THE RELATIONSHIPS AMONG TEST ANXIETY, SELF-ESTEEM, AND ACADEMIC ACHIEVEMENT IN ELEVENTH GRADE STUDENTS

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ABSTRACT

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The purpose of the present study was to investigate the relationships among test anxiety, self-esteem, and academic achievement in eleventh grade students and whether these relationships change as a function of gender.

Subjects were 294 (113 females, 181 males) students randomly selected from mathematics-science branch in MAT-FEN Private Course. All subjects were administered with the Test Anxiety Inventory (TAI) and the Rosenberg Self-Esteem Scale (RSS) in the classroom setting.

The effects of academic achievement, self-esteem, and gender on test anxiety were calculated by three seperate 2(high - low self-esteem) x 2(achiever - non-achiever) x 2(female - male) factorial analyses of variance applied to the worry, emotionality and total TAI scores of the subjects.

The result of the three separate ANOVAs employed to the subjects' worry subscale, emotionality subscale, and total scores of the Test Anxiety Inventory indicated a significant main effect of self-esteem.

The result also yielded a significant main effect of gender in all three analyses. The main effect of achievement was not significant.

In addition to the significant main effects of self-esteem and gender, achievement x gender interaction effect was also significant.

These results of ANOVAs indicated that the students with low self-esteem were more test-anxious than were the students with high self-esteem and girls were more test-anxious than were the boys. The results also revealed that high achieving girls were more test-anxious than were the high achieving boys.

Keywords: Test Anxiety, Self-Esteem, Academic Achievement, Gender

ÖZ

LİSE SON SINIF ÖĞRENCİLERİNDE SINAV KAYGISI, BENLİK SAYGISI VE AKADEMİK BAŞARI İLİŞKİSİ

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Bu çalışmanın amacı lise son sınıf öğrencilerinde sınav kaygısı, benlik saygısı ve akademik başarı ilişkisini incelemek ve bu ilişkinin cinsiyete göre bir değişiklik gösterip göstermediğini araştırmaktır.

Çalışmanın deneklerini seçkisiz örneklem yöntemiyle MAT-FEN Dersanesi'nin Matematik-Fen bölümünden seçilen 294 öğrenci (113 kız, 181 erkek) oluşturmaktadır. Deneklere, sınıf ortamında, Sınav Kaygısı Envanteri (Test Anxiety Inventory - TAI) ve Rosenberg Benlik Saygısı Ölçeği (Rosenberg Self-Esteem Scale - RSS) uygulanmıştır.

Akademik başarı, benlik saygısı ve cinsiyetin sınav kaygısı üzerindeki etkisi deneklerin Sınav Kaygısı Envanteri'nin kuruntu, duyuşsallık ve toplam puanlarına uygulanan üç ayrı 2(yüksek-düşük benlik saygısı) x 2(başarılı-başarısız) x 2(kız-erkek) faktörlü, seçkisiz deney desenine uygun varyans analizi ile incelenmiştir.

Deneklerin Sınav Kaygısı Envanterinin kuruntu alt ölçeği, duyuşsallık alt ölçeği ve toplam puanlarına uygulanan üç ayrı varyans analizi sonuçları her üç analizde de benlik saygısı temel etkisinin istatiksel olarak anlamlı olduğunu göstermiştir.

Ayrıca, bulgular cinsiyet temel etkisinin de anlamlı olduğunu ortaya koymuştur. Beklenenin tersine, akademik başarı temel etkisi anlamlı bulunmamıştır.

Benlik saygısı ve cinsiyet temel etkilerinin yanısıra, akademik başarı x cinsiyet ortak etkisi de her üç analizde anlamlıdır.

Bu sonuçlara göre, düşük benlik saygısına sahip öğrenciler, yüksek benlik saygısına sahip olan öğrencilere oranla daha yüksek sınav kaygısına sahiptirler. Ayrıca, sonuçlar kızların erkeklere oranla daha fazla sınav kaygısına sahip olduklarını ortaya çıkarmıştır. Bulgular ayrıca yüksek başarılı

kızların yüksek başarılı erkeklere oranla daha fazla sınav kaygısına sahip olduklarını göstermiştir.

Anahtar Sözcükler : Sınav Kaygısı, Benlik Saygısı, Akademik Başarı, Cinsiyet

To Mehmet Savgat

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TABLE OF CONTENTS

ABSTRACT iii

ÖZ v

ACKNOWLEDGMENTS ix

LIST OF TABLES xiii

LIST OF FIGURES xiv

CHAPTER

1. INTRODUCTION 1

1.1 Nature of Test Anxiety 6

1.2 Anxiety and Academic Achievement 17

1.3 Test Anxiety and Self-Esteem 24

1.4 Self-Esteem and Academic Achievement 34

1.5 Related Research In Turkey 43

1.6 Significance and the Purpose of the Study..... 53

2. METHOD 55

2.1 Subjects 55

2.2 Instrumentation 55

2.3 Procedure 60

2.4 Analysis of Data..... 61

3. RESULTS 63

3.1 The Results of the Analysis of Variance Employed to the Worry Subscale Scores of the Test Anxiety Inventory 63

3.2 The Results of the Analysis of Variance Employed to the Emotionality Subscale Scores of theTest Anxiety Inventory 67

3.3 The Results of the Analysis of Variance Employed to the Total Scores of theTest Anxiety Inventory 71

4. DISCUSSION 75

4.1 Test Anxiety and Self-Esteem 75

4.2 Test Anxiety, Self-Esteem and Academic Achievement..... 80

5. IMPLICATIONS AND RECOMMENDATIONS 84

5.1 Implications 84

5.2 Recommendations 85

REFERENCES 89

APPENDICES 105

A. Test Anxiety Inventory (TAI)..... 105

B. Rosenberg Self-Esteem Scale (RSS) 106

LIST OF TABLES

TABLE

3.1	Cell Means and Standart Deviations of the High-Low Self-Esteem and High-Low Achieving Subjects' W(Worry) Subscale Scores of the TAI	64
3.2	The Results of the Analysis of Variance Employed to the W(Worry) Subscale Scores of the TAI	65
3.3	Cell Means and Standart Deviations of the High-Low Self-Esteem and High-Low Achieving Subjects' E(Emotionality) Subscale Scores of the TAI	68
3.4	The Results of the Analysis of Variance Employed to the E(Emotionality) Subscale Scores of the TAI	69
3.5	Cell Means and Standart Deviations of the High-Low Self-Esteem and High-Low Achieving Subjects' T(Total) Scores of theTAI	72
3.6	The Results of the Analysis of Variance Employed to the T(Total) Scores of the TAI	73

LIST OF FIGURES

FIGURES

3.1. 2-Way Interaction Effect of Academic Achievement and Gender for Worry Subscale of the TAI..... 67

3. 2. 2-Way Interaction of Academic Achievement and Gender for Emotionality Subscale of theTAI..... 70

3. 3. 2-Way Interaction Effect of Academic Achievement and Gender for Total Scale of the TAI..... 74

CHAPTER I

INTRODUCTION

In this section, an overview, concerning the seemingly related variables of self-esteem, test anxiety and academic achievement is presented. This chapter also covers the discussions and literature reviews regarding the nature of test anxiety and current models of test anxiety. In addition, theoretical views and research findings with respect to the relationships of the psychological variables of test anxiety and self-esteem with academic achievement and with each other are documented.

The Overview:

Aspects of self have been discussed in a wide variety of theoretical perspectives. As Wells and Marwell (1976) indicates, the self-concept has been a central aspect of many counseling theories as well as psychoanalysis, ego psychology, personality research, sociology, and experimental social psychology. These theoretical perspectives have tended to be imprecise and even contradictory in their use of various self terms.

One major distinction in the literature is between self-concept and what is generally referred to as self-esteem. Although not everyone finds the distinction between the self-concept and the self-esteem viable, it appears that the distinction between self-concept and self-esteem is a useful one.

Many theorists agree that self-concept is the term which refers to the composite of ideas, feelings and attitudes people have about themselves. Self-concept is also described as the person's attempt to explain oneself to oneself, to build a scheme that organizes one's impressions, feelings and attitudes about oneself. These self-perceptions vary from situation to situation or from one phase of life to the other. Self-esteem, on the other hand, is the evaluations of one's own self-concept. If people have positive self-concepts, if they like what they see in themselves, it is said that they have high self-esteem. The terms often are used interchangeably, even though they have distinct meanings (cited in Blyth and Traeger, 1983).

It appears that students with higher self-esteem are somewhat more likely to be successful in school. The reverse is also correct, since school is a place where children develop or fail to develop a variety of competencies that come to define self and ability. Hoge, Smith and Hanson (1990) found that students' self-esteem was greatly influenced by teachers' opinions and evaluations and by the actual grades they have on a particular subject or subjects. In short, success in academic learning may have an important positive effect on the development of

high self-esteem. If this is the case, any condition that challenges the possibility of succeeding at school will directly violate a student's self-esteem which in turn will result in poor performance. Anxiety over the school success or anxiety felt during academic evaluations may be one of these conditions.

Evaluation situations occur frequently and to almost everyone. They take place in many different contexts such as schools and jobs. Test Anxiety is a particular case of a stress response in a performance evaluation situation.

Recent research has provided a great deal of insight into the concept of test anxiety (Deffenbacher and Hazaleus, 1985; Hollandsworth, Glazeski, Kirkland, Jones and van Norman, 1979; Liebert and Morris, 1967; Sarason, 1984), that has become a pervasive issue, cutting across all levels of the educational spectrum (Wilson and Rotter, 1986). Furthermore, a strong correlational case has been established in the literature for the generally deleterious effects of test anxiety (Deffenbacher and Kemper, 1974; Desiderato and Koskinen, 1969; Dusek, 1980; Many and Many, 1975).

Test anxiety refers to an individual difference in the disposition to experience feelings of apprehension and worry cognitions in academic environments where the performance of students is under scrutiny (Schwarzer, van der Ploeg and Spielberger, 1987). Conceptualizations of test anxiety focus on the importance of evaluative, especially negative, self-deprecatory thoughts before and during testing (Meichenbaum and Butler, 1980).

Why should a student be unduly concerned about how well he will do in school? Why should such a student experience the test and test-like situations as markedly unpleasant, tinged with more or less vague feelings of uneasiness and bodily tension? The student who characteristically responds to test-like situations in these ways are the ones that are called "test anxious" students (Sarason, Davidson, Lighthall, Waite and Ruebush; 1960).

For generations, teachers have sensed that a significant and positive relationship between a student's concept of himself and his performance exists. They believed that the students who feel good about themselves and their abilities are the ones who are most likely to succeed. Conversely, it appeared that those who see themselves and their abilities in a negative fashion usually fail to achieve good grades. Academic success or failure appears to be as deeply rooted in concepts of the self (cited in Purkey, 1970).

Likewise, Sarason (1980) pointed out that high test anxiety will interfere with performance on school tests or in situations which are test-like". That is, the greater the test-like characteristics of the task, the more the student's anxiety will be manifested and the more it will interfere with his performance. Low anxiety appears to be related to high grades and vice versa : anxiety makes it difficult to study, interferes with thought processes, and has been shown to have cumulative long-term influence on academic performances. Specifically, highly anxious students are presumed to utilize less efficient problem-solving strategies,

attend less well to tasks presented, and are more easily distracted than their low-anxiety counterparts. As a result, their performance on tests is poorer (Dusek, 1980). Poor academic success may gradually give way to a failure expectation which in turn might impair the self-esteem of the student and might make the individual overly anxious about his/her performance.

To conclude, studies which were conducted in the last thirty years have generally supported the belief that both high test anxiety and low self-esteem are correlated with performance decrements. Indeed, over the years much research on test anxiety has been directed toward investigating the correlation between performance and test anxiety. Research findings generally showed that performance is impaired by test anxiety (Schwarzer et al. 1987). Similarly, the existence of a relationship between poor self-esteem and achievement is rather well documented (e.g. Purkey, 1970).

As can be seen from the literature, both self-esteem and academic achievement appear to be important correlates of test anxiety. Test anxiety is the significant factor that impairs the achievement of the student during test-taking situation. Thus, the student may have feelings of failure or inadequacy resulting in low self-esteem.

If high anxiety interferes with academic achievement (an important developmental task), and if teachers are unable to identify the high-anxious child and take steps to promote a more positive self-concept, then it seems unlikely that

the anxious child will achieve a positive sense of identity, a goal which many psychologists see as being necessary for successful personality development in childhood and adolescence (Gaudry and Spielberger, 1971).

1.1. Nature of Test Anxiety

Anxiety, in general, is one of the major psychological variables that can be considered as a natural response to certain environmental and psychological factors. The term refers to an unpleasant emotional reaction that results from the perception or appraisal of a particular situation as threatening. If an individual, in any given situation, perceives environmental demands as potentially dangerous, or as exceeding his competence and resources, the person-environment transaction will be judged stressful. Environmental demands are more likely to be perceived as threatening by an individual, if future damage or loss is anticipated and, no adequate coping strategy seems to be available. Since every individual may anticipate certain environmental demands as threatening, the feeling of anxiety can be considered as an intrinsic part of the condition of being human. (Schwarzer et al. 1987).

Anxiety has always been of considerable interest to teachers in educational area, because in today's competitive academic environment, feelings of anxiety over examinations are frequently expressed by students at almost all levels of education. For instance, many students have had some occasions to say

"If I had not been so nervous, I could have done better on that exam" (Best and Stanford, 1983).

Sarason and Mandler (1952) conceived of anxiety as a phenomenon that normally aroused in any evaluative situation (cited in Nijhawan, 1972). It is called performance anxiety or more specifically test anxiety. Test anxiety is generally considered as a trait or specific type of anxiety.

Test anxiety is generally conceptualized as having two components; worry and emotionality. The worry component involves self-perceptions, concerns about performance, negative self-evaluations, concerns about the consequences of failure and, comparisons of one's ability with those of others. The emotionality component refers to the affective and physiological concomitants resulting from autonomic arousal, and the feelings of tension and distress (Meichenbaum and Butler, 1980).

