

THE ROLE OF SELF-EFFICACY, HOPE, AND ANXIETY IN PREDICTING  
UNIVERSITY ENTRANCE EXAMINATION SCORES OF ELEVENTH GRADE  
STUDENTS

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Approval of the Graduate School of Social Sciences

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## **ABSTRACT**

### **THE ROLE OF SELF-EFFICACY, HOPE, AND ANXIETY IN PREDICTING UNIVERSITY ENTRANCE EXAMINATION SCORES OF ELEVENTH GRADE STUDENTS**

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The purpose of the present study is to investigate the role of student self-efficacy, academic self-efficacy, state and dispositional hope, and state and trait anxiety in predicting university entrance examination (UEE) scores of students.

The participants of the study consisted of 786 (442 males, 344 females) volunteered students who were in the course of preparation preparing for the university entrance examination at Çatı, Final, Karacan, Odak, Sınav, and Zafer Private Courses in Ankara. The data were gathered by administering six instruments, namely College Academic Self-efficacy Scale (CASES), College Student Self-efficacy Scale (CSSES), State Hope Scale (SHS), Dispositional Hope Scale (DHS), State Anxiety Inventory (SAI), and Trait Anxiety Inventory (TAI).

The results of three separate regression analyses revealed different models for the quantitative, equally weighted, and language samples. For the quantitative sample, Anatolian High School-type, Super Lycee school-type, Learning Self-efficacy

subscale scores of CSSES, Private High School, Academic Self-efficacy subscale scores of CASES, State Anxiety Inventory scores, Career Planning subscale scores of CSSES, Characteristics of a Good Citizen subscale scores of CASES, Agentive Thinking subscale scores of SHS, and Income level of the family predicted the university entrance examination scores.

For the equally weighted sample, the predictor variables entered into the regression equation were Anatolian High School-type, Super Lycee school-type, Academic Self-efficacy subscale scores of CASES, Academic Helping Efficacy subscale scores of CASES, Quantitative Self-efficacy subscale scores of CASES, Pathways subscale scores of DHS, and Agency subscale scores of SHS.

For the language sample, Communication Efficacy subscale scores of CSSES, Super Lycee, Anatolian High School, Private High School, Agentive Thinking subscale scores of SHS, Career Planning Self-efficacy subscale scores of CSSES, and Social Self-efficacy subscale scores of CASES were found as the predictor variables entered into the regression equation.

Keywords: Self-efficacy, Hope, Anxiety, University Entrance Examination (UEE).

## ÖZ

# ÖZ-YETERLİK, UMUT VE KAYGININ ONBİRİNCİ SINIF ÖĞRENCİLERİNİN ÜNİVERSİTE GİRİŞ SINAVI PUANLARINI YORDAMADAKİ ROLÜ

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Bu çalışmanın amacı öz-yeterlik, umut ve kaygının 11. sınıf öğrencilerinin üniversite giriş sınavı puanlarını yordamadaki rolünü araştırmaktır.

Çalışmanın katılımcıları Ankara ilinde yer alan Çatı, Final, Karacan, Odak, Sınav ve Zafer dershanelerinin üniversite sınavına hazırlanan 786 (442 kız, 344 erkek) gönüllü öğrencilerinden oluşmaktadır. Veriler, Akademik Öz-Yeterlik Ölçeği (AÖYÖ), Öğrenci Öz-Yeterlik Ölçeği (ÖÖYÖ), Durumluk Umud Ölçeği (DUÖ), Sürekli Umud Ölçeği (SUÖ), Durumluk Kaygı Envanteri (DKE) ve Sürekli Kaygı Envanteri'nin (SKE) uygulanmasıyla elde edilmiştir.

Öğrencilerin üniversite giriş sınavı puanlarına uygulanan üç ayrı regresyon analizinin sonuçları, sayısal, eşit ağırlıklı ve dil örneklemelerinde üniversite giriş sınavı sonuçlarını farklı modellerin yordadığını göstermiştir. Sayısal grubu için; Anadolu Lisesi okul türü, Süper Lise okul türü, ÖÖYÖ Öğrenme Öz-yeterlik alt ölçek puanları, Özel Lise okul-türü, AÖYÖ Akademik Öz-yeterlik alt ölçek puanları,

Durumluk Kaygı Envanteri puanları, ÖÖYÖ Kariyer Öz-yeterlik alt ölçek puanları, AÖYÖ İyi Bir Sınıf Öğrencisinin Özellikleri alt ölçek puanları, DUÖ “Agentic” Düşünme alt ölçeği puanları ve Ailenin gelir düzeyi üniversite giriş sınavı puanlarını yordamıştır.

Eşit ağırlıklı grup için yordayıcı değişkenler; Anadolu Lisesi okul türü, Süper Lise okul türü, AÖYÖ Akademik Öz-yeterlik alt ölçek puanları, AÖYÖ Akademik Yardım Öz-yeterlik alt ölçek puanları, AÖYÖ Sayısal Öz-yeterlik alt ölçek puanları, SUÖ “Pathways” Düşünme alt ölçek puanları ve DUÖ “Agentic” Düşünme alt ölçek puanları olarak ortaya çıkmıştır.

Dil grubu için; ÖÖYÖ İletişim Öz-yeterlik alt ölçek puanları, Süper Lise okul türü, Anadolu Lisesi okul türü, Özel Lise okul türü, DUÖ “Agentic” Düşünme alt ölçek puanları, ÖÖYÖ Kariyer Öz-yeterlik alt ölçek puanları ve AÖYÖ Sosyal Öz-yeterlik alt ölçek puanları regresyona giren yordayıcı değişkenler olarak bulunmuştur.

Anahtar Kelimeler: Öz-yeterlik, Umut, Kaygı, Üniversite Giriş Sınavı (ÖSS).

*To My Parents  
and  
Supervisor  
Prof. Dr. Gül Aydın*



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## **CHAPTER I**

### **INTRODUCTION**

One of the main concerns of a Turkish high school student is to become successful in the university entrance examination (UEE). For achieving this end, being able to get a good education is the prime prerequisite. Having a degree from one of the prestigious universities appears to be a precondition to find a good job. However, scoring high at the exam is not an easy process for a student because there have been an increasing number of candidates for the UEE each year that create a hard competition among the students. Students know that exact success in the examination requires falling within the first one percent. As they realize the difficulty of this task, they may become anxious, lose their self-confidence and hope during the preparation period for the exam. Besides, as the UEE is held once a year failing means losing a whole year. Moreover, the examination system involves some decrease in the scores of students placed at a program in their first attendance. In this case, if the student is not satisfied with the program s/he is placed in the first exam has lessened opportunity for success in the second attendance. This situation constitutes an additional stress; thus, students' anxieties and concerns reach the peak point by the exam time.

In such an educational environment, one of the main tasks of the educational scientists is inevitably to prepare a milieu that can facilitate the students' scholastic accomplishments. However, student beliefs and feelings should be taken into consideration to establish the optimal learning environment.

Many non-academic student characteristics and personality features appear to influence students' academic achievement in the UEE. Among them academic self-

efficacy beliefs seem to have a vital influence on their academic achievement (Bandura, 1986; Bandura, 1993; Bandura, 1997a; Bandura, Barbaranelli, Caprara, & Pastorelli, 1996; Bandura, Barbaranelli, Caprara, & Pastorelli, 2001; Caprara, Barbaranelli, Pastorelli, & Cervone, 2004; Chemers, Hu, & Garcia, 2001; Greene, Miller, Crowson, Duke, & Akey, in press; Multon, Brown, & Lent, 1991; Pajares, 2003; Schunk, 1984; Schunk & Pajares, 2002; Vrugt & Keonis, 2002; Vrugt, Langereis, & Hoogstraten, 1997; Zimmerman, 1995).

Contributing to academic accomplishments independently, children's self-efficacy beliefs about self-regulation of their learning and academic success not only promote academic aspirations and prosocial behavior but also reduce susceptibility to futile and depressive feelings (Bandura, 1993; Bandura et al., 2001; Bozkurt, 2003). Moreover, the strength of student self-efficacy determines the intellectual performance among the students with the same level of cognitive skill development (Zimmerman, 1995; Vrugt et al., 1997).

On the other hand, research findings suggest that hope also promotes academic achievement (Curry, Snyder, Cook, Ruby, & Rehm, 1997; Snyder, 2002; Snyder et al., 1991; Snyder, Rand, & Sigmon, 2002; Shorey, Snyder, Rand, Hockemeyer, & Feldman, 2002). Research findings revealed that higher level of hope was positively related to higher cumulative grade points (Curry et al., 1997; Snyder et al., 1996; Snyder et al., 1991), better coping strategies (Snyder et al., 1991; Irving, Snyder, & Crowson, 1998), sport achievement (Curry et al., 1997), graduation from college (Snyder et al., 2002), self-efficacy, optimism, and general well-being (Magaletta & Oliver, 1999) and negatively related to test anxiety (Denizli, 2004).

It is evident that one of the main negative feelings of the students about the evaluative conditions is anxiety, which decreases the academic performance (Cassady & Johnson, 2002; Miller & Bichsel, 2004; Onwuegbuzie, Bailey, & Daley,

2000; Rouxel, 2000). Reviewing the literature, coping strategies (Collins & Onwuegbuzie, 2003), visual and verbal memory (Miller & Bichsel, 2004), general self-efficacy, (Muris, 2002), hope (Onwuegbuzie, 1998), and self-control (Ender, Speer, Johnson, & Flett, 2001) are also investigated concepts in relation to evaluation anxiety.

As this brief summary of the literature suggests, there is a consensus over the fact that some dispositional factors such as academic self-efficacy, hope, and anxiety may be the predictors of student academic achievement.

Moreover, although academic self-efficacy, hope, and anxiety as the predictors of scholastic achievements are frequently studied constructs in the western literature, there has been a paucity of research into investigating the prognostic power of academic self-efficacy and hope in predicting the UEE scores in Türkiye. It is hoped that the findings of the present study will contribute to fill this gap in the Turkish literature.

The present research is designed to investigate the role of academic self-efficacy, hope, and anxiety in predicting the UEE scores of the 11<sup>th</sup> grade students. In addition, gender, income level of the family and school type will also be investigated in terms of their predictive powers in the present study.

In the following section, theory and research regarding the predictor variables of the present research, specifically academic self-efficacy, hope, and anxiety will be presented.

## 1.1. Self- Efficacy

Self-efficacy studies have been based on Bandura's self-efficacy concept for decades (Caprara et al., 2004; Magaletta & Oliver, 1999; Mulholland & Wallace, 2001; Schunk, 1984; Vrugt & Keonis, 2002). Bandura (1986) defined perceived self-efficacy as people's judgment of their capability to arrange and perform courses of action required to achieve designated types of performances. Both skills and self-beliefs of efficacy are essential to perform competent functioning (Bandura, 1986). However, the strength of one's self-efficacy determines the academic performance among the people with the same level of cognitive skill development (Zimmerman, 1995; Vrugt et al., 1997). Thus, strength of perceived self-efficacy determines the goal challenges set by people and their commitment to them (Bandura, 1993; Vrugt & Keonis, 2002).

Self-efficacy concept can be best understood in the context of social cognitive theory – which is an approach for understanding human cognition, action, motivation, and emotion that assumes that we are active shapers rather than passive reactors to our environments (Bandura, 1986). The early development of self-efficacy beliefs and a sense of agency continue to be modified throughout the life span by the four important sources of self-efficacy information (Bandura, 1997b) as follows:

(1) *Enactive mastery experience*. The most reliable source of information for efficacy beliefs is provided by one's prior experiences with the tasks in question. Accomplishments reinforce self-efficacy, whereas repeated failures weaken it. A powerful sense of efficacy built on the basis of past successes is believed to withstand temporary failures.

(2) *Vicarious experience*. Other similar people's successes can raise self-perceptions of efficacy in observers that they too own the capabilities to master comparable activities. Modeling, thus serves as another effective source of efficacy information.

(3) *Verbal persuasion*. Persuasive communication and evaluative feedback from significant others are also important information sources for one's judgment of self-efficacy. However, verbal persuasion serves for outcome expectancy more than self-efficacy expectancies. (Bandura, 1977; as cited in Bilgin, 1996, p.19). When people who express the efficacy information are viewed knowledgeable and believable and when the information is viewed realistic, verbal persuasion is most effective.

(4) *Physiological reactions*. Heightened physiological arousals such as sweating, heartbeats, mood changes inform people and influence their efficacy assessment. Recognition of these somatic symptoms brings about self-efficacy adjustments through their effects on cognitive processing.

Bandura's (1997b) theory of self-efficacy is based on the groundwork that there are two sets of expectancies: outcome expectancies, one's belief that a particular behavior will produce a given outcome, and efficacy expectancies, one's confidence that he or she can carry out the given behavior that will lead to the desired outcome. However, despite his note about the bidirectionality of outcome and efficacy expectancies, Bandura (1986) emphasized that efficacy expectancies were more important than outcome expectancies. Longo, Lent, and Brown (1992) conducted a study supporting the social cognitive theory's predictions and Bandura's belief that self-efficacy related positively to task motivation, persistence, and outcome expectations and that outcome expectation might be a less efficient predictor of behavioral outcomes than was self-efficacy. Furthermore, a study in a different field also supported this belief that self-efficacy expectancies were found to be a better predictor of persistence in pain control, in childbirth without medication, than

outcome expectancies (Manning & Wright, 1983).

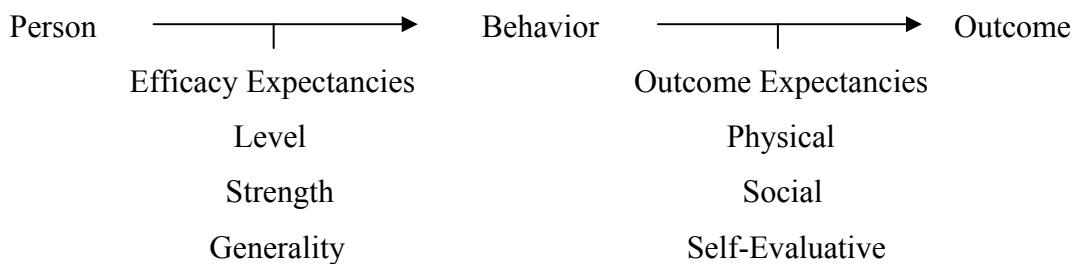
Besides the efficacy expectancies and outcome expectancies, three important dimensions of self-efficacy were defined across activities and contexts (Bandura, 1997b):

*Level:* Level of self-efficacy indicates the difficulty of a particular task one can perform, such as reading numbers of increasing difficulty.

*Generality:* The generality refers to the transferability of self-efficacy beliefs across activities, such as reading in English to speaking English.

*Strength:* Strength of self-efficacy is related to the amount of one's confidence about executing a given task.

Bandura (1997b) depicted the role of efficacy expectancies on a schema:



According to the schema, efficacy expectancies and outcome expectancies are important determinants of the behavioral change and maintenance (Bandura, 1997b).

Overall, the theoretical background mentioned above pointed out that self-efficacy is one of the important concepts for understanding human cognition, action, motivation,

and emotion and; thus, one of the frequently investigated constructs in Western culture. In the following section, studies related to the present research are presented.

### **1.1.1. Self-Efficacy Studies Conducted in Western Culture**

The relations between the self-efficacy, social self-concept, time perspectives, school investment and academic achievement of students were examined in four different European countries and in different adolescence periods (Peetsma, Hascher, Van Der Veen, & Roede, 2005). Self-efficacy was found to be the best predictor of academic achievement in all adolescence periods.

Luszczynska, Gutiérrez-Doña, and Schwarzer (2005) investigated the relations between general self-efficacy and personality, well being, stress appraisals, social relations, and achievements with 8796 participants from Costa Rica, Germany, Poland, Türkiye, and the USA. Türkiye sample of the study consisted of the high school students from the schools in İzmir. Results of the study indicated that there was a negative global self efficacy-anxiety relationship while global self efficacy and academic achievement were positively related.

The predictor powers of self-efficacy beliefs and academic goals in ninth and tenth grade students' self-motivated academic attainment were examined by Zimmerman, Bandura, and Martinez-Pons (1992). Results indicated that academic goals set by students and their final academic achievement were significantly predicted by their perceived self-efficacy for academic achievement, which was affected by beliefs in their efficacy for self-regulated learning.

In a similar study, Leach, Queirolo, DeVoe, & Chemers (2003) investigated the predictive power of achievement (learning and performance) goals and self-efficacy in entering first year students before they start university. Results showed that

achievement goals and self-efficacy directly predicted achievement in letter graded courses (i.e., letter grades of AA, BA, and F).

In a different research investigating the main and interactive effects of informative tutoring feedback and self-efficacy on achievement and motivation when solving concept-learning tasks; high self-efficacy as compared to low self-efficacy was found to be related to higher persistence, higher achievement, and more satisfaction with performance (Narciss, 2004).

Lane and Lane (2001) examined the predictive stability of self-efficacy in a 13-week interval between completing the self-efficacy questionnaire and completing the performance criterion. Despite the time gap and the complexity of the task, efficacy expectations of postgraduate students enrolled in Management programs predicted their academic performance.

Bandura (1977; as cited in Lindley & Borgen, 2002) considered self-efficacy as a task specific, dynamic and a multifaceted belief system that varies across situations and activities. Therefore, beyond generalized self-efficacy studies, domain-specific self-efficacy research are frequently encountered in literature.

One of the domain-specific self-efficacy concept of mathematics self-efficacy were found to be significantly related to the performance of both gifted and regular education 8<sup>th</sup> grade students (Pajares, 1996). Gifted students obtained higher performance scores in direct proportion to express stronger math self-efficacy and self-efficacy for self-regulated learning and inverse proportion to reported math anxiety. Moreover, results indicated a significant negative effect of self-efficacy on anxiety for each group.



In a parallel study, Hackett and Betz (1989) aimed at examining the relationship between mathematical performance and mathematics self-efficacy, attitudes toward mathematics, and the choice of mathematics-related majors in college students. Although the results of the study indicated a moderate relationship between mathematics performance and mathematics self-efficacy, predictive supremacy of mathematics self-efficacy over mathematics performance and achievement in predicting the choice of mathematics-related major was impressively supported.

Similarly, PISA 2003 results indicated that the relationship between self-efficacy and performance in mathematics was particularly strong.

Undergraduate nursing students' self-efficacy beliefs for science and its relation to academic performance in science-based first-year subjects were examined by Andrew (1998). The results indicated those students' self-efficacy beliefs were significantly correlated with academic performance in the two bioscience subjects.

A different domain specific component of perceived self-efficacy; economic self-efficacy beliefs of 11<sup>th</sup> grade students were found to have a significant positive effect on later behaviors and educational accomplishment while global self-efficacy exerted no significant effect on any of these later activities (Grabowski, Call, & Mortimer, 2001).

Moreover, Shell, Colvin, and Bruning (1995) studied the grade- and achievement-level differences in 4th, 7th, and 10th grade students' control-related beliefs and relations between students' beliefs and their reading and writing achievement. The results indicated that, relative to high achievers, low achievers expressed lower self-efficacy for their reading and writing. Moreover, self-efficacy was reported as one of the important motivational influences on children's reading and writing.

In the view of those task-specific self-efficacy studies mentioned above, task-specificity and correspondence with the outcome of interest serve to increase prediction of academic outcomes (Bandura 1997a). Thus, in the scope of the present study, in addition to self-efficacy, a different task-specific efficacy belief termed academic self-efficacy was also included.

### **1.1.2. Academic Self-Efficacy**

Academic self-efficacy is a perceived ability that one can successfully carry out given academic tasks at selected levels (Schunk, 1991). Students' aspirations, level of motivation, and academic attainments are determined by their beliefs in their efficacy to control their own learning and to master academic activities (Bandura, 1993; Bandura et al., 1996; Bandura et al., 2001).

Based on the research, Bandura and his colleagues (1996; 2001) emphasized the importance of parental influence on children's academic aspirations, self-efficacy beliefs, and achievements, in brief, children's scholastic development. In a meta-analytic investigation of self-efficacy beliefs and academic outcomes relationship, the facilitative role of self-efficacy beliefs in predicting academic performance and persistence was validated by Multon and her colleagues (1991).

Similar findings were also obtained from the college students where high academic self-efficacy predicted significantly better academic performance and college adjustment (Chemers et al., 2001). However, it is also stated that regardless of the level of the self-efficacy beliefs, students with low intelligence probably cannot develop advance strategies to be successful; therefore, self-efficacy beliefs are limited by the intelligence (Vrugt et al., 1997).

Supporting the studies above, in a different study, academic self-efficacy beliefs were found to be significant predictors of the college students' academic performance and persistence (Gore, 2006). However, Gore (2006) reported that the utility of academic self-efficacy as a predictor of college success may be partly dependent on the time self-efficacy is measured; the aspect of self-efficacy is measured; and what college outcome one wishes to predict.

Similarly, Bong (1997) emphasized that students' academic self-efficacy beliefs and feelings about different learning tasks change significantly across situations and generality of academic self-efficacy partly depends on the degree of perceived similarity among tasks.

Robbins et al. (2004) investigated the relationship between psychosocial and study skill factors (PSFs) and college outcomes (retention and performance-GPA) in their Meta-analytic study. Results indicated moderate relationships between retention and academic goals, academic self-efficacy, and academic-related skills whereas academic self-efficacy and achievement motivation were appeared to be the best predictors for GPA.

A similar result was reported by Elias and Loomis (2002) in their study of whether academic performance could be predicted by the constructs need for cognition and academic self-efficacy. Path analysis indicated that GPA scores of undergraduate students were predicted by need for cognition and academic self-efficacy.

Zajacova, Lynch, and Espenshade (2005) examined the joint effects of academic self-efficacy and stress on the academic performance of first-semester freshmen. Although academic self-efficacy appeared to be the best predictor of students' grades and credits, and first-year cumulative GPA, it did not have a significant effect on students' persistence in second year. Same research results indicated that academic

self-efficacy was reported as more powerful and consistent predictor than stress of academic achievement.

Hackett, Betz, Casas, and Rocha-Singh (1992) reported the relationships of measures of occupational and academic self-efficacy; vocational interests; outcome expectations; academic ability; and perceived stress, support, and coping to the academic achievement of women and men enrolled in engineering/science programs. Academic milestones self-efficacy was found to be the strongest predictor of performance. Higher levels of faculty encouragement, lower levels of faculty discouragement, academic self-efficacy, past academic performance were the following predictors, respectively.

In their longitudinal research, Caprara et al. (2004) reported that adolescents' initial beliefs on self-regulating their actions in the face of peer pressure brings about lower levels of problem behaviors, higher grades, and greater popularity among their peers. The researchers also found that girls' academic achievement was significantly predicted by their perceived academic self-efficacy, self-regulatory efficacy, intellect/openness and lack of conscientiousness whereas academic achievement of boys was merely predicted by self-regulatory efficacy and intellect/openness rather than academic self-efficacy.

Elias and Loomis (2000) investigated whether academic self-efficacy was related to students' university major persistence and the number of times they had changed their majors. Results indicated that higher grade point average was significantly related to belief in ability to successfully complete most academic tasks, shortly academic self-efficacy.

However, Cassidy and Eachus (2000) found that academic self-efficacy and academic locus of control did not directly predict academic achievement in

undergraduate students. Findings of the same study showed that, “Research Methods Proficiency” of students was positively correlated with the academic achievement, academic self-efficacy, and academic locus of control.

Contrary to the findings above, Choi (2005) reported that apart from general self-efficacy and academic self-efficacy; course specific self-efficacy, academic self-concept, and course specific self-concept were significant predictors of the college students’ general education course grades.

Huebner and McCullough (2000) reported that in private secondary school students, grades 9 to 12, beyond non-school experiences; related to family, friends, recreation, and physical and mental health, higher levels of academic self-efficacy predicted higher levels of school satisfaction. Academic self-efficacy was interpreted as a protective factor against stress and school dissatisfaction.

The relation between self-efficacy and subsequent task performance under the conditions of low and greater task familiarity were also investigated (Norwich, 1987). Results indicated that both under low and greater task familiarity situations, despite its moderate simple correlation with math performance; self-efficacy did not make a significant independent contribution to subsequent task performance.

