the lower levels. Another reason can be the proficiency level and experience of students. For example, experienced language learners had probably acquired much more knowledge than less experienced language learners, or they may have more chances of noticing their own errors in speaking and being ashamed. Another possibility, according to the author, is less generosity of teachers in giving praise or positive rewards to learners' responses at the advanced level.

Wheeler (2005) compared 30 fourth, 38 sixth, and 17 tenth *grade*rs' anxiety levels before and after high-stakes testing. Students' anxiety levels were measured using the *Revised Children's Manifest Anxiety Scale* (*RCMAS*) developed by Reynolds Richmond in 1985. The *RCMAS* was administered two weeks before, one week before, and one week following the Ohio Fourth and Sixth Grade Proficiency Tests and Ohio Graduation Test in a rural Southeastern Ohio school district. Data were analyzed using repeated measures ANOVAs with follow-up post hoc procedures and t-tests. Results indicated significant differences between the fourth and sixth graders' anxiety levels at all three

anxiety scale administrations. Comparing the anxiety levels two weeks prior to taking (baseline), one week prior to taking, and one week following a high-stakes test for the fourth graders, sixth graders, and tenth graders, significant differences were found among the fourth graders' and sixth graders' anxiety levels. Particularly, the differences occurred between all three administrations of the anxiety scale for the fourth graders. The sixth graders experienced significant differences in anxiety levels between one week prior to taking and one week following a high-stakes test and between two weeks prior to taking (baseline) and one week following a high-stakes test. However, their anxiety levels remained essentially the same between two weeks prior to taking (baseline) and one week prior to taking a high-stakes test. Tenth graders' anxiety levels tended to remain essentially the same at all three administrations of the anxiety scale.

When comparing the anxiety levels of fourth graders, sixth graders, and tenth graders from two weeks prior to taking (baseline) to one week prior to taking a high-stakes test, a significant difference existed for the fourth graders only. It was hypothesized that the fourth graders' anxiety levels would increase from two weeks prior to taking (baseline) to one week prior to taking a high-stakes test. However, their anxiety levels decreased between the two administrations of the anxiety scale. Sixth and tenth graders' anxiety levels from two weeks prior to taking (baseline) to one week prior to taking a high-stakes test remained basically the same. When comparing the anxiety levels of fourth graders, sixth graders, and tenth graders from one week prior to taking to one week following a high-stakes test, a significant difference existed for the fourth and sixth graders. It was hypothesized that the anxiety levels would decrease one week following the high-stakes test, and this hypothesis was supported for the fourth and sixth graders when it was noted that their anxiety levels decreased significantly between the two administrations of the anxiety scale. The tenth grader's anxiety levels from one week

prior to taking to one week following the high-stakes test remained essentially the same. The results that indicated that no significant differences were found in the anxiety levels one week prior to taking a high-stakes test between fourth and sixth graders, fourth and tenth graders, and sixth and tenth graders were of interest. Moreover, the students in all the three-grade levels did not appear to be experiencing increased anxiety before or after high-stakes testing. According to Wheeler (2005), "The moderate anxiety levels exhibited by all three grade levels at all three administrations of the anxiety scale may have been due to the students (particularly the tenth graders) being aware that they had multiple opportunities to retake the Ohio Graduation Test (OGT) if they did not pass it the first time" (Wheeler, 2005 p. 22).

Researchers have also examined the relationship between test anxiety and performance, along with significant *gender* effects. The opinions are divided. Kitano (2001) found that the anxiety level of an individual male student was higher as he perceived his performance in tasks in spoken Japanese to be less competent, whereas for an individual female student there was no such relationship between her anxiety level and her self-perception of her speaking ability. Aida (1994) also examined the influence of gender interaction and found that there was no significant anxiety-gender interaction effect on course grade and in both male and female groups, high anxious students were more likely to receive lower grades than students having a low level of anxiety: $F (1,92)=3.20$, $p > .05$. Similarly, Na (2007) found that in terms of either the general English classroom anxiety or each specific kind of anxiety, males' means were always higher than females, which indicated that males may experience more anxiety than females. However, the results of t-tests contradicted the available results, as they showed that there were no significant differences between males and females in most anxiety variables except that of English classes ($p=0.026<0.05$). The author explained this

phenomenon thus; that though males showed less aptitude for English than females, great effort helped to make up a lot for it, and in many English tests the highest scores were attained by some male of the male students.

Other researchers have shown that these relationships do exist. Aydin (2006, 2008) found that first, female students feel less confident and relaxed than the males when they know they will take a test (p=.02). Second, female students are more worried than the males even when they are prepared well. (p=.02). Third and last, the females study more than the males when they have bad grades (p=.00). These findings are somehow consistent with what did Chapel, et al. (2005) who demonstrated the influence of gender differences and supported the theory that test anxiety was related to performance. Particularly, they evaluated 5,414 participants, who were asked to provide their cumulative GPAs and were also administered a measure of test anxiety. Results showed that among graduate students, low test-anxious females had significantly higher GPAs compared to high test-anxious females. However, no differences were shown among males. Similarly, Rezazadeh and Tavakoli (2004) investigated the relationship between gender, academic achievement, years of study and levels of test anxiety among 110 undergraduate students from University of Isfahan. The findings revealed that female students have a higher level of test anxiety in contrast to male students. The average of test anxiety score among female students was higher. The authors explain the findings that more pressure was placed on females to succeed in school than on males, which lead to the increase in test anxiety. Another possible explanation according to the authors is that "males are more defensive about admitting anxiety because it might be seen as threatening to their masculinity; they are trained to cope with anxiety by denying it or by finding ways to overcome it" (Mousavi & Haghshenas & Alishahi, 2008). Moreover, their findings showed that there is a negative relationship between test anxiety and

educational achievement, which means that as test anxiety level increases, educational achievement decreases and vice-versa. Their third analysis revealed that there is no meaningful relationship between test anxiety and years of study.

Gregersen & Horwitz (2002) examined the relationship between foreign language anxiety and a logically related personality construct, *perfectionism*. According to them, perfectionist students are not satisfied with merely communicating in their target language-they want to speak perfectly, with no grammatical or pronunciation errors also in their second language. As a result, such impossibly high performance standards create the ideal conditions for the development of language anxiety. "Thus, foreign language anxiety is based on negative expectations that lead to worry and emotionality. This leads to cognitive interference from self-derogatory cognition that produces performance deficits" (Gregersen & Horwitz, 2002, p.564). Although the preceding analogy between foreign language-anxious and perfectionist students interested researchers, they were the first to examine the connection between these two traits. Specifically, they attempted to identify instances of perfectionism in anxious language learners and confirm that such reactions are less prevalent in non-anxious learners. In order to examine the relationships between perfectionism and language anxiety, the comments of anxious and non-anxious language learners were audio recorded as the students watched themselves participate in a videotaped oral interview, and the audiotapes were examined to find examples of perfectionism. By having the participants review their videotaped interviews, they also examined the reactions of language learners to their actual oral performance, an area that has never before been explored either. The participants of the study were second year students in the English Education program at the Universidad de Atacama, who were preparing to become high school English teachers. After completing the FLCAS, they were asked to participate in the interview phase of the study, that is, to complete the

conversation task. A week later, they were invited to review their videos with the first author and were asked to reflect on their own performances. "Perfectionist students often demonstrate long delays in completing assignments or repeatedly restart them because they believe that their work must be perfect from beginning to end" (Gregersen & Horwitz, 2002 p.566). Taking into account this fact, the authors conclude that low performance is strongly associated with perfectionism. Gregersen & Horwitz (2002) noted that the anxious participants often attributed their errors to their anxiety, an excuse never offered by the non-anxious learners, who often seemed pleased with their own lack of anxiety. Concluding, the authors suggest examining the relationship of perfectionism and language anxiety in a variety of learning groups at various stages of language learning with various learning goals. Moreover, taking into account the fact that language anxiety may stem from perfectionist tendencies in some students, teachers should use certain approaches to help perfectionist learners to benefit from it.

2.5 Sources of Foreign Language Test Anxiety

For decades, researchers have been investigating the anxiety that students experience in their foreign and second language (FL/L2) learning and it should be noted that earlier studies focused on the identification of the causes of foreign language anxiety. Bailey (1983) through the analysis of the diaries of 11 learners had found that competitiveness could lead to anxiety. Besides, he (1983) found that tests and learners' perceived relationships with their teachers also contributed to learners' anxiety. Three aspects that Bailey identified were supported in subsequent studies. For example, Young (1991) identified and examined six general sources of language anxiety: 1) personal and interpersonal anxieties; 2) learner beliefs about language learning; 3) instructor beliefs about language teaching; 4) instructor-learner interactions; 5) classroom procedures; and 6) language testing. Since this study focuses on test anxiety, only the last source will be

discussed. Young (1991) found that students experienced anxiety if the test involved content that was not taught in class. Similarly, Horwitz (1986) and Young (1991) noted that tests in the lack of face validity led to higher anxiety and a negative attitude toward instruction. In the same way, Madsen (as cited in Young, 1991) investigated the effects of anxiety on ESL tests and found that high anxiety producing tests were also perceived by students as less valid. Another factor that increases test anxiety and decreases performance is time limit. For instance, in a study conducted by Ohata (as cited in Aydin, et al., 2006) learners sometimes felt pressured as they had to organize their ideas in a short period of time. Inappropriate test technique is also one of the factors that provoke test anxiety, as Young (1991) reported that students felt anxious when they had studied hours for a test and then they found that question types with which they had had no experience. For him, they experienced anxiety with a particular test format. In addition to the anxiety producing factors mentioned above, learners' capacity, task difficulty, the fear of getting bad grades and lack of preparation for a test are the other factors that make learners worried. Students also experienced anxiety when the situation was new for them, ambiguous, or highly evaluative. Young (1991, p. 429) claims that, "In language testing, the greater the degree of student evaluation and the more unfamiliar and ambiguous the test tasks and formats, the more the learner anxiety produced". According to Na (2007), the possible reasons of high school students having a feeling of anxiety in their English classrooms can be explained from two aspects. One aspect is closely related to high school students themselves. The other mainly deals with some external factors. In the former case, the existence of anxiety should firstly be attributed to their English proficiency, which is not high enough to allow them to communicate with others freely, express themselves adequately in class, and answer teachers' questions properly. Another reason can be the cultural tradition of Chinese people who care much about face, so they

do not like to receive low evaluations or criticism about themselves. Moreover, during high middle school, the stress of the national examination for college entrance and the serious competition among students also causes some students to pay more attention to others' strong points and their own weak points, which results in the arousal of anxiety. Na (2007) explained the external factors according to wide context of English learning in China. Referring to Tang (2005) and Wang (2003), she explained that contact with the people and culture of the target language could reduce anxiety. However, although China has become more and more open to the world, and many foreigners have come to China in the past thirty years, most English learners, especially high school students, seldom have opportunities to communicate with native speakers of English. Thus, high school students tend to experience more anxiety in English classrooms. Moreover, most Chinese teachers in middle schools emphasize reading and writing, while paying less attention to listening and speaking. The existence of anxiety in English classrooms can also be ascribed to classroom atmosphere. In most Chinese EFL classrooms, teachers play the role of controller or dominator. Students usually feel nervous or oppressed. Consequently, they lack a free, relaxed environment for English learning. Finally, another factor can be the high expectations of Chinese parents for their children, which usually do not encourage students, but often result in more anxiety.