Research has supported this distinction and has indicated that highly test anxious subjects have fewer positive thoughts and more negative thoughts in comparison with low anxious subjects and report more task-irrelevant and interfering thoughts (Galassi, Frierson, and Sharer, 1981; Hollandsworth, et al., 1979). As mentioned, Liebert and Morris (1967) suggested that worry is primarily the cognitive concern about the consequences of failing. Thus, in situations where persons expect success, consideration of worry should be minimized. Phares' (1968) findings supported this suggestion that high test

anxious students showed significantly lower expectancy for success prior to performance on the task. Doctor and Altman (1969) also found that worry was more highly correlated with expectancy of success than emotionality. Likewise, Deffenbacher (1986) found that high anxious students reported more worry than emotionality. Galassi et al. (1981) investigated the cognitions of college students and found that high test anxious students were less positive about exams than low and moderate test anxious students. Arnkoff, Glass and Robinson (1992) have found that the ratio of positive thoughts to negative thoughts appeared to be more important contributor to failure expectancy and the resulting test anxiety.

Previous research on test anxiety also supports the multidimensional nature of test anxiety. For example, Sarason (1960) observed high and low-anxious children for one hour in a classroom situation and found that the high anxious students appeared less task oriented than the low-anxious ones. Sarason (1960) also found that high anxious children tended to blame themselves for their failures. According to him, high test anxious people are characterized by acquired habits and attitudes that involve negative self-perceptions and expectations (worry). These self-deprecating habits and attitudes dispose test anxious persons to experience fear and heightened physiological activity (emotionality).

Hollandsworth et al. (1979) described four types of cognitions which are important to the performance of test-anxious adults: positive and

negative self-evaluations of performance and on-and-off-task thoughts. On-task thoughts and positive evaluations are hypothesized to aid performance and thus are "task-facilitating", whereas off-task thoughts and negative evaluations are hypothesized to impair performance and are called "task-debilitating". Therefore cognitions during testing might affect test-performance. For girls, only positive evaluations were associated with performance. Dusek (1980) has also supported this view.

Zatz and Chassin also (1983) examined the relation between cognitions during testing and task performance among low, moderate, and high-anxious elementary school children. High-anxious children reported more task-debilitating cognitions than did low-anxious children during the testing situations. As with adults subjects (e.g., Galassi et al., 1981), these thoughts included unfavorable social comparisons, an inability to concentrate, and a desire to leave the test situations. High-anxious adults have also reported that they perform better in classrooms that are highly structured employing self-paced, highly organized instructional materials.

In conclusion, test anxiety research investigating the nature of test anxiety generally confirms the multidimensional nature of test anxiety, consisting of worry and emotionality components. The multidimensional nature of test anxiety was proposed by several models which attempted to understand and clarify the nature of the test anxiety.

Models of Test Anxiety :

Three different models namely, interference, learning deficit and information processing models have been proposed to explain test anxiety. Based on the factor analytic study of Mandler and Sarason's (1967) Test Anxiety Questionnaire, it has been proposed that test anxiety is a multidimensional construct which consists of a cognitive component that involves such elements as ***worry*** and test irrelevant thinking as well as an ***emotionality*** component with such elements as bodily symptoms and tension (Deffenbacher and Hazaleus, 1985; Hollandsworth et al. 1979; Liebert and Morris, 1967; Sarason, 1984).

Worry has been defined as cognitive concerns about the consequences of failure particularly concerns about poor performance and negative self-evaluations. Worry seems to be responsible for the debilitating effects of test-anxiety on academic performance. While taking an examination, saying to oneself "I'm stupid" "I will not be able to pass" might interfere considerably with the task at hand (Phares, 1968; Spiegler, Morris and Liebert, 1968).

Emotionality refers to the feelings and the physiological arousal experienced by test-anxious persons. This cognitively mediated arousal includes feelings of tension, apprehension, nervousness, uneasiness, rapid heart beat, sweating, upset stomach and other physical symptoms. It has been generally

assumed that these various measures of physiological arousal are valid indicators of anxiety (Morris and Liebert, 1970). The autonomic arousal associated with emotionality seems to be less important in affecting performance outcomes in evaluation situations (Schwarzer, et al., 1987; Deffenbacher, 1977, 1978; Doctor and Altman, 1969; Hagtvet, 1978; Morris and Liebert, 1970).

Emotionality was unrelated to performance expectations in three samples (Liebert and Morris, 1967; Morris and Liebert, 1970; Spiegler et al. 1968) but negatively related in three others (Doctor and Altman, 1969; Morris and Liebert, 1970; Spiegler et al. 1968). Also, emotionality was either unrelated (Morris and Liebert, 1970; Morris and Perez, 1972), complexly related (Doctor and Altman, 1969), or negatively related (Morris and Liebert, 1970) to performance. Additionally, worry has tended to be more important than emotionality in accounting for relationships with either performance or performance expectations (Doctor and Altman, 1969; Morris and Liebert, 1970; Morris and Perez, 1972; Spiegler et al. 1968).

In relation to this view, Deffenbacher (1977) conducted a study to investigate the effects of worry and emotionality on performance on the Miller Anologies Test, a real-life test with important consequences. He found that worry and emotionality were significantly correlated ($r = .69$). State test anxiety, worry and emotionality were inversely related to performance but partial correlations indicated that only worry was correlated with performance, when the common

variance between worry and emotionality was partialed out. High worriers performed less well than low worriers. The effects of emotionality were usually nested within worry at low levels of worry, while emotionality was unrelated to performance. However, at high levels of worry, high emotionality was associated most negatively with performance. No gender differences were found in Deffenbacher's study. The results were interpreted as supporting the conceptual distinction between worry and emotionality.

Cowen et al. (1965) stated in the light of the records obtained from schools that high-anxious students actually experienced more physical or somatic pain or discomfort than the low-anxious students when faced with anxiety-provoking situations. They tried to escape to a situation where dependency needs can be expressed in safety (cited in Gaudry and Spielberger, 1971).

Spiegler et al. (1968), have shown that worry and emotionality components not only differ in their relationship to expectancy, but they also respond differentially to the presentation of the stressful cues of the testing situation. Thus, emotionality was found to increase sharply from five days before to immediately before an examination, and to decrease just as sharply from immediately before to immediately after the test. No corresponding changes were found as a function of expectancy changes. Worry level has been shown to increase with self-involving stress and lowered performance expectations (Doctor and Altman, 1969; Spiegler et al. 1968).

In a similar vein, Wine (1971) presented an attentional interpretation of the debilitating effect of test anxiety. According to this model, the high test-anxious person attends to both self-relevant and task-relevant variables in contrast to the low test-anxious person who attends mostly to task-relevant variables. In other words, the test-anxious person worries during examinations. They fall behind during a test, scold themselves for forgetting answers and spend their time seeking ways to avoid the task itself. The difficult tasks on which the test-anxious person does poorly, require full attention for adequate performance, but the test-anxious person can not perform adequately while dividing his attention between internal cues and task cues. Marlett and Watson (1968) have stated this proposition rather well "The high test-anxious person spends a part of his task time doing things which are not task oriented. He worries about his performance, worries about how well others might do, ruminates over choices open to him, and is often repetitive in his attempts to solve the task" (cited in Tryon, 1980).

So far, the views stated above, are collectively known as "interference model" which emphasizes the role of the negative thoughts (worry) in test anxiety (Liebert and Morris, 1967; Doctor and Altman, 1969). This generic model assumes that the effect of test anxiety on performance occurs in the testing situation (Culler and Holahan, 1980).

Researchers in 1980's have offered a different approach which is labeled as the "learning deficit model".

Learning-deficit model posits a role for both cognitive and study skills variables (Culler and Holahan, 1980; Meichenbaum and Butler, 1980). Culler and Holahan (1980) suggest that high-anxious students have ineffective study habits leading to deficiency in learning during preparation. Performance decrements of high-anxious students are due to inefficient preparation caused by poor study-related behavior.

Wittmaier (1972) showed that high test-anxious students had significantly lower levels of study skill competence when compared to low test-anxious students. Mitchell and Ng (1972) concluded that "A reduction in test anxiety is no guarantee of subsequent improvement in academic performance when the level of study habit competence is ignored".

According to Benjamin, McKeachie, Yi-Guang Lin and Holinger (1981), and Culler and Holahan (1980), test anxious students describe themselves as diligent and spending more time studying than low anxious students. However, it may be concluded that test anxious students compensate the handicap of having poorer skills by working more, but this effort is coupled with inefficient use of time. High anxious students may differ from low anxious students with regard to quantity as well as quality of preparation. The quality of preparation seems to be

of greater importance than the quantity of preparation (Allen, Lerner, Wayne and Hinrichsen, 1972; Benjamin et al., 1981) .

Schwarzer, et al. (1987) futher argued that comparing performance of high and low anxious students, less attention was paid to preparation. That is, preparation of students was not really taken into account. Only indirect control was exerted by assessing variables like intelligence or performance prior to the task. If anxious students experience decrements in performance in evaluative situations, it cannot be excluded that this might be due to the lack of skills for effective preparation.

While the interference model assumes a direct influence of anxiety on performance in the testing situation, the deficit model takes into account an additional, indirect influence of anxiety on performance via the impairment of study-related behavior during preparation. This is supported by the studies reporting negative relations between test anxiety, study habits and study skills. (Benjamin et al., 1981; Culler and Holahan, 1980; Wittmaier, 1972).

In addition, the information processing model suggests that information is processed in stages-first encoded, then stored and organized, and, when necessary, retrieved. Thus the deficient performance of high test-anxious students might be due to problems in learning the information, in organizing the information (for example, while reviewing it before the test), or in retrieving if in the test situation itself. Such an approach would incorporate the ideas of both the

interference model (Wine, 1971) and the learning deficit model (Culler and Holahan, 1980) mentioned earlier. Tobias (1977) recently advanced an application of the information processing approach to the test-anxiety domain. He also formulated a model that attempted to identify specifically where the debilitating effects of anxiety in instructional situations could be most easily observed. This model divides the instructional process into three basic information processing components: input, processing and output. Reviewing the model in the light of recent research findings, Tobias (1980) concluded that many of them supported the predictions of the model (cited in Sarason, 1980).

In short, the existing test anxiety models indicate that the test-anxious individual often pays more attention to his own anxiety responses in test situations than to the task. Consequently, his performance may be impaired if situations contain cues which tell the individual that he is being evaluated and therefore in a danger situation. The resulting anxiety interferes with adequate perception of external events and with task performance. School situations arouse test anxiety primarily because of the stimulus similarities between the parent and the teacher. Both are adult authority figures with powers to perform evaluative functions and to dispense rewards and punishments.

1.2. Anxiety and Academic Achievement

Over the years much research on test anxiety has been directed toward the correlations between test anxiety and performance on different types of task. Not surprisingly, interest continues to be especially great in how test anxiety manifests itself in the practical world of the classroom and in the assessment of the level of intellective functioning (Sarason, et al., 1960).

We live today in a highly test-conscious culture. Personal evaluation or threat leads to decrements in the performance of high test-anxious individuals. Decisions of major consequence to the individual are increasingly being made on the basis of one's performance in tests. Most students perceive the testing situation to have an evaluative or assessment purpose and feel that it is important to do well because, in Turkish culture, the lives of people are very frequently affected by their test performance. It is important therefore, that the various factors that influence test performance should be identified and the nature of their influence should be determined. There is a growing evidence that anxiety is a factor of considerable importance in influencing test performance. Investigators from quite varied backgrounds have carried out research in this area. The relationship between Test Anxiety and Academic Performance has been well documented by a number of investigators (e.g., Culler and Holahan, 1980; Hollandsworth et al., 1979). The impairing influence of anxiety on performance

has been shown in several studies (e.g., Desiderato and Koskinen, 1969; Sarason et al., 1960).

Walsh, Engbretson and O'Brien (1968) have suggested that low levels of anxiety might facilitate academic performance by producing greater alertness and goal direction for the student. Other researchers (Deffenbacher and Deitz, 1978; Daniels and Hewitt, 1978) have found a strong inverse relationship between test anxiety and academic performance, with high levels of test anxiety resulting in degradation of performance.

Studies relating test anxiety to academic performance in college students have generally supported the finding that test anxiety is associated with a significant performance decrement reflected in students grade point averages (Allen et al., 1972; Desiderato and Koskinen, 1969).

It has been consistently demonstrated that high test-anxious individuals perform more poorly than low test-anxious individuals in a variety of context, for example, on classroom tests (Munz and Smouse, 1968) and reading tests (Kestenbaum and Weiner, 1970).

McKeachie, Pollie and Speisman (1955) stated that if a student taking a multiple choice test comes across an item that is difficult or ambiguous, this leads to an immediate increase in anxiety and to the manifestation of responses which are not task-relevant. The students performance may be disrupted because he pays too much attention to his emotional responses and self-centered

feelings of adequacy, and this misdirection of attention interferes with his responses to the items. Wrigthsman (1962) carried out a study on 234 freshmen at George Peabody College for Teachers in Nashville, Tennessee and found that "anxiety was unrelated to performance if a test was seen to be of little importance, but when the test was personally important, as was the case with most school examinations, anxiety impaired performance (cited in Gaudry and Spielberger, 1971).

The lower performance of the highly anxious, however, is not a simple artifact of ability. Laboratory studies (Sarason, 1961, 1972, 1973) have shown that the highly test-anxious students perform as well as or better than the less anxious ones when evaluative stress is low. Gaudry and Bradshaw (1970) and Paul and Eriksen (1964) have also found similar results for naturally occurring tests. For example, high test-anxious students perform more poorly on tests given in the regular manner, but not on low-stress (cited in Deffenbacher, 1978).

Lunneborg (1964) gave three anxiety scales- the TASC (Test Anxiety Scale for Children), the CMAS (Manifest Anxiety Scale for Children), the GASC (General Anxiety Scale for Children)- to 213 boys and girls in Grades 4, 5 and 6. The scores on these scales were then correlated with reading and arithmetic achievement scores obtained from the Metropolitan Achievement Test Battery. For the total group, the correlations between anxiety and achievement measures for each grade were all negative (ranged between -0.18 to -0.32) and

statistically significant, indicating that high anxiety was associated with poorer achievement in reading and arithmetic. So, the results clearly emphasized that the negative correlations tended to be larger for girls than for boys and the negative correlations tended to become stronger with increasing grade level. Furthermore the negative correlation between TASC scores and both achievement measures tended to be larger than was the case for the other two anxiety scales.

Sarason et al. already (1960) presented similar data which support Lunneborg's finding that correlations between anxiety level and achievement were negative and tended to become higher with increasing grade level in elementary school. They report correlations of -0.23, -0.26, -0.25 and -0.41 between the TASC and the Stanford Achievement Test for Grades 3, 4, 5 and 6, respectively.