Supporting the finding above, self-efficacy was not found to be directly related to academic achievement whereas significantly related to self-regulation (Jakubowski & Dembo, 2002).

A similar result obtained from a study examining the relations between achievement, the structure of learning tasks, and changes in students' self-efficacy in students of 10<sup>th</sup> grade science classes (Lodewyk & Winne, 2005). According to results, self-efficacy appeared to be a negligible predictor of achievement.

Lindley and Borgen (2002) also reported similar findings in their study that investigated whether there were relationships among generalized self-efficacy, Holland Theme Self-efficacy, and academic performance in psychology students. No relation was achieved between GPA and American College Test (ACT) Scores and generalized self-efficacy and confidence for the Holland themes except for Investigative confidence.

Parallel to the research results regarding academic self-efficacy and academic achievement relationship, different task-specific self-efficacy concepts and scholastic achievement associations were presented. Similar and inconsistent research findings were reported.

In addition to the research on academic self-efficacy and scholastic achievement relationship, domain specific self-efficacy and related achievement subject matters were also commonly investigated subjects with different samples in the Western culture.

### **1.1.3. Gender Studies Regarding Self-Efficacy**

Gender differences in self-efficacy were also investigated. One of the research findings revealed that African-American girls reported greater academic self-efficacy than did the boys and performed better (Saunders, Davis, Williams, & Williams, 2004). It is suggested that gender difference in academic self-efficacy construct appears salient (Caprara et al., 2004). In general, research findings suggested that boys were more confident than girls in academic areas related to mathematics, science, and technology, despite there was a little difference in their achievements (Meece, Wigfield, & Eccles, 1990).

In a widespread research, 15-year old female students of 41 countries were found to be less self-efficacious in mathematics than were their male counterparts (PISA, 2003). Similarly, 9<sup>th</sup> grade boys were found to be more self-efficacious than girls in writing (Pajares & Johnson, 1996; as cited in Pajares, 2003).

Busch (1995) also reported gender differences in perceived self-efficacy regarding completion of complex tasks among undergraduate students of Business Administration. Although no gender difference was revealed in simple tasks, there was an apparent gender difference in complex tasks, against girls with the expression of less encouragement by parents and friends, scarcity of experience in programming and computer games, and insufficient access to a home computer by female students. Similar to Hampton and Mason's (2003) study, sources of self-efficacy beliefs were given importance in this research.

It was also reported that girls were more confident in writing than boys, as well as better achievers; moreover, they were better performers in language arts than males (Pajares, 2003).

In a similar study, Pajares and Valiante (2001) examined whether there were gender differences in the writing motivation and achievement of middle school students as a function of gender-stereotypic beliefs rather than of gender. Stronger writing self-efficacy, writing self-concept, self-efficacy for self-regulation, value of writing, and task goals were reported by female students. Additionally, they received higher grades in language arts.

However, no gender difference was found while gifted students appeared to have stronger mathematics self-concept beliefs, and more accurate and less overconfident self-efficacy beliefs than did the regular education students (Pajares & Graham, 1999).

Similarly, Hampton and Mason (2003) examined the influence of gender, Learning Disability (LD) status and sources of self-efficacy on self-efficacy beliefs and academic achievement in high school students with designated LD and regular class students. However, their study failed to reveal a relationship between gender and self-efficacy beliefs.

These results indicate that there is not a consensus whether gender differences exists regarding self-efficacy beliefs in different domains, including academic success. However, effects of cultural expectations and gender-role attitudes, male-dominant and female-dominant fields need to be investigated in a further Meta-analytic study.

To conclude, self-efficacy studies are widely conducted studies across the world. Findings vary depending on the sample studied with, instrument employed, and the characteristics of culture in which the study was carried out.

## **1.2. Hope**

According to Stotland (1969, p.2), hope is “an expectation greater than the zero for achieving a goal” whereas Averill et al. (1990) claim that it is an emotion with cognitive rules directing it (as cited in Snyder, 1995, p.355-356). On the other hand, Snyder (1995, 2002) defined hope as “the process of thinking one’s goals, along with the motivation to move toward (agency) and the ways to achieve (pathways) those goals”. Snyder developed a multidimensional hope theory that involved three cognitive dimensions; goal directedness, pathways and agency (Snyder, Rand et al., 2002).

As briefly mentioned above, hopeful thinking consists of three cognitive components. Since human actions are goal-directed, goals are the targets of mental action sequences, and they constitute the first cognitive component of hope theory



(Snyder, Rand et al., 2002). A goal should be attainable while containing some degree of doubt about its realization for being considered adaptive (Snyder, Ilardi, Chaevens et al., 2000).

Apart from the goals, the other two interrelated cognitive components of hope are pathways and agency (Snyder et al., 1991). Pathways is a perceived capacity to produce workable routes to desired goals while agency can be defined as the perceived capacity to use one's pathways in order to attain those goals (Snyder, Rand et al. 2002). Thus, hope is "a positive motivational state that is based on a reciprocally derived sense of successful (1) agency (goal-directed energy) and (2) pathways (planning to meet goals)" (Snyder et al., 1991, p.571).

High-hope people frequently believe that they can find out many ways to achieve the desired outcome (Snyder et al., 1991). This belief system has a chief influence on the persons; it becomes prominent especially when persons come across with obstacles (Snyder, Ilardi et al., 2000).

However, although pathways is an important principal to reach the desired point, Snyder, Rand et al. (2002) emphasize that pathways thinking do not lead to goal attainment alone without an agency. Research results (Drach-Zahavy & Somech, 2002; Kashdan et al., 2002) indicated that the agency or the motivational side of hope was more predictive than the pathways subscale for behavioral coping, emotional coping, superstitious thinking, and esoteric thinking. Moreover, agentic thought let people transfer their positive mental energies to alternate pathways when blockages were encountered (Snyder et al., 1991).

On the other hand, although pathways and agency are reciprocal, additive, and interrelated components of the theory, they are not synonymous (Snyder et al., 1991). Thus, neither of them appears to adequate to define hope concept alone, both

pathways and agency are essential for hopeful thinking.

According to Snyder, Feldman, Shorey, and Rand (2002), hope is not only a goal-directed thought process but also a hierarchically organized system of beliefs about one's ability to successfully engage in such a cognitive process. Thus, hope can be organized into three specific levels;

*Global or Trait Hope:* Global or Trait hope is individuals' general evaluation of their ability to construct sufficient pathways and generate the agency thought essential to achieve goals. Rather than accurately reflecting one's actual capacity for generating pathways and agency thoughts, global hope reflects a perception that if desired, effective pathways could be planned and adequate agency could be produced. Adult (Snyder et al., 1991) and Child (Snyder et al., 1997) versions of the Hope Scales developed by Snyder and his colleagues aimed at assessing global hope of the individuals.

*Domain-Specific Hope:* Domain-specific level is a more tangible level of hope-related to the belief system. Despite their hopefulness about life in general, some individuals can display low hope in some specific domains. Therefore, including following life arenas; social relationships, romantic relationships, family life, academics, work, and leisure, Domain-Specific Hope Scales were developed by Sympson (1999; as cited in Snyder, Feldman et al., 2002).

*Goal-Specific Level:* Last level of the hope-related belief system is Goal specific level. According to Snyder, Feldman et al. (2002), despite high levels of global and domain-specific hope, individual's hope for a specific goal can be low. Thus, determining goal-specific level can be essential to understand perceived deficits in specific-goal pursuits; even virtual achievements are satisfactory in other fields. State Hope Scale (Snyder et al., 1996) is an instrument developed for assessing hope in the

“here and now” frame.

Snyder, Feldman et al. (2002) suggested that since each level cooperates with and mutually determines each of the other levels, a comprehensive recognition of the entire hope hierarchy is essential to understand students’ goals for their educations and lives.

In their informative article, Snyder, Feldman, Taylor, Schroeder, and Adams (2000) discussed the role of hopeful thinking in preventing problems and enhancing strengths. Valuable roles of hope before the problem occurs (primary prevention) and after a problem emerges (secondary prevention) were mentioned in terms of its preventive role. High hope was related to more successful goal pursuits and lead to superior well-being and self-esteem. Past experiences of high-hope people lead them to produce more hopeful thoughts for the future.

In the same article, hope was also proposed as an important enhancement mechanism of the strengths. Setting up optimal functioning and satisfaction (primary enhancement) and enhancing and maintaining optimal functioning and satisfaction (secondary enhancement) were the important processes of strength promotion. Snyder, Ilardi, Michael, and Chaevens (2000) emphasized that one of the main hope enhancement areas was education. Students’ perceived capabilities to find out multiple pathways towards desired educational goals along with the motivation to pursue those goals can be developed by means of hopeful thinking.

Apart from Snyder and his colleagues, Halpin (2001) also underlined the importance of hope in educational settings. In the part of the educators, two kinds of hope were described; *absolute hope* is an orientation of the spirit which sets no conditions or limits on what is achievable and has no particular ends in view, whereas *ultimate hope* is a form of hopefulness that entails identifying and struggling to realize, in the

here and now, for oneself, for others, and for society at large.

On the other hand, despite their relatedness, self-efficacy and hope are not identical constructs (Gariglietti, McDermott, Gingerich, & Hastings, 1997; Magaletta & Oliver, 1999). According to Snyder (1995), one of the main differences between Bandura's self-efficacy theory and hope theory is Bandura's emphasis on the importance of efficacy expectations while in hope theory both the agency and pathways are stressed as necessary and additive (Snyder, Ilardi, Cheavens et al., 2000; Snyder, Rand et al. 2002; Shorey et al., 2002). Furthermore, hope theory takes a cross-situational perspective whereas efficacy expectations are exactly situation specific. According to Snyder, Rand et al. (2002), Bandura's self-efficacy theory does not concentrate on the issue of emotions in essence, whereas hope theory gives a clear hypothesis about emotions about being the result of goal-directed thoughts. Finally, both of the theories are goal-directed, even though goals are given more emphasis in hope theory (Snyder, Feldman et al., 2000).

Generally positive emotions; hope, academic enjoyment, and pride were reported as powerful predictors of high achievement whereas negative emotions such as anxiety, hopelessness, disappointment result in low achievement (Pekrun, Goetz, Titz, & Perry, 2002).

In the literature, hope construct is studied to investigate in a variety of areas including academic success, physical and mental health, and sport achievement (i.e. Snyder, Shorey et al., 2002; Vilaythong, Arnau, Rosen, & Mascaro, 2003).

Conti (2000) reported that hope intensifies the probability of students' achievement to their goals by means of facilitating their approach to the problems with a focus on success (as cited in Snyder et al., 1991).

As part of the development and validation study of Hope Scale, Snyder et al. (1991) investigated the relationship between hope and academic achievement levels of college students. Results indicated that higher hope scores were significantly related to academic achievement.

Similarly, Curry et al. (1997) reported that hope scores predicted semester GPA, sport achievement, and useful achievement-related information beyond the natural ability, self-esteem, confidence, and mood did.

In a six-year longitudinal study, higher cumulative grade point averages were found to be predicted by individual differences in hope even after controlling for variance related to entrance examination scores (Snyder, Shorey et al., 2002). Moreover, the same study indicated that high hope scores predicted higher graduation rate and lower drop out rate as well.

Higher achievement test scores were found to be significantly related to high hope scores of grade school children, in the development study of Children's Hope Scale (Snyder et al., 1997).

In their study, Onwuegbuzie and Snyder (2000) reported that graduate students enrolled in statistics and research methods classes with low scores from Study Scale or Examination-taking Scale or both, tended to obtain low hope scores.

However, there are also opposing findings in the literature to the positive relationship between hope and academic achievement. Hunt (1997) investigated the relationship among the factors of self-concept, levels of hope and academic achievement among college students; however, results failed to find out relations between these factors.

A different research result reported that hope, self-efficacy, and optimism are all related constructs. Moreover, research findings also reveal that all three significantly

contribute to well-being of the individuals (Magaletta & Oliver, 1999). Contribution of hope to general well-being was also emphasized by Snyder (2004).

Finally, in general, research findings point out that there is no gender difference in the hope levels of females and males (Carvajal, Evans, Nash, & Getz, 2002; Snyder et al., 1991; Snyder et al., 1996). However, it is likely to come across such results as girls having lower hope levels than boys in adolescence (Gariglietti et al., 1997), or mothers of boys with externalizing disorders with less hope than fathers (Kashdan et al., 2002).

### **1.3. Anxiety**

Being one of the attractive subjects for the researchers, which have been studied since 1890s, anxiety was defined by many theorists. First attempt to describe anxiety was made by Sigmund Freud (1959); as ‘something felt’, an unpleasant affective state with discharge along particular paths (as cited in Fischer, 1970, p. 8). According to Freud, since anxiety is the ego’s basic expression of run away from danger, three types of this emotion can be taken into consideration (Fischer, 1970):

*Reality Anxiety:* Reality anxiety is basically synonymous with fear, that is, a painful emotional experience based upon perception of a dangerous condition in the external world. Freud believed that these kind of anxieties stem from both heredity and experience.

*Moral Anxiety:* Moral anxiety is ego’s feeling of guilt or shame deriving from the perception of danger coming from the superego, which is widely known as conscience. Ego is threatened by conscience as an internalized parental authority for doing or thinking something that violates the perfectionist aims of the ego-ideal.

*Neurotic Anxiety:* Neurotic anxiety is based on the fear of what would happen if the defenses of the ego fail to avert instinctual demands from discharging themselves in impulse action. In order to protect itself against instinctual dangers, the ego occasionally resorts to maladaptive defense maneuvers.

Besides Freud's, many definitions of anxiety were emerged; however, there were no agreement upon the nature of anxiety, the particular stimulus conditions that arouse it, and the sorts of past experiences that make individuals more or less vulnerable to it (Spielberger, 1966).

Another definition of anxiety suggested by Cattell (1966, p.47) posits that, 'anxiety arises from a threatened deprivation of an anticipated satisfaction when the threat does not carry complete cognitive certainty'. For students these are usually the evaluative situations generally perceived as threat (Cassady & Johnson, 2002; Hong & Karstensson, 2002).

Spielberger (1972) defined anxiety as "the complex emotional reactions that are evoked in individuals who interpret specific situations as personally threatening" (p. 30). Spielberger (1966) also suggested that conceptual anxiety could be introduced to multifaceted definitions of anxiety by distinguishing trait anxiety from state anxiety. Spielberger, Gorsuch, and Lushene (1966) described these two different concepts of anxiety (as cited in Gaudry & Spielberger, 1971, p.14):

*State anxiety:* "A-State is conceptualized as a transitory emotional state or condition of the human organism that is characterized by subjective, consciously perceived feelings of tension and apprehension and heightened autonomic nervous system activity".

*Trait Anxiety:* "A-Trait refers to relatively stable individual differences in anxiety proneness, that is, to differences between people in tendency to respond to situations perceived as threatening with elevations in A-State intensity".

Persons with high A-trait are expected to have a greater inclination to perceive situations as dangerous or threatening than persons who are low in A-trait, and thus they are expected to respond to threatening situations with state anxiety elevations of greater intensity (Gaudry & Spielberger, 1971).

Anxiety was also considered related to the other essential concepts of the present study. Bandura states that (1986), there is a functional relationship between anxiety and self-efficacy as an individual achieves a feeling of high self-efficacy through successful performance. Self-efficacy provides positive motivational effects, and then individual feels confident to regulate stressful situations which have a constructive effect on the level of anxiety experienced in these situations. Supporting Bandura's statement, Endler et al. (2001) reported that although correlational outcomes pointed out a negative relationship among self-efficacy and state anxiety, self-efficacy was found to be predictive of state anxiety. However, another study reported that although this process was valid for mathematics domain, the reverse of the process, that is, impact of anxiety on self-efficacy was the case for verbal domain (Rouxel, 2001). Thus, there is not yet an agreement on the direction of self-efficacy-anxiety relationship.

On the other hand, Lazarus and Averill (1972) stated that hope and anxiety are related constructs. Onwuegbuzie (1998) investigated whether hope was related to anxiety about statistics in graduate students from a variety of disciplinary backgrounds enrolled in courses of statistics and educational research methods. Results indicated that poor sense of successful determination in relation to one's goals and little positive appraisals of one's ability to generate ways to overcome goal-related obstacles and to reach one's goals appeared to be related to high levels of anxiety in statistics.



In the literature, anxiety is a commonly studied concept in many different settings especially in educational settings. Spielberger (1975) stated that one of the main effects of anxiety on performance was the interruption power of high anxiety in recalling the required information for the evaluative situations. High anxious subjects were better in recalling easier designs whereas inferior than low anxious subjects in the recall of the more difficult tasks (Spielberger, 1975).

Spielberger (1975) also reported that the effects of anxiety on academic achievement appeared to be cumulative and widespread. Moreover, the results indicated that in the course of underachievement and academic failure, the full contributions of many capable college students were weakened or lost due to anxiety. Especially at the college level, high anxiety was related to lower grades and higher dropout rates because of academic failure (Spielberger, 1971).

Similarly, a report revealed striking results regarding the long-term existence of a consistent relationship between anxiety and various measures of academic performance (Gaudry & Spielberger, 1971).

In a very recent longitudinal study supported the previous statement that early general anxiety appeared to be related to later school performance (DiLalla, Marcus, & Wright-Phillips, 2004). Children with moderately high levels of anxiety at the age of five would have better academic performance after 6 to 8 years later. On the other hand, low levels of early generalized anxiety were reported as an encourager for children to perform better in school if it was not severe to interfere with their performance.

Kanekar (1977) also examined the relationship among academic performance, anxiety and intelligence. Results indicated negative relationships between academic performance and anxiety, and intelligence and anxiety.

Similarly, Spielberger (1971) reported that anxious students in the middle ranges of ability obtained lower grades and a higher percentage of academic failures than non-anxious students of comparable ability. However, superior students' anxiety was once more reported as a facilitator of academic performance.

Trait anxiety was found to be related to the academic performance of medical school students even when academic aptitude was controlled; whereas state anxiety was not found to be significantly related with academic performance (Anson, Bernstein, & Hobfoll, 1984).

Contrary to the previous study, Sewell, Farley, and Sewell (1983) reported that high state anxiety was related to poor mathematics achievement; however, trait anxiety showed no significant connection to achievement in junior college students.

Miller and Bichel (2004) reported that high levels of math anxiety significantly predicted the decrease in applied and basic math performance.

Daley, Onwuegbuzie, and Bailey (1997) also demonstrated that high levels of foreign language achievement were predicted by low levels of anxiety. Similarly, foreign-language anxiety was appeared to be the second important variable in predicting the foreign-language achievement of college students (Onwuegbuzie, Bailey, & Daley, 2000).

In their study, examining the relationship between academic esteem, anxiety (test-trait, study-state, and trait) and academic achievement in secondary school students, Newbegin and Owens (1996) reported that study-state anxiety was negatively related to academic achievement. The results revealed no relationships between test-trait and trait anxiety and academic achievement.

Green (1990) stated that test anxiety and mathematics anxiety were appeared to be the significant predictors of mathematics achievement of undergraduate students in a remedial mathematics course.

Negative correlations were found among academic achievement and both pessimism and anxiety besides the positive correlation between academic achievement and optimism (El-Anzi, 2005).

Mathematics, reading, and general information scores of the learning disabled students were also found to be significantly and negatively related to general anxiety levels (Patten, 1983).

As the above literature suggested, anxiety appeared to be a significant predictor of academic achievement. However, there are also findings contrary to the anxiety-scholastic performance relationship reports. For instance, Grinnel and Kyte (1979) examined whether the trait and state anxiety levels of first semester graduate students predict their academic performances. The results indicated that most of the variance explained by the GRE scores and state and trait anxiety scores had a minor contribution to the variance.

Jakubowski and Dembo (2002) investigated the relationships between four social cognitive variables (self-efficacy, anxiety, identity style, stage of change) and academic self-regulation and academic achievement. Anxiety, either alone or in combination with other social-cognitive variables, was not significantly related with either self-regulation or academic achievement.

Moreover, Eady (1999) reported no significant association among levels of high anxiety and poor exam performance in 11 year-old students. However, both high

anxious girls and boys better performed in the eleven-plus examinations than the students with low anxiety.

Supporting the previous research, Pekrun et al. (2002) suggested that before making generalizations about whether or not negative emotions are completely detrimental since at times negative emotions such as anxiety can perfectly be beneficial.

McCann and Meen (1984) found out no relationship between anxiety and achievement. However, in order to check out Spielberger's comment pointing at better performances of intelligent students with high anxiety, they divided the sample into two at the ability median. Then, anxiety and achievement appeared to be positively correlated in more intelligent students whereas there was a negative relationship among anxiety and achievement in the other half of the sample.

On the other hand, contrary to common expectation of females being more anxious than males (Henry & Moffit, 1991; Meece et al., 1990; Onwuegbuzie, Bailey, & Daley, 1997; Osborne, 2001; Rouxel, 2000), researchers found no gender difference regarding anxiety (Eady, 1999; Onwuegbuzie, 2004). Some research even indicated that females were less anxious than were the males (Feldhusen & Klausmeier, 1962; Gumora & Arsenio, 2002). However, especially for anxiety and academic achievement relationship, the most likely conclusion regarding the gender difference appears to be equally strong relationship for two sexes varying as a function of complex situational factors, such as the sex of teacher or the teacher's value system (Gaudry & Spielberger, 1971).

#### **1.4. Related Studies Conducted in Türkiye**

Although there have been some studies separately conducted with the concepts of hope (Akman & Korkut, 1993; Denizli, 2004) and self efficacy (Bilgin, 1996;

Çatalbaş, 1998; Işıksal, 2002; Özyürek, 1995) they have been rather limited in number.

In terms of the self-efficacy studies in Türkiye, one of the very few research reported that students with high self-efficacy expectancies obtained higher scores from Student Selection Exam and Student Placement Exam than did the students with low expectancies (Özyürek, 1995). However, results also showed that self-efficacy expectancy was inadequate to predict career options whereas it was effective to predict ability measurements. Moreover, there was a significant gender difference in male-dominant occupations, scores of Student Selection Exam and Student Placement Exam in favor of male students.

Işıksal (2002) reported the effectiveness of Autograph Based Instruction (ABI) on the mathematics self-efficacy of 7<sup>th</sup> grade students. Post-test scores of Mathematics Self-Efficacy and Mathematics Achievement, Mathematics Achievement and Computer Self-Efficacy, and Mathematics Self-Efficacy and Computer Self-Efficacy yielded statistically significant correlation coefficients. Contrary to Özyürek's (1995) findings, Işıksal (2002) did not find a significant mean difference between boys and girls with respect to mathematics achievement and mathematics self-efficacy.

In a different study, Özyürek (2002) investigated the relationship among career self-efficacy, perceived career options, scholastic aptitude scores, and academic performance of 11<sup>th</sup> grade students. Significant relationships among career self-efficacy, secondary education achievement scores, and student placement examination (ÖYS) quantitative and science-mathematics scores were reported for both male and female students. Özyürek's (1989) results also confirmed that high state and trait anxiety have resulted from the problems about school, future, home, friendship, internal life, and health. Moreover, the more years the students spent at university, the higher the trait anxiety scores obtained. Additionally, low socio-

economic status predicted high degree of trait anxiety.

Ergül (2004) examined the relationships among self-efficacy beliefs for distance education, achievement goals, and self-regulation abilities of students and academic success. Self-efficacy of distance education was reported as the significant and positive predictor of students' academic achievement.

In terms of hope studies in Türkiye, again very few studies were carried out. Akman and Korkut (1993) adapted Snyder et al.'s (1991) Dispositional Hope Scale into Turkish. Although Turkish form of the Dispositional Hope Scale demonstrated satisfactory evidence for validity and reliability, the same factor structure with the original form could not be represented.

Denizli (2004) investigated the role of hope and study skills in predicting test anxiety levels of female and male students. Results indicated that emotionality scores of female students were predicted by the state hope, dispositional hope, course participation, and effective reading whereas state hope, course participation, and effective reading appeared to be significant predictors of the worry scores of the female students. On the other hand, state hope, preparation for exams, the dispositional hope, and the listening predicted the emotionality scores of male students while worry scores were predicted by state hope, preparation for exams, the dispositional hope, motivation, health and nutrition, and writing. Moreover, Denizli (2004) adapted Snyder et al.'s (1996) State Hope Scale into Turkish. Turkish form of the State Hope Scale presented satisfactory evidence for validity and reliability and represented the same factor structure with the original scale.

