GIFTED UNDERACHIEVERS AND FACTORS AFFECTING UNDERACHIEVEMENT

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B.S. in TCHE, Boğaziçi University, 1999

Submitted to the Institute for Graduate Studies in
Science and Engineering in partial fulfillment of
the requirements for the degree of
Master of Science
in
Graduate Progrram in Secondary School Science and Mathematics Education

Boğaziçi University
2002

ACKNOWLEDGEMENT

I would like to express my gratitude especially to my thesis advisor, Prof. Dr. Füsun Akarsu for her academic and moral support, patience and enthusiasm throughout my graduate study and the completion of this research. Without her guidance and insight this study would be hard deal.

I would like to give my special thanks to Assoc. Prof. Dilek Ardaç for her great contribution in my undergraduate and graduate years. Her guidance and instructions broadened my vision of the field.

Endless thanks to Prof. Dr. Ümit Davaslıgil for being kind to take place in the examination committee. It was a chance for me to meet her who is one of the few experts in this field in Turkey.

I would like to thank my parents and sisters for their everlasting support and love in every phase of my life. The only worst thing in the progress of this study was the nights that I spent without your lovely faces.

I also thank you very much Tezcan, since you have been making my life more beautiful for three years. Without your love, patience and support something would miss in my life.

And my special thanks goes to Gülşen Pekcan, Ebru Muğaloğlu, Nergiz Nazliçiçek and Buket Güzel. You have been making my life more colorful with your beauty, support and everlasting friendship. I also thank to Özge Tığdemir, Funda Oprukçu and Emre Gönülateş for their friendship and help in sharing my responsibilities in the department. And thank you Hande, İlkay and Işıl for helping me with the revisions. Thanks to Sevgi Dikmen for always being kind and helpful in the revisions of the study.

Endless thanks to Serkan Özel and Özay Semerci for sharing their room and time with me during the completion of this study. I believe that our friendship will last forever. I also thank to Yeliz, Aysun, Aylin, Sinem, Leyla, Cafer, Sencer, Fatma. I will never forget the time I spent with you. Your friendship made my work easy.

I want to express my sincere and eternal gratitude to each brilliant student who contributed to my study both in the implementation of the instrument and the interview. Without your help and your sharing a lot of information about yourself this study would not exist.

And lastly, but not the least, I want to thank D. Betsy McCoach for developing the SAAS-R instrument and sharing it with me. Without your support and the articles that you send me this study would turn into nightmares.

ABSTRACT

GIFTED UNDERACHIEVERS AND FACTORS AFFECTING UNDERACHIEVEMENT

The study aims to clarify the relationship between the characteristics of gifted underachievers at the university level and reasons for underachievement. Underachievement among gifted university students regarding their personality characteristics, home and parental variables, teacher and school related factors were examined.

The students from Bogazici University in Istanbul, who have already demonstrated their intellectual ability and high academic performance in a selective and external standardized university entrance examination constituted the sample. SAAS-R (School Attitude Assessment Survey-Revised) instrument were administered to 91 underachievers to examine the reasons of underachievement. The instrument employed five sub-scales: Academic self-perceptions, attitudes toward teachers, attitudes toward school, goal valuation and motivation/self-regulation. In addition to an instrument, interviews were made with 30 underachievers to make further explanations and to check the findings obtained from the SAAS-R instrument.

Findings indicated that the five sub-scales of the SAAS-R instrument can be used to explain the reasons of underachievement among gifted underachievers at Bogazici University. Among the five sub-scales; motivation seemed to be the most exploratory factor. On the other hand, results from the interview indicated that students' responses were parallel with the findings from the SAAS-R instrument. Recommendations based on the results of the study for the teachers, advisors, counselors, researchers and families are discussed.

ÖZET

ÜSTÜN YETENEKLİ BAŞARISIZ ÖĞRENCİLER VE BAŞARISIZLIĞI ETKİLEYEN NEDENLER

Bu çalışma üniversite düzeyinde öğrenim gören ancak başarısızlık gösteren üstün yetenekli öğrencilerin özellikleri ile başarısızlıklarının nedenleri arasındaki ilişkiyi belirlemek amacını taşımaktadır. Bu amaçla, öğrencilere ait kişilik özellikleri, ev ve ailelerine yönelik etkenler, okul ve öğretmenler ile ilişkili etkenler araştırılmıştır.

Çalışmanın örneklemini, üniversite giriş sınavında üstün performans göstererek yaklaşık olarak 1.3 milyon öğrenci arasından yüzde ikilik dilim içerisinde Boğaziçi Üniversitesi'ne girmeyi başarmış öğrenciler oluşturmaktadır. Boğaziçi Üniversitesi'nde başarısızlık sergileyen üstün yetenekli öğrencilerin başarısızlık nedenlerini belirlemek üzere 91 öğrenciye SAAS-R (Okul tutumu ölçme anketi) isimli anket uygulanmıştır. Ayrıca, 30 başarısız öğrenci ile de, derinlemesine mülakat yapılarak başarısızlığın nedenleri üzerine daha detaylı bilgi toplanmış ve anket sonuçlarının sunanması amacı güdülmüştür.

Sonuçlar; SAAS-R anketinin Boğaziçi Üniversitesi'nde okuyan başarısız konumdaki üstün yetenekli öğrencilerin başarısızlık nedenlerini değerlendirmede kullanılabilecek geçerli bir anket olduğuna işaret etmektedir. Anketin dayandığı beş boyuttan birisi olan motivasyon etkeni diğer dört boyuta göre daha açıklayıcı görülmektedir. Bunlara ek olarak, mülakat değerlendirmeleri de, anketten elde edilen bulguları destekler niteliktedir.

Sonuç olarak, çalışmanın bulguları üstün yetenekli başarısız öğrenciler ile ilgili literatürde geçen açıklamalara yeni bir destek sağlamıştır. Öğretmenler, rehberlik ve danışmanlık uzmanları, araştırmacılar ve aileler açısıdan çalışmanın bulgularına dayanarak yapılabilecek öneriler tartışılmıştır.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF ABBREVIATIONS

ANOVA	Analysis of variance
CFI	The Comparative Fit Index
df	Degrees of freedom
GPA	Grade Point Avarage
IFI	Bollen Fit Index
M	Mean
N	Number of cases
ÖSYM	Student Placement and Selection Center
ÖSYS	Student Placement and Selection Exam
ÖYS	Student Placement Exam
RUMSEA	Root Mean Square Error of Approximation
SAAS-R	School Attitude Assessment Survey-Revised
Sig	Significance
SD	Standard deviation
SE	Standard Error
SPSS	Statistical Program for Social Sciences
TLI	The Tucker Lewis Index

1. INTRODUCTION

Education of the gifted has been taken seriously in most of the ancient and modern societies. The strong emphasis given to this issue may be due to the fact that gifted individuals are regarded as a valuable source for any idealistic and foresighted society for the sake of maintaining and improving its existence.

However, although the identification and education of these gifted population is of great importance to all modern societies of our time this phenomenon has come out with a highly complex and hard-to-define nature. Most of the researchers are attempting to define giftedness from various perspectives, but it is still not possible to specify a common definition for this concept. Besides, identification of giftedness is another complex issue and researchers are proposing various procedures for the identification process such as teacher referral, behavioral characteristics, standardized tests, IQ tests, parent nomination, peer nomination and self nomination (Adkins and Cooper, 1993).

Regarding the characteristics of such an outstanding population, it can be concluded that gifted individuals comprise a heterogeneous group each being capable of displaying diverse set of traits.

Moreover, in our traditional classroom environments, it is often observed that needs and capacities of some of the gifted learners can be unidentified, ignored, or underestimated. This situation, in turn, gave birth to a sub-population called gifted underachievers.