In contrast to Lunneborg's results, mentioned above, Davidson (1959) noted that the interfering effects of anxiety were more marked for boys than for girls, and Davidson (1959) concluded that a high anxiety score for males would more likely lead to interference with performance, whereas high scores for females may produce either facilitating or interfering effects. This finding was not supported by Stevenson and Odom (1965), however, who found no differences for the two gender in the relationship between anxiety and school achievement (cited in Gaudry and Spielberger, 1971). In terms of gender difference in anxiety which was measured by questionnaire and self-report, Ruebush (1963) consistently obtained that girls had higher scores. Sarason (1963) found significant differences

between boys and girls in the correlation of anxiety with performance on the SCAT. For the boys the correlation was .55, and for girls it was -.27 (cited in Spielberger, 1972). Moreover, Walsh, et al. (1968) demonstrated that the inverse correlation between anxiety and classroom examination scores were greater for females than for males. Spielberger (1972) has pointed out that females seem to experience more test anxiety than males. Hembree (1988) also stated that females showed consistently higher levels of test anxiety than males. These findings suggest that poor academic performance found among females might be produced by the substantial amounts of test anxiety they apparently experienced.

Gaudry and Spielberger (1971) concluded that the relationship between anxiety and achievement appears equally strong for both two gender overall, but this relationship may vary as a function of complex situational factors, such as the gender of the teacher or a teacher's value system. For example, in a classroom where there is a female teacher who allows girls to be dependent, and who sees high achievement as more important for boys than for girls, the negative relationship between anxiety and achievement may be stronger for boys than for girls. Much more research is needed, however, to clarify this issue.

Several other researchers investigated the relationship between test anxiety and achievement in relation to the achievement scores of the students in different school subjects. For instance, Cox (1964), in his study, found that arithmetic scores were negatively correlated with TASC scores, and that reading

scores were uncorrelated. While similar data were reported by Lynn (1957) in a study of the performance of school children in England, no consistent differences in the relationship between anxiety, reading and arithmetic were found in the studies of Feldhausen and Klausmeier (1962) (cited in Gaudry and Spielberger, 1971).

Bradshaw and Gaudry (1968) put forward the hypothesis that continued experiences of failure cause the level of test anxiety to rise. If the school policy is to stream on the basis of past performance, then it follows that those placed in the lower stream would tend to have a higher level of test anxiety, not because of the act of being streamed, but because they have more frequently experienced anxiety about past failures. To investigate this possibility, Bradshaw and Gaudry (1968) conducted an experiment using pupils from ten Grade Nine classes were drawn from the Melbourne metropolitan area. At the end of the experiment, the researchers have drawn a conclusion that a single experience of failure does in fact cause an immediate rise in test anxiety. Therefore, it seems reasonable to assume that the cumulative effects of failure will lead to higher levels of test anxiety.

Frost (1968) reported a study in which the relation between anxiety and educational achievement was investigated for 310 eleven-year-old London pupils. Frost's anxiety measures consisted of items from the MAS, the CMAS, the GASC and the TASC which were arbitrarily assigned to two different anxiety

scales, a "School Anxiety Scale" and a "General Anxiety Scale". For both boys and girls, these two anxiety measures were negatively correlated with poor performance measures: Vocabulary, Reading Comprehension, Mechanical Arithmetic and Problem Arithmetic (Spielberger and Gaudry, 1971).

Gaudry and Bradshaw also (1970) investigated the effects of anxiety on performance in a "real-life" examination situation. Their findings supports Sarason's (1960) claim that the effect of anxiety on performance will be greater in situations in which "test-like" characteristics are emphasized.

Meichenbaum and Butler (1980) have suggested that several sets of variables are related to test anxiety and performance; the individual's cognitions during testing, the meanings placed on academic evaluation, behaviors such as study skills and behavioral outcomes such as test grades.

Although the studies generally found low to moderate (-.10 to -.40), negative correlations between test anxiety and performance, positive relationships have also been found, suggesting that test anxiety may sometimes facilitate performance.

To conclude with, studies investigating the relationship between test anxiety and achievement have generally supported the view that test anxiety and achievement was related. It is believed that cognitive attentional variables (such as worry), task-irrelevant thinking and negative self-preoccupation rather than emotionality (such as tension), foster test anxiety and impair performance.

However, there seems to be a controversy in this area despite the ample evidence indicating that cognitive processes play an important role in both test anxiety and resultant performance decrements.

1.3. Test Anxiety and Self-Esteem

Self-Esteem is one of the personality variables that could be expected to influence the different aspects of an individual's life. As schools have increased their socialization functions, there has been a concomitant concern with self-concept, self-esteem, self-image, identity, ego, or whatever one operationally defines as the sense of self. Self-esteem can be considered as the set of evaluative attitudes that a person applies to himself (Fontana, 1966); or as the individual's perception of his worth (Ziller, Hogey, Smith, and Long, 1969) (cited in Morrison, Thomas and Weaver, 1973).

Interest in the self-esteem construct in psychological research has emanated from several areas. These include studies of personality variables (e.g., Coopersmith, 1967; Rosenberg, 1965), growth of self-concept (Rogers, 1951; 1959), self-esteem as it relates to educational outcome (Bachman and O'Malley, 1977; O'Malley and Bachman, 1979; Purkey, 1970; Yamamoto, 1972) and other miscellaneous research concerning the interaction of personality variables in various situational contexts (cited in Fleming and Watts, 1980).

Rosenberg (1965) stated that self-esteem is of importance to educators because it is gratifying to the student and because it promotes personal development. In other words, self-esteem has great personal, social and educational significance in an individual's life.

In the broadest sense, the concept of self-esteem is more or less synonymous with such other concepts as self-respect and personal acceptance. Rosenberg (1965) posits that we act to protect our sense of worth, our self-esteem, and react strongly when our sense of worth is threatened.

Recent research reviews strongly suggest that gender differences exists in self-esteem. Boys have slightly higher general self-esteem than girls as measured by context free instruments, for example, the Rosenberg Self-esteem Scale. The results are less convincing when self-esteem is measured by instruments summing self-descriptions in different areas, for example, the Coopersmith Self-esteem Inventory (Skaalvik, 1986a).

Simmons, Rosenberg and Rosenberg (1973), on the other hand, reported that girls had more difficulty in maintaining self-esteem during early adolescence. This result was consistent with the finding that girls were generally more dissatisfied with their bodies and with their physical appearance.

Studies of gender differences, regarding academic self-esteem are less conclusive. The results vary from no gender differences found (Calsyn and Kenny, 1977; Marsh, Smith and Barnes, 1985) to male students scoring higher

than female students (Chiam, 1987; Skaalvik, 1986a) and female students scoring higher than male students (Brookover, Thomas and Paterson, 1964).

In a research review, Marsh (1986) concluded that there appear to be counterbalancing gender differences in more specific areas of self concept that are generally consistent with gender-role stereotypes. For instance; Meece, Parsons, Kaczala, Goff, and Futterman (1982) reviewed studies of gender differences in mathematics achievement and mathematics self concept. They reported few and small differences between boys and girls in both achievement and self concept in elementary school, but that girls tended to have lower levels of both achievement and self concept in mathematics in high school.

A favorable self-esteem is obviously essential to personal happiness and effective functioning, both in the child and in the adult. Persons who seek psychological and psychiatric help frequently acknowledge that they suffer from feelings of inadequacy and unworthiness (Weil, Zinberg and Nelson, 1968). They tend to perceive themselves as helpless and inferior (Pine, 1966), have difficulty in either giving or receiving love, and tend to feel isolated and alone. They are likely to feel guilty, ashamed, or depressed, and to derogate their own potential and accomplishments (Cressey and Ward, 1969). Not surprisingly, a high anxiety level and a negative conception of the self tend to be correlated as shown by several studies (Elkind and Adams, 1968; Katz, 1967; Menninger, 1968) (cited in Mussen, Conger and Kagan, 1956).

Rogers (1951), too, views anxiety in relation to self-concept. In his theorizing, anxiety is experienced when the individual perceives something as a threat to his self-concept. It is assumed that discrepancies between the self, as conceived, and perceptions of reality which can not be ignored generate tension, and it is this tension which provides the basis for anxiety. Rogers believes that anxiety is related to a lack of integration and inability to direct oneself. In summary, then , Rogers views anxiety as awareness of a discrepancy between the self-concept and reality, and at a more profound level, as a disintegration of the self-concept.

Research interest in self-esteem and test anxiety relationship can be traced into the 1950's. For example, Lipsitt (1958), in a study involving fourth, fifth, and sixth grade pupils, found that children with poor self-concept were significantly more anxious than were the children with good self-concepts. Mitchell (1959) also measured the self-concepts and anxiety levels of one hundred freshman and sophomore women students and, found that the better the self concept was, the less the anxiety was experienced (cited in Hamachek, 1975). Similarly, studies by van Buskirk (1961), Wittrock and Husek (1962), Coopersmith (1967), and Ausubel and Robinson (1969) have provided evidence that a negative relationship between level of anxiety and favorableness of self-concept or self-esteem existed. This view is supported by Hamachek (1975) who suggested that anxiety and self concept do indeed seem to be related. Imbler

(1968) obtained a significant negative correlation between anxiety and self-concept. In a related study involving a comparison between high and low self-esteem subjects, Lampl (1968) observed that the low self-esteem subjects were higher in anxiety than were the high self-esteem subjects (cited in Many and Many,1975).

The most comprehensive study in this area was carried out by Rosenberg. Rosenberg (1953), in a large scale study involving over 5000 junior and senior high school students found a strong negative relationship between self-esteem and general anxiety, pointing to the low self-esteem in which anxious students hold for themselves (cited in Gaudry and Spielberger, 1971).

In addition, other studies involving both children and college students indicate a relationship between or negative self-concept and measures of anxiety. Early research had also shown that high-anxious children, when compared to low-anxious children, were less popular (McCandless, Castaneda and Palermo; 1956), had greater difficulty with conceptually complex learning task (Castaneda, Palermo and McCandless (1956) and in at least some cases did less well in the more complicated school subjects (McCandless and Castaneda, 1956) (cited in Hamachek, 1975).

Coopersmith (1959) measured the anxiety level of 102 fifth-grade and sixth-grade students and found that children who had high self-esteem were significantly less anxious than those with low self-esteem. In addition, high self-

esteem youngsters were also more popular . In a later research report, Coopersmith (1960) noted that fifth and sixth graders who had positive self-concepts were better able to recall their failures than are children with negative self-concepts, who are apparently repress and deny their poor performance (cited in Purkey, 1970).

Mitchell (1959) also measured the self-concepts of 100 freshmen and sophomore women students and, correlated their anxiety scores with the adequacy of their self-concepts. The resulting correlation coefficient was -.41 -the better the self-concept, the less the anxiety (cited in McCandless, 1961).

Fromm-Reichmann (1960) has reported that the lower the subject's self-esteem level, the more likely was he to report experiencing various physiological indicators of anxiety: hand trembling, nervousness, insomnia, heart pounding, pressures or pains in the head, fingernail biting, shortness of breath when not exercising or working hard, palmar perspiration, sick headaches, and nightmares (cited in Rosenberg, 1965).

Rosenberg (1965) suggested that people with low self-esteem exhibited more personality characteristics indicating generally to neurotic tendencies, reported greater difficulty and hesitation in social interaction, and tended to have lower aspirations and expectations for success than individuals with high self-esteem.

Hill and Sarason (1966) repeatedly tested two groups of children through the elementary grades. They confirmed earlier findings by Lighthall (1961, 1963) that children who obtained high scores on the Test Anxiety Scale for Children (TASC) also admitted to "what may be called universal worry as well as hostility, feelings of inadequacy and negative effect in general" (cited in Maccoby and Jacklin, 1974).

Many and Many (1975) examined the relationship between two measures of self-esteem and each of two measures of general anxiety and test anxiety in a sample of 4,367 pupils, grade four through eight. Coopersmith's Self-Esteem Inventory (SEI) was used to assess self-esteem. Sarason's General Anxiety Scale for Children (GASC) and Test Anxiety Scale for children (TASC) were employed to measure anxiety. There were statistically significant negative correlations between the measure of self-esteem and each of the measures of general anxiety and test anxiety. Although these correlations tended to be low to moderate (-.24 to -.42), they were consistent for suggesting a negative relationship between a measurable construct of self-esteem with each of the corresponding constructs of general and test anxiety.

Rheinberg (1982) reported that neurotics generally lack self-esteem. He viewed this lack as a critical factor in test anxiety (cited in De Man, Hall and Stout, 1991). Many and Many (1975), and Shoemaker (1980) also found negative correlations between self-esteem and test anxiety.

Hart (1985) examined the relationships among self-esteem and level of anxiety, academic self-image, academic achievement and ability. However, no significant correlations were detected between self-esteem, levels of anxiety and academic self-image. No significant relationship was found between self-esteem and academic achievement.

Although not directly related with the present study, several other studies were also carried out which include test anxiety and self-esteem along with the other variables. For instance, Wilson and Rotter (1986) studied the effects of the three experimental treatments, as compared to an attention-placebo control group and a no-contact control group, on the levels of the participants' test anxiety, test performance, and self-esteem. The sample in this study consisted of 60 sixth-and-seventh-grade students enrolled in one public middle school in a southern metropolitan area. Four instruments were used to gather data in the study: The Comprehensive Tests of Basic Skills (CTBS); The Test Anxiety Scale for Children (TASC); The Coopersmith Self-Esteem Inventory (SEI) and Wechsler Intelligence Scale for Children (WISC-R).This study involved an approximate 2-month lapse in time from posttesting to follow-up testing. At the end of the study, researchers found that both anxiety management training and modified anxiety management training seem to have significantly reduced test anxiety and improved levels of self-esteem and test performance.

De Man, Hall and Stout (1991) conducted a study which investigated the relationship between test anxiety, trait anxiety, self- esteem, internality and gender. Participants were 103 undergraduate university students (67 women, 36 men) with a mean age of 23.9 years. They assessed Spielberger's (1980) Test Anxiety Inventory, State-Trait Anxiety Inventory with a subscale (to measure trait anxiety) (Spielberger et al., 1970), Rosenberg's (1965) Self- Esteem Scale, Levenson's (1981) 24 item scale (to measure Locus of Control) and Form D of the Wonderlic Personnel Test (Wonderlic, 1945) (to measure mental ability). The results showed that correlation analyses identified relations between total test anxiety and the respective variables of trait anxiety, self-esteem, internality, and gender. As hypothesized, results showed that people who appraise situations as threatening, feel inadequate, and doubt their personal control generally suffer from test anxiety. Moreover, as suggested by Spielberger (1980), women relatively had greater test anxiety.