According to the students' responses collected from the survey questions, Aydin (2008) found that test anxiety producing factors are teachers' and students' attitudes and proficiency, test applications, course contents and parental expectations. In addition, low level proficiency of the learners, negative attitudes of teachers towards test applications, students' attitudes towards language learning, test invalidity, test format and length, testing environment and clarity of test instructions expectations can be possible sources of test anxiety. Moreover, bad experiences on tests, fear of negative evaluation, subjective

scoring as a means of authority and punishment, time limitation and pressure, the difficulty of course contents are among potential sources provoking test anxiety. Finally, test anxiety causes physical and psychological problems, affects motivation, concentration and achievement negatively, increases errors in learning process, prevents to transfer their real performance to test results and studying efficiently and decreases the interest towards language learning.

2.6 Suggestions to Reduce Foreign Language Test Anxiety

The question of how to reduce students' negative anxiety has been explored by researchers very much and the majority of the findings suggest the important role of teachers. According to the American Test Anxiety Association *test anxiety reduction research* grew during the late 1960's, with the introduction of relaxation and systematic desensitization. High-test anxious students were found to score almost half a standard deviation (SD) below their low anxiety peers. The agreement from the sixties into the eighties was that available treatment reduced test anxiety but produced little or no improvement in test performance. In 1980 a review of almost 50 studies found only 18% of students showing a statistically significant improvement in performance, which indicates that performance improvement should not be expected. However, Hembree (1988) noted that many of those studies involved too few subjects to attain statistical significance. Using a more complete sample of available studies, and more advanced meta-analysis methods, Hembree (1988) observed that many of the better protocols produced about a .50 SD improvement on average in test scores and GPA, removing the handicap.

Many treatment programs have been developed to reduce test anxiety, such as Cognitive and Behavioral interventions, Rational-Emotive therapy and study skills training. According to Driscoll and Ross (2006), *skill development* area includes development of active learning strategies: to learn time management, careful reading and use of key words. *Behavioral interventions* are a) Basic relaxation, an ability to reduce physical tension when needed and b) Systematic desensitization an ability to reduce conditioned anxiety. *Cognitive therapy* includes a) reduction of negative and irrational thoughts through cognitive restructuring and thought substitution. b) development of an attitude of commitment to the study that is recognizing that it takes time and hard work. Finally, *stress and lifestyle issues* include general stress reduction; learning basic coping strategies for life conditions, such as diet and exercises.

Ergene (2003) studied the overall effectiveness of test anxiety reduction programs and found that effectiveness was related to particular interventions. Her meta-analysis included 56 published and unpublished studies on the effectiveness of test anxiety reduction programs. The data were analyzed in Meta Win Statistical program, after effect-size calculations. Among the study experiment groups, 42 used behavioral interventions, 17 used cognitive interventions, 9 used cognitive behavioral interventions, 16 used skill-focused interventions, 5 used behavioral and skill focused techniques, three used cognitive and skill focused treatment, three used cognitive behavioral and skill focused combined techniques, and 7 used other techniques such as Gestalt techniques, meditation or physical exercise. The observed differences among these interventions were significant, which indicates that the type of intervention was related to the effectiveness of the intervention. For example, it was found that Behavioral and cognitive approaches were effective in reducing test anxiety, while using skill focused approaches, or other techniques such as Gestalt therapy and humanistic counseling alone showed small

effectiveness. However, the most effective treatments were found to be those that combined skill-focused approaches with behavior or cognitive approaches.

In order to help students to reduce their language testing anxieties Young (1991) suggests that instructors should develop and administer fair tests that accurately reflect in-class instruction. For example, if a test has been designed so accurately that it reflects in-class practices and if the instructor has been sensitized to language anxiety, the test is less likely to contain test items, which increase students' anxiety, particularly if students have experienced the test item-type in class. Thadphoothon (2000) states that in order to manage students' anxiety teachers should inform students about the demands of the test, such as the test structure and format, criteria, the rationale beyond the test and the teaching framework.

According to Horwitz et al. (1986), educators have two options when dealing with anxious students: 1) they can help them learn to cope with the existing anxiety- provoking situation; or 2) they can make the learning context less stressful. However, in both cases, the teacher must first acknowledge the existence of foreign language anxiety. "Foreign language anxiety can probably be alleviated, at least to an extent, by a supportive teacher who will acknowledge students' feelings of isolation and helplessness and offer concrete suggestions for attaining foreign language confidence" (Horwitz et al. 1986p.132). They call on teachers to consider the possibility that anxiety may be responsible for the students' behaviors and not to refer it solely to lack of ability, inadequate background, or poor motivation. Further, they offer specific techniques, which teachers may use to reduce students' anxiety including relaxation exercises, advice on effective language learning strategies, behavioral contracting, and journal keeping. However, since language teachers do not have either sufficient time or adequate expertise to deal with anxiety reactions, they advise anxious students to refer for specialized help to outside counselors

or learning specialists. Teachers might create student support systems and closely monitor the classroom climate to identify specific sources of student anxiety. As students appear to be acutely sensitive to target language corrections, the selection of error correction techniques should be based on instructional philosophy and on reducing defensive reactions in students.

According to the students' answers to the question "What can be done to allay test anxiety?" Aydin et al. (2006) believe that the key role belongs to language teachers. The students state that the teachers should be objective in scoring process and use the most appropriate test technique. For them, a test is not a means of punishment or authority. The participants point out that the teachers should inform the students about the aims of the tests, content, test techniques, number of the questions before the administration. For example, a trial version of a test can be administered or given to the learners before it is applied. They also suggest that the teachers should avoid negative and unrelated comments during tests, give valid tests and enough time to answer. In addition, they want the teachers to give clear explanations and sample answers for the test items designed in different test techniques. For them, the "cold" atmosphere in testing environment can be changed by teachers' "warm" behaviors and words, as one of the students' states, "I don't want fear, but I need courage". The learners also wonder if the only way to measure their skills and knowledge is a test and if the test results are the only criterion to reach decisions about their proficiency and achievement. From this viewpoint, they suggest that the teachers can give assignments or projects to evaluate students' proficiency and achievement. Overall, according to the learners, the teachers should be aware of students' anxiety and know how to allay test anxiety. It was recommended that foreign language teachers should be aware of the test anxiety level, its causes and results.

Kitano (2001) suggested that teachers should make an effort to respond appropriately to their students' anxiety and reexamine their expectations and treatment of such individuals. For example, these students may need clearer, positive reinforcement to counter their constant fear of negative evaluation. Teachers should be encouraged to show them special consideration by making positive comments in class, in private conversations in the teacher's office, or on the students' homework sheets or journals whenever possible.

Among the implications of the exploratory study, Chan & Wu (2004) include encouraging teachers to enrich their awareness of foreign language anxiety, carefully dealing with anxiety-provoking situations, as well as using more comprehensible input. Students are encouraged to participate in additional English activities and to share their anxiety experiences, while parents are encouraged to be involved in their children's English learning.

In addition to being prepared properly for teaching, Na (2007) advises teachers to take into consideration also the affective factors of students. First of all, she advises them to create a relaxed atmosphere for students, which can make them feel safe and demonstrate their knowledge. Second, teachers should avoid negative feedback of students in classrooms and comment on students' behaviors with more encouragement. Third, teachers, together with the school body, should take some measures to relax students during exams, for example, eliminating the ranking of students by their test scores. Finally, teachers can also explicitly tell students the inevitability of the existence of anxiety in English learning and let them know that anxiety can be reduced through the self-regulation of their thinking and study. Although teachers can make use of the above-mentioned means to help students to overcome their anxiety in English classrooms, the author advises them to help their students get away from anxiety completely.

In light of the findings of the research, Aydin (2008) recommends that in order to cope with anxiety, learning situations and context should be made less stressful. Furthermore, teachers should be well trained on the issue of *how to learn* rather than *what to learn*, and then, they should train their students accordingly. Moreover, teachers should be aware of the effects of gender differences on foreign language anxiety, and use effective strategies to help their younger students. In other words, teachers should have well-formulated strategies with regard to communication with learners, their corrections and questions in the classroom. In brief, they need to create a low-stress language-learning environment, use effective strategies to help learners manage the level of language anxiety, reassure them that language anxiety is quite a normal experience at the first stages of language learning process, and positively manage the results of language anxiety. Second, effective communication is another way to reduce language anxiety. For instance, students can talk about their worries with their teachers, other students, and family members. Besides, some other ways to lessen anxiety are creating a supportive learning environment, explaining their mistakes to students, developing realistic expectations and setting time limits. Finally, the author offers some practical activities such as structured exercises, group work, pair work, games, and simulations, which can also be employed to relieve this sort of anxiety.

Chapter Three: Methodology

This chapter describes the process of conducting the current research, which was aimed at finding out the relationship between test anxiety and students' performance as well as revealing the sources of test anxiety. Hence, this chapter describes the research methods, the participants, the process of modification and administration of the research instruments, the development and introduction of the treatment, and the qualitative analysis of the data from the interview.

3.1 Research Design

The following research questions are addressed in this study:

1. What are the sources of test anxiety among Armenian university students majoring in English?

2. Is there any relationship between Armenian university students' test anxiety majoring in English and their performance in English tests?

3. Does anxiety treatment (test reducing strategies) result in a decrease in anxiety levels and better performance?

In order to seek answers to the questions guiding this study, *descriptive and experimental research methodology* were used. Particularly, the *causal-comparative method* was used to answer the first two questions. "The causal-comparative method is used to find the relationship among the variables. However, through the causal-comparative method, the researcher can go further and determine the reasons for or the causes of the current status of the phenomenon under investigation" (Faraday, 1995, p.154). For answering the third question, the *pre-experimental method* was used. "In order for a study to qualify as *true experimental*, it should have certain characteristics.

These characteristics include randomization, pretesting, experimental and comparison groups, offering a treatment to the experimental groups and a placebo to the comparison group, and post testing" (Farhady, 1995, p.169). However, since in this study the comparison group did not receive a placebo, it became a *pre-experimental* research. According to Farhady (1995, p.170), "If one or two of the requirements are not met or deliberately ignored, the method is called pre-experimental"

3.2 Participants

Participants of the study were all the second-year students (N=155) from ten groups of the English Philology Department of Yerevan State University. The selection of the university students was conditioned by the age and status of the students, as according to previous studies students started to feel language test anxiety when they acknowledged what it was and test anxiety reduction findings were found to be stronger with university students than with school students. Most of the participants, (98%) were female students of 18-19 years old. The participants were Armenian students having the same level of language proficiency who were placed into the groups according to their admission scores. All the students answered the *Westside Test Anxiety* questionnaire. Later, 60 students, who had the highest scores according to the questionnaire, were randomly selected, forming the experimental and comparison groups.

3.3 Instrumentation

The instruments that were used to collect the data consisted of a questionnaire, an interview, treatment and a test. All the instruments were conducted and administered in English.