Many studies were carried dealing with anxiety and academic achievement issues in Türkiye. However, these studies mostly concentrated on test anxiety and students success in UEE. As the examination has been exposed to frequent changes in its

composition almost each year, researcher of the present study has considered reviewing the literature related to this field.

Erkan (1991) reported that, Student Selection Examination scores were predicted by high school academic achievement, preparation level to exam, general academic ability, and achievement motivation rather than test anxiety. As test anxiety was a weak predictor of Student Selection Examination scores, this result might have stemmed from several other confounding variables.

Contrary to Erkan's findings, Özdemir (2002) reported that test anxiety was a significant predictor of the achievement in University Entrance Examination, along with the psychological symptoms and academic self-concept.

On the other hand, Çavuşoğlu (1993) reported no significant effect of state anxiety on the achievement scores of students in Anatolian high school entrance examination.

Koçkar and Gençöz (2004) investigated the importance of different sources of perceived social support, sociotropic and autonomic personality dispositions, achievement expectation, and importance of academic achievement in predicting anxiety symptoms of male and female students who were preparing for the university entrance exam. The results indicated that in only male students, achievement expectations predicted the anxiety.

Apart from the studies regarding the separate self-efficacy, hope, and anxiety relationships with academic achievement, research was also conducted in educational settings with several variables that were involved in the present study. For example, Bilgin (1996), found that group guidance activities aiming to raise the social self-efficacy expectation level of low social self-efficacious elementary students were

effective.

On the other hand, gifted students found to be more self-efficacious than their non-gifted counterparts (Çatalbaş, 1998).

Öğüt (2000) found that low level of trait anxiety in high school students was significantly related to high-quality family relationship and social relationships, increasing level of social adjustment and diminishing anti-social tendencies.

Sargin (1990) reported gender difference among high school students in terms of state-trait anxiety levels. Female students were found to be more anxious than male students. Moreover, ninth grade students obtained higher scores from State Trait Anxiety Inventory than eleventh grade students preparing for university entrance examination right after the first step scores (ÖSS) were announced.

Although there has been some research conducted to investigate the predictive power of academic self-efficacy, hope and anxiety for academic achievement in western literature, limited research, particularly for the academic self-efficacy and hope concepts have been carried out in Türkiye. The present research is designed to fill this gap and expected to contribute to the further understanding of academic self-efficacy, hope, and anxiety constructs as the predictors of academic achievement.

### **1.5. Significance of the Study**

A close inspection of all related research results seem to indicate that, the role of academic self-efficacy, hope, and anxiety in predicting academic achievement cannot be ignored.



The present study is considered important because research conducted on self-efficacy and scholastic achievement relationship in Türkiye appears rather limited. Since student self-efficacy beliefs were considered as the essential aspects of academic success, aspirations, and motivation, promoting students' self-beliefs in school settings should be the main tasks of the school counselors and teachers.

Moreover, according to results of PISA (2003), Turkish high school students' self-efficacy beliefs on mathematics are very low; especially girls are under the average point. The present study may contribute to understand the role of self-efficacy and gender in predicting achievement.

Similar to self-efficacy, hope is also a neglected concept that needs to be investigated in Turkish samples. Previous research indicates that hope is one of the prerequisites to accomplish scholastic success for students. Therefore, this study also included hope as a prospective predictor of academic achievement.

On the other hand, one of the fundamental feelings that hinder student performance is anxiety when it is excessive. Although it is considered that self-efficacy and hope are interrelated constructs, as aforementioned, literature proposes that anxiety is also theoretically related to self-efficacy and hope. Furthermore, there has been a paucity of research into investigating the predictive power of all of these concepts on academic achievement in Turkish literature.

Since relevant literature reveals inconsistent results about gender differences in predicting academic achievement, the present study also examines whether gender is an important predictor of UEE scores in different fields. In addition to gender, income level of the family is considered to be one of the essential variables of the present study, as succeeding at the UEE is getting expensive every year due to the private course expenses. Thus, income levels of students' parents are also included in

the regression equation to investigate the predictive power of income level of the family on the UEE.

Moreover, students' achievement scores in the UEE vary depending on their selected field in high school. For instance, quantitative students generally get the highest scores as they have a chance to response all the questions; however, it is not possible for equally weighted and language field students to respond to all of the questions especially in the quantitative parts of the examination. Thus, taking the disadvantage of equally weighted and language students into consideration, three separate regression analyses were conducted to investigate the possibly diverse predictors among the three fields.

Furthermore, students' school types were also considered to be an important predictor of student success at UEE. Unless students have capabilities and determination to be successful at UEE, there cannot be any achievement; however, school's education policies are also important contributors of student success. Therefore, school types are also included within the predictor variables to find out whether students' UEE scores may be explained by their school types.

UEE is a crucial experience for the adolescents in our country. Accordingly, depending on the predictive power of self-efficacy and its dimensions, state and dispositional hope, and state and trait anxiety on UEE scores, one of the tasks of the school counselors is expected to promote the self-efficacy and hope levels of the students and alleviate their anxiety far before the exam takes place.

Additionally, in the present study, two new measures are introduced; College Academic Self-Efficacy Scale (Owen, 1988) and College Student Self-Efficacy Scale (Landry, 2003). It is expected that CASES and CSSES would enhance the attempts of future research in both academic self-efficacy and self-efficacy fields among

Turkish researchers.

### **1.6. Purpose of the Study**

Based on the aforementioned reasons, the aim of this study is to investigate the role of student self-efficacy, academic self-efficacy, state and dispositional hope, and state and trait anxiety in predicting UEE scores of students. In addition, gender, income level of the family, and school type were included as the predictor variables in the study.

### **1.7. Research Questions**

Research questions of present research are as follows:

**(a)** How much variance is explained on 11<sup>th</sup> grade students' quantitative scores of UEE by student self efficacy scores and its dimensions, academic self-efficacy scores and its dimensions, state hope and its dimensions, dispositional hope and its dimensions, state anxiety, trait anxiety, income level of the family, school type, and gender?

**(b)** How much variance is explained on 11<sup>th</sup> grade students' equally weighted scores of UEE by student self efficacy scores and its dimensions, academic self-efficacy scores and its dimensions, state hope and its dimensions, dispositional hope and its dimensions, state anxiety, trait anxiety, income level of the family, school type, and gender?

**(c)** How much variance is explained on 11<sup>th</sup> grade students' language scores of UEE by student self efficacy scores and its dimensions, academic self-efficacy scores and its dimensions, state hope and its dimensions, dispositional hope and its dimensions,

state anxiety, trait anxiety, income level of the family, school type, and gender?

### **1.8. Definition of Terms**

The terms that were used in this study can be defined as follows:

**Academic Self-Efficacy:** “Personal judgments of one’s capabilities to organize and execute courses of action to attain designated types of educational performances” (Bandura, 1977; as cited in Zimmerman, 1995, p. 203).

**State Hope:** Hope of an individual, in the “here and now” frame, for a specific goal situation (Snyder et al., 1996).

**Dispositional Hope:** A cognitive set that is based on reciprocally derived sense of agency and pathways (Snyder et al., 1991, p.571).

**State Anxiety:** “A transitory emotional state or condition of the human organism that is characterized by subjective, consciously perceived feelings of tension and apprehension and heightened autonomic nervous system activity” (Spielberger et al., 1970; as cited in Spielberger, 1971).

**Trait Anxiety:** “Relatively stable individual differences in anxiety proneness, that is, to differences between people in the tendency to respond to situations perceived as threatening with elevations in A-State intensity” (Spielberger et al., 1970; as cited in Spielberger, 1971).

## **CHAPTER II**

### **METHOD**

In this chapter, methodological details of the study are presented. The first section addresses the characteristics of the subjects who participated in the study. The data collection instruments implemented to the participants are introduced in the second section. The third section explains the procedure followed in the study. Finally, the fourth section deals with the data analyses employed to the data.

#### **2.1. Participants**

Convenient sampling method was used in the present study and 786 volunteered students from six different private courses for university entrance preparation and then entered the examination participated in the study. In fact, the expected number of the participants was much higher. However, the UEE scores of 33 students could not be reached. Twelve quantitative field students scored low at UEE. Thus, the researcher thought that they could make preferences from both quantitative and equally weighted fields and excluded these participants from the study. Fourteen cases that consisted of 3 science lycee, 11 other lycee that would not be acceptable to enter the regression equation to investigate the predictive power of the school type were excluded. Ten cases that were detected as univariate and multivariate outliers were also excluded from the study. Final analyses were carried out with 786 remaining participants. Out of 786, 442 of the participants were females (56,2 %) and 344 of the were males (43,8 %).

## **2.2. Instruments**

Demographic Information Form (See Appendix A), Turkish version of College Academic Self-efficacy Scale (See Appendix B), Turkish version of College Student Self-efficacy Scale (See Appendix C), Turkish form of State Hope Scale (Denizli, 2004) (See Appendix D), Turkish form of Dispositional Hope Scale (Akman & Korkut, 1993; Denizli, 2004) (See Appendix E), Turkish form of State Anxiety Inventory (Öner & Le Compte, 1983; as cited in Öner, 1997) (See Appendix F) and Turkish form of Trait Anxiety Inventory (Öner & Le Compte, 1983; as cited in Öner, 1997) (See Appendix G) were used to collect data in the present study.

### **2.2.1. Demographic Information Form**

Demographic Information Form was employed to obtain information about the participants' name, gender, school type, income level of the family, and Republic of Türkiye (TC) Identity Number to reach students' UEE scores that were used as the criterion variable in the study.

### **2.2.2. College Academic Self-efficacy Scale (CASES)**

Academic self-efficacy beliefs of students were assessed with the College Academic Self-efficacy Scale (Owen, 1988), which was adapted into Turkish by the researcher. College Academic Self-efficacy Scale (CASES) measures the amount of confidence a student has in relation to taking notes, answering questions, writing, attending class on a regular basis, using a computer, and the like (Trevathan, 2002). CASES is a thirty three-item, five-point-Likert type scale ranging from 5 (quite a lot of confidence) to 1 (no confidence at all). As total score is calculated by getting the mean score, the scores that can be obtained from the scale ranges between 1 and 5.

The original version of CASES was administered twice over an 8-week interval to two different group of educational and psychology students. Internal consistency estimates for the two occasions were .90 and .92. The 8-week stability estimate was .85.

Two different criteria were used to estimate concurrent validity, each suggested by self-efficacy theory: frequency of performing each task, and enjoyment of each task. In separate studies, arranged as incremental validity research, the students were asked for 5-point self-ratings on frequency (How often do you perform the task) and enjoyment (How much do you enjoy it) for each of the 33 academic behaviors on CASES (Owen, 1988). The academic self-efficacy explicated a strong incremental validity further than that GPA did alone. In a variation of these concurrent validity studies, the two samples were joined, and grade was regressed hierarchically on GPA, then CASES score. Joining the scores of the two samples of the CASES increased  $r$  from .62 to .81 (Owen, 1988).

#### **2.2.2.1. Adaptation Study of CASES**

First, the necessary permission was obtained by Steve Owen who developed the original CASES (see Appendix H). Next, the translation study of the CASES was carried out. Original forms of CASES were given to 3 judges working as academicians in the Faculty of Education, Middle East Technical University, who have an adequate knowledge in the area of counseling and psychology, along with a good command in both English and Turkish. Back translation of the instrument was purposefully avoided as the adequacy of the translation could be threatened and created both concept and item bias (Van de Vijver & Hambleton, 1996). Then, 2 academicians were consulted for expert opinion for the three different translations. The researcher and her supervisor also evaluated the selected items from different Turkish translations of the CASES. In order to investigate whether there is any

incomprehensible item or any other problem in the scale, a pilot study was conducted in a randomly selected class of Kılıçarslan High School in Yüzüncüyıl. The students' reports were positive regarding comprehension of the items. Thus, the final form of the Turkish version of the CASES was formed.

#### **2.2.2.2. Factor Analysis of Turkish version of CASES**

Prior to factor analysis, a missing value analysis was conducted with the data set consisting of 786 cases. Missing values of the cases were not greater than 5 %; thus, the missing values replaced by series mean scores. Moreover, 6 cases with extremely low and high z scores were detected as univariate outliers and excluded from the analysis. Six cases were identified through Mahalanobis distance as multivariate outliers with  $p < .001$  and excluded from the analysis as potential multivariate outliers. Multicollinearity of the data set was also investigated, since there were no VIF values greater than 4 and tolerance levels of variables did not drop under 0,2; the absence of multicollinearity was secured for CASES (Tabachnick & Fidell, 2001, p. 99).

Explanatory factor analysis was conducted using SPSS 11.5. The principal component analysis with Varimax rotation with Kaiser normalization on a sample size of 786 for the 33 items of the CASES was carried out. Results of the analysis yielded six factors with Eigenvalues of 6.951 for factor one; 2.792 for factor two; 1.862 for factor three; 1.498 for factor four; 1.415 for factor five; and 1.280 for factor six, respectively. Scree test (see Appendix I) was also utilized to decide the most meaningful factor structure of the scale. The Scree test suggested a seven-factor structure solution. However, in this solution, many items were loaded on more than one factor. On the contrary, the six-factor solution revealed a better and theoretically more meaningful factor structure. Thus, the researcher and her supervisor decided to use the six-factor solution.



On the other hand, in the six-factor solution, items 1, 2, 3, 5, 7, 8, 11, 12, 23, 24, 26, 28, 29, and 30 were loaded on more than one dimension. The researcher and her supervisor placed these items in the most theoretically meaningful dimensions.

Factor one which was named as “Academic Self-efficacy” subscale was constituted by the items 5, 6, 8, 12, 13, 26, 28, 30, 31, 32, 33 with factor loadings of .34, .38, .37, .49, .70, .46, .41, .54, .62, .71, and .62 respectively. Factor two that was termed as “Characteristics of a Good Citizen” subscale was formed by the items 1, 7, 16, 17, 18, 19, 29 with factor loadings of .55, .42, .57, .68, .63, .62, and .32, respectively. Factor three that was named as “Social Self-efficacy” subscale was made up by the items 2, 3, 14, 15, 25, 27 with factor loadings of .60, .37, .64, .61, .63, and .55, respectively. Factor four named as “Comprehension” subscale was composed by the items 4, 11, 20, 21 with respective factor loadings of .33, .35, .72, and .69. Factor five titled “Academic Helping Efficacy” subscale was constituted by the items 9, 10 with respective factor loadings of .88 and .85. Factor six entitled “Quantitative Self-efficacy” subscale was formed by the items 22, 23, 24 with factor loadings of .74, .43, and .74, respectively. The six-factor solution has approximately explained the 47 % of the total variance. Being different than the three-factor solution that explained the original scale, six factors were named based on their content. Factor loadings of the items are given in Table 2.1.

Table 2.1

*Factor Loadings of CASES Items*

Item	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6
	Academic Self- efficacy	Characteristics of a Good Citizen	Social Self- Efficacy	Comprehension	Academic Helping Efficacy	Quantitative Self-efficacy
Item 32	<b>.71</b>					
Item 13	<b>.70</b>					
Item 31	<b>.62</b>					
Item 33	<b>.62</b>					
Item 30	<b>.54</b>	.40				
Item 12	<b>.49</b>	.37				
Item 26	<b>.46</b>		.42			
Item 28	<b>.41</b>		.33			
Item 6	<b>.38</b>					
Item 29	.40	<b>.32</b>				
Item 8	<b>.37</b>	.33			.30	
Item 17		<b>.68</b>				
Item 18		<b>.63</b>				
Item 19		<b>.62</b>				
Item 16		<b>.57</b>				
Item 1	.30	<b>.55</b>				
Item 7		<b>.42</b>	.34			
Item 14			<b>.64</b>			
Item 25			<b>.63</b>			
Item 15			<b>.61</b>			
Item 2			<b>.60</b>	.31		
Item 27			<b>.55</b>			
Item 3			<b>.37</b>		.30	
Item 20				<b>.72</b>		
Item 21				<b>.69</b>		
Item 5	<b>.34</b>			.58		
Item 11			.31	<b>.35</b>		
Item 4				<b>.33</b>		
Item 9					<b>.88</b>	
Item 10					<b>.85</b>	
Item 22						<b>.74</b>
Item 24	.39					<b>.74</b>
Item 23			.31			<b>.43</b>

These results indicated that the Turkish form of CASES represented a different factor structure than the original form developed by Owen (1988).

### **2.2.1.3. Internal Consistency of CASES**

Internal consistency of the CASES was calculated through the Cronbach alpha estimation that was applied to the research sample. The result showed that the Cronbach alpha coefficient was .87 for the overall scale, .81 for Academic Self-efficacy, .70 for Characteristics of a Good Citizen, .71 for Social Self-efficacy, .54 for Comprehension, .88 for Academic Helping Efficacy, and .52 for Quantitative Self-efficacy subscales. This result indicated that the CASES had satisfactory support for internal consistency.

### **2.2.3. College Student Self-Efficacy Scale (CSSES)**

The College Student Self-Efficacy Scale (CSSES) was used to measure students' strengths of self-efficacy beliefs (Landry, 2003) and adapted into Turkish by the researcher. College Student Self-Efficacy is a multidimensional scale and contained the following dimensions: self-efficacy for self-regulated learning, self-efficacy for academic achievement, financial attitudes/difficulties, and career decision-making. Items on the CSSES were adopted from Zimmerman et al. (1992); Roeser, Midgley, and Urdan (1996); Pintrich and DeGroot (1990); Canbrera et al. (1992); Cabrera (1988); Mallette and Cabrera (1991); and Bienvenu (2000) (as cited in Landry, 2003). CSSES is a 32-item scale to which students respond using a four-point-Likert scale ranging from 1=Very Weak to 4=Very Strong. The scores that can be obtained from the scale range between 32 and 128.

The results of the factor analytic study of the original scale revealed a five- factor solution (Landry, 2003) that best represents the decision rules established for

retaining items on factors, the best structure for the initial item pool, and the variance explained by various solutions. “Organizing and Planning Major” factor accounted for 26.8 %; “Academic Efficacy” factor accounted for 7.7 %; “Learning Efficacy” factor accounted for 7.2 %; “Verbal Efficacy” accounted for 4.9 %; and “Quantitative and Scientific Efficacy” factor accounted for the 4.2 % of the total variance in the solution. Finally, the total variance explained by the five-factor solution was 50.8 % for the original scale.

#### **2.2.3.1. Adaptation Study of CSSSES**

Similar to CASES, first, translation study of the CSSSES was carried out. Three judges working as academicians in the Faculty of Education, Middle East Technical University, who have an adequate knowledge in the area of counseling and psychology along with a good command in both English and Turkish were given the original form of the CSSSES. Back translation of the instrument was again purposefully avoided as the adequacy of the translation could be threatened and created both concept and item bias (Van de Vijver & Hambleton, 1996). Then, 2 academicians were consulted for expert opinion of the three different translations. Finally, the researcher and her supervisor evaluated the selected items from different Turkish translations of the CASES. In order to check out whether there is any incomprehensible item or other problems, a pilot study conducted in a randomly selected class of Kılıçarslan High School in Yüzüncüyıl. Although all the items were found clear, students expressed that the four-point response format was inadequate as it did not have a midpoint. Based on this information, the researcher and her supervisor decided to change four-point-Likert scale into five-point-Likert scale. Thus, the final form of the Turkish version of the CASES was formed.

### **2.2.3.2. Factor Analysis of the Turkish version of CSSES**

Data was ready for factor analysis as the requirements for factor analysis were fulfilled before the Factor Analysis of CSSES. SPSS 11.5 version with the principal component analysis with Varimax rotation was used to conduct factor analysis on a sample size of 786 for the 32 items of the CSSES. The dimensionality of the 32 items from the CSSES was analyzed using Varimax rotation with Kaiser normalization. Three criteria were used to determine the number of factors to rotate: the a priori hypothesis that the scale was multidimensional, the Scree test (see Appendix J) and the interpretability of the factor solution.

Results of the analysis yielded five factors with Eigenvalues of 7.336 for factor one; 3.057 for factor two; 2.368 for factor three; 1.881 for factor four; and 1.201 for factor five, respectively. However, in the five-factor solution, items 8, 9, 12, 13, 18, 20, 22, 26, and 27 were loaded on more than one dimension. Thus, these items were placed in the most theoretically meaningful dimensions by the researcher and her supervisor.

Factor one entitled “Organizing and Planning School Work” subscale was constituted by the items 1, 2, 3, 4, 5, 6, 7, 9, 17 with factor loadings of .67, .69, .60, .64, .58, .71, .71, .33, and .32, respectively. Factor two named “Career Planning” subscale was formed by the items 22, 23, 24, 25, 26, 27, 28, 29, 30, 31 with factor loadings of .32, .58, .58, .46, .54, .57, .59, .55, .73, and .66 respectively. Factor three titled “Learning Self-efficacy” subscale was made up by the items 13, 14, 15, 16, 20 with factor loadings of .76, .79, .87, .76, and -.56 respectively. for Factor four termed “Academic Self-efficacy” subscale was composed by the items 8, 10, 11, 12, 32 with factor loadings of .45, .54, .53, .46, and .49 respectively and factor five labeled “Communication Efficacy” subscale was constituted by the items 18, 19, 21 with factor loadings of .39, .89, and .89 respectively. The five-factor solution

approximately explained the 49 % of the total variance. Factor loadings of the items are given in Table 2.2.

Table 2.2

*Factor Loadings of CSSES Items*

Item	Factor 1 Organizing and Planning School Work	Factor 2 Career Planning	Factor 3 Learning Self-Efficacy	Factor 4 Academic Self-Efficacy	Factor 5 Communication Efficacy
Item 7	<b>.71</b>				
Item 6	<b>.71</b>				
Item 2	<b>.69</b>				
Item 1	<b>.67</b>				
Item 4	<b>.64</b>				
Item 3	<b>.60</b>				
Item 5	<b>.58</b>				
Item 17	<b>.32</b>				
Item 30		<b>.73</b>			
Item 31		<b>.66</b>			
Item 28		<b>.59</b>			
Item 24		<b>.58</b>			
Item 23		<b>.58</b>			
Item 27	<b>.39</b>	<b>.57</b>			
Item 29		<b>.55</b>			
Item 26		<b>.54</b>		<b>.41</b>	
Item 25		<b>.46</b>			
Item 15			<b>.87</b>		
Item 14			<b>.79</b>		
Item 16			<b>.76</b>		
Item 13			<b>.76</b>	<b>.35</b>	
Item 20			<b>-.56</b>		<b>.30</b>
Item 10				<b>.54</b>	
Item 11				<b>.53</b>	
Item 32				<b>.49</b>	
Item 9	<b>.33</b>			<b>.41</b>	
Item 12	<b>.45</b>			<b>.46</b>	
Item 8	<b>.36</b>			<b>.45</b>	
Item 22		<b>.32</b>		<b>.38</b>	
Item 19					<b>.89</b>
Item 21					<b>.89</b>
Item 18				<b>.33</b>	<b>.39</b>

These results along with the Scree plot showed that the Turkish form of CSSES represented the same factor structure with the original form developed by Landry (2003). Since the author of the original CSSES (Landry, 2003) could not be reached by the researcher, whether the item loadings and the factor structure are identical. However, these findings were accepted as the construct validity evidence of the Turkish version of CSSES.

#### **2.2.3.3. Internal Consistency of CSSES**

Cronbach alpha estimation was applied to the same sample in order to calculate internal consistency of the CSSES. The results showed that Cronbach alpha coefficient was .87 for overall scale, .81 for Organizing and Planning School Work, .83 for Career Planning, .63 for Learning Self-efficacy, .59 for Academic Self-efficacy, .72 for Communication Efficacy subscales of the CSSES. These results indicated that the CSSES had satisfactory support for internal consistency.

#### **2.2.4. State Hope Scale (SHS)**

The original State Hope Scale (Snyder et al., 1996) was used to assess students' hope toward specific, present goal-related situations. SHS is an eight-point-Likert type scale composed of three Pathways thinking items and three Agentic thinking items. The possible maximum score can be obtained from the scale is 48 and the minimum is 6. Pathways thinking subscale items are 1, 3 and 5, while Agentic thinking items are 2, 4 and 6. The overall Cronbach alpha coefficient for the original form of SHS was .88, and the Cronbach alpha coefficients for subscales ranged from .52 to .59 (Snyder et al., 1996).