Correlation analyses also identified relationships between "worry" and the respective values of trait anxiety, self-esteem internality and mental ability. Because the predictors were in part intercorrelated, the independent relation of each variable to worry was assessed by semipartial correlation analysis. The associations with trait anxiety, internality, chance, and mental ability were significant. Although the bivariate correlation between worry and self-esteem was significant, the latter measure did not contribute independently (sr= -.05) to

variation in worry. This association must be an indirect result of relationships between worry and the remaining predictors.

As mentioned previously worry is defined as the cognitive concern about one's own performance (Liebert and Morris, 1967). Findings suggest that people who are predisposed to perceive threat (trait anxiety), who do not believe in chance outcomes, who lack a sense of personal control, and who are limited in mental ability generally doubt their performance and consequently experience worry.

Likewise, correlation analyses identified associations between "emotionality" and the respective measures of trait anxiety, self-esteem, internality, and gender. The independent relation of each variable to emotionality by semipartial correlation analysis was also assessed. The associations with trait anxiety and chance remained significant; those with self-esteem, internality, and gender did not. The initial significant correlations of the latter with emotionality must have been a result of associations between the remaining predictors and emotionality

As known, "emotionality" reflects reactions of the autonomic nervous system evoked by evaluative stress (Spielberger, 1980). In the light of the above research findings, it appears that people who tend to appraise everyday situations as threatening also perceive specific evaluative situations in these terms.

Expectations of negative outcomes and a belief that chance positive outcomes are not possible in an ordered and predictable world seems to lead to emotionality.

In conclusion, research investigating the relationship between test anxiety and self-esteem generally suggest an inverse relationship between self-esteem and test anxiety. Moreover, this relationship appears to be valid for both worry as well as emotionality aspects of test anxiety, although worry - self-esteem relationship seems stronger than the emotionality - self-esteem link.

1.4. Self - Esteem and Academic Achievement :

The developmental and motivational aspects of self-esteem are integral parts of psychological research, particularly in the area of academic performance (Fleming and Watts, 1980).

It is believed that a major class of experiences that affect our sense of self-worth are experiences of success and failure. The importance of such experiences stems from a belief, prevalent in many different cultures, that how we value ourselves may depend on our ability to achieve, to meet some standard of performance. In other words, to succeed. If , on the other hand, we feel ourselves incapable of succeeding, we may believe that we are not worthy of love and approval. The reverse may also be valid as there is a mounting body of evidence to suggest that a student's performance in an academic setting is influenced in both subtle and obvious ways by his/her concept of self (Hamachek, 1971).

It is no doubt that the feeling of failure and feeling of inadequacy frequently occur to students in the academic settings. For this reason the relationship between self-esteem and academic achievement has always been of interest to the researchers. However, there seems to be a controversy in this area as to whether achievement has a lowering effect on self-esteem or self-esteem causes poor achievement.

Self enhancement theorists argue that self-concept variables are primarily the causes of academic achievement. Thus, these theorists claim that considerable time and effort should be spent in trying to increase the self-concept of children in an educational program. On the other hand, skill development theorists argue that self-concept variables are primarily consequences of academic achievement. Therefore, they feel that it is much more profitable to devote time to structuring the curriculum. The result of a study that is reported by Calsyn and Kenny (1977) were clearly more supportive of a skill development model in which academic achievement is causally predominant over self-concept as well as perceived evaluation of others, rather than the self-enhancement model in which perceived evaluations of others are causally predominant over self-concept which in turn is causally predominant over academic achievement.

In this respect, Bachman's and O'Malley's (1977) findings are particularly important. Because they examined antecedent variables as well as self-esteem and achievement. They explored causal relationships between success

(specifically, educational and occupational attainment) and self-esteem of young men during their late teens and early twenties. They stated that (a) Self-esteem during high school has little or no direct causal impact on later educational and occupational attainment; self-esteem and attainment are correlated primarily because of shared prior causes including family background , ability, and scholastic performance (b) Occupational status has a direct positive impact on self-esteem (c) Post high school educational attainment has no direct impact on self-esteem and only a trivial indirect impact via occupational status. Additional findings indicated that factors associated with educational success become less central to the self-evaluations of young men during late high school and the years thereafter.

Skaalvik and Hagtvet's (1990) study is an another example to causal relationships between academic achievement and self-esteem. They investigated causal relationships among academic achievement, self-concept of ability, and general self-esteem for two coharts of Norwegian school children. Measures of the three variables were collected when the students in the two coharts were attending third and sitxh grade and 18 months later. The results supported different causal relationships in the two coharts, suggesting a recursive model at grades 3 and 4 and a reciprocal model at grades 6 and 7. The findings strengthened a further need for longitudinal studies examining relationships between academic achievement and self-concept in a developmental perspective.

As seen, efforts in understanding the cause and effect relationship between self-esteem and academic achievement have not yet produced a definite direction. Therefore, many research attempts in this field remain correlational. However, it is generally stated that the relationship between self-esteem and school achievement may primarily be attributable to the effect of school performance on self-esteem (Rosenberg, Schooler and Schoenbach, 1989). Because, a student not only learns about things and ideas in school, but also learns about himself. Indeed, one of the striking things that are currently discovered is that, the most important ideas which affect a student's behavior are those ideas or conceptions he/she has about himself, which, in part, are a consequence of his school experiences. Unfortunately, thousands upon thousands of students graduate from high school with the "I can't" rather than the "I can" feeling about themselves. So, the negative effects of a poor self-image on academic performance begin their toll early in the elementary years (Hamachek, 1971).

Walsh (1956) conducted a study involving twenty elementary school boys with IQ's over 120 who were "under-achievers" and who were matched with twenty other boys who had similar IQ's but who were high-achievers. She found that bright boys who were low-achievers had more negative feelings about themselves than did high-achievers. In addition, she noted that low achievers differed reliably from high-achievers in (1) feelings of being criticized, rejected or isolated; (2) acting defensively through compliance, evasion, or

negativism; and (3) being unable to express themselves appropriately in actions and feelings.

In the same direction of Walsh's findings, Shaw (1961) reported that underachievers have a more negative self-concept than achievers and demonstrate less mature behaviors than achieving peers. In 1963, Shaw and Alves verified previous findings (Shaw, Edison and Bell, 1960) that underachievers had more negative self concepts than achievers (c. f. Hamachek, 1971).

Another related study regarding the relationship between academic underachievement and self concept was also done by Fink (1962), who studied two groups of ninth-grade students paired for achievement and underachievement. He concluded that there was a significant negative relationship between positive self-concept and academic underachievement, and that this relationship appeared stronger in boys than girls.

On the other hand, several research suggest that, if a student has a poor self-image then the child is unlikely to do well in school (Gaudry and Spielberger, 1971). Indeed, a person with low self-esteem (i.e., a person who attributes low worth or value to himself) would be expected to judge his own performance less favorably than a person with high self-esteem. In other words, the person with a low self-esteem perceives his/her performance in a negative way. Kurtz-Costes and Schneider (1994) also examined the relationship between academic self-concept and academic achievement longitudinally and explored

whether or not that relationship is mediated by children's attributional beliefs about the reasons underlying performance outcomes. The results indicated that a bidirectional relationship operated between self-concept and school achievement across the 2 years. Although success attributions to ability were positively related to self-concept and achievement at each measurement point, attributions were not a direct predictor of achievement across the 2 year period.

In addition, Brookover, Paterson and Thomas (1964) conducted a study involving over one thousand seventh grade students focused specifically on self-concept of ability in school and academic achievement. They found a significant and positive relationship between self-concept and academic performance. They also observed that self-concept was significantly and positively related to the perceived evaluations which significant others held of the students. This quite literally means that if persons "significant" (valued, prized, important) to a student think highly of him or her, then he/she is apt to think highly of himself.

In the second phase of a longitudinal investigation of the relationship between self-concept of ability and school achievement which began with the study cited above, Brookover and his associates (1964) found that self concept of academic ability is associated with academic achievement at each grade level, seventh- through tenth- grades.

Several other correlational research showing the relationship between self-esteem and achievement were also carried out. Coopersmith (1959), in his study of fifth-and-sixth-grade children, reported that, a correlation of .36 was found between positive self-concept and school achievement (cited in McCandless, 1961). In an extensive meta-analysis, Hansford and Hattie (1982) found that the average correlation between achievement and general self-concept was .21; however it rose to .42 when a domain-specific self-concept, academic self concept, was also considered. Chapman and his colleagues also (1981) found evidence for a reciprocal relationship between self-concept and achievement across a 12-month interval using cross-lagged panel analysis, these authors found coefficients ranging from .41 to .52 between self-concept and achievement and vice versa for the two age groups measured (grades 3 and 4; grades 5 and 6) (cited in Kurtz-Costes and Schneider, 1994).

According to Rubin, Dorle and Sandidge (1976) and Simon and Simon (1975) success in school is correlated positively with self-esteem scores. These researchers pointed out that; students who feel good about themselves achieve at higher levels; people who attain academic success are more likely to have high self-esteem (cited in Wilson and Fasko, 1992).

Research also showed that individuals who are confident and expect success (high in self-esteem) typically take personal responsibility for success and deny personal responsibility for failure, whereas those who lack

confidence and expect failure (low in self-esteem) typically do the reverse (Feather, 1969; Feather and Simon, 1971a, 1971b, 1972; Simon and Feather, 1973) (cited in McFarlin and Blascovich, 1981).

In short, individuals with high self-esteem might be expected to react to new situations with expectations of success. Since, characteristically they have been successful in the past in meeting their needs. Those with low self-esteem, characteristically expecting failure, may be more vulnerable to the effects of failure experiences.

In addition to all these findings, which generally have suggested an postive relationship between self-esteem and academic achievement; some researchers have taken this relationship from other point of view. For instance, Marsh (1984) proposed a dynamic equilibrium model suggesting that academic achievement and self-concept are interwoven in a network of reciprocal relations such that a change in one variable produces changes in the other to reestablish the equilibrium.

Although not directly related with the present study, researchers also conducted some studies including academic achievement and self-esteem along with the other variables.

For instance, Bledsoe (1967) explored the relationship of the self-concepts of fourth and sixth-grade children to their intelligence, achievement, interests, and anxiety, using the Bledsoe Self-Concept Scale, and found significant

correlations between the professed self-concept and the achievement of boys, but insignificant correlations for girls (cited in Purkey, 1970).

In addition, Byrne (1986) investigated the relations among general self-concept, academic self-concept and academic achievement; two measures of each construct were obtained at each time point. The results confirmed that self-concept is multidimensional, hierarchically structured, and stable relations among the three constructs were found to be moderately stable. Relations between academic self-concept and academic achievement were the strongest (r=.40), followed by those between academic self-concept and general self-concept (r=. 39) and general self-concept and academic achievement (r=.16) respectively.

On the contrary, Maruyama, Rubin and Kingsbury (1981) examined the relationship among social class, ability, educational achievement, and self-esteem and found that social class and ability were strongly interrelated to "cause" both achievement and self-esteem, achievement was highly stable across the age range 9-15, and achievement and self-esteem were not related to each other. Newman (1984) also found that self concept had no causal influence of subsequent academic achievement.

Despite the existence of a few contradictory findings, there is a general agreement among the researchers with the common sense view that students who underachieve scholastically, or who fail to live up to their own academic expectations, suffer significant losses in self-esteem (Purkey, 1970).

To conclude with, there is a considerable evidence to suggest a reciprocal link between self-esteem and academic achievement (Hamachek, 1971). While some studies show that academic success influences individuals' self-esteem, other studies indicate that self-concept has a strong effect on achievement. In any case, it appears that enhancing the self-concept may have a vital influence for the adolescents' social and academic life.

1.5. Related Research In Turkey

Research suggests that anxiety is more pervasive in Turkish society than in others. Culture plays an important role in determining the frequency with which anxiety occurs and the form of its expression (Öner and Albayrak-Kaymak,1987; Öner, 1990).

In Turkey interest in test anxiety research started with the adaptation of Spielbergers' (1980) Test Anxiety Inventory (TAI) to Turkish culture by Öner and Albayrak-Kaymak (1987) and Öner (1990). TAI appears to be a promising instrument for assessing the worry and emotionality components of the test anxiety.

The standardization of TAI was carried out in three stages: The first two stages were related to language equivalence of Turkish translation and investigation of the reliability of the Inventory (Albayrak-Kaymak, 1985) and the third stage was the study of validity (Öner, 1986).

Test anxiety is frequently experienced in Turkey. In a study of American, Turkish, Indian, and Spanish students, Turkish students had both the highest trait anxiety (A-Trait) and state anxiety (A-State) mean scores (Lecompte and Öner, 1976). Existing parental child-rearing attitudes and the educational system seem to foster the development of high test anxiety among young Turkish students.

Paykoç (1986) points out that being a university graduate is highly valued in Turkey which results in thousands of secondary school graduates applying the limited number of universities. At present, due to the high number of applicants, a rather tough nation wide entrance examination is offered in entering higher education which requires an exhaustive academic preparation starting from the beginning of the secondary school years. These situations make the students increasingly anxious to the extent that achievement status obtained in the University Entrance Examination is almost viewed as the indicator of one's value as a person.

Öner and Albayrak-Kaymak (1987) have pointed that students at all levels of education, including even pre-school; express apprehension, tension, fear, and worry over school matters. Academic achievement, rather than actual learning, is often the source of these feelings. The highly structured and authoritarian organization of Turkish schools, the non-supportive and critical

behavior of teachers and the stringent grade promotion policies generate fear of failure and anxiety.

In 1990, Özer analyzed the test anxiety and published a book about it. Özer talks about the language of test anxiety, and he believes that anxiety should not have been a part and a necessity of life.

Öner and Albayrak-Kaymak (1987) viewed two kinds of failures as crucial in the lives of Turkish students: class failure and entrance exam failure. They stated that class failure rates range around 20% at the elementary level, and 60% at the secondary level. During the foreign language preparation year in college, failure rates can reach as high as 85%. The failure rate on competitive entrance exams is still higher, ranging around 90% among high school candidates, and 75% among university candidates.

It appears that test anxiety is a form of anxiety which is most frequently experienced by the majority of Turkish students. Aydın (1993) reported that 60% of elementary school students were test-anxious and girls were more test-anxious than were the boys.

In the educational area, it was observed that the students who are highly test-anxious experience the feeling of failure at the same time. For this reason, several researches were carried out to investigate the relationship between test anxiety and academic achievement. For instance, Bozak (1982) investigated the relationship between the level of anxiety and school achievement of the

students. He found that the level of anxiety had a debilitating effect on the school achievement of students.