It can be seen from the gifted literature that this is an issue in education and researchers are trying to propose possible solutions and prevention methods against this underachievement phenomenon. In their attempts to find out cures to this syndrome, some are approaching from an identification point of view and some from defining the characteristics of underachieving students. In general, it is evident in the literature that home and parental variables, teachers and school related variables and personality characteristics like perfectionism, disorganization, low motivation, self-concept

development, fear of failure, locus of control, low self-esteem, feeling withdrawn, feeling isolated, feeling anxious, feeling aggressive, feeling depressed, etc. are considered to be some of the possible factors affecting underachievement among gifted students.

This study is an attempt to search for finding out possible reasons of underachievement among some university students who are considered gifted.

1.1. General Statement of the Problem

The underachievement problem is seldomly studied among college and university level students. The aim of this study is to focus on this issue by clarifying the relationship between the characteristics of gifted underachievers at the university level and reasons for this underachievement. For this purpose SAAS-R (School Attitude Assessment Survey-Revised) instrument, developed by McCoach (2000) was used. In addition to the survey, an interview accommodating 89 items was administered to 30 underachieving gifted students. As part of the study, home and parental variables, school related factors and some personality characteristics of the underachiever sample have been examined.

1.2. Review of the Literature

1.2.1. Historical Overview of Gifted Education

It can be recognized from the history that most of the societies who have ancient roots have had a strong interest in dealing with the issue of giftedness. According to Colangelo and Davis, (1997) identifying and educating gifted youth has intrigued virtually all societies in recorded history. The concept and existence of giftedness attracted the attention of those societies because "giftedness is arguably the most precious natural resource a civilization can have" (Sternberg and Davidson, 1986).

As Ziegler and Heller (2000) state, exceptional achievements have always held interest of mankind, whether they be found in folklore, sagas, everyday encounters, theology, philosophy, art or recently in empirical science.

On the other hand, how these societies valued giftedness may differ from our contemporary point of views. As Davis and Rimm (1998) point out whether a person is judged "gifted" depends upon the values of the culture. General academic skills or talents in more specific aesthetic, scientific, economic, or athletic areas have not always been judged consciously as desirable "gifts".

In this respect, it is possible to see unfolding different scenarios regarding giftedness in different civilizations. However, commonly, the ones who are judged as having a special gift actually "led their society and directed the history by using their creativity, heroism, problem solving abilities and their power in convincing the others as well as their insights, inventions and discoveries. (Akarsu, 2001).

In ancient Sparta, military skills were valued so exclusively that "giftedness" was defined by outstanding combat, warfare and leadership skills (Colangelo and Davis, 1997). Besides, babies with physical defects or who otherwise were of questionable value were flung off a cliff (Meyer, 1965).

In Athens, on the other hand, "social position and gender determined opportunities" (Davis and Rimm, 1998). Upper-class young boys went to private schools for academics and physical fitness training (Colangelo and Davis, 1997). Plato's Academy charged no fees and selected both young and women based on intelligence and physical stamina, not on social class (Davis and Rimm, 1998).

In Rome, "architecture, engineering, law and administration" (Davis and Rimm, 1998) were highly valued and although higher education was reserved for males, some gifted women emerged who greatly affected Roman society (Good, 1960)

In early China, Chinese "anticipated several principles of modern gifted and talented education. They accepted a multiple talent concept of giftedness, valuing

literary ability, leadership, imagination, originality and such intellectual and perceptual abilities as reading speed, memory, reasoning and perceptual sensitivity (Tsuin-Chen, 1966).

Education and identification of the gifted has also gained attention of the Ottoman Empire. In order to educate gifted youth, they have founded Enderun, a palace school. "It is one of the oldest institutions offering gifted education in history. Founded by Murat II in mid 15th century, developed in an educational center for educating pages to take high positions in Ottoman administration by Mehmet the Conqueror; the Enderun has fulfilled this function over four centuries (Akarsu, 1991). As Akarsu (1991) states, Enderun reflects a combination of Plato's ideas as was expressed in his Republic and of Renaissance influence. Some of the characteristic features of Enderun included:

- Selection of students based on abilities and talents.
- A well-balanced curriculum consisting of liberal arts, physical education and vocational training.
- The systematic and long continued training of the body, high standards in physical development.
- Emphasis upon music including choral music, integrating music and mathematics.
- Freedom allowed in choice of subjects in accordance with the natural bent of individual student.
- Juxta positioning of learning and living environments.
- Carefully guided merit system consisting of rewards and punishment.

Davasligil (2000) states that it was the aim of Enderun to select the most talented among a larger population in a step-by-step basis in order to train them to accomplish governmental tasks. Such an aim was different from the process used to select high ranking government officials in Europe in those times where the duties and responsibilities were being distributed according to ascribed status rather than talent.

1.2.2. Gifted Education Today

The development of the interest in gifted education has started with the efforts of some people like Sir Francis Galton, Alfred Binet and Lewis Terman. Among those people, Sir Francis Galton contributed with the earliest significant research and writing on intelligence and intelligence testing (Colangelo and Davis, 1997).

Modern intelligence tests, on the other hand, had their roots in France in the 1890s (Davis and Rimm, 1998). Alfred Binet and Lewis Terman dealt with the issue of developing tests to identify the gifted. However, as Sattler (1992) stated, interest in intelligence and intelligence testing had a long history and dated back to 2200 B.C.

Considering the spread of studies on giftedness throughout USA, the launch of Soviet satellite, the Sputnik, seems to have an alerting and encouraging effect on the development of studies in USA. To Tannenbaum (1979), "the launch of Sputnik was a glaring and shocking technological defeat" for American society. After this launch, "more reports compared the quality and quantity of American versus Russian education and especially the numbers of American versus Russian children being trained in defense-related professions (Davis and Rimm, 1998).

On the other hand, the issue of the education of the gifted population has not gained valuable and necessary attention in contemporary Turkish Education system. According to Akarsu, (2001) Turkey has been witnessing the development of gifted education in other countries without participating in this rapidly growing field. She states that tiny efforts which have started in 1960's and seem to be reinforced in 1990's, through the active involvement of a group of families, educators and some education foundations have not exerted enough influence to break the strong resistance towards gifted education observed in the Ministry of National Education as well as in some education circles.

According to a law dated 1983; it is possible to see definitions of gifted and talented separately. The gifted is defined as the one who scores 130+ in IQ tests and talented is defined as the one who scores 110+ and exhibits superior artistic and

technical ability (Davasligil, 1999). However, as Davasligil (1999) reports the nature of the definitions did not change in a new Circular dated 2000 and the definition of giftedness and talent stayed one-dimensional, excluding creativity and non-cognitive measures.

1.2.3. Defining Giftedness

In the extensive literature of gifted education, it is possible to address various conceptions of giftedness among the researchers and practitioners of the field. Moreover, it can be concluded that "there is no one agreed-upon definition that is universally accepted" (Fatouros, 1993; Davis and Rimm, 1998).

However, contrary to this diversity among viewpoints towards defining giftedness in the most appropriate way, most of the experts agree on the significance of reaching this population. As cited in Forster (1993), the NSW (New South Wales, Australia) Committee on the Education of the Talented Child recognized talented and gifted children as a "valuable resource" and similarly, George (1993) stated that many, though not all, people will agree that gifted and talented children have special needs and special problems. They also have special and sometimes immense, talent to give to society. He then states that it is a duty to them to cultivate their abilities and to society to help prepare tomorrow's leaders and talent. More able children are the most precious natural resource in the world and one that cannot be allowed to be squandered.

On defining giftedness, there seems to be two different distinctions made by researchers. Some (e.g. Akarsu, 2001; Winner, 1996; Gagne, 1995; Davis and Rimm, 1998; Roets, 2000) separate the concepts of giftedness and talent. While some others (e.g. Tannenbaum, 1992; Betts and Neihart, 1988; Renzulli, 1978; Maker, 1996; Sternberg, 1997; Ramos-Ford and Gardner, 1997) prefer to explain giftedness as incorporating different aspects and dimensions in it.