Adaptation study of SHS was carried out by Denizli (2004). First, the original form of SHS was given to 3 judges working as academicians in the Faculty of Education,



Middle East Technical University, who have an adequate knowledge in the area of counseling and psychology along with a good command in both English and Turkish. In order to avoid possibility of inadequacy of the translation and, concept and item bias formation, back translation of the instrument was not executed. Denizli and his supervisor evaluated the Turkish translations of the SHS, and then the final form of the Turkish version of the SHS was formed. Second, the author of the original form of SHS was asked for permission to prepare the four-point-Likert type version of the scale, so as to make the translation much more suitable to Turkish version. Third, factor analysis for the Turkish form of the SHS was conducted and two-factor solution explained the 57 % of the total variance. These two factors were named as were the original subscales. Finally, reliability of Turkish form of the SHS was investigated and internal consistency coefficients of .48 for overall scale, .58 for pathways thinking and .66 for agentic thinking subscales were obtained.

#### **2.2.5. Dispositional Hope Scale (DHS)**

The Dispositional Hope Scale (Snyder et al., 1991) was used to assess students' dispositional hope levels. The DHS is a four-point-Likert type scale and composed of a two- factor solution (Babyak, Snyder, & Yoshinobu, 1993). Twelve items formed the scale, items 1, 4, 7, and 8 were the pathways items; items 2, 9, 10, and 12 were the agency items; and 3, 5, 6, and 11 were the filler items. The Cronbach alpha coefficients ranged from .71 to .76 for the overall scale, from .71 to .76 for the agency subscale, and from .63 to .80 for the pathways subscale (Snyder et al., 1996).

The Dispositional Hope Scale was adapted into Turkish by Akman and Korkut (1993). The reliability of DHS was assessed by internal consistency and test-retest reliability. For the overall scale an internal consistency coefficient of .65 was obtained. Moreover, test-retest correlation coefficient for the scale was .66 in a four-week interval. The factor analysis for the Turkish form of DHS indicated that

Turkish form of DHS had a single factor structure that explained the 26.23, 17.43, and 16.47 percent of the total variance in three separate factor analytic studies conducted with separate Turkish university student samples (Akman & Korkut, 1993). Furthermore, Denizli (2004) conducted a separate factor analytic study to obtain further evidence whether the factor structure differs from the original form in a student sample. Results of the factor analysis yielded a one-factor solution named pathways thinking, with an Eigenvalue of 2.474 that explained the 31 % of the total variance.

#### **2.2.5.1. Construct Validity Study of the DHS for the Present study**

Considering the inconsistency revealed by Akman and Korkut's (1993) and Denizli's (2004) findings regarding the difference of the original factor structure, a separate factor analytic study was conducted to obtain further evidence whether the factor structure differs from the original form in the present sample. The factor analysis was conducted with SPSS 11.5 version on a sample size of 786 for the 12 items of the Turkish form of DHS. The dimensionality of the 12 items from the DHS was analyzed using Varimax rotation with Kaiser normalization. Three criteria were used to determine the number of factors to rotate: the a priori hypothesis that the scale was multidimensional, the Scree test (see Appendix K) and the interpretability of the factor solution.

Results of the factor analysis yielded two factors with Eigenvalues with 3.451 for factor one and 1.488 for factor two, respectively. This two-factor solution approximately explained the 50 % of the total variance. Although this finding was inconsistent with the findings of Akman and Korkut (1993) and Denizli (2004), it was consistent with the factor structure of the original scale (Snyder et al., 1991). Items 1, 4, 7, 8 which formed Pathways Thinking subscale of the original scale had factor loadings of .78, .61, .74, and .68 respectively for factor 1. Items 2, 9, 10, 12

which constituted Agentic Thinking in the original scale had factor loadings of .47, .59, .79, and .74 for factor 2 respectively. These two factors were named as were the original subscales. Factor Loadings of the items are presented in Table 2.3.

Table 2.3

*Factor Loadings of DHS Items*

Item	Factor 1	Factor 2	Factor 3
	Pathways Thinking	Agentic Thinking	Filler Items
Item 1	<b>.78</b>		
Item 7	<b>.74</b>		
Item 8	<b>.68</b>		
Item 4	<b>.61</b>		
Item 2	.48	<b>.47</b>	
Item 10		<b>.79</b>	
Item 12		<b>.74</b>	
Item 9		<b>.59</b>	
Item 3			.71
Item 11			.70
Item 6			.66
Item 5	-.36		.36

Cronbach alpha reliability was also calculated in the research sample for the DHS. The results showed that Cronbach alpha coefficient were .51 for overall scale, .72 for Pathways subscale and .66 for Agency subscale. These results indicated that, although modest, DHS had satisfactory support for internal consistency.

### **2.2.6. State-Trait Anxiety Inventory (STAI)**

State-Trait Anxiety Inventory was developed by Spielberger and his colleagues (1970; as cited in Öner, 1997). STAI was derived from the “Two Factor Anxiety Theory” of Spielberger and adapted into Turkish by Öner and Le Compte (1983; as cited in Öner, 1997). STAI is a 40-item four point Likert type inventory with direct and reverse statements; direct ones express negative feelings and reverse ones express positive feelings. For reverse statements, a selection of response number 4 weighs 1 while a selection of response number 1 (almost never) weighs 4 and thus indicates high levels of trait anxiety.

The validity of STAI was assessed through construct validity studies for both subscales named state and trait anxiety of STAI. Construct validation of the Turkish version of inventory is examined by comparing known groups (normal and psychiatric groups). The average scores of TAI and SAI revealed a difference between normal individuals and psychiatric patients, which confirmed evidence for the construct validity of the STAI.

Öner and Le Compte (1983; as cited in Öner, 1997) reported that the state anxiety scores first increased and later decreased. However in trait anxiety scores no such changes was observed. These results were consistent with the two factor anxiety theory. These studies were replicated with the same participants between 10 days and a year interval and consistent results were obtained from the same subjects. Additionally, the average of the correlations between trait and state anxiety items in different applications was found .62 ( $p < .01$ ); thus, the construct validity of the STAI was confirmed by these results.

The psychometric properties of the Trait and State anxiety subscales of the STAI that were included in the regression equation are explained below in further details.

### **2.2.6.1. State Anxiety Inventory (SAI)**

State anxiety levels of students were assessed with the State Anxiety Inventory (Spielberger, 1970; as cited in Sarıgül, 2000). SAI is a four-point-Likert type scale composed of 20 items which requires short self-report statements aiming at determining people's state anxiety feelings in specific situations (Sarıgül, 2000). The possible maximum score that can be obtained from the scale is 80 and the minimum is 20. A higher score obtained from the inventory indicates higher level of state anxiety. Cronbach alpha coefficients ranged from .94 to .96 for the SAI (Öner & Le Compte, 1983; as cited in Öner, 1997).

The reliability of SAI was assessed by internal consistency and test-retest reliability techniques. Internal consistency coefficient range of the SAI was .42 to .85. Besides, test-retest correlation coefficients for the scale were examined in five separate student groups and correlation coefficients ranged from .26 to .68 in 10, 15, 30, 120, and 365 day intervals (Öner & Le Compte, 1983; as cited in Öner, 1997).

### **2.2.6.2. Trait Anxiety Inventory (TAI)**

Trait anxiety levels of students were assessed with the Trait Anxiety Inventory (Spielberger, 1970; as cited in Sarıgül, 2000). TAI is a self-report questionnaire consisted of short statements aim at determining people's inclination to experience anxiety throughout a diversity of situations (Sarıgül, 2000). TAI is a four-point-Likert type scale consisted of 20 items. The possible maximum score that can be obtained from the scale is 80 and the minimum is 20. Higher score obtained from the inventory indicates higher level of trait anxiety. Cronbach alpha coefficients ranged from .83 to .87 for the TAI. (Öner & Le Compte, 1983; as cited in Öner, 1997).

The reliability of TAI was assessed by internal consistency and test-retest reliability techniques. For the overall subscale, internal consistency coefficients ranged between .34 and .72. Moreover, test-retest correlation coefficients for the scale ranged between .71 to .86 in 10, 15, 30, 120, and 365 day intervals (Öner & Le Compte, 1983; as cited in Öner, 1997).

### **2.3. Procedure**

A set of instruments consisting of the six scales (CASES, CSSES, SHS, DHS, and STAI) was prepared to collect data. This set also contained demographic questions such as gender and income level of the family. The researcher visited different private university preparation courses in order to get permission to apply the set to their 11<sup>th</sup> grade students who would enter UEE. Six of these private courses assisted the researcher with different attitudes; two of these courses permitted the researcher to administer the form during the class time; one of them administered the forms via the personnel working in their guidance services. The rest accepted such an application if students fill the forms at home. The forms would be collected in guidance service of the private course and then would be conveyed to the researcher. All the subjects were informed about the study and given instruction for filling the tests by the researcher herself.

### **2.4. Analysis of Data**

To investigate the role of the global self-efficacy scores, academic self-efficacy scores, state hope scores, trait hope scores, state anxiety scores, and trait anxiety scores in predicting the UEE scores, three separate stepwise multiple regression analyses were conducted separately for quantitative, equally weighted, and language scores obtained by the students in UEE.

All the analyses were conducted using the relevant programs of SPSS 11.5.

## **CHAPTER III**

### **RESULTS**

The results of the statistical analyses were presented in this chapter. This chapter includes three main sections. In the first section, the means and standard deviations of the dependent and independent variables for the quantitative, equally weighted, and language groups were given. In the second section, the intercorrelations among the dependent and independent variables were presented. Lastly, the results of the three stepwise multiple regression analyses applied to the UEE scores of quantitative, equally weighted, and language groups were reported.

#### **3.1. Descriptive Statistics Regarding Quantitative, Equally weighted, and Language Samples**

Minimum, maximum scores, means and standard deviations of the independent and dependent variables for the quantitative, equally weighted, and language groups were presented in Table 3.1, Table 3.1.1, and Table 3.1.2.



Table 3.1

*Means and Standard Deviations of the Scores of Dependent and Independent Variables for the Quantitative Sample*

Variables	Quantitative (N=354)			
	Min.	Max.	Mean	SD
<b>Dependent Variable</b>				
University Entrance Examination Score	130.87	298.64	231.65	40.73
<b>Independent Variables</b>				
Academic Self-Efficacy*	-2.65	3.00	.16	.95
Characteristics of a Good Citizen*	-3.81	1.84	-.08	.97
Social Self-Efficacy*	-2.88	2.63	-.06	.94
Comprehension*	-3.83	2.23	-.14	.93
Academic Helping Efficacy*	-3.63	2.13	.05	.98
Quantitative Self-Efficacy*	-2.68	2.41	.49	.73
Organizing and Planning School Work**	-3.53	1.91	-.08	1.03
Career Planning**	-4.86	2.51	-.03	1.03
Learning Self-Efficacy**	-1.56	2.31	.84	.54
Academic Self-Efficacy**	-2.97	2.80	-.04	.95
Communication Efficacy**	-2.77	1.93	-.04	.96
Pathways***	-4.16	1.92	-.03	.95
Agency***	-3.10	2.39	.04	.95
Agency****	-2.71	2.22	-.05	1.02
Pathways****	-3.41	1.80	-.02	.96
State Anxiety	20.00	79.00	48.51	12.21
Trait Anxiety	22.00	74.00	42.05	9.86

\* Subscales of the CASES.

\*\* Subscales of the CSSES.

\*\*\* Subscales of the DHS.

\*\*\*\* Subscales of the SHS.

Table 3.1.1

*Means and Standard Deviations of the Scores of Dependent and Independent Variables for the Equally Weighted Sample*

Variables	Equally Weighted (N=328)			
	Min.	Max.	Mean	SD
<b>Dependent Variable</b>				
University Entrance Examination Score	133.33	289.65	202.19	29.74
<b>Independent Variables</b>				
Academic Self-Efficacy*	-3.53	2.01	-.21	.98
Characteristics of a Good Citizen*	-3.22	1.88	.11	.99
Social Self-Efficacy*	-2.97	2.73	.10	.99
Comprehension*	-6.16	2.34	-.003	1.04
Academic Helping Efficacy*	-2.81	1.82	-.032	1.01
Quantitative Self-Efficacy*	-2.78	1.88	-.12	.84
Organizing and Planning School Work**	-2.93	2.34	.04	.96
Career Planning**	-5.10	1.82	-.00003	.98
Learning Self-Efficacy**	-2.40	1.50	-.59	.66
Academic Self-Efficacy**	-3.42	3.11	.10	1.06
Communication Efficacy**	-2.89	1.92	-.18	1.02
Pathways***	-3.80	1.86	.05	1.02
Agency***	-3.65	2.24	-.07	1.05
Agency****	-2.54	1.89	.005	.97
Pathways****	-3.47	1.80	.04	.99
State Anxiety	20.00	80.00	50.53	12.43
Trait Anxiety	22.00	72.00	44.23	10.46

\* Subscales of the CASES.

\*\* Subscales of the CSSES.

\*\*\* Subscales of the DHS.

\*\*\*\* Subscales of the SHS.

Table 3.1.2

*Means and Standard Deviations of the Scores of Dependent and Independent Variables for the Language Sample*

Variables	Language (N=104)			
	Min.	Max.	Mean	SD
<b>Dependent Variable</b>				
University Entrance Examination Score	115.20	296.69	250.45	42.73
<b>Independent Variables</b>				
Academic Self-Efficacy*	-2.41	2.75	.13	1.06
Characteristics of a Good Citizen*	-2.49	1.76	-.08	1.07
Social Self-Efficacy*	-2.55	2.40	-.13	1.18
Comprehension*	-2.85	1.93	.51	.89
Academic Helping Efficacy*	-2.58	1.67	-.06	.97
Quantitative Self-Efficacy*	-3.32	1.23	-1.27	.99
Organizing and Planning School Work**	-2.88	1.89	.16	.97
Career Planning**	-2.77	1.62	.11	.92
Learning Self-Efficacy**	-2.08	1.02	-1.01	.74
Academic Self-Efficacy**	-2.51	2.55	-.18	.91
Communication Efficacy**	-2.17	1.90	.74	.63
Pathways***	-2.91	1.72	-.03	1.07
Agency***	-2.65	1.86	.09	.97
Agency****	-2.29	1.97	.16	.99
Pathways****	-3.65	1.80	-.07	1.13
State Anxiety	22.00	76.00	51.25	13.51
Trait Anxiety	23.00	76.00	44.01	10.77

\* Subscales of the CASES.

\*\* Subscales of the CSSES.

\*\*\* Subscales of the DHS.

\*\*\*\* Subscales of the SHS.

## **3.2. Bivariate Correlation Matrices of the Variables**

Intercorrelations among the scores of the dependent and independent variables for the quantitative, equally weighted, and language groups were given in Table 3.2 (Appendix L), Table 3.3 (Appendix M), and Table 3.4 (Appendix N), respectively.

### **3.2.1. Bivariate Correlation Matrix for the Quantitative Group**

The correlation coefficients of the scores of the independent variables and the dependent variable of UEE scores of the quantitative sample were given in Appendix L.

The correlations among variables changed from  $-.374$  to  $.705$ . Most of the correlations among the predictors were low and no extreme correlation was observed.

### **3.2.2. Bivariate Correlation Matrix for the Equally Weighted Group**

The correlation coefficients of the scores of the independent variables and dependent variable of UEE scores of the equally weighted sample were presented in Appendix M.

The correlations among variables varied from  $-.402$  to  $.748$ . Most of the correlations among the predictors were low and moderate, only a few of the correlations were relatively high. However, according to Tabachnick and Fidell (2001) in order to claim that multicollinearity problem occurs, the correlation should be  $.90$  and above.

### **3.2.3. Bivariate Correlation Matrix for the Language Group**

The correlation coefficients of the scores of the independent variables and UEE scores of the language sample were presented in Appendix N.

The correlations among variables changed from  $-.480$  to  $.701$ . The results yielded that most of the correlations were low, only a few of the correlations were relatively high. However, they were all above  $.90$  (Tabachnick & Fidell, 2001).

### **3.3. The Results of the Stepwise Multiple Regression Analyses**

Three separate stepwise multiple regression analyses were conducted for the UEE scores of the three separate samples of Quantitative, Equally weighted, and Language fields. Results of the stepwise multiple regression analyses employed to the UEE scores of different samples to predict the effect of the subscale scores of CASES, CSSES, SHS, DHS, and SAI and TAI scores on the UEE scores were presented in the following sections.

#### **3.3.1. The Results of the Stepwise Multiple Regression Analysis Employed to the UEE Scores of the Quantitative Sample**

Stepwise multiple regression analysis for assessing the predictors of quantitative students' UEE scores was conducted with 6 subscales' scores of CASES, 5 subscales' scores of CSSES, 2 subscales' scores of SHS, 2 subscales' scores of DHS, scores of SAI, scores of TAI, income level of the family, dummy-coded gender, and dummy-coded school type as the predictors.

Table 3.5 presents the summary of the multiple regression analysis applied to the UEE scores of the quantitative sample.

Table 3.5

*R, R Square Change and Adjusted R Square Predicting the UEE Scores of the Quantitative Sample*

Variable N=354	R	R Square	Adjusted R Square	R Square Change	F Change	df1	df2	Sig. F Change
AHS	.502	.252	.250	.252	118.511	1	352	.000
SL	.591	.349	.345	.097	52.425	1	351	.000
CSSSES3	.643	.414	.409	.065	38.604	1	350	.000
PS	.671	.450	.443	.036	22.714	1	349	.000
CASES1	.690	.476	.468	.026	17.482	1	348	.000
SAI	.703	.494	.485	.018	12.274	1	347	.001
CSSSES2	.713	.509	.499	.015	10.740	1	346	.001
CASES2	.721	.520	.509	.011	8.136	1	345	.005
SHS2	.727	.529	.517	.009	6.386	1	344	.012
ILF	.733	.537	.524	.008	6.220	1	343	.013

Note: AHS: Anatolian High School; SL: Super Lycee; CSSSES3: Learning Self-efficacy subscale of CSSSES; PS: Private High School; CASES1: Academic Self-efficacy subscale of CASES; SAI: State Anxiety Inventory; CSSSES2: Career Planning subscale of CSSSES; CASES2: Characteristics of a Good Citizen subscale of CASES; SHS2: Agentive Thinking subscale of SHS; ILF: Income level of the family.

Table 3.5.1

*B, Beta's Correlations and Significance Level Predicting the UEE Scores of the Quantitative Sample*

Variables	B	Std. Error	Beta	t	Significance
(Constant)	192.512	8.823		21.819	.000
AHS	53.688	4.302	.559	12.478	.000
SL	31.278	3.663	.375	8.540	.000
CSSSES3	15.855	2.939	.214	5.394	.000
PS	29.517	7.214	.159	4.091	.000
CASES1	5.939	1.827	.140	3.251	.001
SAI	-.284	.140	-.085	-2.025	.044
CSSSES2	-5.430	1.491	-.138	-3.642	.000
CASES2	-5.360	1.657	-.128	-3.234	.001
SHS2	4.715	1.772	.119	2.661	.008
ILF	1.837	.737	.094	2.494	.013

As can be seen in Table 3.5, Anatolian High School, Super Lycee, Learning Self-efficacy subscale scores of CSSSES, Private High School, Academic Self-efficacy subscale scores of CASES, State Anxiety Inventory scores, Career Planning subscale scores of CSSSES, Characteristics of a Good Citizen subscale scores of CASES, Agentive Thinking subscale scores of SHS, and income level of the family appeared as significant predictors, explaining approximately 52 % of the total variance of UEE scores of the Quantitative sample.

The first variable entered into the equation was the Anatolian High School type. The regression equation with Anatolian High School type was significant,  $R^2 = .25$ , adjusted  $R^2 = .25$ ,  $F(1, 352) = 118.51$ ,  $p < .001$ . This variable alone accounted for the 25.2 % of the variance.

Super Lycee school type entered into the equation as the second variable. The regression equation with Super Lycee was also significant,  $R^2 = .35$ , adjusted  $R^2 = .35$ ,  $F(1, 351) = 52.43$ ,  $p < .001$ . Super Lycee alone accounted for an additional 9.7 % of the variance.

Five subscale scores of the College Student Self-Efficacy Scale were submitted to the equation as independent variables. Learning Self-efficacy subscale scores entered into the equation as the third variable. The regression equation with Learning Self-efficacy subscale scores was significant,  $R^2 = .41$ , adjusted  $R^2 = .41$ ,  $F(1, 350) = 38.60$ ,  $p < .001$ . This variable alone accounted for the 6.5 % of the variance.

The fourth variable entered into the equation was Private High School type. The regression equation with the Private High School was significant,  $R^2 = .45$ , adjusted  $R^2 = .44$ ,  $F(1, 349) = 22.71$ ,  $p < .001$ . This variable alone accounted for an additional 3.6 % proportion of the total variance.

Six subscales of the College Academic Self-Efficacy Scale were submitted to the regression equation. Academic Self-efficacy subscale scores entered into the equation as the fifth variable. The regression equation with the Academic Self-efficacy subscale scores was also significant,  $R^2 = .48$ , adjusted  $R^2 = .47$ ,  $F(1, 348) = 17.48$ ,  $p < .001$ . This variable alone accounted for the 2.6 % of the total variance.

The sixth variable entered into the equation was State Anxiety Inventory. The regression equation with the State anxiety scores was also significant,  $R^2 = .49$ , adjusted  $R^2 = .49$ ,  $F(1, 347) = 12.27$ ,  $p \leq .001$ . This variable alone accounted for the 1.8 % of the total variance.

Career Planning Self-efficacy subscale of CSSSES was entered into the equation as the seventh variable. The regression equation with Career Planning Self-efficacy subscale scores was also significant,  $R^2 = .51$ , adjusted  $R^2 = .50$ ,  $F(1, 346) = 10.74$ ,  $p \leq .001$ . This variable alone accounted for an additional 1.5 % proportion of the total variance.

Characteristics of a Good Citizen subscale scores of CASES entered into the equation as the eighth variable. The regression equation with the Characteristics of a



Good Citizen subscale scores was also significant,  $R^2 = .52$ , adjusted  $R^2 = .51$ ,  $F(1, 345) = 8.13$ ,  $p \leq .005$ . This variable alone accounted for the 1.1 % of the total variance.

Two subscales of the State Hope Scale were submitted to the regression equation. Agentic Thinking subscale scores entered into the equation as the ninth variable. The regression equation with the Agentic Thinking subscale scores was significant,  $R^2 = .53$ , adjusted  $R^2 = .52$ ,  $F(1, 344) = 6.39$ ,  $p < .05$ . This variable alone accounted for the 0.9 % of the total variance.

The last variable entered into the equation was income level of the family. The regression equation with income level of the family was also significant,  $R^2 = .54$ , adjusted  $R^2 = .52$ ,  $F(1, 343) = 6.22$ ,  $p < .05$ . This variable alone accounted for an additional 0.8 % proportion of the total variance.

### **3.3.2. The Results of the Stepwise Multiple Regression Analysis Employed to the UEE Scores of the Equally Weighted Sample**

Stepwise multiple regression analysis for assessing the predictors of equally weighted students' UEE scores was conducted with 6 subscales' scores of CASES, 5 subscales' scores of CSSES, 2 subscales' scores of SHS, 2 subscales' scores of DHS, scores of SAI, scores of TAI, income level of the family, dummy-coded gender, and dummy-coded school type as the predictors.

Table 3.6 presents the summary of the multiple regression analysis employed to the UEE Scores of equally weighted sample.

Table 3.6

*R, R Square Change and Adjusted R Square Predicting the UEE Scores of the Equally Weighted Sample*

Variable (N=328)	R	R Square	Adjusted R Square	R Square Change	F Change	df1	df2	Sig. F Change
AHS	.441	.195	.192	.195	78.873	1	326	.000
SL	.649	.422	.418	.227	127.611	1	325	.000
CASES1	.680	.462	.457	.040	24.186	1	324	.000
CASES5	.703	.494	.488	.032	20.518	1	323	.000
CASES6	.715	.511	.504	.017	11.280	1	322	.001
DHS1	.723	.523	.514	.012	7.768	1	321	.006
SHS1	.728	.530	.520	.008	5.134	1	320	.024

Note: AHS: Anatolian High School; SL: Super Lycee; CASES1: Academic Self-efficacy subscale of CASES; CASES5: Academic Helping Efficacy; CASES6: Quantitative Self-efficacy; DHS1: Pathways subscale of DHS; SHS1: Agentic Thinking subscale of SHS.