In a similar vein, Arıkan (1991) has examined the relationship between the applicants' test anxiety scores on the first stage of the University Entrance Examination and their achievement level. According to the results, there was a negative relationship between the test anxiety level and achievement on University Entrance Examination. The worry component was more stronger in this relationship rather than the emotionality component.

It appears that Turkish test anxiety research basically emphasized upon the relationship between test anxiety and performance but the relationship between personality variables and test anxiety have not been extensively investigated. One exception of that was Gündoğdu's (1994) study which examined the relationship between test anxiety, academic achievement and helplessness. Other studies either investigated the relationship between test anxiety and achievement or effectiveness of several treatment methods on reducing the test anxiety (Yerin, 1993; Kuyucu, 1990).

While test anxiety research has been limited by the above mentioned studies, self-concept and self-esteem have always been a fruitful area of investigation in Turkish psychology area. Various aspects of self-concept and self-esteem were studied. For instance, Arseven (1979) investigated the relationship between academic self-concept and achievement. He found that

perceived self-concept strongly predicted the academic achievement among students.

A research by Doğusal-Tezel (1987) has also been performed to find out the effect of self-concept on academical success of the fifth grade primary school students. She found that, the student with a resourceful personality has high academic success whereas the student with a unresourceful (weak) personality has low academic success and it did not change as a function of gender.

In contrast, Öner (1982) investigated the difference between the self-concept and the occupational self-concept and, the relationship of this difference to the academic achievement. She found that there was no relationship between the self-concept of students and their grade point averages.

In addition to the studies stated above; some other variables (like educational background of parents), that affect the self-concept or self-esteem of individuals, were also examined by Turkish researchers.

For instance, Kılıççı (1981) investigated several variables that might affect the self-concept of university students. Her findings indicated that level of self-acceptance of the university students who had secondary and high-school educated mothers was higher than the students who had high and low educated mothers. Furthermore, the level of self-acceptance of university students

who had better economical status was again higher as compared to the low economical status ones.

Similarly, Can's (1986) findings showed that the self-concept level of children of the high-educated mothers was higher as compared to children of low-educated mothers. No significant difference between the self-concept level of boys and girls was found.

Further, Yurdagül (1987), Özoğul (1988) and Türkmen (1989) have examined the effect of educational background of parents on children's self-esteem and self-concept, along with the other variables.

Yurdagül (1987) pointed out that the level of self-concept of male and female lycee' students was greatly affected in different degrees by the income level, the structure, and the educational background of their parents. She also found no significant difference between the self-concept level of female and male students coming from the same income level, the same family atmosphere, and the same educational level.

Özoğul (1988) investigated the effect of mothers' education level, having a job, children's' gender and the birth order on the self-esteem of children. The results showed a difference between the average points of children who had working mothers versus house wives, who had different birth orders and whose mothers from different education level were nonsignificant. On the other hand, the difference between the average points of children from different gender were

significant in favor of males. Özoğul reached to a conclusion that mothers being in labor force is not the only factor in forming the children's' self-esteem.

Finally, Türkmen (1989) has examined the self-perception of university students. In addition, the effects of some other variables (such as father's educational level, gender and selected branch at school like art science) on self-concept were investigated. Results showed that there was no significant difference between the self-concept of students who had fathers from different educational levels. No significant differences were found between the self-concept of students from different branches at lycee'.

Şerifi (1985) has interested in the self- concept area for improving adolescent's self-concepts and decreasing their problems related to various areas with the help of group psychotherapy. He also studied the effect of group psychotherapy on self-concept levels of the males and females. The results showed that the self-concept scores of the experimental subjects increased and their problems related to emotional future and school areas decreased significantly after psychotherapeutic treatment. However, no significant decrease was found in problem areas concerning family, friendship and health. The results also showed that gender of the subjects had no significant effect on the effectiveness of group psychotherapy.

As it is seen, different variables were taken into account by the Turkish researchers for examining several factors that affect the self concept and self-esteem of individuals.

However, self-esteem research in Turkey has not yet examined the relationship between test anxiety and self-esteem. Çuhadaroğlu (1985), for example, investigated self-esteem in adolescence between the ages 15-18 in three groups, one with psychotic symptoms, one with neurotic symptoms, and one with healthy teenagers. For this purpose, Rosenberg Self-esteem Scale was administered. Çuhadaroğlu has also examined the relations between self-esteem and several other variables such as; stability of self-esteem, faith in people, sensitivity to criticism, depressive affect, daydreaming, psychosomatic symptoms, interpersonal threat, parental interest, relationship with father and psychic isolation. In addition, the variations in self-esteem with respect to sociodemographical factors were investigated.

Pişkin (1986) also examined the relationship between self-esteem and locus of control in both English and Turkish secondary school children. He found that English subjects had significantly higher self-esteem scores on all scales of the Coopersmith Self-Esteem Inventory. The results also showed that cultural differences were higher among males than among females: English males had significantly higher self-esteem scores than Turkish males on all scales, while

English females had significantly higher scores than Turkish females on only two scales (Social Self-Esteem and Academic Self-Esteem).

Another research regarding the self-esteem was done by Güngör (1989). The purpose of this study was to find out some social and personal factors related to students and his families that influence high-school students' levels of self-esteem either positively or negatively. The results showed that no significant differences were found between boys and girls, between ninth and eleventh graders with regard to their levels of self-esteem. Güngör concluded that socioecenomic and cultural characteristics of the family and parental attitudes have important effects on self-esteem levels of high school students.

In addition to these studies mentioned above, Güçray (1989) examined the effects of the specific conditions of the institutions and parental and substituting parental attitudes on the self-esteem development of the children between the ages of 9-10-11. The findings have revealed that living in an institution has affected the child's self-esteem in a negative way. It was found that the variables of gender, age, numbers of sisters and brothers and birth order had no significant discriminating effect on self-esteem. Furthermore, while adults' "democratic" attitudes have affected the child's self-esteem in a positive way, "authoritative" and "indifferent" attitudes have affected it negatively. It has also been proved that the institutional children have perceived the staff attitudes to be more "authoritative" and "indifferent" than the others.

Similarly, Berber (1986) had studied the self-concept development level of 16-20 years-old adolescents who live in dormitories. The relationship between the self-development of these adolescents and the personnel's attitudes was also examined. The findings revealed a significant difference in the perception of adolescents parallel to their self-development level. In addition, the self-development level of adolescents who live in dormitories, changed from one dormitory to another. The results also showed that the self-development level of the adolescents who were highly educated and resided near city centers were higher than the others.

Güçray has also conducted a study in collaboration with İnanç and Akbaş (1994) to assess the relationship between high school students' self-image, self-esteem and their school indifference with particular demographic characteristics. Results indicated no significant relationship among self-image, self-esteem and school indifference.

As seen, none of the studies cited above included test anxiety as a variable. The relationship between test anxiety and self-esteem has not been taken into consideration by the researchers. This shows the necessity to carry out such a study that deals with all three variables in a single research design.

1.6. Significance and the Purpose of the Study

In the light of all these research findings, it appears that test-anxiety, particularly the worry component, seems to be related with lowered self-esteem. Especially in everyday situations, a failure experience or a negative evaluation of students' performance diminishes the effectiveness of their functioning. Such people may loose confidence in themselves which in turn leads to impaired performance. Therefore it is hypothesized that test anxiety, specifically the worry component of test anxiety will be related to both self-esteem and performance.

The review of the literature suggests that although the relationships between test anxiety and performance, self-esteem and performance, and self-esteem and test anxiety were frequently investigated, no study has directly dealt with relationships of the three variables in a single study.

So, this study is planned to fill this gap in the literature, specifically in the Turkish literature, as both self-esteem and academic achievement appear to be important correlates of the test anxiety.

Studying test anxiety may have relevance for the development of methodologies whereby attitudes toward test-taking can be identified and their effects as performance and behavior evaluated. Therefore, the identification of test-taking reactions seem to be of great importance.

Further, the present research which investigated the relationships among test anxiety, self-esteem and achievement may provide significant cues for understanding the contributing factors to the student's achievement problems and may help the school counseling staff to gain further insight into planning appropriate preventive measures and remediation strategies for dealing with both test anxiety and related academic problems.

CHAPTER II

METHOD

2.1. Subjects:

The sample of the study included 294 eleventh grade students (113 females, 181 males) who were about to enter the University Entrance Examination of 1996. The students were randomly selected from mathematics-science branch in MAT-FEN Private Course.

2.2. Instrumentation:

All subjects were presented with the Test Anxiety Inventory (TAI) originally developed by Spielberger et al. (1980), and standardized for Turkish students by Öner (1990), and the Rosenberg Self-Esteem Scale developed by Rosenberg (1963), and adapted to Turkish adolescents by Çuhadaroğlu (1985).

The Measure of Test Anxiety:

The Test Anxiety Inventory (TAI) was developed for the purpose of measuring the students' test anxiety.

The Inventory was developed by Spielberger et al. (1980) with the purpose of measuring the degree to which test situations evoked anxiety responses that were likely to interfere with efficient test taking and was first adapted to Turkish culture by Öner and Albayrak-Kaymak (1987) and later standardized by Öner (1990). The 1990 version of the Inventory is a 20 item Likert type scale. 12 of the items measure emotionality and 8 of the items measure worry components of test anxiety. The Turkish version of the scale yields an emotionality and a worry score as well as a total test anxiety score. The possible emotionality score ranges from 12 to 48, worry score from 8 to 32, and total score from 20 to 80 with a high score indicating the existence of test anxiety (Öner, 1990).

Subjects scoring high on the questionnaire were taken to be persons who suffered from debilitating anxiety symptoms in test situations; subjects scoring low were assumed to be those for whom anxiety had a primarily facilitating effect.

The reliability and validity studies (Öner, 1986; Öner and Albayrak-Kaymak, 1987) of the inventory provided satisfactory evidence for the test reliability and the validity of the inventory.

Reliability of the TAI : For the purpose of obtaining reliability evidence for the Inventory, Öner (1990) reported that TAI was administered twice to 1031 Turkish students (434 females, 597 males) from primary, junior high school, senior high school, and high school, and universities who represented low and high SES.

The TAI was also administered to subjects at five different intervals ranging from the same day to three weeks. The test-retest correlation coefficients were 0.91 for same day, 0.93 for one day, 0.90 for one week, 0.91 for two weeks, and 0.72 for three weeks intervals.

The reliability evidence concerning the internal consistency of the inventory was obtained through employing Kuder Richardson 20 formula. The alpha values ranged between 0.89 and 0.73 for the subscales and the total inventory.

Validity of the TAI : The validity evidence of the inventory was obtained through the use of several techniques. First, evidence regarding the concurrent validity of the instrument showed that the scores of the inventory positively correlated with the anxiety scores (r = .63). The construct validity evidence of the inventory was obtained by employing factor analysis and the results supported the existence of two distinct factors which were labeled as worry and emotionality.

Measure of Self-Esteem :

The Rosenberg Self-Esteem Scale (RSS) is a 10-item Guttman Scale developed by Rosenberg (1963) for the purpose of measuring adolescents' self-esteem. It is one of the four main self-esteem scales that exist in the literature today. Rosenberg (1963) reported that the scale has satisfactory reproducibility and scability. The reproducibility of this scale is 92 percent and its scability is 72

percent; these coefficients are satisfactory in terms of the criteria established by Guttman (1950) and Menzel (1953) (Rosenberg, 1965).

Rosenberg Self-esteem Scale was used as a tool in many different research (Tisher, 1982; Adam, 1978; Kahle, 1980; Sullivan, 1979; Mace, 1981; Schlansker, 1984; Jones, 1978) after its validity and reliability evidence were obtained in USA (cited in Rosenberg, 1965). The adaptation of Rosenberg Self-esteem Scale to Turkish adolescents which included translation, reliability and validity studies were conducted by Çuhadaroğlu (1985) using ninth, tenth and eleventh grade secondary school students. Rosenberg Self-esteem Scale is scored by using Guttman scoring format. The scale has ten items formulated to assess the self-appraisal of the individual. Five of the items are phrased positively, e.g., " On the whole, I am satisfied with myself" ; the other five are phrased negatively, e.g., " I certainly feel useless at times" (Hensley, 1977).

Respondents were asked to rate one of the options: "strongly agree", "agree", "disagree", or "strongly disagree". "Positive" and "negative" items were presented alternately in order to reduce the effect of respondent set. It was reported that little doubt exists concerning the items generally dealing with a favorable or unfavorable attitude toward oneself.

The scores obtained from the Rosenberg Self-Esteem Scale are between 0-6 and, any score between 0-2 was accepted as indicative of having high

self-esteem, and any score between 3-6 was accepted as indicative of low self-esteem.

Reliability of the RSS : For the purpose of obtaining test - retest reliability evidence the scale was administered to 205 students who were randomly selected from five different classes (9^{th} and 10^{th} grade Science students, 10^{th} grade literature students, 11^{th} grade Science students, and 11^{th} grade Literature students) in a high school in Ankara in one month interval.

Validity of the RSS : The first validity study was conducted by Çuhadaroğlu (1985) through using psychiatric interviews as criteria for the Self-esteem scale. The results revealed that the correlation coefficient between the interview scores and the scores of the self-esteem scale was .71.

Additional validity evidence was obtained for the present study by the researcher herself. For the purpose of obtaining evidence concerning criterion-related validity, the Self-concept Inventory developed by Baymur (1968) and Rosenberg Self-esteem Scale were administered to 144 high school students. The result of this study revealed modest but significant correlation coefficients between the scores of the Self-concept Inventory and the Rosenberg Self-esteem Scale (.26 for the whole group; $p < .001$, .26 for the boys; $p < .05$, and .24 for the girls; $p < .05$).

Güçray (1989), on the other hand, has also examined the validity and reliability of Turkish version of Coopersmith's Self-Esteem Inventory (SEI).

The similar scales validity and the test - re-test reliability of this inventory were calculated on the points of a group consisting of 51 primary school students. As for KR-21 internal consistency analysis, they were made on the points of a group consisting of 583 primary school students. Findings showed that the validity of the inventory which was calculated on the criterion of Piers-Harris Self-Concept Scale was significant. Moreover, in the analysis related with the SEI internal consistency and the point constancy, reliability was found to be sufficient (Güçray, 1993).