In fact, according to Fatouros (1993), definitions range from being very open-ended, where a large proportion of children are described as having talents in a variety of

areas, to very specific definitions which limit gifted population (in Australia) to the top 5 per cent as determined by IQ testing.

Gagne (1995), acknowledges that children have potential in one or more areas that can be developed. He differentiated between gifts and talents, stating that individuals initially possess gifts in a variety of domains (i.e., intellectual, creative, sensorimotor, others) that are developed through a variety of catalyst and that these gifts lead to talent. It follows from this relationship that talent necessarily implies the presence of well above average natural abilities; one cannot be talented without first being gifted.

In terms of their meanings the words gifted or gift are differentiated from the words talented or talent. Davis and Rimm (1998) state that dictionaries list "talent" as one meaning of "gift" and vice versa. Besides, Akarsu (2001) proposes that in England the word "ability" is preferred to include both the meanings of "gift" and "talent".

Similarly, Roets (2000) summarizes operational definition of "gifted" as a high ability that is inherited is a personality trait and "talented" as natural ability that is developed by person's initiative.

Finally, Cavenagh (1993) cites the definitions of gift and talent which are adopted by NSW (New South Wales in Australia) Association for Gifted and Talented Children in its policy document. In that statement gifted students are described as those with the potential to exhibit superior performance across a range of areas of endeavor while talented ones are described as those with the potential to exhibit superior performance in one area of endeavor.

As it is clearly seen, these definitions are realistically open-ended, not specifying rigid percentages of the population nor insisting that a particular test be used to make judgments (Fatouros, 1993).

Additionally, Fliegler (1961), as cited in Callahan (1997), suggests a separation of categories in his definition of giftedness as a superior general intellectual potential and ability (approximately 120+); a high functional ability to achieve in various academic

areas commensurate with general intellectual ability; a high-order talent in such special areas as art, music, mechanical ability, foreign languages, science, mathematics, dramatics, social leadership and creative writing and a creative ability to develop a novel event in the environment. This definition probably includes about 15 to 20 percent of the population.

The definitions of giftedness, on the other hand, incorporates many factors, such as intelligence, creativity and leadership skills (Dalzell, 1997). In a more inclusive classification in the Marland Report (Marland, 1972) gifted and talented children are recognized in six domains according to demonstrated achievement and/or potential ability:

- General intellectual ability
- Specific academic aptitude
- Creative or productive thinking
- Leadership ability
- Visual and performing arts
- Psychomotor ability

In earlier attempts of defining giftedness intelligence seems to be the only criterion. According to Runco (1997) for many years, general intelligence was emphasized in theories of giftedness and the IQ was the assessment used to identify gifted individuals. Terman (1926), as cited in Cline (1999), in his longitudinal studies of giftedness, used high IQ as the measure of intelligence and giftedness. Later on, definitions witnessed new perspective and theories and different researchers defined giftedness in various forms. As Ackerman (1997) summarized, more complex definitions of giftedness were developed. These multi-dimensional definitions varied, while some focused on intellectual ability (Sternberg, 1985) or diverse abilities (Gardner, 1983), some others were more holistic (Betts and Neihart, 1988).

Schoon (2000) proposes that over the few decades the definition of giftedness has changed from being a one-dimensional conception linking giftedness to high intelligence to multi-dimensional conceptions acknowledging the existence of outstanding ability in

different domains. Runco (1997), contrary to Terman (1926), summarized and reported from Renzulli (1978), Albert and Runco (1986), Milgram (in press) and Tannenbaum (1983) that, talent is more than just general cognitive ability. Sarouphim (2000) reports that Renzulli (1978) added a motivation component (task commitment) as an important element in his definition of giftedness.

Renzulli's (1978) definition, which defines gifted behaviors rather than gifted individuals is as:

> Gifted behavior consists of behaviors that reflect an interaction among three basic clusters of human traits- above average ability, high levels of task commitment and high levels of creativity. Individuals capable of developing gifted behavior are those possessing or capable of developing this composite set of traits and applying them to any potentially valuable area of human performance. Persons who manifest or are capable of developing an interaction among the three clusters require a wide variety of educational opportunities and services that are not ordinarily provided through regular instructional programs.

Besides, Maker (1996) from a different perspective defined giftedness as "the ability to solve complex problems in effective, efficient, elegant and economical ways".

With respect to intelligence, on the other hand, Gardner (1983) rejected the unitary construct of intelligence and proposed a multi dimensional definition in which he identified seven discrete intelligences. Later to this theory as described in Ziegler and Hiller (2000), Gardner included the two more dimensions. He differentiates types of intelligence as follows:

- Linguistic Intelligence: This includes the sensitivity to the definitions of words as well as affective language based memory skills.
- Logical Mathematical Intelligence: Here general logical and special mathematical thinking abilities are referred to.
- Spatial Intelligence: This form of intelligence refers to the conception and perception of space as well as abilities involving spatial memory and thought processes.
- Bodily-Kinesthetic Intelligence: Psychomotor abilities of this type are needed, for example in achievements in the fields of athletics or dance.

- Musical Intelligence: This includes not only musical competencies in the narrowest of senses, but also includes mood and emotion.
- Intrapersonal Intelligence: This refers to a sensibility regarding ones own sensory world.
- Interpersonal Intelligence: This concept of social intelligence refers primarily to the ability to differentially perceive the needs of others.
- Naturalistic Intelligence: The ability to discern patterns in the living world.
- Existential Intelligence (in myth, art, science, philosophy) and
- Spiritual Intelligence.

Gardner labels the last two intelligences as candidates due to the lack (so far) of empirical validation (Ziegler and Heller, 2000)

1.2.4. Identification of the Gifted and Talented

The sole purpose of identification is to guide the educational process and serve youth (Feldhusen, 1989). However, it is not always easy to achieve those goals, because identification of the gifted child is problematic. There is no single clear-cut method that can be used to identify gifted students and confusion still reigns as to what "gifted" and "talented" mean. The debate on how IQ tests identify giftedness continues to rage (Cline, 1999).

According to Renzulli and Purcell (1996), questions regarding identification of students with high abilities have lingered in the field at the local level for at least half a century. Specifically, these questions are: "How will we define giftedness?" and "how can we ensure the identification of all students with abilities and talents?".

Feldhusen, Hoover and Sayler (1990) propose that the ideal identification system has not been developed – so far.

It is seen from the literature that the early attempts in identification process were relying only on intelligence tests. Later, with the emergence of new ideas and new

theories on the nature of giftedness and that of intelligence, various forms of identification procedures and techniques were utilized in the field.

For instance, Roets (2000) reports that students shall be assessed for identification purposes through standardized and non standardized procedures which have validity and reliability; standardized measures like standardized intelligence tests (scores at or above 2nd and 3rd standard deviation and/or 97th percentile or above) and standardized achievement tests (95-97th percentile in composite or specific subject), non-standardized measures (school performance and recommendation); checklists, rating scales of teachers, peers, parents, or self, etc.

In contrast, Davidson (1986) expressed strong frustration with formal testing, rating and nomination procedures, including the use of point systems and cut-offs. To Davidson, such procedures do not allow students actually to demonstrate their abilities in areas in which they are interested and talented.

Instead, he recommends that, as cited in Davis and Rimm (1998), students who score in the 90th percentile or above on intelligence, achievement, or creativity tests (according to local norms) have clear needs and should automatically be placed in gifted programs.

Adkins and Cooper (1993) propose that the identification procedures need to be ongoing and should include the following:

- Teacher referral
- Behavioral characteristics
- Standardized tests
- IQ tests
- Parent nomination
- Peer nomination
- Self nomination

It is also evident in the literature that different schools and/or different countries apply various forms of identification procedures.

Renzulli and Purcell (1996) summarized from the literature that in USA, while the IQ score is still a predominant feature in identification plans, 80 per cent of states use definitions that, include creativity, approximately 70 per cent use definitions that include artistic abilities and slightly more than half the states use definitions that include leadership abilities.