3.3.1 Modification and piloting of the questionnaire.

The modified[1] version of Westside Test Anxiety Scale was used to measure students' anxiety. The questionnaire consisted of two sections: the first section included questions asking for background information while the second section included questions on test anxiety. The questionnaire *'Westside Test Anxiety Scale[2]'* was adopted from Professor Richard Driscoll. The scale is designed for use in classrooms to determine high and low test-anxious students. The questionnaire consists of 10 close-ended statements, where response options are coded to 5-point Likert scale from 'always true' to 'never true'. It also assesses worry, which impairs performance, but does not dwell on physiological arousal, which is only loosely related to performance. The scale items cover self-assessed anxiety impairment and cognitions, which can impair performance. Correlations between anxiety reduction as measured by the scale and improvements in test performance were used as the validation criteria. The scale has been found to be a sensitive measure of impairment, with attained r=.44 correlation between changes in anxiety as measured by the scale and changes in test scores over time (Driscoll & Ross, 2006). Initially it was decided to add the word 'language' in front of *exam* in all questions of the questionnaire, as the scope of the research was language test anxiety. In order to be sure that this instrument was reliable, a pilot questionnaire was administered to 15 second-year Spanish major students, who took English for entrance exams and continued to study English as their second foreign language. Since no problem was identified with the questionnaire, it was administered to their English major peers. Permission for administering the questionnaire was gained from the head of the English Department as well as from the instructors of English, who let the students complete the questionnaire during their

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[1] See Appendix B

[2] See Appendix A

lessons. The participants' agreement was obtained every time the researcher entered a new group. The participants were also informed that their personal information would be confidential and would be used only for the research. After collecting the questionnaires, they were all checked to make sure that all necessary information was provided.

3.3.2 Interview.

In order to identify what types of strategies would be useful to reduce the anxiety of the students, a group of participants were selected to be interviewed. Nunan (1992) suggests three types of interviews: unstructured, semi-structured and structured. Unstructured interviews are conducted with no control at all. In contrast to the unstructured interview, in semi-structured interviews, the researcher asks all the participants the same questions in order to make comparisons across them and to summarize the results. And in contrast to the structured interview where the researcher controls the participants' answers, in the semi-structured interviews the researcher controls the content of interview, directs the participants but does not control their ideas (Farhady, 2009, personal communication). Richards (2003) calls on the researchers to be attentive listeners and go deeper in their interviews in order to pursue a full understanding of an issue in all its complex forms. Particularly, he suggests that the interviewer focus on events, offer supportive feedback, respond to emotions, let the interviewee discover things as well as monitor the responses in order to give interviewee proper space.

Nunan (1991, p.149) believes that "the type of interview one chooses will be determined by the nature of the research and the degree of control the interviewer wishes to exert". In this study, a semi-structured interview technique was used because it was believed that it would provide more information about the participants' feelings, beliefs

and attitudes, revealing their individual perceptions and experiences. '*Intake interview questions*'[3] designed by Ross (2009) were adopted and used in the study.

The interview consisted of 21 questions related to five major aspects; such as 1) general description of test anxiety and physical reactions associated with it, 2) attitudes and beliefs of students, 3) students' study routine, 4) students' test taking skills, and 5) lifestyle considerations. The interview questions were aimed to reveal the main disciplines as a base for the development of the treatment strategies. Before the interview, the researcher explained the purpose of the interview to the students and asked permission from them to record the interview, promising the confidentiality of their answers. After the analysis of the intake interview, the results showed that students lacked knowledge and experience especially in the following three areas: 1) the description and possible sources of anxiety, 2) the role of relaxation and time planning, 3) test situation management (test taking strategies and positive self-talk).

3.3.3 Treatment.

After analyzing the data from the questionnaires, ten students who had the highest test anxiety level (N=10) were selected to be interviewed in order to uncover the possible sources of test anxiety and to construct the treatment according to those sources.

The first five questions of the interview are related to general description of test anxiety and physical reactions associated with it. Below the students' responses [4]are presented followed by a discussion.

1. **Tell me what happened during your last test?**

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[3] See Appendix C

[4] The students' responses are presented as they were actually conducted, including language irregularities.

S1: "Last test, it was yesterday, I became a nervous, a little, I became cold, because I thought that everything that I learnt I would not remember. However, later when the test started everything was normal".

S2: "I was afraid, as I couldn't remember all what I had learned.

S3: "Last test was dictation, and that time compared with the previous times I got less nervous."

S4: "I usually forget what I've learned and cannot concentrate on the test questions. I try to ask from others".

S5: "During the last test I didn't manage to prepare well and got satisfactory".

S6: "I was very anxious, even I went from the room as I had a stomachache. It is always like that. I do not remember anything. Usually test time is not enough for me. I would like it last until the time when I finish the work in order not to concentrate on it; at least an hour longer".

S7: "Not only the last test, but I always get prepared well and cannot remember the material at all. I think it is connected with my nature. For example, there are students in our group who don't study well but are able to demonstrate their knowledge well".

S8: "Generally, during a reproduction I am calm, but during a test I am always anxious and cannot remember what I've learnt".

S9: "I was not able to concentrate".

S10: "I am afraid of reproduction. I cannot concentrate, I am afraid of our instructor and this influences on performing my knowledge".

2. **What was going through your mind? What were you saying to yourself?**

S1: "I was trying to remember what I had learned, but I could remember only some parts of it".

S2: "At that time I condemned myself why I hadn't prepared well. And I thought negatively, it is typical to me".

S3: "I was telling myself that I need to get that mark, I don't want to be failed. Let it be three, whatever, just to get rid of that instructor".

S4: "I became stupid. I thought I would fail".

S5: "I thought about passing the test".

S6: "I always think that I will fail and will come later, to retake the test. I get confused more from dictation, as I cannot mange to hear the words; I get confused and cannot write the words the spelling of which I know for sure".

S7: "I cannot remember".

S8: "I thought that as I studied very hard I should remember everything. I get confused only the first 15 minutes, later I pulled myself together".

S9: "First, I got confused, but later I said to myself "what is going to happen, will happen", and wrote down what I knew.

S10: "I thought only about the test".

3. **Did you feel like you were going to get sick to your stomach?**

S1: "No".

S2: "Yes, very often it happens during the tests".

S3: "Yes, every time, also my hands shake".

S4: "No".

S5: "No, only I am afraid. Even if I am prepared well, I am still afraid".

S6: "Yes, always. Moreover I have fast heartbeat, which doesn't allow me to concentrate".

S7: "Yes, and it does not allow me to perform even the half of what I've learnt".

S8: "Yes, but also I have fast heartbeat".

S9: "Yes, especially during the first 15 minutes of the test, later when I look through the test content I become relaxed, but still I have a fast heartbeat".

S10: "Yes, I felt like that and my hands became shaky, I felt cold".

4. Has this ever happened before and does it happen in situations other than testing? When do you first recall it happening?

S1: "Yes, I remember it happened during the entrance exams of Armenian. I got 16.3, but I think I could have scored more. I usually got 19, but the day of the exam all my classmates were taken to a classroom where they were together and only I was in a room with others whom I didn't know, and I think everything started from there. I got confused and made stupid mistakes. At that time I was trembling".

S2: "No it happens only during tests. First, I felt such a threatening situation during my entrance exams. I think the main reason is the fear, it impedes everything.

S3: "First, I remember it happening during school leaving exams. And also when I am supposed to go to an important place this disgusting phenomenon happen".

S4: "Not in my daily life, but in exams it always happened".

S5: "It happened also during the exam of Foreign Literature last year. First, I remember it happening during the entrance exams of Armenian".

S6: "No, in life situations it never happens".

S7: "No, it is connected only with testing situations".

S8: "Very often it happens during oral exams. Such situations happen also when I am supposed to meet somebody, again heartbeat and shaky hands. First it happened during entrance exams of Armenian".

S9: "Yes, especially before exams, I am used to cry. Sometimes this phenomenon also happen when I cannot find solution of a certain problem".

S10: "Yes, it happened before entrance exam of Armenian, when I was taken to hospital, as I felt very bad, and it is already typical for me to feel terrible before and during exams. When we have problems at home, or when I need to go to an appointment I have the same symptoms".

5. How did you feel when the test was over? Did you think you passed?

S1: "Yes, I knew that I passed as I took it well. But I think I could have prepared for the test more and took it better.

S2: "I thought I failed, I always think so after the test, but at the end when the results are ready I always pass".

S3: "It depends how well I have taken the test. But very often I think that I will fail, and when some days later we are given back our works, I see that I passed".

S4: "No, I think I failed".

S5: "Generally, I am positive that I passed the test, rather than fail".

S6: "Yes, I thought that I passed".

S7: "I always think that I failed".

S8: "It depends on a test situation. If I am sure that I wrote everything correctly, I think I passed it. In any case, I have a fear; sometimes I go home and check the answers".

S9: "Yes, I think that I passed it".

S10: "When we take a test I always know that I passed as I had time before that to study at home, but when we have to write a reproduction or dictation, I am afraid and think that I failed".

Analyzing the transcripts of the first five questions, it was revealed that during the test, five out of ten students could not remember what they had learned; three of them said that they could not concentrate. Moreover, seven of ten students said that they had a stomachache during the test, three of them in addition to the mentioned symptoms had a fast heartbeat, and two of them noticed that their hands were shaking with fear. According to the interviewees, such symptoms impede their performance. "I have fast heartbeat, which doesn't allow me to concentrate", said **S6**. During the test, students' main concern was to obtain a passing grade. After the test five out of ten students thought that they would pass it, the other five were sure that they would fail; however two of them

confessed that though they always thought they would not pass, but the results announced they passed. "It depends on how well I have taken the test. But very often I think that I will fail, and when some days later we are given back our works, I see that I passed", said **S3**.

Six of ten students said that they first experienced symptoms of test anxiety during their school leaving and entrance exams of Armenian. A possible explanation of this can be the fact that in 2007, for the first time the Armenian language was taken both as a school-leaving test and as a university entrance test unlike the previous years when the tests were administered separately. "Yes, I remember it happened during the entrance exams of Armenian. I got 16.3, but I think I could have scored more. I usually got 19, but the day of the exam all my classmates were taken to a classroom where they were together and only I was in a room with others whom I did not know, and I think everything started from there. I got confused and made stupid mistakes. At that time I was trembling", said **S1**. Four students said that they did not experience that type of anxiety in situations other than testing. While three out of ten said that they had the same feelings when they had personal problems or when they had an important appointment. It can be inferred that all the interviewees had *situation-specific anxiety* since they knew the sources of their anxiety. According to Ellis (1994), *situation-specific anxiety* is related to apprehension unique to specific situations and events. Unlike *trait* and *state* anxieties, *situation-specific* anxiety requires the respondents to assign their anxiety to particular sources. And it is the *Situation-specific anxiety* that includes *Foreign Language Classroom Anxiety* (FLCA), which consists of *Communication apprehension*, *Fear of negative evaluation* and *Test anxiety (*Horwitz et al. (1986), MacIntyre, Gardner and Moorcroft (1987), MacIntyre and Gardner (1991, 1994).

The questions 6-11 refer to students' study routine. Below students' responses are presented followed by the discussion.