Table 3.6.1

*B, Beta's Correlations and Significance Level Predicting the UEE Scores of the Equally Weighted Sample*

Variables	B	Std. Error	Beta	t	Significance
(Constant)	192.883	1.444		133.554	.000
AHS	55.467	4.661	.467	11.899	.000
SL	31.058	2.705	.451	11.483	.000
CASES1	5.466	1.340	.181	4.078	.000
CASES5	5.488	1.132	.188	4.849	.000
CASES6	4.438	1.403	.125	3.164	.002
DHS1	-3.191	1.163	-.110	-2.744	.006
SHS1	3.059	1.350	.100	2.266	.024

As shown in Table 3.6, Anatolian High School, Super Lycee, Academic Self-efficacy subscale scores of CASES, Academic Helping Efficacy subscale scores of CASES, Quantitative Self-efficacy subscale scores of CASES, Pathways subscale scores of

DHS, and Agency subscale scores of SHS appeared as significant predictors, explaining approximately 52 % of the total variance of UEE Scores of the Equally weighted sample.

The first variable entered into the equation was Anatolian High School type. The regression equation with Anatolian High School was significant,  $R^2 = .20$ , adjusted  $R^2 = .19$ ,  $F(1, 326) = 78.87$ ,  $p < .001$ . This variable alone accounted for the 19.5 % of the variance.

The second variable entered into the equation was Super Lycee type. The regression equation with Super Lycee was also significant,  $R^2 = .42$ , adjusted  $R^2 = .42$ ,  $F(1, 325) = 127.61$ ,  $p < .001$ . Super Lycee alone accounted for an additional 22.7 % of the variance.

Six subscales of the College Academic Self-Efficacy Scale were submitted to the regression equation. Academic Self-efficacy subscale scores of CASES entered into the equation as the third variable. The regression equation with the Academic Self-efficacy subscale score was also significant,  $R^2 = .46$ , adjusted  $R^2 = .46$ ,  $F(1, 324) = 24.19$ ,  $p < .001$ . This variable alone accounted for the 4 % of the total variance.

One of the other subscale score of CASES, Academic Helping Efficacy, entered into the equation as the fourth variable. The regression equation with Academic Helping Efficacy subscale score was significant,  $R^2 = .49$ , adjusted  $R^2 = .49$ ,  $F(1, 323) = 20.52$ ,  $p < .001$ . Academic Helping Efficacy alone accounted for an additional 3.2 % proportion of the variance.

The other subscale of CASES, Quantitative Self-Efficacy, was entered into the equation as the fifth variable. The regression equation with Quantitative Self-Efficacy subscale score was also significant,  $R^2 = .51$ , adjusted  $R^2 = .50$ ,  $F(1, 322) =$

11.28,  $p \leq .001$ . This variable alone accounted for an additional 1.7 % proportion of the variance.

Two subscales of the Dispositional Hope Scale were submitted to the regression equation. Pathways subscale score entered into the equation as the sixth variable. The regression equation with the Pathways subscale score was significant,  $R^2 = .52$ , adjusted  $R^2 = .51$ ,  $F(1, 321) = 7.77$ ,  $p < .01$ . This variable alone accounted for the 1.2 % of the total variance.

Agentic Thinking subscale score of the State Hope Scale also entered into the equation as the last variable. The regression equation with the Agency subscale score was also significant,  $R^2 = .53$ , adjusted  $R^2 = .52$ ,  $F(1, 320) = 5.13$ ,  $p < .05$ . This variable alone accounted for an additional 0.8 % proportion of the total variance.

### **3.3.3. The Results of the Stepwise Multiple Regression Analysis Employed to the UEE Scores of the Language Sample**

Stepwise multiple regression analysis for assessing the predictors of language students' UEE scores was conducted with 6 subscales' scores of CASES, 5 subscales' scores of CSSES, 2 subscales' scores of SHS, 2 subscales' scores of DHS, scores of SAI, scores of TAI, income level of the family, dummy-coded gender, and dummy-coded school type as the predictors.

Table 3.7 presents the summary of the multiple regression analysis employed to the UEE scores of language sample.

Table 3.7

*R, R Square Change and Adjusted R Square Predicting the UEE Scores of the Language Sample*

Variables	R	R Square	Adjusted R Square	R Square Change	F Change	df1	df2	Sig. F Change
CSSES5	.438	.192	.184	.192	24.243	1	102	.000
SL	.536	.287	.273	.095	13.505	1	101	.000
AHS	.724	.524	.509	.236	49.639	1	100	.000
PS	.781	.609	.594	.086	21.730	1	99	.000
SHS1	.803	.645	.627	.036	9.819	1	98	.002
CSSES2	.818	.669	.649	.024	7.038	1	97	.009
CASES3	.836	.698	.676	.029	9.345	1	96	.003

Note: CSSES5: Communication Efficacy subscale of CSSES; SL: Super Lycee; AHS: Anatolian High School; PS: Private High School; SHS1: Agentic Thinking subscale of SHS; CSSES2: Career Planning Self-efficacy subscale of CSSES; CASES3: Social Self-efficacy subscale score of CASES.

Table 3.7.1

*B, Beta's Correlations and Significance Level Predicting the UEE Scores of the Language Sample*

Variables	B	Std. Error	Beta	t	Significance
(Constant)	190.942	4.997		38.212	.000
CSSES5	15.140	4.040	.225	3.747	.000
SL	57.662	6.010	.675	9.595	.000
AHS	71.089	7.361	.683	9.657	.000
PS	58.546	10.861	.345	5.390	.000
SHS1	6.330	2.488	.147	2.544	.013
CSSES2	10.341	2.841	.225	3.640	.000
CASES3	-6.816	2.230	-.188	-3.057	.003

As Table 3.7 shows the Communication Efficacy subscale scores of CSSES, Super Lycee, Anatolian High School, Private High School types, Agentic Thinking subscale scores of SHS, Career Planning Self-efficacy subscale scores of CSSES, and Social Self-efficacy subscale scores of CASES appeared as significant predictors, explaining approximately 68 % of the total variance of the UEE Scores of the language sample.

Five subscale scores of the College Student Self-Efficacy Scale were submitted to the equation as independent variables. The first variable entered into the equation was the Communication Efficacy subscale scores of CSSES. The regression equation with Communication Efficacy subscale score was significant,  $R^2 = .19$ , adjusted  $R^2 = .18$ ,  $F(1, 102) = 24.24$ ,  $p < .001$ . This variable alone accounted for the 19.2 % of the variance.

Super Lycee, Anatolian High School, and Private High School types entered into the equation respectively as the second, third, and fourth variables. The regression equation with Super Lycee was significant,  $R^2 = .29$ , adjusted  $R^2 = .27$ ,  $F(1, 101) = 13.51$ ,  $p < .001$ . This variable alone accounted for an additional 9.5 % proportion of the total variance.

The regression equation with Anatolian High School was also significant,  $R^2 = .52$ , adjusted  $R^2 = .51$ ,  $F(1, 100) = 49.64$ ,  $p < .001$ . Anatolian High School type alone accounted for an additional 23.6 % proportion of the variance.

The regression equation with the Private High School type was also significant,  $R^2 = .61$ , adjusted  $R^2 = .59$ ,  $F(1, 99) = 21.73$ ,  $p < .001$ . This variable alone accounted for an additional 8.6 % proportion of the total variance.

The fifth variable entered into the equation was Agentic Thinking subscale of SHS. The regression equation with Agency subscale score was also significant,  $R^2 = .65$ ,

adjusted  $R^2 = .63$ ,  $F(1, 98) = 9.82$ ,  $p < .005$ . This variable alone accounted for an additional 3.6 % proportion of the total variance.

Career Planning Self-efficacy subscale of CSSES was entered into the equation as the sixth variable. The regression equation with Career Planning Self-efficacy subscale scores was significant,  $R^2 = .67$ , adjusted  $R^2 = .65$ ,  $F(1, 97) = 7.04$ ,  $p < .05$ . This variable alone accounted for an additional 2.4 % proportion of the total variance.

The last variable entered into the equation was Social Self-efficacy subscale score of CASES. The regression equation with Social Self-efficacy subscale scores was also significant,  $R^2 = .70$ , adjusted  $R^2 = .68$ ,  $F(1, 96) = 9.35$ ,  $p < .005$ . This variable alone accounted for an additional 2.9 % proportion of the total variance.

To conclude, the results of the three separate stepwise multiple regression analyses indicated that, the variables predicted the UEE scores varied for quantitative, equally weighted, and language samples. First, being students of Anatolian High Schools and Super Lycees, Learning Self-efficacy scores (CSSES), coming from Private High Schools, Academic Self-efficacy scores (CASES), State Anxiety Inventory scores, Career Planning scores (CSSES), Characteristics of a Good Citizen scores (CASES), Agentic Thinking scores (SHS), and income level of the family were the significant predictors of UEE scores of quantitative students sample.

Second, being students of Anatolian High Schools and Super Lycees, Academic Self-efficacy scores (CASES), Academic Helping Efficacy scores (CASES), Quantitative Self-efficacy scores (CASES), Pathways scores (DHS), and Agency scores (SHS) were significantly predicted the UEE scores of the equally weighted students sample.

Finally, Communication Efficacy scores (CSSES), being the students of Super Lycees, Anatolian High Schools, Private High Schools, Agentic Thinking scores

(SHS), Career Planning Self-efficacy scores (CSSES), and Social Self-efficacy scores (CASES) appeared to be the significant predictors of the UEE scores of language students sample.

### **3.4. Additional Findings Regarding the Suppressor Power of School Types**

Stepwise multiple regression analyses employed to the quantitative, equally weighted, and language samples indicated that school types were the essential predictors of students' UEE scores. Although it was beyond the scope of present study, the suppressor influence of school types urged the researcher to carry out additional analyses to investigate the reason of this domination. First, three separate multiple regression analyses excluding demographic variables employed to quantitative, equally weighted, and language samples were reported. Then, students' scores in predictor variables in terms of their school types were figured out [see in Appendices O (Table 3.8), P (Table 3.8.1), R (Table 3.8.2), & S (Table 3.8.3)].

#### **3.4.1. The Results of the Stepwise Multiple Regression Analyses Excluding Demographic Variables**

The aim of present study were to investigate the role of self-efficacy and its dimensions, academic self-efficacy and its dimensions, state hope and its dimensions, trait hope and its dimensions, state anxiety, trait anxiety, gender, school types, and income level of the family in predicting students' UEE scores; however, predictive power of school types seemed to conceal the contribution of the other predictor variables. Thus, the researcher carried out three multiple regression analyses for quantitative, equally weighted, and language samples excluding the demographic variables of school type, gender, and income level.

The results of the stepwise multiple regression analysis excluding demographic variables employed to the students' quantitative scores indicated that Academic Self-



efficacy subscale scores of CASES, Learning Self-efficacy subscale scores of CSSES, Career Planning Self-efficacy subscale scores of CSSES, Organizing and Planning School Work subscale scores of CSSES, Agency subscale scores of SHS, Characteristics of a Good Citizen subscale scores of CASES, and Agency subscale scores of DHS appeared as the predictor variables approximately explaining the 29 % of the total variance.

Table 3.9 presents the summary of the multiple regression analysis excluding demographic variables employed to the UEE scores of quantitative sample.

Table 3.9

*R, R Square Change and Adjusted R Square Predicting the UEE Scores of the Quantitative Sample (Excluding demographic variables)*

Variables	R	R Square	Adjusted R Square	R Square Change	F Change	df1	df2	Sig. F Change	Beta
CASES1	.37	.14	.14	.14	57.04	1	352	.000	.284
CSSES3	.43	.19	.18	.05	19.79	1	351	.000	.234
CSSES2	.48	.23	.22	.04	19.41	1	350	.000	-.251
CSSES1	.51	.26	.25	.03	14.88	1	349	.000	-.128
SHS1	.53	.28	.27	.02	11.85	1	348	.001	.148
CASES2	.54	.29	.28	.009	4.35	1	347	.038	-.143
DHS2	.55	.30	.29	.01	5.17	1	346	.024	.118

Note: CASES1: Academic Self-efficacy subscale score of CASES; CSSES3: Learning Self-efficacy subscale score of CSSES; CSSES2: Career Planning Self-efficacy subscale of CSSES; CSSES1: Organizing and Planning School Work subscale scores of CSSES; SHS1: Agency subscale scores of SHS; CASES2: Characteristics of a Good Citizen subscale scores of CASES; DHS2: Agency subscale scores of DHS.

Students' equally weighted scores were explained by Agency subscale scores of SHS, Academic Helping Efficacy subscale scores of CASES, Learning Self-efficacy

subscale scores of CSSES, Comprehension Efficacy subscale scores of CASES, Career Planning Self-efficacy subscale scores of CSSES, Academic Self-efficacy subscale scores of CASES, and Pathways subscale scores of DHS in the stepwise multiple regression analysis excluding demographic variables. Moreover, these predictor variables approximately accounted for 20 % of the total variance.

Table 3.10 presents the summary of the multiple regression analysis excluding demographic variables employed to the UEE scores of equally weighted sample.

Table 3.10

*R, R Square Change and Adjusted R Square Predicting the UEE Scores of the Equally Weighted Sample (Excluding demographic variables)*

Variables	R	R Square	Adjusted R Square	R Square Change	F Change	df1	df2	Sig. F Change	Beta
SHS1	.27	.07	.07	.073	25.58	1	326	.000	.133
CASES5	.35	.12	.12	.052	19.21	1	325	.000	.240
CSSES3	.40	.16	.16	.039	15.12	1	324	.000	.161
CASES4	.42	.17	.16	.010	4.02	1	323	.046	.159
CSSES2	.43	.19	.17	.012	4.85	1	322	.028	-.099
CASES1	.45	.20	.19	.014	5.57	1	321	.019	.178
DHS1	.46	.21	.20	.014	5.73	1	320	.017	-.127

Note: SHS1: Agency subscale scores of SHS; CASES5: Academic Helping Efficacy subscale scores of CASES; CSSES3: Learning Self-efficacy subscale score of CSSES; CASES4: Comprehension Self-efficacy subscale scores of CASES; CSSES2: Career Planning Self-efficacy subscale of CSSES; CASES1: Academic Self-efficacy subscale score of CASES; DHS1: Pathways subscale scores of DHS.

Stepwise multiple regression analysis excluding demographic variables that was employed to the students' language scores revealed that Communication efficacy subscale scores of CSSES, Agency subscale scores of SHS, Career Planning subscale

scores of CSSES, and Pathways subscale scores of DHS appeared as the predictor variables approximately explaining the 31 % of the total variance.

Table 3.11 presents the summary of the multiple regression analysis excluding demographic variables employed to the UEE scores of language sample.

Table 3.11

*R, R Square Change and Adjusted R Square Predicting the UEE Scores of the Language Sample (Excluding demographic variables)*

Variables	R	R Square	Adjusted R Square	R Square Change	F Change	df1	df2	Sig. F Change	Beta
CSSES5	.27	.07	.07	.073	25.58	1	326	.000	.421
SHS1	.35	.12	.12	.052	19.21	1	325	.000	.250
CSSES2	.40	.16	.16	.039	15.12	1	324	.000	.219
DHS1	.42	.17	.16	.010	4.02	1	323	.046	-.191

Note: CSSES5: Communication efficacy subscale scores of CSSES; SHS1: Agency subscale scores of SHS; CSSES2: Career Planning Self-efficacy subscale of CSSES; DHS1: Pathways subscale scores of DHS.

Overall, three separate multiple regression analyses excluding demographic variables indicated that students' quantitative, equally weighted, and language scores in UEE were explained by several non-academic predictor variables. However, as these analyses were not within the scope of the present study, results of which were not discussed in the discussion section.

## **CHAPTER IV**

### **DISCUSSION**

This chapter represents the discussion and the interpretations of the results, their implications and recommendations for future research studies.

#### **4.1. Discussion and Interpretations of the Findings**

The purpose of the study was to investigate the role of student self-efficacy and its dimensions, academic self-efficacy and its dimensions, state hope and its dimensions, dispositional hope and its dimensions, and state and trait anxiety in predicting UEE scores of 11<sup>th</sup> grade students. Additionally, several variables such as gender, income level of the family and school type were included as the predictors of the three UEE scores in the present study.

Three separate stepwise multiple regression analyses were employed to examine the role of the predictor variables on the dependent variable; UEE scores. Separate regression analyses investigated any possible differences in the pattern of the predicting variables in the quantitative, equally weighted, and language samples. Bivariate correlations among predictors indicated that multicollinearity problem was not observed among the predictors in three groups.

#### **4.1.1. Discussion Regarding the Predictors of the Quantitative Scores of Students**

The results of the stepwise multiple regression analysis predicting the quantitative scores of UEE revealed that the variables entered in the regression equation were Anatolian High School, Super Lycees, Learning Self-efficacy subscale of CSSES, Private High School, Academic Self-efficacy subscale of CASES, State Anxiety Inventory, Career Planning subscale of CSSES, Characteristics of a Good Citizen subscale of CASES, Agentic Thinking subscale of SHS, and income level of the family, respectively. These variables collectively explained the 52 % of the total variance of quantitative scores of the UEE.

The first variable entered into the equation was Anatolian High School type. As expected, this result indicated a positive relationship between being an Anatolian high school student and the quantitative scores obtained. In other words, Anatolian high school students' quantitative scores are expected to be high. Anatolian high schools are designed for the educationally successful students and naturally those schools' education policies and teacher motivations are likely to be higher in quality as compared to those of the other state high schools. Thus, in the scope of this study, the positive impact of being an Anatolian high school student was an expected result not only for the quantitative sample but also for equally weighted and language samples.

Super Lycee school type entered into the equation as the second predictor. Similar to Anatolian high schools, the students of Super Lycees were expected to be one of the significant predictors of quantitative scores of the UEE. In this regard, a positive correlation was observed between coming from Super Lycee school type and students' quantitative scores which indicates that students of Super Lycees scored higher in the quantitative part of the UEE.

Learning Self-efficacy subscale score of CSSES was the other significant predictor of quantitative scores of the students. This finding indicated that the more self-efficacious the students became, the higher their quantitative scores were. This finding was consistent with the findings of Schunk and his colleagues (1987) that perceived self-efficacy for learning correlates positively with students' rate of solution of arithmetic problems. As quantitative students appear to be the most hardworking ones among the high school students, it is expected that their belief in their ability and success would be related with one another. There seems to be a reciprocal relationship between students' learning self-efficacy and their achievement since their past achievements predict their self-efficacy for the other fields. In other words, if they have a strong belief in learning, they will be able to accomplish it.

The fourth variable entered into the equation was Private High School type. Similar to Anatolian high schools and Super Lycees, Private High Schools were expected to be the significant predictors of quantitative scores of the students. As expected, quantitative scores of students were positively predicted by Private High School type. This result indicated that students taking the quantitative part of the exam from the Private High Schools scored higher in the UEE.

Academic Self-efficacy subscale score of CASES entered into the equation as the fifth variable. In other words, students' perceived ability to realize the given academic tasks successfully at selected levels was one of the significant predictors of quantitative scores. This finding was consistent with Multon and her colleagues' (1991) meta-analytic investigation validating the facilitative role of self-efficacy beliefs in predicting academic performance and persistence. Overall, many research findings, including the present one, indicated that academic self-efficacy is a key predictor of academic achievement (Bandura et al., 1996; Bandura et al., 2001; Caprara et al., 2004; Chemers et al., 2001).

The sixth variable entered into the equation was State Anxiety which showed that quantitative scores of UEE were also explained by the students' state anxiety levels. As anticipated, state anxiety levels related to UEE negatively predicted the quantitative scores. This finding supports numerous research findings in the literature that indicate academic achievement in mathematics (Sewell et al., 1983) and foreign language learning (Daley et al., 1997) were significantly related to low levels of state anxiety. Similarly, Cengiz (1988) also reported that although there were no differences in trait anxiety levels, a considerable difference was reported in state anxiety levels of 11<sup>th</sup> grade students' before and after-ÖSS (as cited in Arslan et al., 2002).

In the light of these, attending the UEE is a vital incident for the students' future plans and the occupations they are planning to select. Moreover, the expectations of parents and the significant others magnify the stress of students. On the other hand, quantitative students are obliged to respond to not only all of the quantitative questions but also they are required to complete as much social sciences questions as they can to get the required scores for their preferences. Besides, the media contribute to worsen students stress by using statements like "great exam getting closer" "students' anxiety levels are at peak point" etc. Thus, becoming anxious for the exam seems inevitable for the students.

Seventh variable entered into the equation was Career Planning Self-efficacy subscale of CSSES that indicated students' career planning efficacy beliefs appeared to be one of the significant predictors of the quantitative scores. However, students' career planning efficacy negatively predicted the UEE scores of quantitative students. This finding is inconsistent with Özyürek's (2002) findings reporting that there were significant relationships among career self-efficacy, secondary education achievement scores, and quantitative and science-mathematics scores of student placement examination (ÖYS) for both male and female students. Similarly, Spitzer (2000) reported a significant negative correlation among GPA and career indecision.

The results of the present study also contradict with Lent, Brown, and Hackett's (1994) emphasis on the crucial role of career-relevant self-efficacy and outcome expectations in shaping vocational interests as well as subsequent goal formation, career decisions, and eventual performance in a career or academic field of study (as cited in Lent, Brown, & Hackett, 2000). Therefore, the aforementioned findings can be interpreted as students with efficacy for planning their careers tend to be good achievers. However, findings of the present study did not support this view. This result was the first inconsistent one with the literature which reported a negative correlation between career planning efficacy and academic achievement. The reason of such a contradictory finding may be related with the present UEE system, as known, the system does not seem to require career planning.

Characteristics of a Good Citizen subscale score of CASES were found to have a significant contribution to the quantitative scores. Entwistle and Wilson (1977; as cited in Entwistle, Hanley, & Ratcliff, 1979) stated that hardworking, organized, and introverted students were depicted to be successful students. Although they could not be classified in this way, many other students were also successful. This finding of the present study supports the claim of Entwistle and his colleague, in the sense that students' good citizen characteristics were found to be negatively correlated with their quantitative scores. Therefore, contrary to the expectation, students reported responsible during-class activities (such as attending class regularly, taking notes, getting the respect of the teacher) tended to get lower quantitative scores. UEE aimed at testing not only knowledge but also students' analyzing and synthesizing abilities. Thus, responsible student behaviors might be less effective than the cognitive abilities in predicting students' examination scores. Moreover, although speculative; responsible students are generally the ones who get more respect, interest, and attention by the teachers. In other words, this distinction can be a result of the variation among teacher demands.



Sixth variable entered into the regression equation was Agentic Thinking subscale score of State Hope Scale. As expected, this result indicated a positive relationship between the subscale of situation-specific hope named agentic thinking and achievement in UEE. Students' perceived capacity to use their pathways in order to obtain higher scores from the UEE appeared to have an important role in predicting the quantitative scores. This result was striking, in the sense that agentic thinking subscale emerged as one of the significant predictors while Pathways thinking did not enter into the equation. According to Snyder et al. (1991), neither pathways nor agency is adequate to define hope alone, as both are essential for hopeful thinking. However, this finding was consistent those of Drach-Zahavy and Somech (2002) and Kashdan and his colleagues who (2002) reported the predictive power of the agency or the motivational side of hope beyond the pathways subscale. Similarly, Snyder et al. (2002) stated that pathways thinking do not lead to goal attainment alone without an agency. Thus, this result supported the research findings in the literature that reported agentic thinking was a better predictor of achievement scores.

The last variable entered into the equation was the income level of the family. Although modest, there is a positive relationship between the parents' income level and the students' quantitative scores in UEE. In other words, students with wealthy parents performed better in the UEE. Present finding was consistent with the previously reported research result indicated positive family income-academic achievement relationship (Patterson, Kupersmidt, & Vaden, 1990).