Davis and Rimm (1998) report that the SAT-M (Scholastic Aptitude Test-Mathematics) and the SAT-V (Scholastic Aptitude Test-Verbal) and to a lesser extent the American College Testing Program (ACT) tests, are used to identify high-level mathematical and verbal reasoning talent among seventh graders for the Study of Mathematically Precocious Youth (SMPY) and Talent Search programs. Benbow and Minor (1990) report that – based on research with adolescents who scored above 700 on the SAT-M or above 630 on the SAT-V; the 1 in 10.000 range – mathematically talented and verbally talented students represent two distinctly different forms of intellectual giftedness.

In the same line, Johnson and Gentry (2000) while discussing "admissions portfolio for a graduate program", report that both the GRE (General Record Examination) and the Miller Analogy Tests are traditional selection criteria – score 500+ on one or more portions of the GRE – and are still an option for those who choose to submit this as evidence of higher reasoning abilities.

In China, students are very carefully chosen – to the University of Science and Technology of China (USTC) offering programs for gifted youth – from among a national pool of bright and dedicated youngsters who, despite being no more than age 14 and still studying in what might be called junior or senior high school in the US, have completed the work of high school and have successfully passed the rigorous National College Entrance Examinations with distinctions (Robinson, 1992).

In Russia, the selection of students for admission to special schools was undertaken with great care to ensure that only the best and brightest of Soviet youth were enrolled. Often admission interviews and examinations were offered only to winners of the prestigious Mathematical Olympiads conducted in every region of the Soviet Union. Students who completed the entrance examination successfully and whose interview was judged satisfactory were invited to special summer schools that served as final screening devices. Only applicants who survived this three-step application process were admitted to the schools (Donoghue, Karp and Vogeli, 2000).

In Taiwan, such criteria as a score higher than two standard deviations above the mean on the IQ test; a grade point average in the top 2 per cent of their school peers at the same grade, or a score higher than two standard deviations above the mean on an achievement test covering major subjects in the curriculum (Wu, 2000) were used in identification. Additionally, the ones who have a grade point average in the top 1 per cent of their school peers at the same grade in mathematics or science, or have demonstrated an outstanding performance in a national or international competition (Wu, 2000) were identified as gifted.

1.2.5. Characteristics of the Gifted

Gifted and talented learners are not a homogeneous group. To the contrary, they are many, varied and unique. (Reis and Small, 2001) According to some researchers (Schmitz and Galbraith, 1985) there is no one portrait of a gifted student. Talents and strengths among the gifted vary as widely as they do with any sample of students drawn from a so-called average population.

Gifted children as a distinctive population are characterized by their high cognitive potential (Mares, 1993). In the literature it is possible to find different compilations of characteristics for the gifted and talented, some are really extensive and some not.

However, although such variability occurs among the gifted and talented, according to Passow (1981) despite the tremendous variation that exists among a group

of gifted and talented children, they do have many characteristics that differentiate them from other learners.

For instance, according to Feldhusen (1989) gifted learners:

- have the ability to learn more rapidly than average ability students
- are able to deal with complex and abstract concepts
- are ahead of their peers in basic skills
- have advanced verbal ability and
- have a developed use of thinking skills.

In a different list by Laycock (1957) the characteristics of the able are described as to:

- be capable of a high level of abstract thought
- explicitly demonstrate a high degree of curiosity
- have a wide range of interests and hobbies
- have an exceptional insight and depth of knowledge about interests and hobbies
- be a good reader
- learn easily and to be able to cope with complicated ideas or information
- have a good vocabulary
- be able to work independently for long periods at interesting and challenging tasks.
- be quick to respond to new or unusual ideas
- have an original and lively imagination
- be very mature socially
- have a good sense of humor.

In addition to above outlined ones, Clark (1997) compiles an extensive list of characteristics:

- An extraordinary speed in processing information

- A rapid and through comprehension of the whole idea or concept
- An unusual ability to perceive essential elements, underlying structure, patterns in relationships and ideas
- A need for precision in thinking and expression
- An ability to relate a broad range of ideas and synthesize commonalities among them
- A high degree of ability to think abstractly that develops early
- Appreciation of complexity; finding myriad alternative meanings in even the most simple issues or problems
- An ability to learn in an integrative, intuitively nonlinear manner
- An extraordinary degree of intellectual curiosity
- An unusual capacity for memory
- A long concentration span
- A fascination with ideas and words
- An extensive vocabulary
- Ability to perceive many sides of an issue
- Argumentativeness
- Advanced visual and motor skills
- An ability from an early age to think in metaphors and symbols and a preference for doing so
- Ability to visualize models and systems
- Ability to learn in great intuitive leaps
- High idiosyncratic interpretations of events
- Awareness of detail
- Unusual intensity and depth of feeling
- A high degree of emotional sensitivity
- Highly developed morals and ethics and early concern for moral and existential issues
- Unusual and early insight into social and moral issues
- An ability to empathetically understand and relate to ideas and other people
- An extraordinarily high energy level
- A need for the world to be logical and fair

- Conviction of correctness of personal ideas and beliefs.

In the same line, Akarsu (2001), based on her experience with gifted children, takes some more characteristics into consideration:

- Extraordinary performance over peers in at least one talent area
- Proficiency in language
- Curiosity and intense interest in certain subjects
- Rapid learning
- Powerful memory
- High sensitivity
- Unusual forms of expression
- Openness to challenges
- Friendship with elder
- Adapting to new situations easily
- Love of reading

1.2.6. Defining Underachievement

The underachievement among gifted students is one of the most problematic issues in the field of gifted education in addition to ones faced in defining giftedness and finding appropriate ways to educate the gifted in accordance with their high potential.

The problem of the underachieving gifted student is one for social concern as well as one of individual welfare and happiness. It is costly for any society today to lose the potential contributions which gifted students could give. Underachievement is a learned behavior and to reverse the patterns of underachieving students proves more difficult in later years after attributes and behavioral patterns have been established (Hughes, 1993).

Underachievement among the gifted has been a focus of research for over 35 years (Emerick, 1992). However, despite considerable number of studies done over this period of time, as Reis and McCoach (2000) state the process of defining underachievement,

identifying underachieving gifted students and explaining the reasons for this underachievement continues to stir controversy among practitioners, researchers and clinicians.

This controversy, as usual, leads to different definitions of underachievement and in turn these diverse attempts portray various aspects regarding the nature of underachievement. According to Reis and McCoach (2000) no universally agreed upon definition of underachievement currently exists. This might be due to different perceptions of researchers about the characteristics of the issue and/or due to its "content" and "situation specific" nature (Delisle and Berger, 1990).

In defining underachievement, researchers mainly focus on the potentials and performances of gifted students. Reis and McCoach (2000) note that definitions of gifted underachievement as a discrepancy between potential and performance are by far the most common. In a similar way, Richert (1997) states that although many studies use more technical definitions, the discrepancy between potential and actual productivity seems to be part of all definitions.

Clark (1997) defined underachieving gifted student, as someone who has shown exceptional performance on a standardized test and who, nevertheless, does not perform as well as expected for students of the same age on school-related tasks.

Similarly, Whitmore (1985) defined underachievement as academic performance that is significantly lower than predicted, based on some reliable evidence of learning potential. In different words, Neihart and Robinson (2000) stated that underachievement might be defined as school attainment significantly below ability level. Reis and McCoach (2000), on the other hand, collected various definitions of underachievement from the literature, which all base on the discrepancy between potential and performance.

- High potential as evidenced by intelligence, achievement tests, or tests of specific aptitude, teacher observation, grades; underachievement as evidenced by

discrepancy between performance and potential, by Baum, Renzulli and Hebert, (1995)

- Large discrepancy between school performance and potential, by Butler-Por (1987)
- Discrepancy between potential and actual performance, by Dowdall and Colangelo (1982)
- Evidence of giftedness included standardized achievement test scores, scores on tests of general aptitude, or other indicators of potential for well-above average academic performance. Evidence of underachievement included average or below average academic performance as assessed by test scores, grades and teacher observations, by Emerick (1992)
- High aptitude scores but low grades and achievement test scores, or high achievement test scores but low grades due to poor daily work, by Whitmore (1980)

Shaw and McCuen (1960) connects this reliance to academic school grades as being a reference to discrepancy with ability, to social significance of school grades, their implications for the education future of pupils and the importance attributed by the school system to the personal judgment embodied in the grading system.