6. Describe in detail what you do to get ready for a test.

S1: "I get prepared for it; if it is a text, I learn the new words, mainly I focus on the vocabulary".

S2: "I revise my notes, what we have learned; mainly I focus on the vocabulary. I copy the definitions of the unknown words from the passages we have learned".

S3: "Generally, I revise my notes, or if it is a dictation, I start rewrite different passages".

S4: "I revise the material. It depends on the topic and the subject".

S5: "I revise everything the last day before exam".

S6: "If the instructor mentions that this or that point is important, I take notes sand later revise them. My friend helps me to get prepared for the test. But usually I leave the revision for the last day".

S7: "I study at home and repeat all the materials we have passed. But since I am used to learn the material during the quarter it is easier for me in the end".

S8: "I read all the texts we learned, I revise the vocabulary and I usually start prepare for it some days prior to exam".

S9: "I repeat expressions, vocabulary".

S10: "I start to get prepared a week prior to exam. I revise all the materials, outline new words and sentence structures. However, I know girls from our group who study only an hour and get the highest points in the group".

7. When you say you read your textbook, how do you read?

S1: "If I like certain expressions from the book I copy them in my copy-book".

S2: "For example, I like to make notes in my copybook, rather than highlight words or expressions. I also write the new expressions".

S3: "I highlight the words, or copy the expressions and words that I liked".

S4: "I looked up the unknown words in the dictionary".

S5: "I write down the important names, but not the expressions".

S6: "I highlight the words".

S7: "I cannot remember now".

S8: "I make notes".

S9: "I rewrite the expressions and names of the heroes".

S10: "I copy the names of the heroes".

8. How much time do you spend per day (week) studying?

S1: "I spend 3 hour a day, but during weekends I don't study much".

S2: "I usually spend two hours a day".

S3: "Two hours a day. During weekends I read only books".

S4: "There are days that I study all the day, and there are days when I do not study at all".

S5: "It depends on the day, maybe an hour".

S6: "An hour per day"

S7: "Nearly an hour and a half".

S8: "Two hours in a day, and in weekends I read foreign literature".

S9: "It depends on my mood. If I feel well I can do my home assignments in two hours, but if I don't have it, I won't do anything".

S10: "I spend 2 or 3 hours a day for English".

9. Where and when do you study?

S1: "I usually study in the evenings at home. It is more comfortable compared with the libraries".

S2: "I prefer do my lessons at home; I go to the library only for reading books for Foreign Literature".

S3: "At home in the evenings or at the library and the noise doesn't disturb me, because if I want I can go deeper and concentrate".

S4: "At home after 5".

S5: "At home".

S6: "At home, I need to be lonely to concentrate".

S7: "At home only".

S8: "At home after 6 p.m., I can never do my assignments at the library".

S9: "Only at home after 7 p.m. I cannot concentrate at the library".

S10: "At home".

10. **Do you find that your mind wanders while you study? What do you do when that happens?**

S1: "If that happens I don't do anything. I do other things and when I feel that I can concentrate I do it".

S2: "At that time I try to concentrate. I am an absent minded person by nature and it hampers me a lot".

S3: "I have a rest a little bit, and return to it".

S4: "Yes, sometimes my mind is switched off and I cannot do anything".

S5: "I do other things".

S6: "If I cannot concentrate, nothing will help".

S7: "At that time I sleep an hour and then study again".

S8: "I try to direct my mind by doing something else, later I return to the assignments".

S9: "Nothing".

S10: "In such situations, I drink a coffee. Generally if I plan to do something, I do my best to finish it".

11. **As you are studying, are you aware of any self-talk or things you are saying to yourself?**

S1: "Yes, for example, on Fridays I tell myself that I should do all the homework in order to have a rest during the weekends".

S2: "No".

S3: "I encourage myself. S3, you can do it!"

S4: "No".

S5: "No".

S6: "No, but I try to take it easy".

S7: "No".

S8: "No".

S9: "No".

S10: "No".

Analyzing the transcriptions of questions 6-11, interesting information was gained about the study habits of the interviewees. Particularly, in order to get ready for a test, nine out of ten students said that they reviewed the material they had learned during the quarter. Two out of ten interviewees said that they did the revision on the eve of the exam, "I revise everything the last day before exam", said **S5,** while the other two said that they started revision a few days earlier. "I read all the texts we learned, I revise the vocabulary and I usually start preparing for it some days prior to an exam", said **S8**. To the question how they read a textbook, two out of ten students answered that they copied the expressions and words, which they liked most; the other two highlighted the words, four of them made notes in their copybooks, and one student was used to look up the unknown words she encountered during reading. Further, answering the questions where they study, and how much time they spend for it, students gave the following responses. Six out of ten students said they studied 2 hours per day, two out of ten spent only an hour, one student spent three hours on her lessons and for one student there was not exact time distribution. Nine out of ten students said that they did their lessons only at home in the evening. "Only at home after 7 p.m. I cannot concentrate in the library", said **S8**. Only one student said that she could do her lessons both at home and in the library. "At

home in the evenings, or at the library, and the noise doesn't disturb me, because if I want I can concentrate", said **S3**. The tenth question, which relates to students' actions when their mind wanders while they study, has the following statistics. Three out of ten students said that when they could not concentrate, they did other things. Two out of ten students said that they had a rest and then continued again, another student said that she drank a cup of coffee, others said that they did nothing to overcome that situation. To the eleventh question related to students' awareness of any self-talk, eight out of ten students answered that they were not aware of any self-talk or encouragement expressions. Only two out of ten students said that they encouraged themselves. "Yes, for example, on Fridays I tell myself that I should do all the homework in order to have a rest during the weekends", said **S1**.

Questions 12-16 refer to students' test taking skills. Below students' responses are presented followed by the discussion.

12. Describe the process or strategies that you use when you take a test.

S1: "I usually keep the order, but when I encounter a problem I skip it".

S2: "I am not aware of any strategies".

S3: "No, I don't have any".

S4: "There aren't such".

S5: "There aren't such".

S6: "There aren't such".

S7: "There aren't such".

S8: "There aren't such".

S9: "There aren't such".

S10: "There aren't such".

13. Are there particular things you do with multiple-choice tests? Essay Tests?

S1: "No, there aren't I always read, try to understand the question and then answer it. But when I don't know the answer I circle the answer casually".

S2: "For example, if I read a text and I don't know the word, I try to guess it from the context".

S3: "If I don't know the answer, and there is a little time left, I count on my fingers the choices and tick the one which ended on my last finger".

S4: "No, but I am a lucky person, and without knowing the answer my inner voice tells me to choose the right option".

S5: "No, I read the question and if I don't know the answer I skip".

S6: "No there aren't".

S7: "If I don't know the answer I won't mark any of the options".

S8: "No there aren't

S9: "No there aren't

S10: "No there aren't

14. Do you skip questions?

S1: "Yes, when I don't know the answer I skip it and at the end I return to it".

S2: "Yes, if I do not know the answer I skip it".

S3: "If I don't know the answer I skip it".

S4: "Yes"

S5: "Yes"

S6: "Yes, if I don't know the answer".

S7: "Yes, if I don't know the answer I skip it, and later if there is time I return to it".

S8: "Yes, then in any case I try to return and fill it".

S9: "Yes, if I don't know the answer".

S10: "Usually I don't. In order not to have a missing item I guess it".

15. What do you do when your mind goes blank?

S1: "I try to remember, but it is not always that I manage it".

S2: "Nothing".
S3: "Nothing".

S4: "Others help. There are peers who help us, but others no".
S5: "Yes, sometimes I cannot remember a word, which I know for sure that I learnt yesterday. I don't know".
S6: "Nothing".

S7: "Nothing".

S8: "Nothing, I cannot concentrate".

S9: "Nothing".

S10: "I am waiting impatiently. I also get anxious very much when everybody finishes earlier than I do. And I think why that should happen if I studied more than others did".

16. What do you do just prior to the start of a test?

S1: "I revise the material".
S2: "I listen to the music, joyful songs, it relaxes me. I prefer Hip-Hop".
S3: "I repeat the material".

S4: "I listen to the radio. I don't like revision".

S5: "I cross myself, it helps me".

S6: "I take a relaxing medicine, but it doesn't help me".
S7: "I get more and more anxious".
S8: "I revise the materials".

S9: "I start to talk to my peers in order to get relaxed".

S10: "Nothing".

A detailed examination of the transcripts for the questions 12-16, which aimed at determining whether the students had an effective test-taking approach, revealed that they lacked experience in taking tests. Particularly, it was revealed that nine out of ten students were not aware of any test taking strategy; only one student said that when she encountered a problem she skipped it. However, when they were asked whether there were particular things they did with multiple choice tests, four out of ten students gave interesting responses. "For example, if I read a text and I don't know the word, I try to guess it from the context", said **S2**. "If I don't know the answer, and there is a little time left, I count on my fingers the choices and tick the one which ended on my last finger", said **S3**. Further, nine out of ten students said that they skipped questions, "Yes, if I don't know the answer I skip it, and later, if there is time, I return to it", said **S7**. One student said that she didn't skip a question. "Usually I don't. In order not to have a missing item I guess it", said **S10**. Seven out of ten students said that they did nothing to overcome the state when their minds went blank during the test. The analysis also showed that just prior to the start of the exam three out of ten students revised their notes, two listened to music, one started talking with her peers to get relaxed, one took a relaxing medicine and one crossed herself.

Questions 17-21 refer to students' lifestyle considerations. Below students' responses are presented followed by a discussion.

17. Describe what and when you have eaten in the last 48 hours. Is that typical?

S1: "For breakfast I drink tea with sweets, usually I don't have supper, only sweets. Yesterday I ate fish for dinner".

S2: "In the morning I usually eat thin porridge of rice, at the university I eat cheeps, and coming home I eat different salads".

S3: "I have a snack at the University, then potatoes and fish at home, in the evenings I eat fruits".

S4: "Yesterday I went to a café with my friends and had sweets there. Usually I eat once a day".

S5: "In the morning I didn't eat anything, for dinner I had fried chicken, then we went to SFC with my friend".

S6: "Yesterday I had sausages for breakfast, tolma for dinner and tea for supper".

S7: "In the mornings I don't have breakfast, yesterday for dinner I had pasta and drank tea in the evening".

S8: "I don't eat meat, I usually eat salads".

S9: "Yesterday I ate only a candy. But when I go to my home town I eat normally there".

S10: "In the morning I ate a chocolate bar of Alpen Gold".

18. How much sleep do you normally get and what is the nature of your exercise routine?

S1: "I usually go to sleep at 12 or 1 A.M, and get up at 7:30, but when I have something to read I remain until 2 A.M. I don't do exercises; I go for a dance two times a week for 1.5 hours".

S2: "I go to bed at 10, but I sleep later".

S3: "I want to sleep starting from 8 p.m., but as I need to do my lessons I prolong that time until 9:30 p.m.".

S4: "I sleep 6 hours, I get up at 7 o'clock".

S5: "I go to sleep at 12 a.m. and get up at 7:15".

S6: "I go to sleep at 11 p.m. and get up at 6:30, as I am from the region and it takes a lot of time to reach the city".