The positive relationship between income level of the family and UEE exam achievement indicates that in order to get higher scores from the UEE, students have to be prepared by overloaded private courses in addition to their schools. However, this finding is also a reality for Türkiye that economical opportunities have an important impact on the educational prospect. In the last two decades, private courses have become an essential determinant of the success at UEE. One of the reasons for this is that a student receives the same curriculum offered at schools in a shorter

period of time. Another reason may be that, the last grade of the high school is usually spent for more practice, which results in the increase of attendance to such courses. Similar to private courses, private teacher's tuition is also the crucial determinant of the students' performance. On the other hand, due to the high tuition fees, students with economically prosperous parents turn out to be the advantageous ones. Therefore, positive high income level of the family-academic achievement relationship can be explained by the opportunities offered by the wealthy parents.

#### **4.1.2. Discussion Regarding the Predictors of the Equally weighted Scores of Students**

According to the results of stepwise multiple regression analysis predicting the UEE scores of equally weighted sample, the variables entered in the regression equation were Anatolian High School, Super Lycee, Academic Self-efficacy subscale of CASES, Academic Helping Efficacy subscale of CASES, Quantitative Self-efficacy subscale of CASES, Pathways subscale of DHS, and Agency subscale of SHS. The total variance explained by all these variables was 52 % of Equally Weighted scores of the UEE.

Similar to the quantitative students, being an Anatolian High School student was the first variable entered into the equation which indicated that being an Anatolian high school student positively predicted getting higher scores from equally weighted field of UEE.

Super Lycee school type was found to be the second crucial predictor entered into the equation that pointed out Super Lycee students scored higher in the equally weighted part of UEE.

Academic Self-efficacy subscale score of CASES was the following variable entered into the regression equation that positively contributed to the students' equally

weighted scores. This finding confirmed the reported findings of Bandura et al. (1996), Bandura et al. (2001), Caprara et al. (2004), and Chemers et al. (2001). Overall, students' perceived capability that helps them to successfully carry out the given academic tasks predicted their equally weighted scores.

The fourth variable entered into the equation was Academic Helping Efficacy subscale score of CASES. The positive relationship among academic helping efficacy beliefs of students and their UEE scores showed that higher equally weighted scores were significantly predicted by higher academic helping efficacy beliefs. This result may be explained by Fantuzzo and his colleagues' (1986) 'reciprocal peer tutoring' (RPT) concept that emphasize the importance of cooperative learning by means of playing the role of tutor and tutee (as cited in Griffin & Griffin, 1998), where each student gains the benefits derived from preparing to teach another student. The RPT procedure enables practicing test taking skills and receiving feedback. The research findings also showed that the tutor benefited more than the tutee from this pairing because of the study and preparation for the tutoring partnership (as cited in Griffin & Griffin, 1998). The finding of the present study can also be the indicator of students' occupational preferences in equally weighted field, since one of the strong options is teaching profession. In other words, equally weighted field enable students to prefer mostly helping professions, such as teacher education, counseling, and social work.

Quantitative Self-Efficacy subscale score of CASES was entered into the equation as the fifth variable. Students' belief in their quantitative efficacy positively predicted their equally weighted scores of UEE. In other words, equally weighted student sample with higher capacity beliefs in answering quantitative questions were likely to get higher scores in the UEE. This finding was consistent with the research results reporting positive associations of mathematics self-efficacy and mathematics achievement (Hackett & Betz, 1989; Işıksal, 2002; Pajares, 1996). Depending on the previous research findings, quantitative efficacy beliefs were expected to be

significant in predicting UEE scores. This expectation was valid especially for the students who would make preferences from the field of equally weighted, as even if they respond accurately to all the questions in verbal part; it is hardly possible to get higher scores from the UEE without answering quantitative questions. In this respect, results of the present research met this expectation.

Sixth variable entered into the equation appeared as Pathways subscale of DHS. This finding demonstrated that students' general evaluation of their ability to construct sufficient pathways was one of the significant predictors of their equally weighted scores. However, this general evaluation negatively contributed to their achievement scores. In contrast to Snyder et al.'s (1991; 2002) reports that expressed significant positive relationships among dispositional hope scores and academic achievement, findings of the present research indicated that, although being small, students' lower general assessment of their ability to find out adequate pathways predicted higher equally weighted scores of UEE. On the other hand, except for a research result failed to find out relationship among hope scores and academic achievement (Hunt, 1997), findings of no other study reported a negative relationship among hope scores and scholastic achievement. This result was surprising; however, it might be interpreted as the students' general perspectives of life were realistically negative. Moreover, this negative perspective might be related with their lack of control over the exam and high competition among students. This competitive atmosphere can be due to the fact that, especially in the recent years, UEE has become one of the most important steps in one's lifetime in Türkiye. However, being placed at a university does not always guarantee one to get a good job after graduation. In other words, life after graduation is much more difficult than succeeding in the UEE. Hence, students' concerns about life appear to get higher in relation to these issues.

The eighth variable entered into the equation was Agentic Thinking subscale score of the SHS. Similar to the findings for the quantitative sample, Agentic thinking subscale of situation-specific hope related to UEE was one of the significant

predictors of the students' equally weighted scores. In other words, students' perceived ability to use their pathways to get higher scores from the UEE and their equally weighted scores were positively related. The findings of the present study were consistent with Snyder, Rand et al.'s (2002) statements and Drach-Zahavy and Somech (2002) and Kashdan et al.'s (2002) findings regarding the predictive power of agentic thinking in determining goal attainment beyond the pathways thinking which was also maintained in the equally weighted sample. Hence the result of the present study confirmed the previous findings. Stating differently, students' equally weighted scores were predicted by Agentic thinking whereas Pathways thinking did not contribute to it. In this respect, belief in the utilization of essential routes predicted goal attainment better than did the belief in production of those routes.

#### **4.1.3. Discussion Regarding the Predictors of the Language Scores of Students**

Results of stepwise multiple regression analysis predicting the UEE scores of the language part revealed that the variables entered into the regression equation were Communication Efficacy subscale of CSSES, Super Lycee, Anatolian High School, Private High School, Agentic Thinking subscale of SHS, Career Planning Self-efficacy subscale of CSSES, and Social Self-efficacy subscale of CASES. These variables approximately accounted for the 68 % of the Language scores of UEE. However, this value should be treated cautiously as the ratio of number of independent variables and sample size was unsatisfactory.

The first variable entered into the regression equation was Communication Efficacy subscale score of CSSES. This result indicated that students with high communication efficacy beliefs obtained higher scores in the UEE. This important contribution of Communication efficacy can be related with the items of the communication efficacy dimension measuring efficacy beliefs for using computer, learning a second language grammar, and learning social sciences that are mostly related with the language field. The present result was consistent with the results of

Gardner, Tremblay, and Masgoret's (1997) findings regarding positive relationship among self-confidence with learning French and achievement. Moreover, Lee and Bobko (1994) stated that self-efficacy was an important predictor of academic achievement within social sciences. Similarly, a significant impact of computer self-efficacy on academic performance was also reported (Smith, 2002). Hence, this finding supported the research results in the literature. Particularly, the item of learning grammar of a second language was exactly related to the language field requirements; consequently, this finding was an expected one. On the whole, students' communication efficacy beliefs made a significant contribution to their language scores in the UEE.

Super Lycee was the second predictor of students' language scores in UEE. Super lycee students tended to get higher scores in the language part because the medium of instruction is in a foreign language (generally in English) in super lycees. Super lycees have student profiles who tend to score similar results with the Anatolian high school students in UEE. This result and the other results of the regression analyses employed to the quantitative and equally weighted samples were also supported by the statistical information released by ÖSYM that 98,2 % of the super lycee students were placed at higher education programs in 2005 Student Selection Examination (ÖSYM report, 2005).

The third variable entered into the regression equation was Anatolian High School. Being an Anatolian high school student appeared to be one of the main predictors of UEE scores of language students, similar to the quantitative and equally weighted students. Students coming from Anatolian high schools were likely to get higher language scores from the examination as there was a positive relationship between Anatolian high school type and UEE scores.

Quality of education offered by Anatolian High Schools is undeniable when one thinks about the fact that many of the successful students obtaining honor grades

from entrance examinations are generally associated with these schools. Present finding of this study and the other results of the regression analyses employed to the quantitative and equally weighted samples were also supported by the statistical summaries regarding 2005 Student Selection Examination that 98,8 % of the Anatolian High school students entered the exam were placed at higher education programs (ÖSYM report, 2005).

The condition was also the same for the Private High Schools that was the fourth variable entered into the equation. Attending private high schools was also found to be a positive predictor of students' language scores. Therefore, these students from private high schools tended to obtain higher scores from UEE.

Especially for the students taking the language part of the exam, private high school type was one of the powerful predictors of higher UEE scores. Although this finding can be explained by the quality of those private high schools and their teachers, the economical factors should not be ignored. Students attending private high schools also have better economical opportunities to receive additional educational prospects such as private courses, private tuition, etc. In such a case, their higher achievement in UEE would not be surprising. Moreover, income level of the family was reported to be one of the significant predictors of students' quantitative scores in UEE that confirmed the private high school students' success at the UEE. The results of the ÖSYM report (2005) reflected the current condition; where 89,3 % of private high school students and 94,5 % of private high school with foreign language education students were placed at higher education programs in 2005 UEE.

The fifth variable entered into the equation was Agentic Thinking subscale of SHS. This finding was parallel to the results obtained from the quantitative and equally weighted samples. This finding displayed that students' perceived capability to use efficient ways in getting higher scores from the UEE was positively related to their language scores. Therefore, as it was the case for the quantitative and equally

weighted samples, consistency with Snyder et al.'s (1991) statements and the other research results (Drach-Zahavy & Somech, 2002; Kashdan et al., 2002) were also maintained in the language sample. Finally, supremacy of all quantitative, equally weighted and language students' perceived ability to operate useful ways to get higher scores in the UEE over their perceived capacity to generate those pathways to achieve higher scores in UEE was once more verified by this finding. In short, achievement was significantly predicted by the belief in competence to make use of the necessary routes to score higher.

Career Planning Self-efficacy subscale of CSSSES was found to be the sixth predictor entered into the regression. This result displayed that students' efficacy beliefs for planning their career were one of the significant predictors of their language scores. Contrary to the findings of the quantitative sample, students' career planning self-efficacy beliefs positively predicted their language scores in UEE. Stating differently, the higher the career planning efficacy of the students attending the language part of the exam, the greater their success became in the examination. Thus, present finding is consistent with the results of Özyürek's (2002), which emphasize significant relationships among career self-efficacy, secondary education achievement scores, and quantitative and science-mathematics scores of both male and female students in student placement examination (ÖYS). The fundamental role of career-relevant self-efficacy and outcome expectations in shaping eventual performance in a career or academic field of study (Lent et al., 1994; as cited in Lent et al., 2000) and negative GPA-career indecision correlation (Spitzer, 2000) were also supported by the present finding.

As aforementioned, in contrast to quantitative sample, students' language scores in UEE were positively predicted by their career planning self-efficacy beliefs. Students who take the language part of the exam do not have diverse vocational preferences as quantitative and equally weighted students have. This result was expected as career decisiveness of the students are likely to be clearly established as students, whose



choice was language, have limited educational options as compared to those who preferred quantitative or equally weighed fields.

The last variable entered into the regression equation was Social Self-efficacy subscale of CASES. Students' beliefs in their abilities that they have the skills for successful performance in specific social situations negatively predicted students' language scores in the UEE. Although surprising, this finding was consistent with a previous research results reported by Galanaki and Kalantzi-Azizi (1999) that social self-efficacy was not related with school achievement. On the other hand, although the correlation coefficient between social self-efficacy and academic achievement was relatively modest in their study, Bandura and his colleagues (1996) found social self-efficacy as one of the indirect predictors of academic achievement. However, socially active students are generally expected to be academically less successful as they might neglect their academic tasks. Thus, present finding might be the result of socially efficacious students' indifferent manner toward their academic studies.

#### **4.1.4. Discussion Regarding the Variables Excluded in Stepwise Regression Analyses**

Three stepwise multiple regression analyses were carried out for assessing the predictors of students' quantitative, equally weighted, and language scores in UEE. These regression analyses were conducted with 6 subscales' scores of CASES, 5 subscales' scores of CSSES, 2 subscales' scores of SHS, 2 subscales' scores of DHS, scores of SAI, scores of TAI, income level of the family, dummy-coded gender, and dummy-coded school type as the predictors.

The predictor variables entered into the regression analyses were discussed above. However, Comprehension Efficacy subscale scores of CASES, Organizing and Planning School Work and Academic Self-efficacy subscales' scores of CSSES,

Agency subscale scores of DHS, Pathways subscale scores of SHS, Trait Anxiety scores, and gender variables did not enter into all three regression equations.

Although gender was expected to be one of the most important predictor variables, it did not enter into the regression equation in none of the regression analyses. This result was inconsistent with the previous research result reporting significant gender differences in male-dominant occupations, scores of Student Selection Exam and Student Placement Exam in favor of male students (Özyürek, 1995). Present finding was surprising; however, since the findings of the present study are limited with the students attending the private courses, the result regarding the gender can be a result of the sample characteristics. Therefore, the gender differences in UEE achievement should be investigated in further research.

Similar to gender, the other excluded variables-academic achievement relationship should be explored in further studies.

#### **4.2. Limitations**

Several limitations of the present study should be cited. The scope of the present study is limited to the data collected from 11<sup>th</sup> grade students, preparing for the UEE, attending previously mentioned private courses in Ankara. Thus, generalization of the results is confined to the students not attending private courses and/or attending other private courses, students in other cities of Türkiye, and graduate students taking the UEE for the second time or more.

In addition, the academic self-efficacy, student self-efficacy, state hope, dispositional hope, state anxiety, and trait anxiety levels of students were assessed by all self-reported scales and they only reflect the perceived levels of related constructs. Self-reports, then, may be considered as the imperfect measures in identifying non-academic predictors of the UEE.

Moreover, the language sample of the present study was rather small which probably caused some unacceptable findings.

### **4.3. Conclusion**

In concluding the findings, first, the common predictors that appeared in all three analyses were outlined. Then, predictors of each regression analysis were summarized.

The most impressive result of the present study was the superior predictive power of Anatolian High school type in predicting students' UEE scores. In two regression analyses regarding quantitative and equally weighted scores, Anatolian high school type entered into the regression equation in the first rank and strongly predicted the higher achievement in the UEE. For the language scores Anatolian High school type also predicted higher achievement but in this analysis entered into the equation in the third place. These results showed that students coming from Anatolian high schools scored higher and became more successful in the UEE than did the students graduating from other schools.

Similar to Anatolian High Schools, the other striking finding of the present study was that Super Lycee school type emerged as one of the strong predictors of UEE scores of all three fields. The positive relationships between super lycee school type and UEE scores of all quantitative, equally weighted, and language fields pointed out that students coming from super lycees obtained higher scores in the UEE.

Agentic thinking of SHS appeared to be one of the other common predictors of students' UEE scores. This finding showed that students' perceived capacity to use effective ways to obtain higher scores positively contributed to their UEE scores.

The other common predictor of the students' quantitative and equally weighted scores was Academic Self-Efficacy subscale scores of CASES. A positive relationship appeared between quantitative and equally weighted scores of students and their perceived ability to carry out given academic tasks successfully at selected levels.

Career Planning Efficacy dimension of the CSSSES was the other common predictor of quantitative and language samples' UEE scores. Students' efficacy beliefs for planning their career somewhat negatively correlated with their quantitative scores in UEE. On the other hand, career planning efficacy beliefs positively and moderately predicted students' language scores.

The last common predictor of students' quantitative and language scores in UEE was Private High School type. Similar to Anatolian high schools and super lycees, Private High School type was also one of the important predictors of students' quantitative and language scores in UEE.

Except for the common predictor variables with the other fields, students' quantitative scores were also predicted by Learning Self-efficacy, State Anxiety, Characteristics of a Good Citizen, and Income Level of the Family.

Learning self-efficacy appeared to have an important contribution to the students' quantitative scores more than the other continuous predictor variables. The results of the present study indicated that higher efficacy beliefs for learning different tasks lead to higher scores in UEE.

Students' state anxiety levels significantly predicted the only quantitative scores. However, state anxiety levels of students had a negative contribution to their quantitative scores. Higher anxiety related to the entrance exam situation pointed out to lower quantitative scores.

One of the other predictors of students' quantitative scores in UEE was Characteristics of a Good Citizen dimension of the CASES. Similar to state anxiety, responsible student behaviors emerged as the significant negative predictor of the quantitative sample. Students who reported themselves as responsible in class activities tended to get lower quantitative scores.

Income level of the family appeared to be the last predictor variable of the students' quantitative scores in UEE. The positive correlation pointed out to the role of economical welfare in predicting the higher quantitative scores of students.

In addition to the common predictor variables, students' equally weighted scores were also predicted by Academic Helping Efficacy, Quantitative Efficacy, and Pathways subscale scores of Dispositional Hope.

Academic Helping Efficacy dimension of CASES appeared to be positively related to the students' equally weighted scores in UEE. Higher equally weighted scores were predicted by higher student beliefs in their competence to help their friends in academic subjects.

Quantitative Self-Efficacy dimension of CASES was the other predictor of equally weighted scores in UEE. Students' quantitative self-efficacy subscale scores were positively connected to their UEE scores. In other words, the more the students believe in their ability to perform well in quantitative questions, the higher scores they acquire in the quantitative part of the exam.

Pathways thinking dimension of Dispositional Hope Scale negatively predicted the students' equally weighted scores in the UEE. Students with high dispositional hope beliefs in producing effective ways to achieve a general range of desires in life tended to get low equally weighted scores in UEE.

Students' language scores in UEE were also predicted by Communication Self-efficacy and Social Self-efficacy along with the common predictors.

Communication efficacy dimension of the CSSES was the most crucial predictor of students' language scores in UEE as it entered into the regression equation in the first rank and positively contributed to the scores. This result pointed out that students with high communication efficacy beliefs were likely to obtain higher scores from the language part of UEE.

The last predictor of students' language scores in UEE was Social Self-efficacy which indicated that the lower the students' social self-efficacy scores were, the higher the language scores were in the UEE. Students' perceived capabilities that they have the skills for successful performance in specific social situations negatively predicted students' language scores in the UEE.

Overall, students' UEE scores were predicted by different dimensions of self-efficacy, hope, and anxiety. Thus, school counselors and educators should be informed with the educational implications.

#### **4.4. Implications and Recommendations for Future Research and Practice**

In this section, the implications of the findings and related recommendations were discussed.

As aforementioned, Anatolian High School type and Super Lycee type appeared to be the most important predictors of students' quantitative, equally weighted, and language scores in UEE. These findings imply that it is vital for Ministry of National Education to acknowledge that all the students have the right to get good quality of education in all types of schools, not just the Anatolian ones or super lycees. Providing the equality in education, all of the students should get the chance of being

taught by qualified teachers and having similar opportunities as those of the Anatolian high school and super lycee students. Therefore, Turkish education system requires promoting equality in educational opportunities from primary to higher education.

On the other hand, although it was not within the scope of present study, additional investigation of the students' characteristics regarding predictor variables in terms of their school types indicated that students in different school types also tended to believe and feel differently. Students from Anatolian high schools, super lycees, or private high schools were also generally more self-efficacious and hopeful regarding UEE. Expectedly, students' from these school types also believe in themselves that they can achieve whereas students from state high schools do not. This condition might be stemmed from the education system that starts at secondary education by categorizing students according to their achievement in lycee entrance examination. Hereby, successful students become more confident and motivated as they accomplished to enter an Anatolian High school or a super lycee; on the other hand, students attend state high schools become less motivated to study and less faithful to succeed. Similarly, students' pessimist perspectives might influence teacher enthusiasm to foster students' endeavour. Hence, education system might be the reason of students' successes and failures in UEE. Further research is needed to investigate the effects of this selective education system on the students' perceptions of themselves and motivation for scholastic accomplishments.

Indeed, it is impossible to interfere with students' ability, intelligence, or educational background and create an effective change in those areas. However, as Collins (2002) emphasizes, two general factors are essential to modify student quality: the teachers who are in close contact with students and the parents which shape students at home. From the educational and counseling point of views, providing in-service training for teachers and parent education training for the parents might create an

effective change for promoting student success in all schools. One solution may be to include the parent education training within the schools' curricula.

Private High School type was the other important predictor of quantitative and language scores of students. As expected, Private High Schools differ in their quality of education in terms of their teachers, medium of instruction, etc. Especially for the language students, language of instruction might be an important predictor of the success. However, this issue was beyond the scope of the present study; thus, further research should be required to test the predictive power of the medium of instruction.

The crucial role of Agentic thinking dimension of State Hope in predicting the UEE scores were validated by the results obtained in the three different regression analyses. Taking the predictive power of Agentic thinking into consideration, it is essential for counselors to develop and maintain the fundamental perceptions of performing necessary pathways in students. However, it is important to note that, although no significant results were obtained in the present study, the importance of Pathways thinking in being hopeful should not be disregarded. Apart from improving students' perception of their capacity to utilize necessary pathways to achieve academic success, their belief in their ability to create effective paths should be expanded via different methods provided by the counseling services. Thus, students with negative assessments about their capacity to produce routes to their goals are also needed to be assisted. Group counseling and group guidance activities can be effective to intensify students' perceptions of their actual capacities. Indeed, group activities can be more beneficial for the troubled students with the influential peer assistance and modeling. Moreover, regarding the stressful condition of preparation process for UEE, individual counseling sessions can also be helpful.

Nevertheless, hopeful thinking was accepted to be one of the essential contributors of not only academic achievement (Curry et al., 1997; Snyder et al., 1991; Snyder et al., 1997; Snyder, Shorey et al., 2002) but also optimism and general well-being



(Magaletta & Oliver, 1999). Snyder and his colleagues (1995; 2002) proposed some suggestions to raise and build hope in clients and students. A three-step model was presented by Snyder; where the first step in building hope includes giving support for students to set up realistic goals and clear end points for these goals. In the second step, the helper assists students to develop the agency to pursue their goals by re-examining the importance of their goals for them. Positive self-talk is also essential for the promotion of agentic thinking. The final step in building hope is to find out several alternative pathways to accomplish those goals. Since installation of hope is one of the important aims of counseling (Brown, 1998), counselors can work with these clues by means of group activities and individual sessions. Besides, since hope is a trait gained from family in early childhood (Denizli, 2004), developing parent education programs can also be valuable.

As aforesaid, the predictive power of academic self-efficacy in all three regression analyses confirmed the findings of the Western literature regarding academic self-efficacy-academic achievement relationship. However, since the studies on self-efficacy in Türkiye are rather limited, counseling services at schools have little knowledge regarding the importance of self-efficacy on academic achievement. As Bandura (1997b) suggests, enjoyment is essential for the development of self-efficacy and, good instruction lies behind the promotion of interest; thus, one of the important components of the development of self-efficacy is teachers at schools. Appropriate learning environments and experiences encourage and expand students' liking for what is taught which, in turn, promotes self-initiated learning long after the instruction is completed (Bandura, 1997b). The appropriateness of offering the challenges to the student standards and supplying feedback were also emphasized by Bandura. The challenges that exceed the students' capabilities may be divided into subparts. Bandura and Schunk (1981) reported that in a previously disvalued activity, subgoal accomplishments bring about a strong sense of efficacy belief (as cited in Bandura, 1997b).

Consequently, it is the task of the school personnel to arrange the environment for developing students' self-efficacy beliefs in different domains. Especially in during class activities teachers can be prepared to foster and expand student interests, treat students depending on their uniqueness to let them get the self-satisfaction of their goal accomplishments, and give feedback regarding those achievements. By taking these precautions, students' academic self-efficacy beliefs can be developed. The present study, conducted to investigate whether academic self-efficacy beliefs have crucial contribution to academic achievement of students, was the first in Turkish literature. Thus, further research is needed in self-efficacy studies with different samples in our culture since self-efficacy beliefs appeared to be essential predictors of student achievement in UEE.