Raph, Goldberg and Passow (1966), on the other hand, add a new aspect to these definitions. They accept the gifted underachiever as the one who not only fails to achieve the academic level of which he is capable, but is often also found to be lagging behind the achievement levels of the contemporary of average ability.

As it is clearly seen from the definitions which more or less point out the same themes of underachievement, standardized achievement test scores and academic performance of students (including course grades, test scores, etc.) are commonly utilized in determining who the gifted underachievers are.

1.2.7. Identifying Underachievers

Identification of gifted underachievers is another problematic issue and it is important as well as that of giftedness itself. According to Whitmore (1985) three factors led to emphasis in identifying underachievers: The first is the increase in the use of test, the second is the increase in teacher referrals for special education services because of learning or behavioral problems and the third is the increased effort to recognize and develop the potential abilities of culturally different and minority children.

Kwung-Won (1990) categorizes underachievers into five groups in which one group shows low grades and high test scores, second group displays low test scores and high grades, a third group consistently performs below their level of capability, while some show underachievement in only certain subjects or concentrations. The last group of underachievers is hidden, or they are the kind of students whose underachievement goes unnoticed.

Clark (1997) on the other hand, differentiates between two groups of underachievers: "situational underachievers" underachieve only on occasion, as when a particularly difficult home problem erupts or a clash occurs with one particular teacher and "chronic underachiever" whose pattern recurs again and again, presenting a problem particularly resistant to remediation.

At this point of the discussion, how researchers identify underachievers gains value. Butler-Por (1993) argues that to identify gifted underachievers, it is necessary to establish the presence of a large discrepancy between the students' school achievements and some manifestation of the child's high potential such as intelligence, creativity, teachers' and parents' observations.

Besides, it is also crucial to determine some identification criteria due to the fact that overgeneralizations or more limited criteria used in identification process may yield poor results. Therefore, as Reis and McCoach (2000) argued, any system of defining, identifying and eventually reversing underachievement should include students whose classroom performance falls significantly below their standardized test performance.

Reis and McCoach (2000) also suggest that students may not be classified underachievers unless they have exhibited low performance for at least a year.

In addition to necessary time span in identification process, it should also be noted that not having any kind of "diagnosed learning disability" (Reis and McCoach, 2000) for underachievers is essential for the assessment of underachievement of underachievers in the most appropriate and effective way.

Butler-Por (1987) suggests some procedures in identifying gifted underachievers in a classroom:

- Identification of discrepancies between cognitive abilities expressed in formulating questions and hypothesis and normal school performance in the accomplishment of assignment, homework and test
- Identification of great differences between general and expertise knowledge derived from extensive reading at home and failure to complete reading assignments at school
- Comparison between the following of wide interests outside the school with the minimal effort invested in school projects
- Combined student and teacher evaluation of academic strengths and weaknesses, academic personal choices and effort incepted in the different subjects
- Consulting parents, previous teachers and professional personnel at school, on students' learning habits and social behavior. A consistent drop in scholastic performance of approximately two years indicates that the student is underachieving

1.2.8. Characteristics of Underachievers and Reasons for Underachievement

Gifted underachievers differ from their achieving counterparts in certain aspects. These stem from their characteristics that further lead to underachievement syndrome. However, in literature there are no commonly accepted views among researchers regarding the characteristics of gifted underachievers. Although their explanations underlie the same parameters for both the reasons for and characteristics of

underachievement, there are also many different perspectives for wide ranges and kinds of parameters. These diverse viewpoints results from the fact that, as Butler-Por (1993) states underachieving students, like all students, differ from each other not only in their home background, but also in their own way of coping with their problems. One cannot expect all underachievers to have the same characteristics. In the same sense, Reis and McCoach (2000) note that synthesizing the hypothesized characteristics of gifted underachievers becomes a nearly impossible task. They then propose the idea that for each personality trait common to gifted underachievers, there are many other underachieving gifted students who do not exhibit that trait. They also state that, regarding measurement issues, most of the research that investigates common characteristics of underachieving students has employed qualitative, clinical, or single subject research methodology. However, very few large-scale quantitative studies have examined the legitimacy of these hypotheses.

The characteristic behaviors of underachieving gifted students have been studied extensively since 1950s (Clark, 1997) but as it is outlined above, researchers have emphasized various dimensions to varying degrees. Generally speaking, some researchers (e.g. Butler-Por, 1993; Clark, 1997) mainly concentrate on three factors associated with underachievement among the gifted: Home and parental variables, personality characteristics and school related factors. Some other researchers (e.g. Davis and Rimm, 1998; Reis and McCoach, 2000) offer a composite of related characteristics. Those three factors and the ones, which are not spelled together with these three form the basic reasons for underachievement.

Rimm (1997) states that procrastination, incomplete assignments, disorganization and careless work become typical symptoms that initiate underachievement syndrome for these students. According to Davis and Rimm (1998) poor study habits, peer acceptance problems, poor school concentration and home and school discipline problems support the pattern of underachievement. It is also evident that if a child does not see a relationship between efforts and outcomes, he is not likely to make an effort to achieve (Davis and Rimm, 1998).

Besides, underachievement is tied intimately to self-concept development. Children who see themselves in terms of failure eventually begin to place self-imposed limits of what is possible (Delisle and Berger, 1990).

Butler-Por (1993) also adds locus of control, fear of failure, need affiliation and fear of success as an additional to self- concept as reasons of underachievement. In explaining locus of control, he cited Laffon et al. (1989) who report that gifted underachievers tend to attribute their academic failures to external forces outside themselves. In terms of need affiliation, he describes that underachieving patterns of behavior in gifted students can stem from unfulfilled social needs.

Perfectionism, on the one hand, is also a crucial attribute of gifted underachievers. Adderholt-Elliot (1989) named five characteristics of perfectionistic students that contribute to underachievement: procrastination, fear of failure, an all-or-nothing mindset, paralyzed perfectionism (if there is a risk of failure, do nothing) and workaholism (which leads to burnout, depression and a lost balance among school, family and friends).

Another important trait in underachievement is low self-esteem. Davis and Rimm (1998) state that these students do not believe they are capable of accomplishing what their family or teachers expect of them or what they should expect of themselves.

Clark (1997) also proposes the idea that another cause of underachievement unique to gifted learners stems from their varied and numerous interests. They may, without proper guidance, extend their interests in too many areas, engage in too many activities and be unable to set appropriate priorities. According to Davis and Rimm (1998) this intense interest and/or leadership in and out of school activities act as a defensive avoidance behavior and these activities are less threatening or in which they feel like winners. They also note that success in these activities essentially compensates for academic failures.

Another contributing factor is competition. The classroom where competition and comparative evaluation are heavily stressed is a serious problem for underachievers

(Davis and Rimm, 1998). Rimm (1997) explains that when the curriculum becomes more complex or when students enter high grades where peer populations are more intellectually competitive, gifted children feel as though they are not as intelligent as they believed they were earlier. Some learn more appropriate study habits. Others hide from their threatening feelings. They worry that they are not as smart as they would like to be, they invent or discover a whole group of rituals and excuses that prevent them from making further effort. Besides, Davis and Rimm (1998) note that underachievement of gifted students may appear even at the college level if students have not learned to function in competition. While the reasons for non-completion of college may be more than an inability to function in competition, the second author's clinical experience with gifted students who lose confidence in competitive college environments provides evidence for these serious underachievement problems.

Gifted underachievers are also affected by peers. According to Clasen and Clasen (1995) underachieving students frequently report peer influence as the strongest force impeding their achievement. They also report that sixty-six percent of the students named peer pressure or attitude of the other kids, including friends, as the primary force against getting good grades.