S7: "I go to sleep at 11:30 p.m. and get up at 7 a.m.".

S8: "I go to sleep at 11 p.m. and get up at 7 p.m.".

S9: "I sleep at 12:30 and get up at 7 p.m. without alarm clock".

S10: "In the afternoon I sleep an hour, at night I sleep at 1 a.m. and get up at 7a.m.".

19. Have there been any major changes occurring in your life recently? Describe these.

S1: "No!"

S2: "No".

S3: "No".

S4: "No".

S5: "No".

S6: "No".

S7: "No".

S8: "No".

S9: "No".

S10: "No".

20. Describe your living situation. Who is there, what kind of pressures or support do they provide, is there encouragement and understanding about going to university?

S1: "I live with my parents, grandmother and grandfather. They always encourage me but they don't like my profession. According to them languages cannot be a profession".

S2: "I live with my parents and sister. We moved to Yerevan only last year. My parents always encourage me, but they don't put additional demands on me".

S3: "I live with my parents and grandparents; I don't have either a sister or a brother. My father encourages me very much, even if I fail, he will get upset, but doesn't show it, but my mother demands more from me, she always wants me to get higher grades".

S4: "I live with my parents. They always help me. Even if I get unsatisfactory they won't get angry with me".

S5: "I live in Yerevan, with my roommate, as I am from the region. My parents encourage me to study well".

S6: "I live with my mother and brother, but he is in the army".

S7: "I live with parents and sister. My parents help me and encourage in every situation".

S8: "I live with my parents, I am an only child. My parents always encourage me to do my best".

S9: "In Yerevan I live with my cousin, but in my home town I live with my parents, I don't have either a brother or sister".

S10: "I live with my parents, two sisters and a brother".

21. Do you have any physical conditions that could possibly impact your university performance? Are you taking any medications for this condition?

S1: "No"

S2: "I take vitamins".

S3: "Sometimes I have a headache because of tiredness, in such cases I take a medicine".

S4: "I have problems with eyes".

S5: "No, there aren't".

S6: "No"

S7: "No"

S8: "No"

S9: "No"

S10: "No. However during exams I have problems with blind gut".

Questions 17-21 tried to uncover the problems that students might have in diet, general health, and living situations, which could negatively affect their performance. Thus, analysis of the transcripts of the mentioned questions revealed that generally students ate regularly throughout the day, especially breakfast. "In the morning I usually eat thin

porridge of rice, at the university I eat chips, and coming home I eat different salads", said **S2**. Further, they sleep normally, which means 7-8 hours of sleep. "I go to sleep at 11:30 p.m. and get up at 7 a.m.", said **S7**. All the ten interviewees said that they lived with their families where they got encouragement and help. "I live with my parents. They always help me. Even if I get unsatisfactory they won't get angry with me", said **S4**. To the question, whether there had been any major changes in their lives recently, all the interviewees gave a negative response. Answering the last question, seven out of ten students said that they had no physical problems that could influence their performance, and only three out of ten students said that there were such problems and mentioned about headache and problems with eyesight and blind gut.

Summing up the analysis of the transcripts, three main disciplines and sub disciplines were identified as a base for the development of the treatment strategies:

1) Description and possible sources of anxiety
2) The role of relaxation and time planning
3) Test situation management (test taking strategies and positive self-talk)

Moreover, trying to identify the sources of students' anxiety, the researcher has identified the following sources mentioned, which are consistent with those identified by Young (1991), and Aydin (2008).

1) Bad past experience on tests
2) Poor preparation
3) Fear of a particular test format (dictation and reproduction)
4) Fear of novelty and a highly evaluative situation
5) Time insufficiency
6) Fear of instructor

3.4 Procedures

Permission to conduct the research among second year students from ten groups (15-18 students in each group) of the English Philology Department of Yerevan State University was gained from the head of the English Department, Seda Gasparyan. In March, some time prior to their midterm test, 155-second-year students were asked to fill in the modified version of the Westside Test Anxiety Scale in order to determine the test anxiety score of the students and thus differentiate between high and low test-anxious students. The data from questionnaires were analyzed following the guidelines provided by Driscoll (2004) in the original questionnaire. According to his guidelines, the points of the ten questions obtained through 5-point Likert scale should be added up and divided by ten. As a result of analyses, 60 students out of 155 (39%) were found to have a high or moderately-high test anxiety and therefore they were included in the study. These findings are similar to those reported by Miller, Delapp and Driscoll (2007), who used the same questionnaire (Westside Scale) in their research and found that 79 out of 220 students (36%) had a high or moderately high-test anxiety.

After analyzing the results of the questionnaire students were divided into low test-anxiety and high test-anxiety groups. The low-test anxiety group did not receive any treatment, while the high-test anxiety group (N=60) was subdivided into two: the experimental group (N=30) and the comparison group (N=30). Thirty students with high-test anxiety form ten groups were randomly chosen for the experimental group though some of them refused to participate. Therefore, only those thirty volunteer students with high-test anxiety from five groups, who agreed to participate in the research, were involved in the experimental group. Since those volunteer students with high test anxiety did not want to be identified as test anxious within their faculty, 5-6 peers who were close to each other formed small groups and treatment was given separately for each group.

According to the American Test Anxiety Association, many test anxious students are also socially anxious, and do not want to appear conspicuous or odd.

Chapter 4: Results and Discussion

This chapter presents the results and findings obtained through statistical analysis of the data. First, correlational analysis among the variables will be presented to see whether there is a relationship between Armenian university students' test anxiety majoring in English and their performance in English tests. Second, the results of *t*-tests among the group means will be will be presented.

4.1 Correlational Analysis

In order to answer the second research question and to determine whether there is a relationship between Armenian university students' test anxiety majoring in English and their performance in English tests, correlatioanl analyses were conducted. The data collected by test anxiety questionnaire (test anxiety scores) and the students' midterm test scores were correlated. For so doing, a Pearson correlational procedure was conducted.

Pallant (2007) advises to generate a scatterplot before performing a correlation analysis, as it enables the researcher to check for violation of the assumptions of linearity and provides a better idea of the nature of the relationship between the variables. From Graph 1, it seems that the data points are spread all over the scatterplot, which suggests a low correlation.

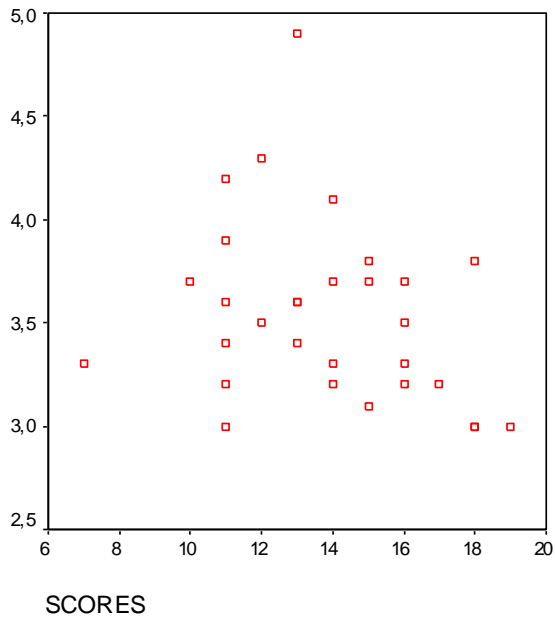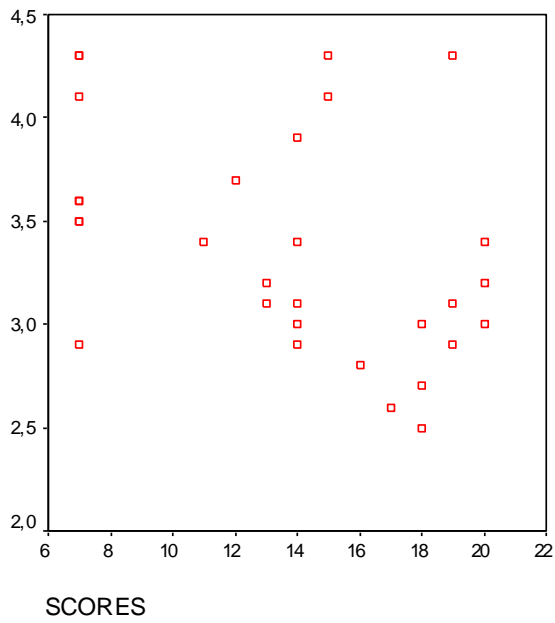*Figure 1. Scatterplot Results for 30 Students Who Received the Treatment*

SCORES

Figure 2. Scatterplot Results for 30 Students Who Did Not Received the Treatment

SCORES

Correlatioanl analysis for 30 students who had high-test anxiety and received treatment showed that the Pearson correlation coefficient is (-.27) indicating a negative correlation between anxiety level and students' scores. This means the higher the students' anxiety level, the lower their scores are. However, we need to determine also the strength of the relationship. Researchers use various cutoff points in deciding when a relationship is strong enough to support their hypothesis. Cohen (as cited in Pallant 2007, p.132) suggests the following guidelines, "*low* r = .10 to .29; *medium* r = .30 to .49; *large* r = .50 to 1.0", which are applied whether or not there is a negative sign in front of the r-value, because the negative sign refers only to the direction of the relationship and not the strength.

Following these guidelines, we can see that a correlation coefficient of -.27 suggests a weak relationship between students' test anxiety level and their test scores. Similar to correlational analysis done for students who had high-test anxiety and received the treatment, correlational analysis was performed for students who had high-test anxiety but did not received the treatment. The analysis again showed a negative correlation(r = -.42) between anxiety level and students' scores. However, this time the value of *r* = -.42 showed medium strength of relationship between the two variables. According to Farhady and Hatch (1982), another cutoff point in deciding on the strength of correlation is to convert a correlation coefficient into variance overlap between the two measures, which will show how much variance two variables share. Thus, with the value of r = -0.42, the variance overlap between students' test anxiety level and their midterm score will be 0.18. 18 percent of the variation between the two sets of scores can be accounted for by the level of students' anxiety. Thus, the hypothesis that there is a negative relationship between Armenian university students' test anxiety majoring in English and their performance in English tests was supported.

4.2. T-test Analysis

A paired-samples *t-test* was conducted to answer the third research question and to determine whether anxiety treatment (dealing with test anxiety reducing strategies) resulted in a better performance. The results obtained for students who received the treatment are presented in Table 1.

Table 1

Paired Samples Statistics for Students Who Received the Treatment

Pair 1	N	Mean	SD	t	df	Sig. (2-tailed)
Mid 2009	30	13.80	2.82			
				2.76	29	0.01
Mid 2008	30	12.56	2.72			

In Table 1, the probability value is 0.01. This value is considerably smaller than our specified alpha value of 0.05. Therefore, we can conclude that there is a significant difference between midterm scores of 2009 and 2008 due to the treatment on anxiety reducing strategies.