Measure of Academic Achievement :

Achievement scores were the subjects' Bogus Student Placement Examination (ÖYS) arranged by MAT-FEN Private Course for the purpose of preparing the students for the actual Student Placement Examination (ÖYS).

2.3. Procedure :

Öner's Test Anxiety Inventory (TAI) and the Turkish version of Rosenberg Self-esteem Scale were administered to subjects in classroom settings. Subjects have completed both TAI and RSS approximately in 25 minutes.

2.4. Analysis of Data

The effects of independent variables (Academic achievement, self-esteem, and Gender) on dependent variable (Test Anxiety) were calculated by Simple Factorial ANOVA. The main and the interaction effects of the three independent variables on test anxiety were investigated. Three separate analyses of variance were employed to the total test anxiety scores as well as Worry and Emotionality scores of the subjects to examine whether there were relationships among academic achievement, self-esteem and test anxiety and these relationships change as a function of gender. For this purpose, a 2 (high self-esteem - low self-esteem) X 2 (achiever-non achiever) X 2 (female-male) factorial analysis of variance was applied to the total TAI scores of the subjects. The same factorial analysis of variance was also applied to the Worry and Emotionality scores.

In order to calculate the cut off point for distinguishing high and low self-esteem groups, the criterion of the scores below the median point 2 were accepted as having high self-esteem, while scores above the median were accepted as having low self-esteem. That is, any score between 0-2 point was accepted as indicative of having high self-esteem and, above the median point of 2 were accepted as having low self-esteem. Thus, any score between 3 and the maximum score of 6 point was accepted as indicative of having low self-esteem.

Similarly for distinguishing low and high achieving subjects, the median point of 449 was accepted as a cut off point. Thus, any score below 449

considered as indicative of low achievement, while scores above 449 indicated high achievement.

CHAPTER III

RESULTS

The results of the study are presented in different subsections. The first subsection presents the ANOVA results regarding the worry subscale scores of the Test Anxiety Inventory. The second subsection involves the results of the analysis of variance applied to the Emotionality subscale scores of the Test Anxiety Inventory. In the third subsection, results of the analysis of variance employed to the Total scores of the Inventory is presented.

3.1. Results of the Analysis of Variance Employed to the Worry Subscale Scores of the Test Anxiety Inventory

The relationships of self-esteem and academic achievement with the worry subscale scores were calculated by a 2 (gender) x 2 (high-low self-esteem) x 2 (achievement - non-achievement), factorial ANOVA applied to the worry subscale scores of the students.

As mentioned previously in the data analysis section, for distinguishing high and low self-esteem groups the median point of 2 was accepted as a cut off point

Similarly, the cut off point for differentiating the high and low achievers was also the median point which was 449.

Table 3.1 presents the cell means and the standard deviations of high - low self-esteem and high - low achieving subjects' worry subscale scores of the Test Anxiety Inventory

Table 3.1.[▪] Cell Means and Standart Deviations of the High-Low Self-Esteem and High-Low Achieving Subjects' W (Worry) Subscale Scores of the Test Anxiety Inventory (TAI)

Self-Esteem / Achievement	Sex	High Self-Esteem		Low Self-Esteem	
		$\bar{X}$	sd	$\bar{X}$	sd
Low Achievement	F	14,54 (N=41)	4,07	17,00 (N=29)	4,33
	M	14,73 (N=62)	3,82	17,29 (N=17)	4,09
High Achievement	F	15,71 (N=31)	3,93	17,25 (N=12)	4,48
	M	13,17 (N=86)	3,20	15,31 (N=16)	4,84

[▪] In order to avoid excessive presentation of the mean tables, only the cell means and standard deviations of the TAI worry subscale scores of the high-low self-esteem and high-low achieving

subjects consistent with the analysis of variance were illustrated in the table. The mean TAI worry subscale scores of the boys and girls and high-low self-esteem and high-low achieving groups were given separately in parentheses whenever necessary. This format was pursued for emotionality and total TAI scores in the following parts of the results section.

The results of the ANOVA employed to the subject's worry subscale scores of the TAI were also presented in table 3.2

Table 3.2. The Results of the Analysis of Variance Employed to the W (Worry) Subscale Scores of the Test Anxiety Inventory

Source of Variation	Sum of Squares	df	Mean Square	F
Main effects	464,824	3	154,941	10,425
Self-Esteem	252,742	1	252,742	17,006*
Gender	61,702	1	61,702	4,152**
Achievement	34,272	1	34,272	2,306
2-way interactions	111,904	3	37,301	2,510
Self-Esteem x Gender	1,215	1	1,215	,082
Self-Esteem x Achievement	5,375	1	5,375	,362
Gender x Achievement	108,017	1	108,017	7,268***
3-way interactions	,751	1	,751	,051
Self-Esteem x Gender x Achievement	,751	1	,751	,051
Explained	577,478	7	82,497	5,551
Residual	4250,522	286	14,862	
Total	4828,000	293	16,478	

*p<0,001

**p<0,05

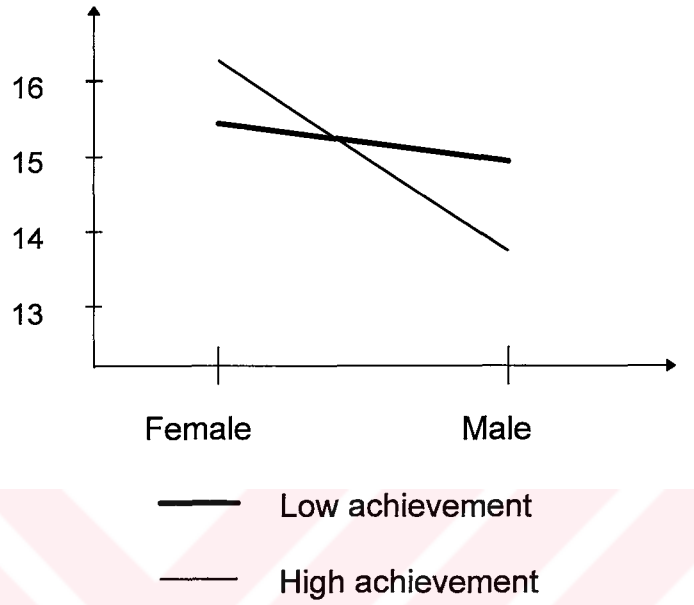
***p<0,01

The result of the ANOVA employed to the worry subscale scores of the Test Anxiety Inventory yielded a significant main effect of self-esteem ($F_{1,286}$ = 17.00; P<. 001).This result showed that the subjects with low self-esteem ($\overline{X}$=16.74) were more test-anxious than were the subjects with high self-esteem ($\overline{X}$=14.22).

The results also yielded a significant main effect of gender ($F_{1,286}$ = 4.15; p< .05). This result indicated that girls were more test-anxious ($\overline{X}$=15.78) than were the boys ($\overline{X}$=14.28). The main effect of achievement was not significant.

In addition to the significant main effects of self-esteem and gender, achievement x gender interaction effect was also significant ($F_{1,286}$ = 7.27; p<.01). This interaction effect was illustrated in figure 3.1. As figure 3.1 shows, high achieving girls were more test-anxious ($\overline{X}$=16.14) than were the high achieving boys ($\overline{X}$=13.51).

Figure 3.1. 2-Way Interaction Effect of Academic Achievement and Gender for Worry Subscale of the TAI



3.2. Results of the Analysis of Variance Employed to the Emotionality Subscale Scores of Test Anxiety Inventory

The relationship of self-esteem and academic achievement with the emotionality subscale scores were calculated by a 2(gender) x 2(high -low self-esteem) x 2(achievement - non-achievement), factorial ANOVA applied to the emotionality subscale scores of the students.

Table 3.3. presents the means and the standard deviations of high-low self-esteem and high-low achieving subjects' emotionality subscale scores of the Test Anxiety Inventory.

Table 3.3. Cell Means and Standart Deviations of the High-Low Self-Esteem and High-Low Achieving Subjects' E (Emotionality) Subscale Scores of the Test Anxiety Inventory (TAI)

Self-Esteem / Achievement	Sex	High Self-Esteem		Low Self-Esteem	
		$\bar{X}$	sd	$\bar{X}$	sd
Low Achievement	F	24,98 (N=41)	6,13	29,69 (N=29)	6,93
	M	24,29 (N=62)	6,18	28,12 (N=17)	7,42
High Achievement	F	26,97 (N=31)	5,73	29,42 (N=12)	5,87
	M	22,87 (N=86)	4,97	26,13 (N=16)	5,69

The results of the ANOVA applied to the emotionality subscale scores of the TAI of the subjects were also presented in table 3.4.

Table 3.4. The Results of the Analysis of Variance Employed to the E (Emotionality) Subscale Scores of the Test Anxiety Inventory

Source of Variation	Sum of Squares	df	Mean Square	F
Main effects	1409,757	3	469,919	13,428
Self-Esteem	709,024	1	709,024	20,260*
Gender	344,077	1	348,077	9,946**
Achievement	17,115	1	17,115	,489
2-way interactions	150,041	3	50,014	1,429
Self-Esteem x Gender	,448	1	0,448	,013
Self-Esteem x Achievement	22,787	1	22,787	,651
Gender x Achievement	141,326	1	141,326	4,038***
3-way interactions	8,835	1	8,835	,252
Self-Esteem x Gender x Achievement	8,835	1	8,835	,252
Explained	1568,633	7	224,090	6,403
Residual	10008,949	286	34,996	
Total	11577,582	293	39,514	

*p<0,001

**p<0,005

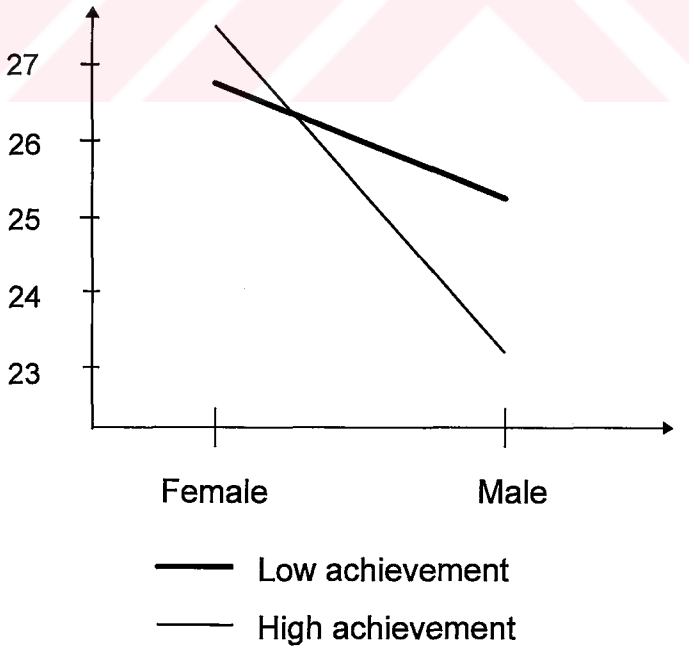
***p<0,05

The result of the ANOVA applied to the emotionality subscale scores of the Test Anxiety Inventory indicated a significant main effect of self-esteem ($F_{1,286} = 20.26$; $p<.001$) . This result showed that the subjects with low self-esteem ($\overline{X}=28.51$) were more test-anxious than were the subjects with high self-esteem ($\overline{X}=24.24$)

The result also revealed a significant main effect of gender ($F_{1,286}$ = 9.94; P<.005). This result showed that girls were more test-anxious ($\overline{X}$=27.20) than were the boys ($\overline{X}$=24.14). The main effect of achievement was not significant.

Besides to the significant main effect of self-esteem and gender, achievement x gender interaction effect was also significant ($F_{1,286}$ = 4.038; p<.05). This interaction effect was illustrated in figure 3.2. According to the figure 3.2., high-achieving girls were more test-anxious ($\overline{X}$=27.65) than were the high-achieving boys ($\overline{X}$=23.38).

Figure 3.2. 2-Way Interaction Effect of Academic Achievement and Gender for Emotionality Subscale of the TAI



3.3. Results of the Analysis of Variance Employed to the Total Scores of Test Anxiety Inventory

The relationship of self-esteem and academic achievement with the total scores were calculated by a 2(gender) x 2(high - low self-esteem) x 2(achievement - non-achievement), factorial ANOVA applied to the total scores of the students.

Table 3.5. presents the means and the standard deviations of high-low self-esteem and high-low achieving subjects' total scores of the Test Anxiety Inventory.

Table 3.5. Cell Means and Standart Deviations of the High-Low Self-Esteem and High-Low Achieving Subjects' of T (Total) Scores of the Test Anxiety Inventory (TAI)

Self-Esteem / Achievement	Sex	High Self-Esteem		Low Self-Esteem	
		$\bar{X}$	sd	$\bar{X}$	sd
Low Achievement	F	39,51 (N=41)	8,98	46,69 (N=29)	10,68
	M	39,02 (N=62)	9,07	45,41 (N=17)	10,69
High Achievement	F	42,68 (N=31)	9,06	46,67 (N=12)	9,75
	M	36,05 (N=86)	7,30	41,44 (N=16)	9,09

The results of the ANOVA employed to the total scores of the TAI of the subjects were also presented in table 3.6.

Table 3.6. The Results of the Analysis of Variance Employed to the T (Total) Scores of the Test Anxiety Inventory

Source of Variation	Sum of Squares	df	Mean Square	F
Main effects	3462,494	3	1154,165	14,643
Self-Esteem	1808,406	1	1808,406	22,943*
Gender	702,879	1	702,879	8,917**
Achievement	99,824	1	99,824	1,266
2-way interactions	512,178	3	170,726	2,166
Self-Esteem x Gender	,188	1	,188	,002
Self-Esteem x Achievement	50,296	1	50,296	,638
Gender x Achievement	496,450	1	496,450	6,298***
3-way interactions	14,737	1	14,737	,187
Self-Esteem x Gender x Achievement	14,737	1	14,737	,187
Explained	3989,408	7	569,915	7,231
Residual	22542,745	286	78,821	
Total	26532,153	293	90,553	

*p<0,001

**p<0,005

***p<0,05

The results of the ANOVA employed to the total scores of the Test Anxiety Inventory indicated a significant main effect of self-esteem ($F_{1,286}$ = 22.94; p<.001). This result showed that the subjects with low self-esteem ($\overline{X}$=45.26) were more test-anxious than were the subjects with high self-esteem ($\overline{X}$=38.46).

The result also revealed a significant main effect of gender ($F_{1,286}$ = 8.91; p<.005). This result showed that girls were more test-anxious ($\bar{X}$=42.98) than were the boys ($\bar{X}$=38.42). The main effect of achievement was not significant.