Family dynamics, or in another way of saying home and parental variables are very important factors to consider in dealing with underachievement phenomena. A study by Wood, Chopin and Hannah (1988) focused on the role of the child's perception of his or her family environment and its relationship to underachievement and concluded that specific negative life events, such as divorce, death and financial problems have an adverse effect on the adjustment of children.

Generally speaking, families of underachieving students often display the following characteristics:

- Children are dependent on mothers
- Fathers are rejecting or domineering and give little warmth and affection
- Relationships between fathers and daughters or fathers and sons are negative or nonexistent

- Parents set unrealistic goals for their children and the children imagine that they are only as valuable or "good" as their accomplishments
- Parents allow achievement to go unrewarded
- Children do not identify with their parents
- There are deep social and emotional problems in the family
- Parents are not active in schools
- Parents are not supportive of their children
- Children's achievements present a threat to the parents and their adult superiority
- Parents do not share ideas, affection, trust, or approval
- Parents are restrictive and severe in their punishment (Clark, 1997).

One source of underachievement mentioned less frequently than the home, although still of major importance, is that of the actual school situation (Clark, 1997). Rutter et al. (1979) noted that the school plays a significant role in enhancing the motivating for learning and the achievements of its students, even when they initially have low academic achievements and behavior problems. Butler-Por (1993) on the one hand, reports that the literature suggests three factors within the school situation that are conductive to the onset of underachievement in gifted students: Curriculum and teaching methods, attitudinal factors and teacher variables.

Clark (1997) addressed Davis and Rimm (1994) who discuss inflexibility and rigidity in classrooms as demonstrations of the lack of respect for the individual child and as attributes that allow the needs of the gifted child to go unmet. The heavily competitive classroom is shown to contribute to underachievement by emphasizing extrinsic rewards, which detract from the intrinsic rewards of learning and creativity so highly correlated to achievement. Negative expectations, unrewarding curricula and inappropriate goals are also concerns mentioned that may cause or support underachievement.

Regarding the curriculum and teaching methods, it can be argued that inappropriate curriculum content and teaching methods, which fail to maximize intellectual development, may result in underachievement. Gifted students become frustrated with routine and repetitive skills and curricular material that they have already

mastered. Students who fail to find stimulation in school opt out of the learning situation, develop anti-school attitudes and prefer to stay at home (Butler-Por, 1993).

Butler-Por (1993) concludes from the literature that, by means of attitudinal factors that contribute to underachievement situation, it is important to note that underachievers generally express negative attitudes to school. The author continues with the explanation that though it is not possible to determine whether the negative attitudes to school are the cause of poor academic performance or are the outcome of the underachiever's school experience. The literature indicated that poor attitudes toward school of the gifted underachiever are affected by parental attitudes, peer attitudes and the failure of the school to stimulate the gifted student by providing relevant learning experiences and appropriate teaching methods.

In addition to the factors outlined above, it is seen that teachers may convey values and expectations that antagonize and alienate gifted students and contribute to the adopting underachieving behavior (Butler-Por, 1993). As summarized in Clark (1997), Evans (1965) has grouped the behaviors of teachers known to contribute to underachievement into the types of teachers who:

- must maintain superiority in the field of knowledge
- impose unrealistic goals and standards (the perfectionistic)
- use threats, ridicule, warnings and ultimatums and rarely show warmth or acceptance; are cold and impersonal
- are too easy; do not present a challenge
- have predictable, routine schedules and do not present a stimulating environment

In addition, Butler-Por (1993) proposes that the failure to set appropriate goals and expectations for gifted pupils is due to the failure of teachers to recognize their high abilities. On the other hand, Boyce (1998) adds the component that if the teacher's teaching style does not match the student's, students fail.

In general, Reis and McCoach (2000) list an extensive version of traits that underlie the reasons of underachievement discussed so far: that

- Low self-esteem, low self-concept, low self-efficacy
- Alienated or withdrawn; distrustful, or pessimistic
- Anxious, impulsive, inattentive, hyperactive, or distractible; may exhibit Attention Deficit Hyperactivity Disorder (ADD or ADHD) symptoms
- Aggressive, hostile, resentful, or touchy
- Depressed
- Passive-aggressive trait disturbance
- More socially than academically oriented, may be extroverted, may be easygoing, considerate and/or unassuming
- Dependent, less resilient than high achievers
- Socially immature
- Fear of failure; gifted underachievers may avoid competition or challenging situations to protect their self-image or their ability
- Fear of success
- Attribute successes or failures to outside forces; exhibit an external locus of control, attribute successes to luck and failures to lack of ability; externalize conflict and problems
- Negative attitude toward school
- Antisocial or rebellious
- Self-critical or perfectionistic; feeling guilty about not living up to the expectations of others
- Perform less well on tasks that require detail-oriented or convergent thinking skills than their achieving counterparts
- Score lower on sequential tasks such as repeating digits, repeating sentences, coding, computation and spelling
- Lack insight and critical ability
- Lack goal-directed behavior; fail to set realistic goals for themselves
- Poor coping skills; develop coping mechanisms that successfully reduce short-term stress, but inhibit long-term success
- Possess poor self-regulation strategies, low tolerance for frustration, lack perseverance, lack self-control
- Use defense mechanisms

- Intense outside interests, commitment to self-directed work

In the final step, it is important to discuss underachievement for post-secondary cases. Because underachievement is a chronic, pervasive condition rather than a stage through which children pass and from which they emerge unscathed, without help, the pattern persists into adulthood (Rathvon, 1996).

As Peterson, (2000) underlines, unfortunately, post-secondary outcomes of gifted underachievers are not often studied and there is also a lack of studies that include high-ability individuals who do not stay in college. He also concludes from the literature that, college entry qualifications are consistently related to college completion, while personality factors, motivation, satisfaction, loneliness, anticipation of success, work, finances and family have an impact on nonpersistence and lack of success in college. In addition, socioeconomic status has consistently been related to college attendance, educational attainment and academic success.

Davis (1998) reported from Borow's (1946) that predicting achievement of college students had more to do with time management, study habits, extracurricular activities, employment and health than intelligence. Davis (1998) also summarized Diener's (1960) study, which compared seventy-four achieving and sixty-four underachieving students on grade point average (GPA), aptitude, reading skill, verbal expression, high school GPA, age, weekly study hours, attendance and residential accommodations. In this study Diener (1960) found that overachievers, in comparison to underachievers reported better study habits and organization.

This study aims to discuss the above outlined reasons of underachievement among the gifted students at university level by also taking their stated characteristics into consideration.

The next section describes the design of the study including the sample, procedures and measures that were employed.

1.3. Statement of the Hypotheses

Following hypotheses were formed to direct the study:

- There is a significant difference between the mean scores of underachieving gifted students at the Boğaziçi University and a regular group of students at the Boğaziçi University on the whole scale of the SAAS-R (School Attitude Assessment Survey-Revised) instrument.
- There is a significant difference between the mean scores of underachieving gifted students at the Boğaziçi University and a regular group of students at the Boğaziçi University in terms of academic self-perceptions sub-scale of the SAAS-R (School Attitude Assessment Survey-Revised) instrument.
- There is a significant difference between the mean scores of underachieving gifted students at the Boğaziçi University and a regular group of students at the Boğaziçi University in terms of attitudes toward teachers sub-scale of the SAAS-R (School Attitude Assessment Survey-Revised) instrument.
- There is a significant difference between the mean scores of underachieving gifted students at the Boğaziçi University and a regular group of students at the Boğaziçi University in terms of attitudes toward school sub-scale of the SAAS-R (School Attitude Assessment Survey-Revised) instrument.
- There is a significant difference between the mean scores of underachieving gifted students at the Boğaziçi University and a regular group of students at the Boğaziçi University in terms of goal valuation sub-scale of the SAAS-R (School Attitude Assessment Survey-Revised) instrument.
- There is a significant difference between the mean scores of underachieving gifted students at the Boğaziçi University and a regular group of students at the Boğaziçi University in terms of motivation/self-regulation sub-scale of the SAAS-R (School Attitude Assessment Survey-Revised) instrument.