Although the results presented above indicate the difference between the two groups, they do not reveal much about the magnitude of the treatment's effect. According to Pallant (2007), one of the ways to assess the importance of the finding is to calculate the 'effect size'. "This is a set of statistics that indicates the relative magnitude of the differences between means" (Tabachnick & Fidell in Pallan, 2007). Eta squared can be obtained using the following formula:

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Eta squared $= \dfrac{t^2}{t^2 + N - 1}$ (Pallant, 2007, p.240)

Eta squared $= \dfrac{(2.76)^2}{(2.76)2 + 30 - 1}$

$$\dfrac{7.61}{7.61 + 29} = 0.2$$

"The guidelines (proposed by Cohen 1988, pp. 284-7) for interpreting this value are as follows: 0.01=small effect, 0.06 = moderate effect, 0.14= large effect" (Plallant, 2007, p.240). Since *eta squared* value is 0.2, we can conclude that there was a large effect with a considerable difference in the midterm scores obtained before and after the treatment.

Furthermore, the results of the participants of the comparison group (who did not receive the treatment but were similar to the participants of the experimental group in their high levels of test anxiety are presented in Table 2.

Table 2

Paired Samples Statistics for Students Who Did Not Receive the Treatment

Pair 1	N	Mean	SD	t	df	Sig. (2-tailed)
Mid 2009	30	13.63	4.73			
				1.39	29	0.17
Mid 2008	30	12.86	4.36			

It can be seen from Table 2 that there was not a statistically significant increase in students' scores from midterm 2008 (M=12.86, S= 4.36) to midterm 2009 (M= 13.6, S =4.73), t (29) = 1.39, p >0.05 (two-tailed).

Chapter 5: Conclusion

This chapter presents a summary of the research findings, explains the significance of the study, points out its limitations and makes suggestions for further research.

5.1 Summary of the Research Findings

The research findings obtained through questionnaire, interview and measurement devices appear to suggest that:

1) *Armenian university students majoring in English experience anxiety during language tests that has specific sources*

According to the findings, test anxiety affects students' performance negatively, a fact that has been supported also by correlatioanl analysis, and lead them to forget part of what they have learned. During the test, they think that they will fail and they usually think that they are pressured by time limits. Students experience also anxiety when they encounter a new and highly evaluative situation, as it was in the case of their entrance exams. This finding supports the idea proposed by Daly's study (as cited in Young, 1991) who states that learners experience more apprehension when the situation is novel, ambiguous, or highly evaluative. Moreover, once students experience anxiety in a testing situation, they transfer the fear and attitude to a new testing situation.

Another source of test anxiety is a particular language test task, in this case reproduction and dictation. This finding is consistent with Madsen et al.'s study (as cited in Horwitz & Young, 1991) who found that some test items could be more anxiety provoking than others. According to them, pre-test exposure to the item may help reduce student anxiety and frustration during a language test. The last source of test anxiety that was mentioned is the fear of instructor. This finding is consistent with many other

findings reporting that teachers should create a friendly and supportive environment for students (Aydin, 2008; Na, 2007; Aydin et al., 2006; Chan & Wu, 2004; Kitano, 2001; Thadphoothon, 2000; Young, 1991; Horwitz et al., 1986). They claim that students will learn more from the teacher who will consider the fact that the students may experience test anxiety and will take certain steps to help them overcome that.

2) *There is a negative relationship between Armenian university students' test anxiety majoring in English and their performance in English tests*

This finding is consistent with the majority of findings existing in test anxiety literature. For example, Horwitz (1986) reported sizeable negative correlations (around -.5) between foreign language classroom anxiety and final grades achieved by American university students. Similarly, Chan & Wu (2004), investigating foreign language anxiety of EFL elementary school students in Taiwan, found out that Correlataional analysis between foreign language anxiety level and English learning achievement was (r = -.279), showing that there was a significant negative correlation between the score of the Foreign Language Classroom Anxiety Scale (FLCAS) and the final score. Na (2007) investigated the general situation of Chinese high school students' foreign language anxiety and found that the results of the correlation analysis indicated that the correlation was negative (-.277, p=0.039<0.05). Further, a *t*-test was conducted to see if there were any significant differences in the anxiety of English classes between these two groups. The results of the analysis showed that anxiety of English classes affected high school students' English achievement (p=0.037<0.05). Finally, Rezazadeh and Tavakoli (2009*) investigated* the relationship between test anxiety and academic achievement. Test anxiety scores and the students' GPA were correlated. The results showed that there was a negative correlation of -.20 between those two variables. They also correlated the students' GPA with their

anxiety level and found out that as test anxiety level increases, educational achievement decreases.

3) ***Anxiety treatment (dealing with test anxiety reducing strategies) has resulted in a better performance among Armenian university students majoring in English***

Finally, the present study revealed that anxiety treatment (dealing with test anxiety reducing strategies) resulted in a better performance. The treatment included elements from *cognitive* and *behavioral therapy* as well as some *study skills training.* These findings support the research results conducted by Ergene (2003), who studied the overall effectiveness of test anxiety reduction programs and found that effectiveness was related to certain treatments. Particularly, she found that behavioral and cognitive approaches were highly effective in reducing test anxiety, while using skill focused approaches, or other techniques such as Gestalt therapy and humanistic counseling alone showed small effectiveness. However, the most effective treatments were found to be those that combined *skill-focused approaches* with *behavior* or *cognitive approaches*.

5.2 Significance of the Study

Since this is the first research related to test anxiety conducted in the Armenian EFL settings, it can be regarded as an exploratory study on which further research can be conducted. Though this study is limited to EFL learners of the English Department at Yerevan State University, its results can be generalized at least for the 1700 students of the same faculty. Moreover, since the entrance exams for the English Departments are the same at Yerevan State Linguistic University after V. Brusov, and Armenian State Pedagogical University, these results can be generalized for the mentioned population and be considered as valuable.

In addition, this study is significant for one and very important reason. It draws the teachers' attention to the existence of Foreign Language Test Anxiety and its possible

consequences on students' performance. Therefore, a practical implementation of this study may be familiarizing the English language teaching community in Armenia with these findings by means of workshops and lectures, thus increasing their awareness of foreign language test anxiety, which would lead to the reduction of anxiety in test contexts.

5.3 Limitations of the Study

Several limitations of the present study should be observed. First of all, the length of the treatment was limited. It lasted only two weeks. If it were longer, it might have had stronger effect. Second, the researcher is not a psychologist nor a therapist and this fact might have influenced the outcome of the treatment. Developing test anxiety reducing strategies is a highly specialized task, and it needs professional knowledge and attitude. If the treatment was done by a psychologist it would have better results. Third, besides the effect of the treatment, there might be other variables that could influence students' performance on both tests; such as the level of preparedness, or/and experience of taking tests.

5.4 Suggestions for Further Research

Since this field has not been fully explored, further investigations are suggested to focus on more analytic concerns such as teacher attitudes as a factor on test anxiety of learners. One future study could also replicate the current study with a more diverse sample size, which would include students from more universities at different grades. It would also be reasonable to investigate Foreign Language Classroom Anxiety, specifically focusing on the relationship between language anxiety and some other variables such as language aptitude, ability, skills and teaching methodology. Moreover, it would be interesting to see whether the anxiety levels would be greater the day before

the test or even one hour before taking the test. Future research could also compare the anxiety levels of the first year students who are going to take an achievement test in the university for the first time with the fourth year students who have already taken such tests multiple times during their graduate studies.

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Appendices

Appendix A
Westside Test Anxiety Scale

(Original)

Rate how true each of the following is of you, from extremely or always true, to not at all or never true. Use the following 5-point scale.

5- extremely or always true
4- highly or usually true
3- moderately or sometimes true
2- slightly or seldom true
1- not at all or never true

__ 1) The closer I am to a major exam, the harder it is for me to concentrate on the material.
__ 2) When I study, I worry that I will not remember the material on the exam.
__ 3) During important exams, I think that I am doing awful or that I may fail.
__ 4) I lose focus on important exams, and I cannot remember material that I knew before the exam.
__ 5) I finally remember the answer to exam questions after the exam is already over.
__ 6) I worry so much before a major exam that I am too worn out to do my best on the exam.
__ 7) I feel out of sorts or not really myself when I take important exams.
__ 8) I find that my mind sometimes wanders when I am taking important exams.
__ 9) After an exam, I worry about whether I did well enough.
__ 10) I struggle with writing assignments, or avoid them as long as I can. I feel that whatever I do will not be good enough.

_____ Sum of the 10 questions

_____ Divide the sum by 10. This is your Test Anxiety score.

What does your test anxiety score mean?

1.0—1.9 Comfortably low test anxiety
2.0—2.5 Normal or average test anxiety
2.5—2.9 High normal test anxiety
3.0—3.4 Moderately high (some items rated 4=high)
3.5—3.9 High test anxiety (half or more of the items rated 4=high)
4.0—5.0 Extremely high anxiety (items rated 4=high and 5=extreme)

Westside Test Anxiety Scale

(Modified)

Dear Student:

Below are statements that may or may not be relevant to you. Based on your personal experience, please indicate how frequently you experience these feelings or thoughts during language testing situations. Please, use the scale below and mark the option, which best reflects how frequently you experience these responses.

Name _____   age_____   group_____   phone _____   email_____

1) The closer I am to a major language exam, the harder it is for me to concentrate on the material.

2) When I study for my language exams, I worry that I will not remember the material on the exam.

3) During important language exams, I think that I am doing awful or that I may fail.

4) I lose focus on important language exams, and I cannot remember material that I knew before the exam.

5) I finally remember the answer to language exam questions after the exam is already over.

6) I worry so much before a major language exam that I feel very tired to do my best on the   exam.

7) I feel not really myself when I take important language exams.

8) I find that my mind sometimes wanders when I am taking important language exams.

9) After a language exam, I worry about whether I did well enough.

10) I struggle with written assignments, or avoid doing them, because I feel that whatever I do will not be good enough.

Statement	Always true	Usually true	Sometimes true	Seldom true	Never true
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

Thank you for your cooperation!

Appendix C

Test Anxiety Intake Interview

(Adopted from Dr. Ross, from

http://clcpages.clcillinois.edu/home/cou052/Supplemental%20Materials.htm)

Student Name_____   **Date**_____

1. Tell me what happened during your last test?

2. What was going through your mind? What were you saying to yourself?

3. Did you feel like you were going to get sick to your stomach?

4. Has this ever happened before and does it happen in situations other than testing? When do you first recall it happening?

5. How did you feel when the test was over? Did you think you passed?

6. Describe in detail what you do to get ready for a test.

7. When you say you read your textbook, how do you read?

8. How much time do you spend per day (week) studying?

9. Where and when do you study?

10. Do you find that your mind wanders while you study? What do you do when that happens?

11. As you are studying, are you aware of any self-talk or things you are saying to yourself?

12. Describe the process or strategies that you use when you take a test.

13. Are there particular things you do with multiple-choice tests? Essay Tests?

14. Do you skip questions?

15. What do you do when your mind goes blank?

16. What do you do just prior to the start of a test?

17. Describe what and when you have eaten in the last 48 hours. Is that typical?

18. How much sleep do you normally get and what is the nature of your exercise routine?

19. Have there been any major changes occurring in your life recently? Describe these.

20. Describe your living situation. Who is there, what kind of pressures or support do they provide, is there encouragement and understanding about going to university?

21. Do you have any physical conditions that could possibly impact your university performance? Are you taking any medications for this condition?