Students' quantitative and language scores were predicted by their career self-efficacy beliefs. However, career efficacy contributed negatively to quantitative scores but positively predicted language scores. Students taking the language part of the exam do not have diverse vocational preferences as quantitative and equally weighted students have. Hence, vocational counseling can be beneficial not only for students in the quantitative field but also students in equally weighted field to help students to know themselves and inform them about course requirements of different departments, areas of expertise in different occupations, and the job opportunities after graduation from university (Kuzgun, 2000). Moreover, vocational counseling is for all the students including the ones take the language part of UEE. Hereby, their career decisiveness can be assured by the given information.

Students' quantitative scores were predicted by their learning self-efficacy beliefs. Bandura's (1997b) aforementioned statements are also applicable to encourage and improve students' learning self-efficacy beliefs. This result was consistent with the findings of the studies in the Western literature, although it was an original one for the Turkish literature. However, since the findings of the present study are confined

with the students attending the private courses further research is needed to test this finding in other samples.

Students' state anxiety levels negatively predicted their quantitative scores. In relation to this issue, school counselors have an important task to reduce the anxiety level to a reasonable level since an optimal level of arousal for performance is important (Yerkes-Dodson Law), and too little and too much arousal have a harmful effect on task performance (Yerkes & Dodson, 1908). Paradoxically, as well as being an obstacle for learning, anxiety is also essential to start learning (Schein, 1992). Therefore, some degree of anxiety is helpful for better performance, learning, and concentration (Palmer, 1999). Although state anxiety and test anxiety are different concepts, test anxiety is appeared to be a kind of state anxiety (Spielberger, 1972).

Many methods can be employed to lessen students' exam-related anxiety levels; according to a meta-analysis report, cognitive restructuring, combined behavioral and skill-focused approaches, combined cognitive and skill focused approaches, other behavioral techniques, anxiety management training, combined Cognitive-behavioral and skill-focused techniques and systematic desensitization were reported with high effect sizes in alleviating students' test anxiety levels (Ergene, 2003). Most of these techniques require professional assistance; however, besides getting assistance, school counselors can prepare simpler but effective anxiety management strategies compliant with their students' needs.

On the other hand, according to the present study results, students with responsible citizen characteristics obtained lower quantitative scores. Present finding indicated that, in order to be successful, there is no need to be good citizens in the class. Thus, teachers can be hesitant to foster students' independent study and contribution to discussion skills during the class. Counselors can give seminars to inform teachers about the importance of unique student characteristics as well as appropriate teacher attitudes in attempting to improve students study skills.

Income level of the family appeared to be the significant predictor of students' quantitative scores. As aforesaid, students with wealthy parents turn out to be more advantageous. At this point, the equality of the opportunities for education is broken down. If students coming from impoverished families are lucky, they can get scholarships; if not, receiving a good education becomes just a fantasy. The present study did not include SES as a variable. The power of SES in predicting entrance examination scores of both secondary school and high school students should be investigated in further research.

Academic helping self-efficacy was one of the positive contributors of students' equally weighted scores. Thus, in order to enhance academic helping efficacy beliefs, school teachers can encourage students to give some presentations in class. Hereby, learning process can be facilitated by means of one of the essential requirements of this process; verbal rehearsal of the learned material (Erden & Akman, 1998). Moreover, students can be fostered to play the tutor and tutee in class to provide a better learning environment and enhance their belief to perform better in examinations. This initial finding in Turkish literature should be verified via further research.

Quantitative efficacy scores predicted students' equally weighted scores. Therefore, counselors and teachers' collaborative work to enhance mathematics interests of students is critical for their school success. Counselors may help students to alter negative past experiences regarding mathematics with new positive ones. Teacher attitude and teaching style are also central components of the learning environment that can be arranged to get students' attention and intensify their desire to solve mathematical problems. Overall, Bandura's (1997b) assertion regarding the importance of good instruction and appropriate learning environments and experiences for the development of self-efficacy can also be considered for the Quantitative efficacy beliefs.

Regarding the predictive power of communication efficacy in predicting the language scores of students, it is essential for counselors, in collaboration with the other school personnel, to enhance students' efficacy beliefs for using computers, learning a second language grammar, and learning social sciences. Specifically, students' computer efficacy can be facilitated in laboratories at schools. Furthermore, especially for learning a second language grammar and learning social sciences, course curriculum can be arranged to enhance student interest and curiosity about the subjects. Therefore, counseling services, teachers, and school administration may work cooperatively to provide the necessary opportunities.

The results showed that students' language scores were negatively predicted by their social self-efficacy beliefs. This finding should be treated cautiously as the sample size was unsatisfactory. Therefore, similar to the other self-efficacy studies, further research is needed to investigate the justification of the present finding in Turkish culture.

In conclusion, the results of the present study indicated that 11<sup>th</sup> grade students' UEE scores are contributed by many non-academic variables. Especially different dimensions of self-efficacy and agentic thinking of state hope appeared to be the vital predictors of students' quantitative, equally weighted, and language scores in the UEE. The fundamental purpose of the present research was to contribute to the self-efficacy and hope studies in Turkish culture. The other aim of the present study was, although excessively studied out, to investigate the influence of anxiety on academic achievement and checking out whether it is still a serious problem for students. Since students' self-efficacy beliefs and hope levels had essential influences on their performances in UEE, school counselors and educators should try to install and enhance students' hope and efficacy beliefs in different fields. Moreover, to foster students' perceived ability to find out ways to achieve the desired outcome and utilize those pathways, and alleviate students' anxiety to an optimal level would be

the other important task of the school counselors to help students better perform in the examinations in general.

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## APPENDICES

### APPENDIX A

#### KİŞİSEL BİLGİ FORMU

Öğrencilerin bazı kişilik özelliklerinin üniversite sınav sonucunu belirlemedeki rolü üzerine bir araştırma yapmaktayım. Sağlıklı bilgiler elde edilebilmesi için verdiğiniz yanıtlarda samimi olmanız son derece önemlidir. Soruların başındaki açıklamaları dikkatlice okuyunuz, size uygun cevabı veriniz. Cevaplandırılmamış soru bırakmayınız. Verdiğiniz yanıtlar yalnızca araştırma amacı için grup halinde kullanılacak, size ait bilgiler, HİÇ BİR KOŞULDA, ARAŞTIRMACI DIŞINDAKİ KİŞİLER TARAFINDAN İNCELENMEYECEK VE KULLANILMAYACAKTIR.

İlginiz ve desteğiniz için teşekkürler.

Arş. Gör. Gülşah Kemer  
Orta Doğu Teknik Üniversitesi  
Eğitim Bilimleri Bölümü  
Psikolojik Danışma ve Rehberlik  
Anabilim Dalı

Adınız, Soyadınız \_\_\_\_\_

TC Kimlik Numaranız \_\_\_\_\_

Kız  Erkek

Lise  Süper  Anadolu  Fen  Özel   
Lise Lisesi Lisesi Lisesi Okul

Mezun olunacak olan alan \_\_\_\_\_

#### Ailenizin Aylık Gelir Düzeyi

(Maaş, kira geliri gibi her türlü toplam gelir)

0-250 YTL	<input type="checkbox"/>	1251-1500 YTL	<input type="checkbox"/>
251-500 YTL	<input type="checkbox"/>	1501-1750 YTL	<input type="checkbox"/>
501-750 YTL	<input type="checkbox"/>	1751-2000 YTL	<input type="checkbox"/>
751-1000 YTL	<input type="checkbox"/>	2001-2250 YTL	<input type="checkbox"/>
1001-1250 YTL	<input type="checkbox"/>	2251 YTL ve üstü	<input type="checkbox"/>

## APPENDIX B

### AKADEMİK ÖZ-YETERLİK ÖLÇEĞİ (CASES)

Aşağıdaki maddeleri dikkatlice okuyunuz ve herbir maddede verilen durumda kendinize ne ölçüde güvendiğinizi, herbir maddenin yanında verilen seçeneklerden size uygun olanını işaretleyerek belirtiniz.

Oldukça Az Güvenirim ←-----→ Çok Fazla Güvenirim

A B C D E

- A B C D E 1. Ders sırasında düzgün ve düzenli not tutma.
- A B C D E 2. Derste yapılan tartışmalara katılma.
- A B C D E 3. Kalabalık ve büyük bir sınıfta bir soruyu yanıtlama.
- A B C D E 4. Küçük ve تنها bir sınıfta bir soruyu yanıtlama.
- A B C D E 5. Test türü sınavları yapma.
- A B C D E 6. Yazılı sınavları yanıtlama.
- A B C D E 7. Üstün nitelikli bir dönem ödevi hazırlama.
- A B C D E 8. Zor bir konunun anlatıldığı bir dersi, ders süresince dikkatle dinleme.
- A B C D E 9. Başka bir öğrenciye ders anlatma.
- A B C D E 10. Bir kavramı başka bir öğrenciye açıklama.
- A B C D E 11. Öğretmeninizden, anlamadığınız bir konuyu tekrar anlatmasını isteme.
- A B C D E 12. Derslerin çoğundan iyi not alma.
- A B C D E 13. Konuyu eksiksiz bir şekilde anlayamaya yetecek kadar çalışma.
- A B C D E 14. Öğrenci temsilcisi olmak için çalışmak.
- A B C D E 15. Ders dışı etkinliklere (spor etkinlikleri, kulüpler) katılma.
- A B C D E 16. Öğretmenlerinizin saygısını kazanma.
- A B C D E 17. Derslere düzenli olarak devam etme.

- A B C D E 18. Sıkıcı bir derse bile sürekli olarak devam etme.
- A B C D E 19. Öğretmeninizin dersi dikkatle izlediğinizi düşünmesini sağlama.
- A B C D E 20. Okuduğunuz metinlerdeki fikirlerin çoğunu anlama.
- A B C D E 21. Sınıfta ortaya konulan fikirlerin çoğunu anlamak.
- A B C D E 22. Basit matematik işlemlerini yapma.
- A B C D E 23. Bilgisayar kullanma.
- A B C D E 24. Matematik dersinin içeriğindeki konuların çoğuna hakim olma.
- A B C D E 25. Öğretmeninizi daha yakından tanımak için onunla özel olarak konuşma.
- A B C D E 26. Bir dersin içeriğini başka bir dersin konularıyla ilişkilendirme.
- A B C D E 27. Sınıfta, öğretmeninizin ileri sürdüğü düşünceyi sorgulayacak fikirler ileri sürme.
- A B C D E 28. Bir derste öğrenileni uygulamada kullanma.
- A B C D E 29. Kütüphaneyi iyi bir şekilde kullanma.
- A B C D E 30. İyi notlar alma.
- A B C D E 31. Konuları biriktirip çalışmak yerine zamana yayarak çalışma.
- A B C D E 32. Ders kitaplarındaki zor kısımları anlama.
- A B C D E 33. İlginizi çekmeyen bir dersin içeriğindeki konulara hâkim olma.



## APPENDIX C

### ÖĞRENCİ ÖZ-YETERLİK ÖLÇEĞİ (CSSES)

Aşağıdaki maddeleri dikkatlice okuyunuz ve herbir maddede verilen durumu başarabileceğinize yönelik inancınızın ne derecede güçlü olduğunu, herbir maddenin yanında verilen seçeneklerden uygun olanını işaretleyerek belirtiniz.

1 = Çok zayıf      2 = Zayıf      3 = Orta      4 = Güçlü      5 = Çok güçlü

- |   |   |   |   |   |   |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 1. Ev ödevlerini teslim tarihine kadar bitirmek.  |
| 1 | 2 | 3 | 4 | 5 | 2. Yapacak daha ilginç şeyler varken ders çalışabilmek.   |
| 1 | 2 | 3 | 4 | 5 | 3. Okulla ilgili konulara odaklanmak.   |
| 1 | 2 | 3 | 4 | 5 | 4. Derslerde not tutmak   |
| 1 | 2 | 3 | 4 | 5 | 5. Ders ödevlerini hazırlarken kütüphaneden yararlanmak   |
| 1 | 2 | 3 | 4 | 5 | 6. Dersle ilgili çalışmalarınızı planlamak  |
| 1 | 2 | 3 | 4 | 5 | 7. Dersle ilgili çalışmalarınızı düzenlemek   |
| 1 | 2 | 3 | 4 | 5 | 8. Derste anlatılan ve ders kitabında geçen bilgileri hatırlamak                                  |
| 1 | 2 | 3 | 4 | 5 | 9. Dikkatiniz dağılmadan çalışabileceğiniz bir yer ayarlamak                                      |
| 1 | 2 | 3 | 4 | 5 | 10. Derste tartışmalara katılmak  |
| 1 | 2 | 3 | 4 | 5 | 11. Bu dönem aldığınız derslere hâkim olmak   |
| 1 | 2 | 3 | 4 | 5 | 12. Bu dönem aldığınız derslerde verilen problemler ve görevlerle ilgili mükemmel bir iş çıkarmak |
| 1 | 2 | 3 | 4 | 5 | 13. Matematik öğrenmek  |
| 1 | 2 | 3 | 4 | 5 | 14. Geometri öğrenmek   |
| 1 | 2 | 3 | 4 | 5 | 15. Fen bilimlerini öğrenmek  |
| 1 | 2 | 3 | 4 | 5 | 16. Biyoloji öğrenmek   |
| 1 | 2 | 3 | 4 | 5 | 17. Okuma ve yazma becerilerini öğrenmek  |
| 1 | 2 | 3 | 4 | 5 | 18. Bilgisayar kullanmayı öğrenmek  |
| 1 | 2 | 3 | 4 | 5 | 19. Yabancı dilleri öğrenmek  |
| 1 | 2 | 3 | 4 | 5 | 20. Sosyal bilimleri öğrenmek   |

- 1 2 3 4 5 21.İngilizce dil bilgisini öğrenmek
- 1 2 3 4 5 22.Üniversitede okumak için gerekli desteği sağlayabilme
- 1 2 3 4 5 23.İlgilendiğin çeşitli bölümleri sıralamak
- 1 2 3 4 5 24. Düşündüğünüz olası bölümleri içeren bir listeden bir bölüm seçmek
- 1 2 3 4 5 25.Gelecek beş yıl için amaçlarınızın bir planını yapmak
- 1 2 3 4 5 26.Yeteneklerinizi doğru ve gerçekçi bir biçimde değerlendirmek
- 1 2 3 4 5 27. Seçtiğiniz bölümü başarıyla bitirmek için atmanız gereken adımlara belirlemek
- 1 2 3 4 5 28. Bir meslekte en çok değer verdiğiniz şeyin ne olduğuna karar vermek
- 1 2 3 4 5 29. Ailenizin ya da arkadaşlarınızın, sizi yeteneklerinizi aşan bir mesleğe ya da bölüme itmeye çabalarına direnmek
- 1 2 3 4 5 30.Yeteneklerinize uygun bir bölüm ya da meslek seçmek
- 1 2 3 4 5 31. Üniversiteden mezun olma süreniz uzayacak bile olsa sizin için en uygun bölümü seçmek
- 1 2 3 4 5 32. Üniversite sınavında başarısız olma olasılığıyla başa çıkma için strateji belirlemek

## APPENDIX D

### DURUMLUK UMUT ÖLÇEĞİ (SHS)

Aşağıdaki ölçeği kullanarak, *kendinizi şu anda nasıl hissettiğinizi* en iyi tanımlayan rakamı verilen boşluğun önüne yazınız. Lütfen şu andaki yaşamınıza odaklanınız.

1	2	3	4
Kesinlikle Katılmıyorum	Kısmen Katılmıyorum	Kısmen Katılıyorum	Kesinlikle Katılıyorum

- 
- \_\_\_ 1. Kendimi bir çıkmazda bulursam, kurtulmak için çeşitli yöntemler düşünebilirim.
  - \_\_\_ 2. Şu anda, hevesle hedeflerime ulaşmaya çalışıyorum.
  - \_\_\_ 3. Şu anda karşılaştığım sorunlardan kurtulmanın pek çok yolu var.
  - \_\_\_ 4. Şu anda kendimi oldukça başarılı görüyorum.
  - \_\_\_ 5. Şu andaki hedeflerime ulaşmak için pek çok yol düşünebilirim.
  - \_\_\_ 6. Şu anda kendi belirlediğim hedeflerime ulaşıyorum.

## APPENDIX E

### SÜREKLİ UMUT ÖLÇEĞİ (DHS)

Aşağıda verilen ölçeği kullanarak, sizi en iyi tanımlayan rakamı verilen boşluğun önüne yazınız.

1	2	3	4
Kesinlikle Katılmıyorum	Kısmen Katılmıyorum	Kısmen Katılıyorum	Kesinlikle Katılıyorum

---

- \_\_\_ 1. Sıkıntılı bir durumdan kurtulmak için pek çok yol düşünebilirim.
- \_\_\_ 2. Enerjik bir biçimde amaçlarıma ulaşmaya çalışırım.
- \_\_\_ 3. Çoğu zaman kendimi yorgun hissedirim.
- \_\_\_ 4. Herhangi bir problemin birçok çözüm yolu vardır.
- \_\_\_ 5. Tartışmalarda kolayca yenik düşerim.
- \_\_\_ 6. Sağlığım için endişeliyim.
- \_\_\_ 7. Benim için çok önemli şeylere ulaşmak için pek çok yol düşünebilirim.
- \_\_\_ 8. Başkalarının pes ettiği durumlarda bile, sorunu çözecek bir yol bulabileceğimi bilirim.
- \_\_\_ 9. Geçmiş yaşantıları beni geleceğe en iyi biçimde hazırladı.
- \_\_\_ 10. Hayatta oldukça başarılı olmuşumdur.
- \_\_\_ 11. Genellikle endişelenecek bir şeyler bulurum.
- \_\_\_ 12. Kendim için koyduğum hedeflere ulaşıyorum.

## APPENDIX F

### DURUMLUK KAYGI ENVANTERİ (SAI)

Aşağıda kişilerin kendilerine ait duygularını anlatmada kullandıkları bir takım ifadeler verilmiştir. Her ifadeyi okuyunuz, sonra da şu anda nasıl hissettiğinizi, ifadelerin sağ tarafındaki seçeneklerden en uygun olanını işaretleyerek belirtiniz.

	Hemen hiç	Biraz	Oldukça	Tamamıyla
1. Kendimi sakin hissediyorum.....	(1)	(2)	(3)	(4)
2. Kendimi güvende hissediyorum.....	(1)	(2)	(3)	(4)
3. Huzursuzum.....	(1)	(2)	(3)	(4)
4. Pişmanlık duygusu içindeyim.....	(1)	(2)	(3)	(4)
5. Kendimi rahat hissediyorum.....	(1)	(2)	(3)	(4)
6. İçimde bir sıkıntı hissediyorum.....	(1)	(2)	(3)	(4)
7. İleride olabilecek kötü olayları düşünerek üzülüyorum.....	(1)	(2)	(3)	(4)
8. Kendimi dinlenmiş hissediyorum.....	(1)	(2)	(3)	(4)
9. Kendimi kaygılı hissediyorum.....	(1)	(2)	(3)	(4)
10. Kendimi rahatlık içinde hissediyorum.....	(1)	(2)	(3)	(4)
11. Kendime güvenim olduğunu hissediyorum.....	(1)	(2)	(3)	(4)
12. Kendimi sinirli hissediyorum.....	(1)	(2)	(3)	(4)
13. İçimde bir huzursuzluk var.....	(1)	(2)	(3)	(4)
14. Çok gergin olduğumu hissediyorum.....	(1)	(2)	(3)	(4)
15. Sükunet içindeyim.....	(1)	(2)	(3)	(4)
16. Halimden memnunum.....	(1)	(2)	(3)	(4)
17. Kendimi fazlasıyla heyecanlı ve şaşkın hissediyorum.....	(1)	(2)	(3)	(4)
18. Kendimi neşeli hissediyorum.....	(1)	(2)	(3)	(4)
19. Kendimi neşeli hissediyorum.....	(1)	(2)	(3)	(4)
20. Keyfim yerinde.....	(1)	(2)	(3)	(4)

## APPENDIX G

### SÜREKLİ KAYGI ENVANTERİ (TAI)

Aşağıda kişilerin kendilerine ait duygularını anlatmada kullandıkları bir takım ifadeler verilmiştir. Her ifadeyi okuyunuz, sonra da genel olarak nasıl hissettiğinizi, ifadelerin sağ tarafındaki seçeneklerden size en uygun olanını işaretleyerek belirtiniz.

	Hemen Hiç	Biraz	Oldukça	Tamamıyla
21. Keyfim yerindedir.....	(1)	(2)	(3)	(4)
22. Çabuk yorulurum.....	(1)	(2)	(3)	(4)
23. Olur olmaz hallerde ağlayacak gibi olurum.....	(1)	(2)	(3)	(4)
24. Diğerleri kadar mutlu olmak isterdim.....	(1)	(2)	(3)	(4)
25. Çabuk karar veremediğim için fırsatları kaçıırım.....	(1)	(2)	(3)	(4)
26. Kendimi dinç hissederim.....	(1)	(2)	(3)	(4)
27. Sakin, kendime hakim ve soğukkanlıyım.....	(1)	(2)	(3)	(4)
28. Güçlüklerin yenemeyeceğim kadar biriktiğini hissederim.....	(1)	(2)	(3)	(4)
29. Gerçekten çok önemli olmayan şeyler için endişelenirim.....	(1)	(2)	(3)	(4)
30. Mutluyum.....	(1)	(2)	(3)	(4)
31. Her şeyi kötü tarafından alırım.....	(1)	(2)	(3)	(4)
32. Kendime güvenim yok.....	(1)	(2)	(3)	(4)
33. Kendimi güvende hissederim.....	(1)	(2)	(3)	(4)
34. Sıkıntı ve güçlük veren durumlardan kaçınırım.....	(1)	(2)	(3)	(4)
35. Kendimi hüznü (kederli) hissederim.....	(1)	(2)	(3)	(4)
36. Hayatımdan memnunum.....	(1)	(2)	(3)	(4)
37. Aklımdan geçen bazı önemsiz düşünceler beni rahatsız eder.....	(1)	(2)	(3)	(4)
38. Hayal kırıklıklarını öylesine ciddiye alırım ki unutamam.....	(1)	(2)	(3)	(4)
39. Tutarlı bir insanım.....	(1)	(2)	(3)	(4)
40. Son zamanlarda beni düşündüren konular yüzünden gerginlik ve huzursuzluk içindeyim.....	(1)	(2)	(3)	(4)

## APPENDIX H

Miss Gulsah Kemer  
Research Assistant  
METU  
Faculty of Education  
Department of Educational Sciences  
Ankara, TURKEY

6 April 2005

Dear Gulsah,

Thank you for your inquiry about the College Academic Self-Efficacy Scale (CASES). You are certainly welcome to translate and use CASES. I've attached a copy of the scale. Here are a few summary points about the scale.

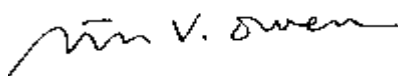
Items are scored as A ("quite a lot") = 5...E ("very little") = 1. On the other hand, because we read from right to left, data entry is faster letting A = 1, and E = 5. If you enter data with A = 1, then let the computer recode the values so that A becomes 5.

In calculating an overall CASES score, we prefer calculating a mean rather than a sum. With missing data (e.g., omitted items), a sum score is incorrect; the mean considers missing data without penalizing the respondent. Also, the mean score is in the original metric of the scale, so there is a simple frame of reference for interpreting scores.

Also, you may wish to create questionnaire instructions to best fit your application. For example, if you need informed consent, you might say something like "Filling out this questionnaire is completely voluntary and confidential. There are no penalties for not participating, and you may quit at any time."

Best wishes in your research.