2. METHOD

2.1. Population and Sample

Since the aim of the study is to analyze the reasons for underachievement among the gifted students of Boğaziçi University, the participants are selected among the students of this university.

Boğaziçi University was formally established on September 12, 1971. While thus appearing to be a newcomer to the community of Turkish universities, it has behind it the long history of Robert College, which was the first American College to be established outside the boundaries of the United States. With the transfer of the site to the Turkish government, Boğaziçi University became the direct heir to not only the excellent facilities of Robert College but also to its distinguished academic tradition (Boğaziçi University Catalogue, 1996).

Boğaziçi University usually accepts students among the top ranking high school graduates (Table 2.1) who are selected through a nationwide external entrance examination. Before 1998 it was composed of two tests named ÖSS (Student Selection Examination) and ÖYS (Student Placement Examination) in the order of application. However, after 1998 the number of tests applied reduced to one named ÖSYS (Student Selection and Placement Examination).

The ÖSYS exam is taken by nearly one and a half million students each year (Table 2.2). Because the selected students exhibit an extraordinary success among that number of candidates nationwide (about 1,5 million), they can be considered gifted in the light of the giftedness literature.

Table 2.1. Ranking to enter Boğaziçi University among nearly 1.5 million students according to years, by percentage

Departments	1995	1996	1997	1998	1999
Comp. Teaching	-	-	-	4.0	0.7
Science Teaching	-	-	-	27	0.9
Teaching Physics	3.0	4.0	5.0	6.0	1.0
Primary Math Teaching	-	-	-	9.0	2.3
Foreign Language Education	1.0	1.0	1.0	1.0	3.6
Teaching Chemistry	5.0	6.0	6.0	7.0	1.0
Teaching Mathematics	2.0	1.0	1.0	2.0	0.4
Early Childhood Education	-	-	-	3.0	-
Counseling and Guidance	1.0	1.0	1.0	1.0	0.9
Philosophy	1.0	1.0	1.0	1.0	4.6
Physics	2.0	3.0	4.0	4.0	4.3
Western Languages and Lit.	1.0	1.0	1.0	1.0	1.7
Chemistry	4.0	4.0	5.0	5.0	4.2
Mathematics	2.0	1.0	1.0	1.0	2.0
Molecular Biology	3.0	3.0	3.0	3.0	1.9
Psychology	1.0	1.0	1.0	1.0	3.0
Sociology	1.0	1.0	1.0	1.0	3.5
History	1.0	1.0	1.0	1.0	1.3
Turkish Language and Lit.	1.0	1.0	1.0	1.0	0.8
Economics	1.0	1.0	1.0	1.0	0.7
Management	1.0	1.0	1.0	1.0	0.4
Political Science	1.0	1.0	1.0	1.0	1.6
Computer Engineering	1.0	1.0	1.0	1.0	0.3
Electrical Engineering	1.0	1.0	1.0	1.0	0.2
Industrial Engineering	1.0	1.0	1.0	1.0	0.1
Civil Engineering	1.0	1.0	1.0	1.0	1.3
Chemical Engineering	1.0	1.0	1.0	1.0	1.7
Mechanical Engineering	1.0	1.0	1.0	1.0	0.8
Tourism	-	1.0	1.0	1.0	2.6
International Trade	-	1.0	1.0	1.0	1.2
Management Information Sys	-	1.0	1.0	1.0	1.2
Translation & Interpretation	1.0	1.0	1.0	1.0	0.7

Table 2.2 Number of applicants in Nationwide Entrance Examination by years

Year	Number of Applicants
1994	1,249,965
1995	1,265,103
1996	1,399,061
1997	1,398,595
1998	1,359,585
1999	1,479,562

OSYS (Student Selection and Placement Examination) consists of two tests to measure candidates' verbal and quantitative reasoning abilities. These tests are basically composed of items which require relatively less academic knowledge of the area concerned. The major components of the verbal test are proficiency in the Turkish language and the ability to reason, using social science concepts and generalizations. The major components of the quantitative test are the ability to make use of basic mathematical concepts and rules and ability to reason, using natural science concepts and generalizations. There are approximately 90 items in each of these tests, though the exact number may vary from year to year. Candidates are expected to take both tests included in OSYS.

The exam questions their knowledge levels, computing and reasoning skills in literature, mathematics, natural sciences (Biology, Chemistry and Physics) and social sciences (Geography, History, Philosophy and Psychology) (Table 2.3). (Higher Education Council Booklet, Student Selection and Placement Center (ÖSYM), Ankara January, 2000). Their high school grade point averages (GPA) are also taken into consideration in the placement.

Table 2.3. Distribution of subjects and their weights in the exam

Part	Subject area	Approximate distribution by no. of questions
Verbal	Turkish Language Social Sciences - History 10% - Geography 9 % - Philosophy 6 %	25 % 25 %
Quantitative	Mathematical Reasoning Science - Physics 10 % - Chemistry 8 % - Biology 7 %	25 % 25 %

The sample of the study was selected according to following criteria:

- They entered the university in the upper 95+ percentile in their year of entry.
- They studied at least four complete semesters at the university.
- Their GPAs are under 2.0 out of 4.0.

In general, according to the achievement criteria accepted by the university, a GPA lower than 2.0 is directly treated as underachievement. Underachievers in this study are defined as those who

- Hold a GPA below 2.0 in the succeeding two semesters and
- Have at least one Failure (F) grades in their transcripts.

There are about 7000 undergraduate students currently studying at Boğaziçi University. Of those nearly 3537 students (49.9 per cent) have GPAs lower than 2.0 when all departments are considered (Table 2.4). (Data received from the University's Registrar Office)

Table 2.4. Range of GPA's throughout the university (only undergraduate students are involved)

Range of GPAs	**Below 2.0**	**Between 2.0 and 2.49**	**Between 2.5 and 2.99**	**3.0 and Higher**	**Total**
Number	3537	1810	1347	390	7084
Percentage	49.9	25.6	19.0	5.5	100

Among 3537 students whose GPAs fall below 2.0 out of 4.0, only 614 students (17.4 per cent), who completed at least four semesters at the university, were detected to hold GPA's below 2.0 in consecutive semesters and have Failure (F) grades in their transcripts. Since these students displayed extreme underachievement when compared to all other students who hold a GPA below 2.00, they were selected to form the sample of this study in order to best portray a sample portfolio that are closer to underachievement phenomena. In order to determine the possible reasons of underachievement at Boğaziçi University 91 students (14.8 per cent) out of 614 were contacted (selected conveniently) via e-mail in order to administer SAAS-R Survey and 30 students (33 per cent) out of 91 have been contacted to carry out an in-depth interview.

In Table 2.5 a distribution list of the samples employed in the application of the SAAS-R instrument (91), interview (30) and the population (614) is summarized according to departmental classification.

At the very beginning of the administration of SAAS-R Turkish version, conveniently selected 81 students, who are fluent both in English and Turkish, contributed to the translation process of the instrument.

To draw the profiles of the students at Boğaziçi University concerning underachievement status, GPA, determination of departments and faculties in which students are enrolled and gender; the Registrar's Office has been contacted to take official permission to reach at the files of the students.