Appendix D

Test Anxiety Reducing Strategies

Introduction

I am not a counselor; however, I will try to establish a friendly relationship among us. You will tell about your experiences, and I will answer your questions and will support you through the training. Not only you have experienced test anxiety the majority of students report being more stressed by tests than by anything else in their lives. Approximately 60 students from your department experience anxiety. Therefore, to reduce your anxiety and gain continuing benefits, you need a training experience. By this treatment, I want to promote and help you to build strong confidence and to improve your test performance. However first we should know what anxiety is and where it comes from.
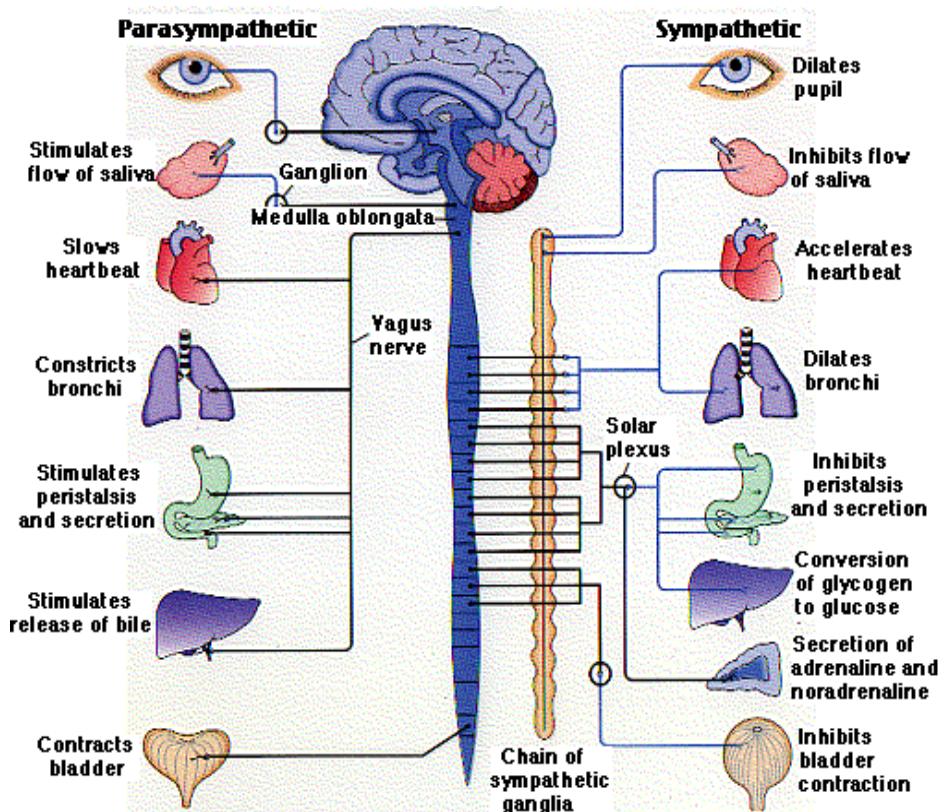
Session 1: What is Anxiety and where does it come from?

1.1 Description of Anxiety

Anxiety is a very complex human reaction that consists of both physical and mental elements. The **physical** elements include things such as sweaty palms, quick heartbeat, and a queasy stomach. The **mental** elements include self-doubts and constant worry about things. To control your test anxiety you will need to deal with both of these elements. Within our autonomic nervous system, we have two divisions, the **sympathetic division**, which helps arouse us and the **parasympathetic division** that helps with the calming process. Both of these are necessary and complementary. The sympathetic gets us going and protects us during those threatening situations, the parasympathetic calms us down so that we can rest and recover from the sympathetic carousal.

The Autonomic Nervous System

(Taken from http://users.rcn.com/jkimball.ma.ultranet/BiologyPages/P/PNS.html).

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Test anxiety is composed of two major variables, emotionality and worry. **Worry** is the cognitive component of test anxiety. Worry consists of the cognitive symptoms that often characterize an anxiety attack. These symptoms may include low self-esteem, catastrophic thoughts, and feelings of failure, worthlessness and dread. **Emotionality** consists of the physiological symptoms that often characterize an anxiety attack. These symptoms may include sweating, quick heartbeat, stomachache or headache. Students with test anxiety may report stomach upset and headaches the day before and/or the day of the test. **Test anxiety** rises sharply in grades 2–4, and remains until undergraduate and graduate years. Test anxiety presents a serious academic impairment on all grade levels, from elementary school through higher education. Teenagers tend to rate exams as the major source of worry and stress in their lives. The majority of students report being more stressed by tests than by anything else in their lives. About 16--20% of students have high-test anxiety, another 18% are troubled by moderately-high test anxiety. Students with high anxiety perform around 12 percentile points below their low anxiety peers. An estimated 10 million children are affected in North America alone. Moreover, test anxieties appear to be increasing in step with the increased national emphasis on standardized testing. High anxiety reduces not just test performance but also the ability to understand instructions and to benefit from learning. Left untreated, performance anxieties continue into adulthood where they restrict career choices and lower quality of life.

Generally, people think all anxiety is bad, but a little bit of sympathetic arousal might be good for times when you have to take a test because it will make you more alert. However, too much of this type of reaction will make it hard to concentrate. One explanation is that all the body's energy is being focused into the large muscle groups and the brain stem (which controls the autonomic functions of your body), and not enough

blood is being brought to the cerebral cortex which is responsible for thinking. This explains why you do not remember anything from what you have learned when you are very nervous, but everything comes back to you when you relax later (Modified from http://clcpages.clcillinois.edu/home/cou052/TAMaterials/unit_one.htm).

During anxiety reactions, we start breathing more rapidly. If you are jogging, this type of breathing is good for you, but if you are sitting at a desk taking a test, you will start to breathe in an abnormally deep, long, and rapid manner. However, **you can control this tendency by concentrating on breathing.** While in an aroused state, your body is calling for more energy. This energy comes in the form of blood sugar, the fuel for our cells. We obtain the blood sugar through the digestion of the foods we eat. If we stay in an aroused state for a considerable period of time, it substantially reduces our reserves and we have to "re-fuel." Our mental, or cognitive, reactions are harder to measure than the physical ones; nevertheless, they do contribute to anxiety reactions. Have you ever noticed that two people in the same situation will react in entirely different ways? An instructor gives an assignment in class, and some students just nod and smile as if they enjoyed the experience. Other students cringe and look like they are ready to cry. Attitudes and beliefs help determine how we react. One way we look at these attitudes and beliefs is through what is called, **self-talk**.

"That assignment sounds like fun, I will learn something new."
"That is my worst area, what will I do? I'm sure I can't get that done."
"Well, I guess that is what I expected."

As you can see, we all react differently to situations.

Summing up the above information, we understand that ***test anxiety*** involves a complex reaction that results from sympathetic nervous system arousal and a mental reaction that is somewhat affected by our beliefs.

1.2 Possible Sources of Test Anxiety

Now let's discuss where you got the test anxiety. Of course, like most human behaviors you learned it. However, how you learned it is a more complex question. The following options presented in the table might be some of the starting points in the early development of test anxiety.

Possible starting points for test anxiety	Members of your family may have emphasized the importance of upcoming tests. You interpret this interest as pressure to succeed.
	A great deal of attention was drawn to the test by teachers or parents.
	Once you took a test when you were sick and failed.

The following areas are often **specific sources of test anxiety** that are experienced by high school, college and university students:

Unfamiliarity

New situations are always frightening. Remember the way it felt the first day you walked into this university: "Will I know anyone? Can I find my classrooms without problems?" It is natural to feel a little nervous the first time you encounter a new situation. Your first

test with a particular instructor is likely to raise your anxiety level. However, once we have had some experience with the new situation, then we relax a little more. While it is impossible to totally anticipate a new testing situation, **taking practice tests and learning test-taking strategies** is one of the ways it is done.

Preparation

Students who have not learned the material that is included on a test will not do well. That is, if you haven't studied sufficiently, you will be nervous. **One method to control test anxiety is to spend more than adequate time studying the material** and to study in an effective manner so that you feel comfortable with your ability to recall important facts and concepts.

General Lifestyle

Having a lot of stress in our lives will not necessarily cause us to have test anxiety, but it certainly does increase the likelihood that we will have problems. Many test anxious students also have significant things causing stress in their lives. How we take care of our bodies in terms of diet and exercise influence our ability to cope with stressful situations. One way of helping our university performance is to examine and modify life stressors, and **to practice healthy maintenance of our bodies**.

Conditioned Anxiety

Sometimes when we get in a testing situation there is an automatic chain reaction in our minds and bodies that results in an anxiety reaction. We hear "test" and we start to sweat. This is an indicator of a learned behavior. We have learned that when we are taking a test, we should be anxious. Sometimes a single, painful event can result in an apparent

permanent anxiety reaction every time you deal with similar material. More common is a gradual reinforcement of the anxiety over time by continually doing poorly on tests. **A type of relaxation training** is used to control this automatic reaction and teach the body to stay more physically relaxed.

Irrational Thinking

During a test, our thought patterns set up unrealistic goals for ourselves, or we are always convincing ourselves that something awful will happen if we don't do well on a particular tests. We keep saying negative things to ourselves that are not necessarily based on the facts. **To control this type of thinking we can practice "positive self-talk"** which serves to block the irrational negative talk.

2.1 Effective Relaxation Strategies

One of the ways that anxiety is controlled is to prevent your body from getting physically tense. **If you are relaxed, it is physiologically impossible to be anxious**. Our mind constantly interprets our physical state, and when we are tense in certain situations, we tell ourselves we are anxious. Effective relaxation can help us prevent this interpretation from happening. There are many ways to relax, all of which are effective provided that it gets you relaxed, and that you can use it in a real situation. You can choose to use your own methods to relax (such as taking, a walk, or listening to music) and they will help prevent you from getting nervous. Of course, lying down on your bed listening to favorite music is very relaxing, but in the middle of a test you cannot say, "Excuse me, I have to go home and lie down on my bed." You may, however, get relaxed by clearly imagining what it felt like. You should use your relaxation method at the following times:

a) When you are studying and you start to tense up.

b) Just prior to the test because the calming effect will last for a while.

c) During the test, if you feel yourself starting to get anxious.

One of the relaxation methods that is used to control anxiety is called **Systematic Desensitization by Reciprocal Inhibition.** This is a step-by-step breaking down of fears by relaxation preventing the anxiety from happening. With systematic desensitization, you will be taught how to completely relax your muscles. Then while you are in this relaxed state, you will imagine the situations that make you nervous. You start with very low level nervous situations (like being at home studying) and work up to situations that

normally make test anxious students very nervous (like reading the first test question and going blank). These steps of nervousness are called a hierarchy. The goal is to be able to clearly imagine this anxiety-producing situation and keep your body totally relaxed. When you can do this, you decrease the automatic tendency of your body to get nervous in the real situation. Therefore, when you go to take your test you will not be as physically tense as normal and your mind will interpret that as your being less anxious. **This program uses six steps**. You are to go through each step one or more times until you can imagine the scenes presented without having your body tense up. The following are the six steps in the hierarchy used:

Steps in the desensitization hierarchy as found on the relaxation recordings.	1. Imagine that you are at home studying.
	2. Imagine that your instructor announces a test in two weeks
	3. Imagine that you are trying to go to sleep the night before a test.
	4. Imagine that you are entering class the day of a test.
	5. Imagine that you are reading the first question of a test and skipping it because you cannot answer it.
	6. Imagine that you are receiving back a graded test.