In addition to the significant main effect of self-esteem and gender, achievement x gender interaction effect was also significant ($F_{1,286}$ = 6.298; p<.05). This interaction effect was illustrated in figure 3.3. According to the figure 3.3., high achieving girls were more test-anxious ($\bar{X}$=43.79) than were the high achieving boys ($\bar{X}$=36.89).

Figure 3.3. 2-Way Interaction Effect of Academic Achievement and Gender for Total Scale of the TAI

CHAPTER IV

DISCUSSION

As noted earlier in the introduction chapter, test anxiety, self-esteem and academic achievement of the students are important human conditions that have significant implications for life. Therefore, the aim of present research was to investigate the relationships among test anxiety, self-esteem and academic achievement in a group of eleventh grade students. In this chapter, the result of the study are discussed under several headings.

4.1. Test Anxiety and Self-Esteem

As Albayrak-Kaymak (1985) stated culture plays an important role in determining the frequency with which anxiety occurs and, the form of its expression. Test anxiety, in particular, is frequently experienced in Turkey. Lecompte and Öner (1976) found that, Turkish students had the highest trait and state anxiety scores in a comparative study of American, Indian, Spanish and Turkish students.

High school students, particularly, experience a high level of test anxiety before and during the University Entrance Examination. If they cannot

pass the exam and enter any university they may compare themselves with other successful students and may feel inadequate that mostly results in low self-esteem. Although high test anxiety and low academic achievement or low performance expectation appear to contribute to the establishment of low self-esteem in adolescents, other important factors such as child-rearing practices may have more powerful effects on the development of high or low self esteem.

The present study began with the prediction that adolescents who have high test anxiety would have low self-esteem and it would be particularly valid for the worry aspect of test anxiety. Further, they would show deficits in academic performance. However, the results obtained from the present study partly supported these predictions and failed to yield a relationship between test anxiety and academic achievement. Nevertheless, the other prediction regarding the test anxiety - self-esteem link has been proven valid. The results of the ANOVA employed to the worry and emotionality subscale scores and the total scores of the TAI indicated a significant main effect of self-esteem ($p < .001$) in all three analyses. These results pointed out that the subjects with low self-esteem were more test-anxious than were the subjects with high self-esteem. In other words, the subjects with low self-esteem scored higher on worry and emotionality subscales as well as the total Test Anxiety Inventory.

These findings were consistent with several studies which found a relationship between high anxiety level and a negative conception of the self. For

instance; Rosenberg (1953) found a strong negative relationship between self-esteem and general anxiety, pointing to the low self-esteem in which anxious students had for themselves (cited in Gaudry and Spielberger, 1971). The resulting correlation coefficient was -.41 in Mitchell's (1959) study which indicated that the better the self-concept was, the less the anxiety became (cited in McCandless, 1961). Coopersmith (1959) also stated that children who had high self-esteem were significantly less anxious than those with low self-esteem (cited in Purkey, 1970). Furthermore, Many and Many (1975) found statistically significant negative correlations between the measure of self-esteem and each of the measures of general anxiety and test anxiety. Shoemaker's (1980) findings which yielded similar results have also supported these results.

Further, in De Man, Hall and Stout's (1991) study; correlation analyses which investigated the relationship between worry component of test anxiety and self-esteem also revealed significant results confirming the results of the present study. The same study also yielded a significant relationship between emotionality and self-esteem and total test anxiety and self-esteem scores.

On the other hand, observations in schools suggest that students, who do not believe in their capacity and do not perform very well as compared to other students in the classroom, generally doubt their own performance and consequently experience worry as well as emotionality during the examinations

leading to receiving bad grades at the end. It makes the student unhappy and may cause a deterioration in the way of perceiving himself/herself.

In conclusion, the findings of the present study confirm the results of the previous studies stated before. The results of the present study verify the belief that the possibility of reducing anxiety and attempting to enhance the students' self-esteem must be one of the main important aims of the seemingly inflexible and authoritative Turkish Education System since, most of our students appear to suffer from low self-esteem associated with test anxiety during the examinations.

Gender Differences in Test Anxiety:

The findings also revealed a significant main effect of gender on worry ($p<.05$); emotionality ($p<.005$) and on total test anxiety ($p<.005$). These results indicated that girls were more test-anxious than were the boys. The comparable results were also obtained from the literature. For instance, Ruebush (1963) consistently obtained scores from questionnaires and self-reports that girls had higher anxiety scores as compared to boys. The result of the present study supported Spielberger's (1972) conviction that females seem to experience more test anxiety than males. Hembree (1988) has also supported this view.

Generally speaking, gender differences in test anxiety appears to be an universally occurring situation. However, in our culture, it seems more prevalent probably due to the existing child rearing practices and attitudes toward

females. It is most likely that, while boys are always motivated by their parents and environment to be successful and enter university, girls are not always treated in the same direction. They usually are not supported for further education. Behind this attitude may lie in a more general belief that a female should have a secondary place in the world of work or perhaps in society at large. It seems likely that when a girl is consistently treated that way throughout the duration of her life, including her formal education, this attitude itself may create a challenge for girls to be equally successful as boys which, in turn, may produce more anxiety during the examinations.

It is also important to note that Turkey has been living a transition period, especially since early 1980's. The Turkish society, particularly the urban society, have been gradually leaving its traditional collectivist features and getting more close to the Western cultures that hold more individual values such as competition for high or achievement and personal and social success and equal success opportunities for both gender. If this is the case, then it is more understandable that girls feel more test-anxious than the boys, since transitory cultures such as ours which have conflicting attitudes and values toward females may create more anxiety among females.

4.2. Test Anxiety, Self-Esteem and Academic Achievement

The main effect of achievement was not found statistically significant on worry and emotionality subscale scores and total scores in the study. This finding is surprising because the literature generally suggests that there is an inverse relationship between test anxiety and academic performance. This relationship has been well documented by a number of investigators (e.g. Desiderato and Koskinen, 1969; Bradshaw and Gaudry, 1968; Allen et al., 1972)

This unexpected finding may be interpreted in several ways although some researchers found a rather weak or no relationship between the two variables (Mitchel and Ng, 1972; Zatz and Chassin, 1983).

Test anxiety research generally suggests that cognitive-attentional variables, such as worry foster test anxiety and impair performance; however, there are also some contradictory suggestions made by the researchers in the literature. For example, Wrightman (1962) pointed out that anxiety impairs performance only when the test was seen personally important by the student (cited in Gaudry and Spielberger, 1971). Walsh et al. (1968) have claimed that low levels of anxiety might facilitate academic performance.

As mentioned before, in the direction of all these findings, a main effect of achievement was expected in the present study. Because, in our culture, especially in the university entrance examination, the main aim is to be able to

enter one of the higher education programs. This kind of a feeling may pressurize many lycee' students and make them feel anxious during the exam. Therefore, the level of anxiety felt during the exam would have affected many students' performance negatively. But there are some important details that must be taken into account in the present study. Sample, for instance, may be a significant factor influencing the results of the study. The number of students which were randomly selected from Mathematics-Science branch of MAT-FEN were 294 (113 females-181 males). That means, the sample only represents a small part of the general population of MAT-FEN. Furthermore, the academic performance of students selected from MAT-FEN was already high. It is also important to note that only the Bogus Student Placement exam score was taken as a measure of academic achievement which does not completely represent the scores of the actual ÖYS examination. Consistent with Wrightman's (1962) findings, the Bogus test situation may have not taken as seriously as the actual ÖYS examination by the students. Stating differently, this result may have been affected by the importance placed upon the exam. Considering all that factors and limitations of the sample of the study, then this finding may not seem all that surprising.

In addition to the significant main effects of self-esteem and gender; the findings of the present study yielded significant interaction effect of achievement x gender for worry subscale ($F_{1,286}$= 7.27; P<.01), emotionality subscale ($F_{1,286}$= 4.038; P<.05) and total ($F_{1,286}$= 6.98; P<.05).

This means that high achieving girls were more test-anxious than were the high achieving boys. Previous findings regarding gender differences in the relationship between test anxiety and academic achievement generally showed that low achieving girls were more test anxious than the low achieving boys. For example, Lunneborg (1964) (cited in Gaudry and Spielberger, 1971) found a negative and a statistically significant correlations between the anxiety and achievement measures indicating that high anxiety was associated with poorer achievement in reading and arithmetic. These results clearly emphasized that the negative correlation between anxiety and achievement tended to be larger for girls than for boys. Sarason (1963) (cited in Spielberger, 1972) also found significant differences between boys and girls in the correlation of anxiety with performance. In a similar vein, Walsh et al. (1968) demonstrated that the inverse correlation between anxiety and classroom examination scores were greater for females than for males.

As seen, the result of the present study regarding gender differences, was not consistent with the findings obtained by the studies mentioned above. However, the result of the present study confirms the general conviction that girls were more test anxious than were the boys. Perhaps this is more valid in Turkish culture. Thus, even when girls have high academic achievement, the high level of anxiety still manifests itself as compared to boys.

A similar interaction effect of self-esteem and academic achievement for worry and emotionality subscale scores and total scores were also expected in the present study. However the results yielded no statistically significant self-esteem x academic achievement interaction. This result is not consistent with the findings of the similar studies (e.g. Rubin, Dorle and Sandidge, 1976) (cited in Wilson and Fasko, 1992).

In interpreting this unexpected finding the same factors that appear to affect the lack of achievement main effect should be taken into consideration. As mentioned previously, it is probable that the limited sample, already high academic achievement levels of the MAT-FEN students and the use of the Bogus Student Placement Exam instead of the actual ÖYS may have collectively produced this finding.

CHAPTER V

IMPLICATIONS AND RECOMMENDATIONS

5.1. Implications

It appears that the present Turkish Education System seems to foster test anxiety among students from the beginning of their education life. Test anxiety is an important variable that differentiates individuals from each other and makes them unable to do their best during the exam. The importance of achievement is strongly imposed on students by the teachers in our education system. So, the students, who are unsuccessful, may feel themselves inadequate and helpless leading to the low self-esteem.

Thus, these problems and their deleterious effects should be taken into account seriously by the school counseling services. School counselors may plan some programs to prevent the development of test anxiety among students and they may emphasize the importance of learning with the help of teachers rather than the academic achievement.

The present study showed that the students with low self-esteem were more test-anxious than the students with high self-esteem. Girls were found to be more test-anxious compared to the boys. At the same direction, the study has

also indicated that high-achieving girls were more test-anxious than were the high-achieving boys. Surprisingly, the main effect of achievement was not found. So, the results of the present study partially supported the views mentioned in the literature.

It is expected that the findings of the present study may contribute to the future studies of similar type as a motivating source. Additionally, educators must spend more time to make the issue stated in the research.

5.2. Recommendations

Based on the findings of the present study the followings can be recommended:

1- The present study may also be conducted on students who do not attend any private courses.

2- The socioeconomic status (SES) of students may also be taken into consideration in the case of investigating the relationship between self-esteem, academic achievement and test anxiety.

3- The present study should be replicated with different subjects from other cultures for the purpose of comparing the other various educational systems.

4- Teachers play an important role for preventing the student's test anxiety during the exams and developing their achievement. At the same time,

they are effective on students' perception of themselves in a positive way in the academic environment. So, teachers should be informed about the negative effects of the test anxiety by the school counseling services.

5- Some activities, like seminars that emphasize the importance of learning rather than the achievement in education may be organized systematically for teachers by the counseling service with the help of school administration.

6- As mentioned in the literature; students can be helped to develop coping strategies to overcome examination stress and eliminate the test anxiety to some degree by giving them an opportunity for sufficient preparation (Schwarzer, van der Ploeg, Spielberger, 1987).

7- The school counseling services should take the responsibility of organizing some programs to prevent the development of test anxiety. School counselors should also pay attention to test-anxious students and plan group procedures to make them to overcome school matters they live and aware of their capacities. On the other hand, the school administration should support these activities.

8- Since the results of the study showed that students experience test anxiety in both cognitive (worry) and affective (emotionality) domains, therapeutic intervention procedures which involve both cognitive and affective strategies should be utilized to help students to cope with test anxiety. These procedures may be cognitive restructuring (Meichenbaum, 1972; Goldfried,

Decenteceo and Weinberg, 1974), reframing (Greenberg and Safran, 1981; Safran, Alden and Davidson, 1980; Safran and Greenberg, 1982; Bandler and Grinder, 1982; Watzlawick, Weakland and Fisch, 1974), systematic desensitization (Wolpe, 1958), stress inoculation training (Meichenbaum and Cameron, 1973) and cognitive modeling (Sarason, 1973) (cited in Cormier and Cormier, 1985).

School counseling services should make effective use of these strategies if they wish to assist students in coping with test anxiety.

9- Another important task of the school counselors should be to take the necessary precautions to prevent the occurrence of test anxiety among students. For this purpose either classroom size or small group meetings can be arranged. In addition, students should be informed about the importance of study skills which include a wide range of behaviors and attitudes such as the use of time, ways of mentally storing and organizing information, being motivated and concentrating on tasks (Gadzella and Williamson, 1984) by the school counselors, since study skills predict academic achievement. So, it might be profitable for students to enroll in a study skills course organized by the school counselors. By applying the skills they learn in the course, students may prepare for examinations more effectively and they may be less test-anxious during the examinations.

The most important prevention will be to create a learning environment in our schools that do not induce test anxiety. Therefore, all members

of the school should take active roles in the process of creating this kind of environment.

10- Finally, the present study should be replicated with larger samples and should take more reliable academic achievement measures such as grade point averages.

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Appendix A:

SINAV TUTUMU ENVANTERİ

İSİM..... TARİH..... CİNSİYET K E

T..... K..... D.....