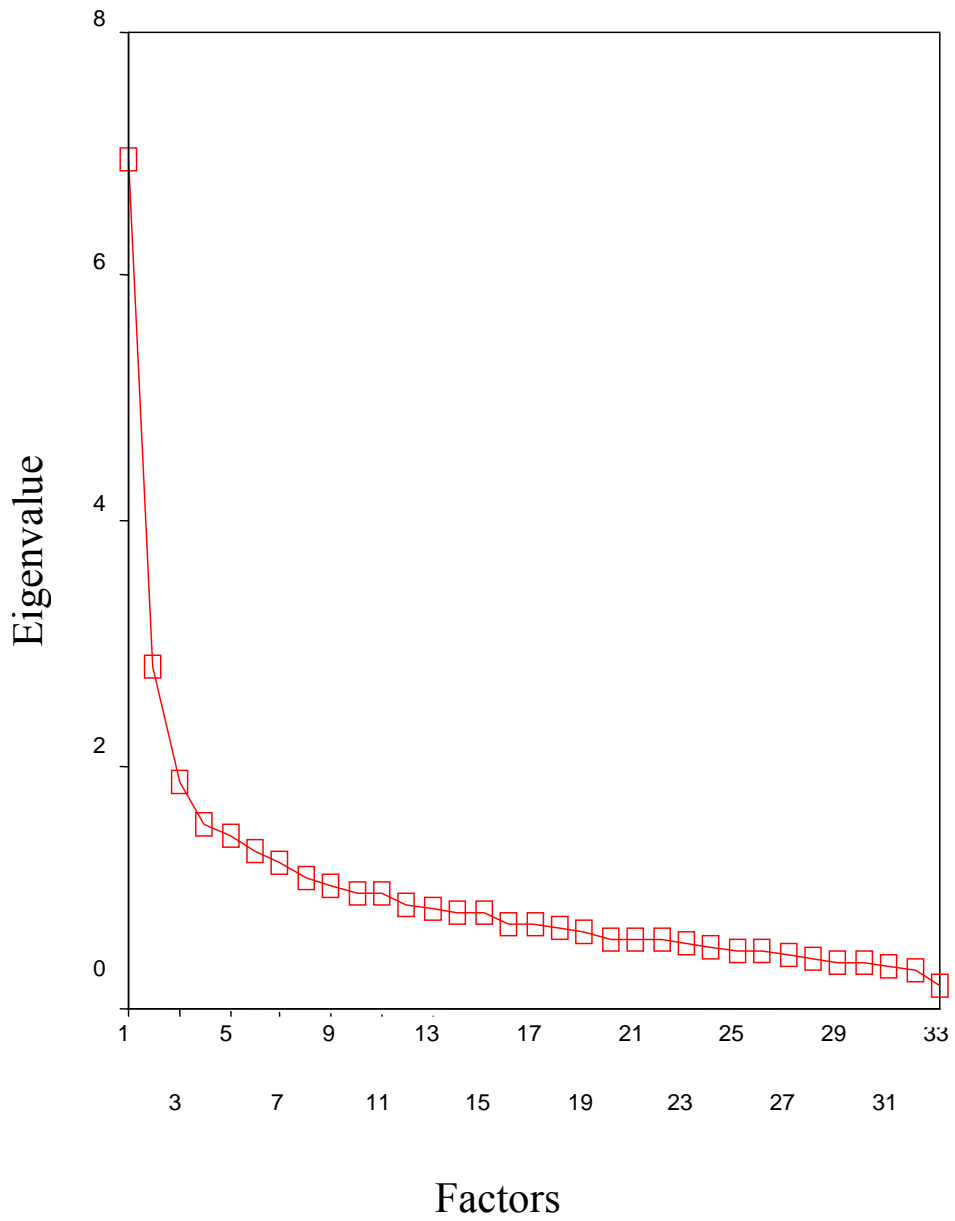
Sincerely,



Steven V. Owen, Professor  
Center for Epidemiology & Biostatistics  
University of Texas Health Science Center at  
San Antonio  
7703 Floyd Curl Dr., MC 7933  
San Antonio, TX 78229-3900  
Ph: 210-567-5866  
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Internet: OwenSV@uthscsa.edu

APPENDIX I

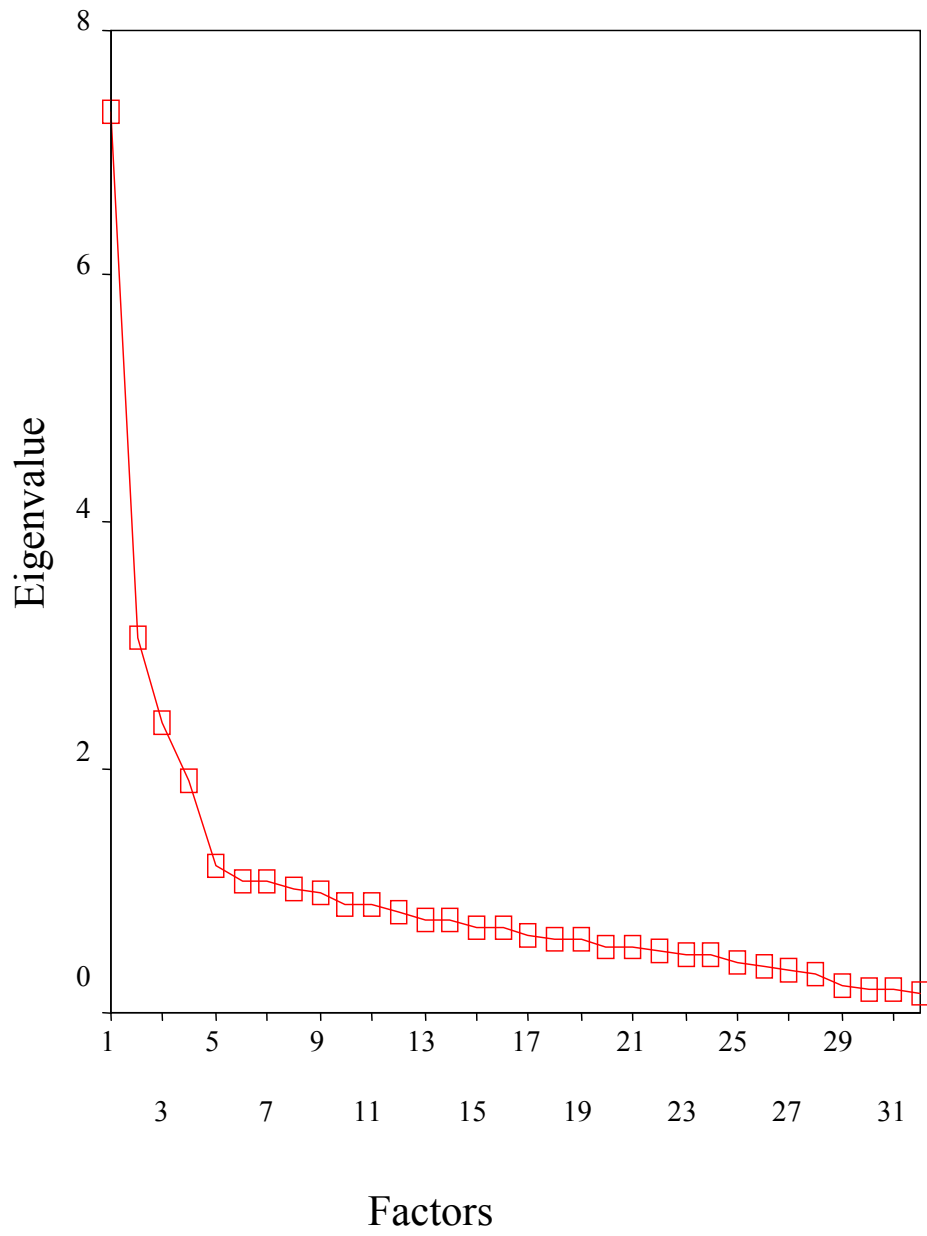
Scree Plot of CASES





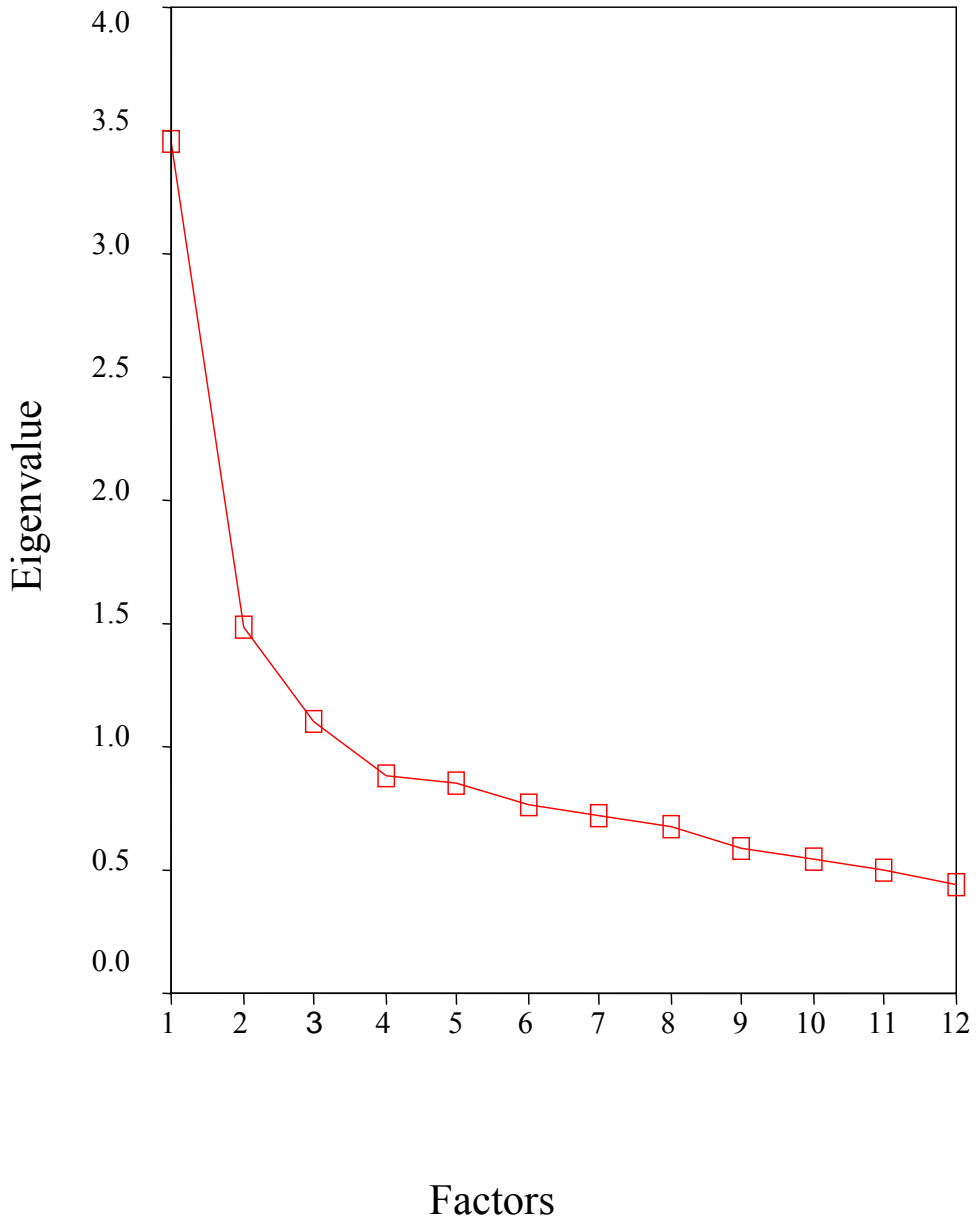
APPENDIX J

Scree Plot of CSSES



APPENDIX K

Scree Plot of DHS



**APPENDIX L**

Table 3.2

*Correlation Coefficients of the Scores of the Independent Variables and UEE Scores of the Quantitative Sample*

	UEES	CASES 1	CASES 2	CASES 3	CASES 4	CASES 5	CASES 6	CSES 1	CSES 2	CSES 3	CSES 4	CSES 5	DHS 1	DHS 2	SHS 1	SHS 2	SAI	TAI
UEES	1.000																	
CASES1	.373	1.000																
CASES2	-.160	-.023	1.000															
CASES3	-.172	-.091	.050	1.000														
CASES4	.111	.129	-.107	.005	1.000													
CASES5	.016	-.023	.081	.019	-.046	1.000												
CASES6	.173	-.059	-.032	-.129	.189	.000	1.000											
CSES1	.004	.423	.586	.050	-.105	.110	-.270	1.000										
CSES2	-.139	.122	.024	.189	.120	.092	-.022	-.043	1.000									
CSES3	.327	.335	.098	-.097	.001	.098	.310	.084	.127	1.000								
CSES4	.179	.326	-.166	.217	.447	.063	.298	-.054	.038	.022	1.000							
CSES5	.055	.021	-.041	.193	.145	.000	.063	-.017	-.095	-.011	.116	1.000						
DHS1	-.027	.181	-.036	.171	.303	.077	.000	.047	.226	.057	.325	.099	1.000					
DHS2	.189	.280	.207	.135	.150	.096	.008	.242	.222	.188	.255	.079	.022	1.000				
SHS1	.278	.404	.157	.015	.100	-.005	.074	.248	.128	.218	.311	.120	.112	.432	1.000			
SHS2	-.057	.150	-.012	.117	.243	.016	-.046	.089	.203	-.052	.257	.048	.581	.177	-.031	1.000		
SAI	-.219	-.163	.182	.074	-.237	.008	-.104	.158	-.045	-.081	-.315	-.056	-.258	-.184	-.374	-.251	1.000	
TAI	-.208	-.229	.080	-.015	-.346	.020	-.185	.068	-.134	-.108	-.362	-.076	-.336	-.204	-.334	-.291	.705	1.000

\*Note: Test scores labeled by “CASES-1, 2, 3...etc.” represent the subscales of the CASES; “CSES-1, 2, 3...etc.” represent the subscales of the CSES; “DHS-1 and 2” represent the subscales of DHS; and “SHS-1 and 2” represent the subscales of SHS in the same order as their names appeared in the Table.

## APPENDIX M

Table 3.3  
*Correlation Coefficients of the Scores of the Independent Variables and UEE Scores of the Equally Weighted Sample*

	UEES	CASES1	CASES2	CASES3	CASES4	CASES5	CASES6	CSSSES 1	CSSSES 2	CSSSES 3	CSSSES 4	CSSSES 5	DHS 1	DHS 2	SHS 1	SHS 2	SAI	TAI
UEES	1.000																	
CASES1	.262	1.000																
CASES2	-.034	.043	1.000															
CASES3	-.037	.139	-.026	1.000														
CASES4	.122	-.085	.108	.015	1.000													
CASES5	.246	.038	-.010	.009	.034	1.000												
CASES6	.120	-.017	.007	.049	.183	-.046	1.000											
CSSSES1	.161	.501	.639	.051	.017	.112	-.157	1.000										
CSSSES2	-.021	.059	.204	.200	.258	.197	-.054	.070	1.000									
CSSSES3	.269	.409	-.055	.108	-.106	.067	.231	.134	-.060	1.000								
CSSSES4	.131	.305	-.033	.318	.256	.048	.374	.027	-.073	.014	1.000							
CSSSES5	.123	.084	-.073	.280	.104	.017	-.013	-.007	.042	.257	-.077	1.000						
DHS1	-.062	.242	-.018	.181	.099	.057	.105	.101	.248	.020	.176	.081	1.000					
DHS2	.129	.336	.240	.219	.267	.051	.091	.268	.174	.155	.338	.106	-.021	1.000				
SHS1	.270	.446	.217	.093	.184	.070	.170	.338	.150	.244	.365	-.021	.105	.561	1.000			
SHS2	-.037	.200	.025	.157	.104	.018	.158	.060	.156	.024	.249	.097	.674	.141	.010	1.000		
SAI	-.035	-.201	.091	-.114	-.156	.115	-.202	.033	-.066	-.132	-.274	-.086	-.243	-.299	-.234	-.385	1.000	
TAI	-.091	-.197	.072	-.142	-.200	.096	-.256	.044	-.129	-.135	-.293	-.110	-.312	-.277	-.223	-.402	.748	1.000

\*Note: Test scores labeled by “CASES-1, 2, 3...etc.” represent the subscales of the CASES; “CSSSES-1, 2, 3...etc.” represent the subscales of the CSSSES; “DHS-1 and 2” represent the subscales of DHS; and “SHS-1 and 2” represent the subscales of SHS in the same order as their names appeared in the Table.

**APPENDIX N**

Table 3.4  
*Correlation Coefficients of the Scores of the Independent Variables and UEE Scores of the Language Sample*

	UEES	CASES1	CASES2	CASES3	CASES4	CASES5	CASES6	CSSES 1	CSSES 2	CSSES 3	CSSES 4	CSSES 5	DHS 1	DHS 2	SHS 1	SHS 2	SAI	TAI
UEES	1.000																	
CASES1	.291	1.000																
CASES2	.057	.070	1.000															
CASES3	-.024	-.019	-.113	1.000														
CASES4	.139	-.109	-.021	-.020	1.000													
CASES5	-.040	-.089	-.201	-.065	.107	1.000												
CASES6	.141	-.008	.128	.122	-.055	-.062	1.000											
CSSES1	.080	.543	.492	-.178	-.040	.032	.008	1.000										
CSSES2	.297	.214	.086	.314	.253	.048	-.012	-.088	1.000									
CSSES3	.022	.144	.042	.175	-.050	.012	.432	.084	.127	1.000								
CSSES4	.051	.351	-.031	.514	.174	-.069	.207	.117	.154	.067	1.000							
CSSES5	.438	.142	-.076	.128	.183	.015	.129	-.051	.171	.034	.156	1.000						
DHS1	-.088	.162	-.053	.254	.098	.074	.089	.085	.155	.151	.326	.127	1.000					
DHS2	.215	.305	.283	.072	.236	.217	.064	.357	.174	.104	.256	.008	.025	1.000				
SHS1	.276	.387	.288	-.029	.012	.044	.086	.351	.140	.102	.200	.017	.062	.596	1.000			
SHS2	.024	.203	.023	.016	.053	.046	.156	.067	.145	.156	.219	.128	.701	.057	.073	1.000		
SAI	-.179	-.139	-.100	-.054	-.039	-.007	-.193	-.104	-.065	-.163	-.090	-.090	-.265	-.207	-.260	-.431	1.000	
TAI	-.259	-.264	-.089	-.173	-.036	-.087	-.187	-.117	-.277	-.212	-.223	-.278	-.391	-.250	-.337	-.480	.690	1.000

\*Note: Test scores labeled by “CASES-1, 2, 3...etc.” represent the subscales of the CASES; “CSSES-1, 2, 3...etc.” represent the subscales of the CSSES; “DHS-1 and 2” represent the subscales of DHS; and “SHS-1 and 2” represent the subscales of SHS in the same order as their names appeared in the Table.

## APPENDIX O

Table 3.8

*Descriptives of predictor variables regarding State High School sample*

State High School					
	N	Min	Max	M	SD
Cases-Academic Self-efficacy	351	-3.53	2.01	<b>-.22</b>	1.01
Cases-Characteristics of a Good Citizen	351	-3.81	1.86	.03	.98
Cases-Social Self-efficacy	351	-2.71	2.73	.08	.96
Cases-Comprehension Efficacy	351	-6.16	2.34	<b>-.08</b>	1.07
Cases-Academic Helping Efficacy	351	-3.63	1.79	.008	1.01
Cases-Quantitative Efficacy	351	-2.91	2.29	-.03	.91
Csases-Organizing and Planning School Work	351	-3.53	2.34	-.08	.98
Csases-Career Planning Self-efficacy	351	-3.13	1.74	.05	.92
Csases-Learning Self-efficacy	351	-2.40	2.02	<b>-.21</b>	.95
Csases-Academic Self-efficacy	351	-2.93	3.11	.01	.97
Csases-Communication Efficacy	351	-2.89	1.93	<b>-.24</b>	1.07
Dhs-Pathways	351	-3.80	1.92	.06	1.004
Dhs-Agency	351	-3.65	2.24	<b>-.10</b>	1.01
Shs-Agency	351	-2.54	1.93	<b>-.10</b>	.97
Shs-Pathways	351	-3.47	1.80	<b>.05</b>	1.01
SAI	351	20.0	79.0	49.76	12.42
TAI	351	22.0	72.0	43.81	10.49

## APPENDIX P

Table 3.8.1

*Descriptives of predictor variables regarding Super Lycee sample*

Super Lycee					
	N	Min	Max	M	SD
Cases-Academic Self-efficacy	265	-2.65	2.58	.12	.93
Cases-Characteristics of a Good Citizen	265	-3.26	1.88	<b>.14</b>	.96
Cases-Social Self-efficacy	265	-2.97	2.63	<b>-.12</b>	1.03
Cases-Comprehension Efficacy	265	-3.83	2.23	.03	.94
Cases-Academic Helping Efficacy	265	-3.37	2.13	<b>.06</b>	.96
Cases-Quantitative Efficacy	265	-3.15	2.30	<b>-.09</b>	1.11
Csses-Organizing and Planning School Work	265	-3.02	2.01	<b>.18</b>	.96
Csses-Career Planning Self-efficacy	265	-5.10	1.78	.009	1.00
Csses-Learning Self-efficacy	265	-2.08	2.31	.10	1.02
Csses-Academic Self-efficacy	265	-3.42	2.90	<b>-.08</b>	1.05
Csses-Communication Efficacy	265	-2.77	1.75	.11	.90
Dhs-Pathways	265	-3.80	1.57	-.07	.94
Dhs-Agency	265	-3.41	2.16	.06	.96
Shs-Agency	265	-2.71	2.22	.01	1.01
Shs-Pathways	265	-3.65	1.80	<b>-.06</b>	1.02
SAI	265	23.0	79.0	<b>52.09</b>	12.04
TAI	265	22.0	76.0	<b>44.28</b>	10.20

## APPENDIX R

Table 3.8.2

*Descriptives of predictor variables regarding Anatolian High School sample*

Anatolian High School					
	N	Min	Max	M	SD
Cases-Academic Self-efficacy	127	-1.91	3.00	<b>.37</b>	.98
Cases-Characteristics of a Good Citizen	127	-2.93	1.57	-.28	1.04
Cases-Social Self-efficacy	127	-2.28	2.40	<b>-.12</b>	1.02
Cases-Comprehension Efficacy	127	-2.43	2.10	<b>.15</b>	.87
Cases-Academic Helping Efficacy	127	-2.58	2.06	<b>-.12</b>	1.03
Cases-Quantitative Efficacy	127	-3.32	2.41	<b>.24</b>	.93
Csases-Organizing and Planning School Work	127	-2.76	1.92	-.08	1.05
Csases-Career Planning Self-efficacy	127	-4.86	2.51	<b>-.18</b>	1.14
Csases-Learning Self-efficacy	127	-1.84	1.98	<b>.42</b>	.902
Csases-Academic Self-efficacy	127	-2.87	2.55	.11	1.01
Csases-Communication Efficacy	127	-1.94	1.74	.23	.88
Dhs-Pathways	127	-2.91	1.72	<b>-.09</b>	1.07
Dhs-Agency	127	-3.02	2.39	<b>.16</b>	1.04
Shs-Agency	127	-2.64	2.17	<b>.24</b>	1.05
Shs-Pathways	127	-2.67	1.80	-.04	.92
SAI	127	22.0	80.0	<b>45.22</b>	12.39
TAI	127	23.0	69.0	<b>40.05</b>	9.24



## APPENDIX S

Table 3.8.3

*Descriptives of predictor variables regarding Private High School sample*

Private High School					
	N	Min	Max	M	SD
Cases-Academic Self-efficacy	43	-2.09	1.84	.003	.95
Cases-Characteristics of a Good Citizen	43	-2.68	1.37	<b>-.34</b>	1.04
Cases-Social Self-efficacy	43	-1.35	1.75	<b>.42</b>	.73
Cases-Comprehension Efficacy	43	-1.98	1.77	-.002	.98
Cases-Academic Helping Efficacy	43	-2.20	1.81	-.09	.97
Cases-Quantitative Efficacy	43	-2.88	1.55	.11	.97
Csases-Organizing and Planning School Work	43	-2.29	1.43	<b>-.21</b>	1.01
Csases-Career Planning Self-efficacy	43	-2.57	1.82	<b>.06</b>	1.07
Csases-Learning Self-efficacy	43	-1.85	1.80	-.08	1.03
Csases-Academic Self-efficacy	43	-1.86	1.64	<b>.13</b>	.76
Csases-Communication Efficacy	43	-1.00	1.90	<b>.57</b>	.72
Dhs-Pathways	43	-4.16	1.57	<b>.22</b>	1.01
Dhs-Agency	43	-3.03	1.74	.01	.82
Shs-Agency	43	-2.48	1.41	-.003	.84
Shs-Pathways	43	-2.88	1.39	.03	.93
SAI	43	21.0	74.0	48.11	13.05
TAI	43	24.0	74.0	41.20	10.17