You can also use the following **physical relaxation strategies: 1)** Place your feet horizontal on the floor in front of you. With both hands, take the underside of your chair. Push your feet into the ground and pull on your chair upward. Tense your muscles, holding for 5 seconds. Release your tension and relax your feet, letting your body go limp (shaky). Repeat as necessary. **2)** you can do the *Body Scan:* Start at one end of your body and focus on a specific muscle or muscle group. Concentrate on how that muscle feels. Is

it tense? Consciously release the tension in the muscle. Continue throughout your entire body. **3)** Breathing: Inhale through your nose. Hold for 1 second. Exhale through your mouth or nose, slowly (make sure you exhale completely – push out every last bit of air). Repeat two more times.

2.2. Time Planning in Your Study Routine

When we are anxious it seems that **time** is our enemy. We look at the clock on the wall and see it moving and yet we are not progressing through the test. The more we hurry, the more anxious we become. Of course, it is not possible to change time, but you can begin to change things a little by **becoming a time planner**. A time planner is a person who makes a deliberate attempt to plan how his or her time is to be used. Time planners attempt to change the psychology of time and use it to their advantage. Usually we tend to worry a lot about upcoming tests and assignments. In fact, we worry so much about upcoming assignments that it is hard to concentrate on what has to be done today. The first step in effectively managing your time is to learn how to concentrate on today. If we can concentrate just on today, then we don't have to expend a lot of energy worrying about the future. The simplest way to accomplish this is to develop a study calendar. A study calendar can be as simple as a list of "what I have to do today", to a complex scheme that attempts to map out everything, you have to do and when you plan to do it. How you approach it, depends on you. If you have never done anything like it before, just starting with a simple daily plan is a good beginning. Making a simple list of daily assignments is good first step in starting to be a time planner and can easily become a daily habit. But once you are in the habit of doing it daily it is easy to expand it into a weekly, monthly, or term plan. One suggestion is to get a large monthly calendar so that you can see the entire month at a glance. When university assignments are given out write

the assignment on the due date, then work backwards to today, breaking the assignment down into daily study goals. In this way, you do not have to worry about the entire assignment, only what you have to do today. Look at the following example:

Study Calendar

Week one

Subject	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
English		Write ideas for paper topics		Library: start research for paper		Library: more research on paper	
History	Read Chapter Four	Review class notes			Read Chapter Five, review chapter Four	Do Sample questions for chapters four & five	Read Chapter Six

Week two

Subject	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
English	Outline paper	Write first draft		Edit and start typing paper		*ENGLISH PAPER DUE!*	
History	Review class notes	Study chapters 4,5,6,	*HISTORY TEST Chaps 4,5,6*		Read Chapter seven.		

3.1 Relaxation and Positive Self Talk

First, try to **physically relax**: by closing, your eyes, rolling your head and shoulders, visualizing your neutral scene and deep breathing. Because, as you remember, keeping your body more relaxed will enable it to use less energy and you won't get tired out as fast. More blood will be flowing to your brain and you will think more clearly. When your mind becomes aware that you are becoming tense, you have two choices:

Irrational: "Here it comes, I can't stop it."

Rational: "Here it comes, it is time to relax."

By continuing to practice the quick relaxation methods, you will be able to stop the physical sensations. **Second, Positive self-talk** is at the core of learning to control the irrational thoughts. Once you have identified some of the typical negative self-talk that you maintain, you can have your prepared set of positive statements. Repetition of the positive statements prevent the negative ones from taking over. In time, the positive ones become the habit, rather than the negative. **Prior to the anxious situation,** we can have prepared a set of statements to say to ourselves, such as:

"I am in charge of the test and I control what happens."
"I have prepared well, I can pass this test."
"There probably will be some questions I can't answer, that doesn't mean I can't get a good grade."
"I don't have to get an 'A'; I just have to pass it."
"People who complete the test early and leave don't necessarily know more than I do, they just work faster."

There are no magic tricks to reducing the anxiety in the middle of a test, because what works for one person may not work for another person. However, there are certain strategies that you might be able to try.

3.2 Developing Test Taking Strategies

1. *Developing a plan of action*	Developing a plan of action means that you map out in advance what you are going to do on a particular test, particularly how you are going to spend your time. If you can anticipate the kind of test that your instructor will give, you can begin even before the test is distributed, but generally, students start setting their plan the moment they receive the test. Do not start your test when it is first distributed, take a few moments and go through the entire test.
2. **Plan to use the entire time.**	It is very upsetting to see another student complete a test and get up to leave while you are still struggling. When that happens you begin to feel the time pressure even more. Counteract that by deciding in advance to use the maximum time allowed, and plan to be the last student in the classroom. Check with the teacher to determine how much time you have to complete the test, and allocate time for each section. Often students spend a lot of time on one section of a test and do not adequately cover another. The time spent should correspond to the point value of each section. If you have 50 multiple-choice questions worth one point each, and two essays worth 25 points each, then spend equal time on each.
3. **Stop, pause, and relax.**	If you feel tension creeping in, take a relaxation break. Close your eyes, lay down your pencil, and use the deep breathing relaxation until you are back in control. This is time well spent.
4. **Ask for a change of location.**	If you continually have severe reactions in a particular class, ask the teacher if you can take the test in a different location. Some instructors will permit you to take the test in a supervised learning center, in a departmental office, or in the instructor's own office.

	Being by yourself, without other anxious students nearby, may permit you to concentrate on the test more. The worst thing you can do is just sit there feeling paralyzed. Do something to get your body or mind moving: begin to draw a picture of a concept, start writing anything, stretch, relax, and say some of your positive self-statements. Sometimes when you are blocked, you just need something to break the grip of the anxiety.
5. *Reading for key words*	Do you recall the experience of getting back a test, looking at a question that you missed and say, "I knew that, I just misunderstood the question!" Often we miss a critical word in a test question and it changes the meaning of everything. We are in a hurry to get through the test and we make silly mistakes. Starting with the directions for the test and going through each question, get in the habit of underlining key words with your pencil. Key words are those that are most significant or can change the entire meaning.
6. **Start skipping around.**	At times, our mind-set dictates that we complete one question before moving on to the next, and this pattern is hard to break. Usually we start with question #1, and then go to #2, etc. But when we blank out on a question then we can't seem to get back on track. A more efficient way to work is to skip questions we cannot answer. The advantage to skipping is that we do not spend all of our precious time struggling with a question that we may never answer correctly anyway. How often have you gotten hung up on a few questions while never even getting to some questions that you probably could have answered? One way to prevent this is to have developed a plan about how to skip questions.

A Possible Skipping Strategy	
Answer the ones you know first	Read the test question. If you immediately recognize the answer or how to complete it, go ahead and answer the question. Under no circumstances should you ever return to this question. Go to the next question.
Try answering the ones of kind of know.	If you think you know how to do it, go ahead and give it a try. If you are unsure of your answer when completed, put a "?" next to the item number. You will return to this question only if time permits.
Skip the ones you do not know at all.	If you don't have the slightest idea how to proceed, place a "--" next to the question and skip it. You will return to this question after going through the test once.
Go back to the blanks	Once you have gone through the entire test and answered as many questions as possible, then go back to the items with a "--". These are the ones that were skipped completely. Sometimes in the process of taking a test, your thoughts will be triggered and you can now answer these. Answer as many as possible.
Check the ones with question marks	After going through the skipped items then look at the ones with a "?" Change these answers only if you have a strong reason. You probably got it right the first time. If you are still unsure, leave the first answer.

A plan like this gives you the maximum chance to be able to answer as many questions as possible. When you are able to answer a question quickly, you probably are answering it correctly, especially if you have taken the time to underline **key words**. You should not change an answer unless there are very strong reasons to change, such as missing a key word. If you think that possibly you have made a mistake, then you should not change it. The skipping strategy presented is just one approach, you should feel free to develop you own s

Session 4: A Review of Coping Strategies

While many test takers feel they need to be accommodated, most do not. Test anxiety is, for most people, unpleasant but controllable. Some kind of physical or emotional anxiety is common to most test takers. Some people live in dread of a moment when their brains go blank. Others experience gastrointestinal problems, headaches, or profuse sweating. Whatever the physical or psychological manifestation, the test taker should begin to condition themselves early on by preparing thoroughly, participating in practice exams and courses, and performing physical conditioning exercises. Time management, good study habits, and attention to organization are practical activities that alleviate the anxieties of test day. Stretching and breathing exercises do not require a great deal of exertion and can be performed anywhere, even during the test in most cases. Even posture and clothing can play a part. Sitting properly will free the diaphragm and allow for easier breathing. Loose, comfortable clothing suitable to the interior climate will also aid in relaxation.

The coping strategies approach assumes that you cannot eliminate all the anxiety in a testing situation; you have to accept it as a normal part of life. By anticipating the anxiety and planning what you are going to do, you will keep it at a manageable level. **Let's try to review and summarize the coping strategies that can be used *before*, *during*, and *after* a test to reduce your test anxiety.**

1. Use good study techniques to gain cognitive mastery of the material that will be covered on the test. This mastery will help you to approach the test with confidence rather than have excessive anxiety.

2. Experience is the best teacher. Use chapter reviews or sample tests from the textbook to prepare. Better still; write your own test questions as you study. If you do this early in your study process, you will have a better idea of your strengths and weaknesses. It will make you less nervous on test day.

3. Maintain a positive attitude as you study. Think about doing well, not failing. Think of the test as an opportunity to show how much you have learned.

4. Go into the test well rested and well fed. Get enough sleep the night before the test. Eat a light and nutritious meal before the test. Stay away from junk foods.

5. Don't just "dive" into a test. When it is first handed out take a minute or two to plan out a strategy. Glance through the test, determine what is included, estimate how much time you have for each section. Make sure you invest adequate time in the sections that have the most points.

6. Stay relaxed during the test. Taking slow, deep breaths can help. Focus on positive self-statements such as "I can do this."

7. Find the words in the question that can change the meaning. Words like: sometimes, *always, usually, may, discuss, contrast, except, etc*. Take your pencil and underline them. How many times have you missed a question because you miss-read? This will slow you down and make you read carefully.

8. Follow a plan for taking the test. Do not panic even if you find the test difficult.

9. Often we will waste time by struggling over one question. Have a plan to skip around the test and first answer all the questions that you know, and then go back to the ones that you can't answer the first time. If you are unsure, then guess.

However, when you go back through the second time do not change a guess unless you are very certain you have made a mistake.

10. Don't worry about other students finishing the test before you do. Take the time that you need to do your best.

11. Once you finish the test and hand it in, forget about it temporarily. There is nothing more you can do until the graded test is returned to you. Turn your attention and effort to new assignments and tests.

12. When the graded test is returned to you, analyze it to see how you could have done better. Learn from your mistakes and from what you did well. Apply this knowledge when you take the next test.