YÖNERGE: Aşağıda, insanların kendilerini tanımlamak için kullandıkları bir dizi ifade sıralanmıştır. Bunların herbirini okuyun ve genel olarak nasıl hissettiğinizi anlatan ifadenin sağındaki boşluklardan uygun olanın içini karalayın.Burada doğru ya da yanlış ifade yoktur. İfadelerin hiçbiri üzerinde fazla zaman harcamadan yazılı ve sözlü sınavlarda genel olarak nasıl hissettiğinizi gösteren yanıtı işaretleyin

	hemen her zaman	bazen	sık sık	her zaman
1. Sınav sırasında kendimi güvenli ve rahat hissederim.....	(1)	(2)	(3)	(4)
2. O dersten alacağım notu düşünmek, sınav sırasındaki başarımı olumsuz yönde etkiler.....	(1)	(2)	(3)	(4)
3. Önemli sınavlarda donup kalırım.....	(1)	(2)	(3)	(4)
4. Sınavlar sırasında, birgün okulu bitirip bitiremeyeceğimi düşünmekten kendimi alamam.....	(1)	(2)	(3)	(4)
5. Bir sınav sırasında ne kadar çok uğraşırsam kafam o kadar çok karışır.....	(1)	(2)	(3)	(4)
6. Sınavlarda kendimi huzursuz ve rahatsız hissederim.....	(1)	(2)	(3)	(4)
7. Önemli bir sınav sırasında kendimi sinirli hissederim.....	(1)	(2)	(3)	(4)
8. Başarısız olma düşünceleri, dikkatimi sınav üzerinde toplamama engel olur.....	(1)	(2)	(3)	(4)
9. Bir sınava çok iyi hazırlandığım zamanlar bile kendimi oldukça sinirli hissederim.....	(1)	(2)	(3)	(4)
10. Önemli sınavlarda sinirlerim öylesine gerilir ki midem bulanır...	(1)	(2)	(3)	(4)
11. Bir sınav kağıdını geri almadan hemen önce çok huzursuz olurum.....	(1)	(2)	(3)	(4)
12. Önemli sınavlarda kendimi adeta yenilgiye iterim.....	(1)	(2)	(3)	(4)
13. Sınavlar sırasında kendimi çok gergin hissederim.....	(1)	(2)	(3)	(4)
14. Önemli bir sınav sırasında paniğe kapılırım.....	(1)	(2)	(3)	(4)
15. Sınavların beni bu kadar rahatsız etmemesini isterdim.....	(1)	(2)	(3)	(4)
16. Önemli bir sınava girmeden önce çok endişelenirim.....	(1)	(2)	(3)	(4)
17. Sınavlar sırasında, başarısız olmanın sonuçlarını düşünmekten kendimi alamam.....	(1)	(2)	(3)	(4)
18. Önemli sınavlarda kalbimin çok hızlı attığını hissederim	(1)	(2)	(3)	(4)
19. Sınav sona erdikten sonra endişelenmemeye (kurmamaya) çalışır, fakat yapamam	(1)	(2)	(3)	(4)
20. Sınavlar sırasında öyle sinirli olurum ki aslında bildiğim şeyleri bile unuturum.....	(1)	(2)	(3)	(4)

C. D. Spielberger ve arkadaşlarının A.B.D.'de İngilizce olarak geliştirdiği bu envanter Necla Öner ve Deniz Albayrak-Kaymak tarafından Türkçeye uyarlanmıştır. (İstanbul, 1987).

Appendix B:

ROSENBERG ÖLÇEĞİ

1) Kendimi en az diğer insanlar kadar değerli buluyorum.
   a) Çok doğru
   b) Doğru
   c) Yanlış
   d) Çok yanlış

2) Bazı olumlu özelliklerim olduğunu düşünüyorum.
   a) Çok doğru
   b) Doğru
   c) Yanlış
   d) Çok yanlış

3) Genelde kendimi başarısız bir kişi olarak görme eğilimindeyim.
   a) Çok doğru
   b) Doğru
   c) Yanlış
   d) Çok yanlış

4) Ben de diğer insanların birçoğunun yapabildiği kadar birşeyler yapabilirim.
   a) Çok doğru
   b) Doğru
   c) Yanlış
   d) Çok yanlış

5) Kendimde gurur duyacak fazla birşey bulamıyorum.
   a) Çok doğru
   b) Doğru
   c) Yanlış
   d) Çok yanlış

6) Kendime karşı olumlu bir tutum içindeyim.
   a) Çok doğru
   b) Doğru
   c) Yanlış
   d) Çok yanlış

7) Genel olarak kendimden memnunum.
a) Çok doğru
b) Doğru
c) Yanlış
d) Çok yanlış

8) Kendime karşı daha fazla saygı duyabilmeyi isterdim.
a) Çok doğru
b) Doğru
c) Yanlış
d) Çok yanlış

9) Bazen kesinlikle kendimin bir işe yaramadığını düşünüyorum.
a) Çok doğru
b) Doğru
c) Yanlış
d) Çok yanlış

10) Bazen kendimin hiç de yeterli bir insan olmadığımı düşünüyorum.
a) Çok doğru
b) Doğru
c) Yanlış
d) Çok yanlış

11) Kendiniz hakkındaki düşünceleriniz değişkenlik gösterir mi,yoksa her zaman aynı mıdır?
a) Çok değişir
b) Zaman zaman değişir
c) Çok az değişir
d) Hiç değişmez

12) Hiç kendiniz hakkında bir gün bir görüşe,başka bir gün daha farklı bir görüşe sahip olduğunuzu farkettiğiniz olur mu ?
a) Evet, sık sık olur
b) Evet, bazen olur
c) Evet, nadiren olur
d) Hayır hiç olmaz

13) Kendim hakkındaki görüşlerimin çok çabuk değiştiğini farkettim.
a) Doğru
b) Yanlış

14) Kendim hakkında bazı günler olumlu, bazı günlerse olumsuz düşüncelere sahip oluyorum.

a) Doğru
b) Yanlış

15) Şu günlerde kendim hakkındaki görüşlerimi hiç bir şeyin değiştirmeyeceğini düşünüyorum.

a) Doğru
b) Yanlış

16) Başınıza gerçekten birşey geldiğinde kimse sizin durumunuzla pek ilgilenmeyecektir.

a) Doğru
b) Yanlış

17) İnsan doğasında yardımlaşma gerçekten vardır.

a) Doğru
b) Yanlış

18) Bazı kişiler insanların büyük çoğunluğunun güvenilebilir olduğunu, bazıları ise insanlarla ilişkilerde çok güvenilemeyeceğini söylerler. Siz bu konuda ne düşünüyorsunuz ?

a) İnsanların çoğuna güvenilebilir
b) İnsanlarla ilişkilerde çok güvenilmez

19) Dikkatli davranmazsanız insanlar sizi kullanacaklardır.

a) Doğru
b) Yanlış

20) İnsanlar daha çok başkalarına yardım etmeye mi, yoksa kendi çıkarlarını düşünmeye mi eğilimlidirler?

a) Başkalarına yardım etmeye
b) Kendi çıkarlarını düşünmeye

21) Eleştiriye karşı ne kadar hassassınızdır?

a) Çok fazla hassas
b) Oldukça hassas
c) Az hassas
d) Hassas değil

22) Eleştiri ya da azarlama beni çok fazla incitir.

a) Doğru
b) Yanlış

23) Yanlış yaptığınız birşey için biri size güldüğünde veya suçladığında ne kadar rahatsız olursunuz?

a) Çok fazla rahatsız olurum
b) Oldukça rahatsız olurum
c) Rahatsız olmam

24) Genelde ne kadar mutlusunuzdur?

a) Çok mutlu
b) Mutlu
c) Pek mutlu değil
d) Çok mutsuz

25) Genelde oldukça mutlu bir kişi olduğumu düşünüyorum.

a) Doğru
b) Yanlış

26) Genel olarak kendinizi neşeli bir ruh hali içinde mi, yoksa neşesiz bir ruh hali içinde mi hissedersiniz?

a) Çok neşeli ruh halinde
b) Oldukça neşeli ruh halinde
c) Ne neşeli ne de neşesiz ruh halinde
d) Oldukça neşesiz ruh halinde

27) Hayattan çok zevk alıyorum.

a) Doğru
b) Yanlış

28) Ben de mutlu gürdüğüm diğer kişiler kadar mutlu olabilmeyi isterdim.

a) Doğru
b) Yanlış

29) Kendinizi kederli ve karamsar hissetiğiniz olur mu?

a) Çok sık
b) Sık
c) Arasıra
d) Nadiren
e) Hiçbir zaman

30) Çoğu zaman başka bir şey yapmaktansa oturup hayal kurmayı tercih ediyorum.

a) Doğru
b) Yanlış

31) Bana hayalperest denilebilir.
a) Doğru
b) Yanlış

32) Zamanın büyük kısmını hayal kurmakla geçiririm.
a) Doğru
b) Yanlış

33) Gelecekte nasıl bir insan olacağınız konusunda hayal kurar mısınız?
a) Çok sık
b) Bazen
c) Nadiren veya hiçbir zaman

34) Hiç uykuya dalma ya da uykunun sürekliliği açısından sorununuz olur mu?
a) Sık sık
b) Bazen
c) Nadiren
d) Hiçbir zaman

35) Hiç ellerinizin sizi rahatsız edecek kadar titrediği olur mu?
a) Sık sık
b) Bazen
c) Nadiren
d) Hiçbir zaman

36) Hiç sizi rahatsız edecek kadar sinirliliğiniz olur mu?
a) Sık sık
b) Bazen
c) Nadiren
d) Hiçbir zaman

37) Hiç sizi rahatsız edecek kadar çarpıntı hissettiğiniz olur mu?
a) Sık sık
b) Bazen
c) Nadiren
d) Hiçbir zaman

38) Hiç sizi rahatsız edecek kadar başınızın içinde basınç hissettiğiniz olur mu?

a) Sık sık
b) Bazen
c) Nadiren
d) Hiçbir zaman

39) Şu sıralarda hiç tırnak yiyor musunuz?

a) Sık sık
b) Bazen
c) Nadiren
d) Hiçbir zaman

40) Egzersiz veya çalışma zamanları dışında hiç sizi rahatsız edecek kadar nefes darlığı hissettiğiniz olur mu?

a) Sık sık
b) Bazen
c) Nadiren
d) Hiçbir zaman

41) Hiç sizi rahatsız edecek kadar ellerinizde terleme olur mu?

a) Sık sık
b) Bazen
c) Nadiren
d) Hiçbir zaman

42) HİÇ rahatsız edici baş ağrıları çeker misiniz?

a) Sık sık
b) Bazen
c) Nadiren
d) Hiçbir zaman

43) Hiç rahatsız edici kabuslar görür müsünüz?

a) Sık sık
b) Bazen
c) Nadiren
d) Hiçbir zaman

44) Ulusal veya uluslararası önemli bir konuda görüşünüzü belirttiğinizde biri size gülerse ne hissedersiniz?

a) Çok incinir ve rahatsız olurum
b) Biraz incinir ve rahatsız olurum
c) Beni pek fazla etkilemez

45) Ulusal veya uluslararası sorunlar tartışıldığında genellikle kötü izlenim bırakacak birşey söylemektense hiçbir şey söylememeyi tercih ederim.
a) Doğru
b) Yanlış

46) Toplumsal konularla ilgili tartışmalarda insanları kızdıracak birşey söylemektense hiçbir şey söylememeyi tercih ederim.
a) Doğru
b) Yanlış

47) Uluslararası konuları tartışır mısınız?
a) Pek çok
b) Oldukça
c) Çok az
d) Hiçbir zaman

48) Arkadaşlarınızla birlikte uluslararası konuları tartışdığınız zaman tutumunuz nasıl olur?
a) Sadece dinlerim
b) Arada bir görüş belirtirim
c) Konuşmaya eşit oranda katılırım
d) Diğerlerini ikna etmeye çalışırım

49) Siz 10-11 yaşlarınızdayken anneniz arkadaşlarınızı tanır mıydı?
a) Hepsini tanırdı
b) Çoğunu tanırdı
c) Bazılarını tanırdı
d) Hemen hemen hiçbirini tanımazdı

50) Bu dönemde babanız arkadaşlarınızı tanır mıydı?
a) Hepsini tanırdı
b) Çoğunu tanırdı
c) Bazılarını tanırdı
d) Hemen hemen hiçbirini tanımazdı

51) 5-6. sınıflardayken karneniz iyi olduğunda anneniz çoğu zaman ilgilenmezdi.
a) Doğru
b) Yanlış

52) 5-6. sınıflardayken karneniz iyi olduğunda babanız çoğu zaman ilgilenmezdi.
a) Doğru
b) Yanlış

53) 5-6. sınıflardayken karneniz kötü olduğunda anneniz çoğu zaman ilgilenmezdi.
a) Doğru
b) Yanlış

54) 5-6. sınıflardayken karneniz kötü olduğunda babanız çoğu zaman ilgilenmezdi.
a) Doğru
b) Yanlış

55) Sizce diğer aile bireyleri sizin söylediğiniz şeylerle ne kadar ilgilenirler?
a) Çok ilgilenirler
b) Oldukça ilgilenirler
c) İlgilenmezler

56) Büyümekte olduğunuz dönemde babanızın en çok tuttuğu çocuğu kimdi?
a) Ben
b) Ağabeyim
c) Ablam
d) Erkek kardeşim
e) Kız kardeşim
f) Bildiğim kadarıyla en çok tuttuğu birisi yoktu
g) Değişik zamanlarda değişik çocuklar

57) Bu dönemde babanız arkadaşlarınızı tanır mıydı?
a) Hepsini tanırdı
b) Çoğunu tanırdı
c) Bazılarını tanırdı
d) Hiçbirini tanımazdı

58) Anne ve babanızın hangisiyle daha rahat konuşabiliyorsunuz?
a) Babamla çok daha fazla
b) Babamla biraz daha fazla
c) Her ikisiyla eşit oranda
d) Annemle biraz daha fazla
e) Annemle çok daha fazla

59) Anne ve babanızdan hangisi sizi daha çok över?
a) Babam çok daha fazla
b) Babam biraz daha fazla
c) Her ikisi eşit oranda
d) Annem biraz daha fazla
e) Annem çok daha fazla

60) Anne ve babanızdan hangisi size daha çok şefkat gösterir?
a) Babam çok daha fazla
b) Babam biraz daha fazla
c) Her ikisi eşit oranda
d) Annem biraz daha fazla
e) Annem çok daha fazla

61) Anne ve babanız anlaşamadıkları zaman siz genellikle hangisinden yana olursunuz?
a) Çok daha fazla olarak babadan yana
b) Biraz daha fazla olarak babadan yana
c) Eşit oranda her ikisinden yana
d) Biraz daha fazla olarak anneden yana
e) Çok daha fazla olarak anneden yana

62) Yalnız bir insan olmaya eğilimli misinizdir?
a) Evet
b) Hayır

63) İnsanların çoğu sizin nasıl bir kişi olduğunuzu bilirler mi, yoksa çoğunun sizi gerçekten tanımadıklarını mı düşünürsünüz?
a) Çoğu benim nasıl biri olduğumu bilir
b) Çoğu beni gerçekten tanımaz