Table 2.5. Distribution list of the samples and population by departments

Departments	Population	Sample for (SAAS-R)	Percentage (SAAS-R)	Sample for (Interview)
Comp. Teaching	0*	0*	-	0*
Science Teaching	1	0	0	0
Teaching Physics	17	5	29.4	1
Primary Math Teaching	0*	0*	-	0*
Foreign Language Education	9	2	22.2	0
Teaching Chemistry	18	8	44.4	1
Teaching Mathematics	19	9	47.4	9
Early Childhood Education	0*	0*	-	0
Counseling and Guidance	14	1	7.1	1
Philosophy	23	0	0	0
Physics	29	6	20.7	4
Western Languages and Lit.	16	0	0	0
Chemistry	21	5	23.8	3
Mathematics	43	5	11.6	3
Molecular Biology	30	1	3.3	0
Psychology	6	0	0	0
Sociology	19	1	5.3	0
History	31	3	9.7	0
Turkish Language and Lit.	9	0	0	0
Economics	53	2	3.8	0
Management	18	1	5.6	1
Political Science	35	3	8.6	0
Computer Engineering	41	10	24.4	1
Electrical Engineering	14	2	14.3	0
Industrial Engineering	16	5	31.3	0
Civil Engineering	42	9	21.4	1
Chemical Engineering	29	3	10.3	0
Mechanical Engineering	22	8	36.4	3
Tourism	17	0	0	0
International Trade	11	1	9.1	0
Management Information Sys	5	1	20	1
Translation & Interpretation	6	1	16.7	1
Total	**614**	**91**	**14.8**	**30**

*These departments do not have students who have completed at least four semesters at the university.

2.2. Instrumentation

2.2.1. The School Attitude Assessment Survey-Revised (SAAS-R)

The School Attitude Assessment Survey-R (McCoach, 2000) is administered to the sample of this study. The survey focused on five factors that are considered to be among the possible reasons for underachievement of gifted and talented students. Those five dimensions included academic self-perceptions, attitudes toward teachers, attitudes toward school, goal valuation and motivation/self-regulation. As McCoach and Siegle (2001a) reported The SAAS-R has been developed to explore the relationship between these five factors and scholastic underachievement.

The creators of the instrument measured just three factors in the first version of the SAAS. They were motivation, academic self-perceptions and attitude towards school. Although the original instrument provided marginally adequate evidence of reliability and validity (McCoach and Siegle, 2001a) they, then, added two other factors: goal valuation and attitude towards teachers in the revised version of the instrument (SAAS-R).

The Survey employed a 7-point Likert type agreement scale ranging from 1 to 7 where 1 represented "strongly disagree" and 7 represented "strongly agree". It contained 43 items. As summarized in Table 2.6 certain items associated with a certain factor out of the five dimensions constituting the scale.

Table 2.6 Distribution of the items in the SAAS-R according to related factors

Name of the Factor	Related Item Numbers
Academic Self-Perceptions	2, 3, 4, 5, 13, 20, 37, 40, 41
Attitudes Toward Teachers	1, 9, 14, 16, 17, 31, 34, 39
Attitudes Toward School	6, 7, 11, 12, 19, 42, 43
Goal Valuation	15, 18, 21, 25, 28, 29, 38
Motivation / Goal Valuation	8, 10, 22, 23, 24, 26, 27, 30, 32, 33, 35, 36

In the development process of the original instrument convenient sampling is utilized and 942 nine through twelve grade students were involved. In a further study by McCoach and Siegle (2001b) in order to use the instrument in differentiating gifted underachievers from gifted achievers, 104 gifted high school students were administered the survey. In this study, researchers defined a gifted student "as a student who scored at or above the 92nd percentile nationally on a norm-referenced test of achievement taken within the last 4 years. A gifted underachiever was defined as a student who ranked in the bottom half of his/her class and/or who had a grade point average (GPA) at or below 2.5" (McCoach and Siegle, 2001b).

Concerning reliability and validity of the instrument they reported that a confirmatory factor analysis provided an evaluation of the construct validity of the instrument. Model fit was evaluated using several common fit indices including Chi-square (X^2), the ratio of chi-square to degrees of freedom (X^2/df), the Root-Mean Square Error of Approximation (RMSEA), the Comparative Fit Index (CFI), The Tucker Lewis Index (TLI) (also known as the Bentler Bonett Non-Normed Fit Index) and the Bollen Fit Index (IFI). The researchers specified a priori that each question should act as an indicator for only one factor. Examination of the standardized factor loadings, the standardized residual covariance matrix, the squared multiple correlations and the modification indices aided in the respecification of the model (McCoach and Siegle, 2001a).

They also noted that "an analysis of reliability using SPSS indicated the SAAS-R exhibited satisfactory evidence of reliability" (McCoach and Siegle, 2001a). On the other hand, since the aim of the SAAS-R was to explore the relationship between the five factors mentioned and scholastic underachievement "an examination of the relationship between these five factors and students' self reported grade point averages provided a preliminary glimpse at the criterion-related validity and the future utility of this instrument" (McCoach and Siegle, 2001a). In summary, the SAAS-R appears to "demonstrate evidence of adequate validity and reliability for use as a research instrument" (McCoach and Siegle, 2001a). The reliability coefficients for each factor in the instrument are given in the Table 2.7.

Table 2.7 The reliability coefficients for each factor in the SAAS-R

Name of the factor	Reliability coefficients
Academic Self-Perceptions	.82
Attitudes Toward Teachers	.85
Attitudes Toward School	.88
Goal Valuation	.92
Motivation / Goal Valuation	.94

2.2.2. Translation of the SAAS-R

Before the application of the survey a translation study into Turkish language has been carried out. For this purpose following steps were taken:

- Two experts one of whom received his undergraduate and graduate education from a university where official language of instruction is English; the other as an expert who is fluent in both languages and works with gifted children translated the text. Five other experts whose profession is teaching English and who are also native speakers of Turkish language checked the translation.
- The researcher, then, analyzed all translations and formed a final version of the SAAS-R Turkish version.
- Both the English form and the Turkish forms were administered to 81 students, who are fluent in both languages. First, the English version was applied and after a ten day interval the Turkish form was administered to the same group of students.

2.2.3. Interview

In addition to using the instrument for data collection researcher also carried out an in-depth interview with 30 underachieving students to gather more evidence on possible reasons of underachievement. Each interview took at least one and a half hour and the researcher noted students' responses. In the formation of questions of the interview, related literature and researcher's observations have been taken into consideration. For example, "Do you think that having an instruction in English (other than the native language) have a negative effect on your achievement?" sort of an item has been

considered an additional aspect in underachievement that is not mentioned in the general literature.

Eighty one open-ended questions were employed. While forming the questions, researcher aimed at establishing a parallelism with the five factors of the SAAS-R instrument (academic self-perceptions, attitudes toward teachers, attitudes toward school, goal valuation and motivation/self-regulation) and the content of the interview. Those factors were also represented in the interview questions with different yet associated items (Table 2.8). In addition to those five dimensions some other questions were administered to the interviewee in order to examine and point out different reasons of underachievement which researcher taught to be important concerning the characteristics of the sample of the study.

Table 2.8. Distribution of the questions employed in the interview according to specified factors

Name of the Factor	Related Item Numbers
Academic Self-Perceptions	1-11
Attitudes Toward Teachers	12-23
Attitudes Toward School	24-30
Goal Valuation	31-35
Motivation / Goal Valuation	36-44
Additional Factors	45-89

2.3. Procedure

At the very beginning of the study, the researcher has contacted McCoach from the University of Connecticut who developed the SAAS-R (School Achievement Assessment Survey-Revised). After receiving permission to use the instrument as part of the study the instrument has been translated into Turkish language.

After this process has been performed successively (based on t-test results between the English version and the Turkish one) with the involvement of 81 students, who were

selected on a convenient basis, the instrument was administered to underachieving sample of the study composed of 91 underachievers.

Additionally, the results obtained from 81 students who have participated in the translation study were utilized to make comparisons with those obtained from the sample of the study (91 students). This group then was named as 'regular group'; because it constitutes students throughout the university other than the aforementioned sample. However, since two of the 81 students were also among the underachieving sample they were excluded. Thus, the number of the regular group was reduced to 79.

Before the application of the instrument and in-depth interviews, legal permission was obtained from the Registrar's Office in order to receive name lists and some information about the students like their GPAs, terms completed, etc. Researcher, then, secured e-mail addresses of nearly 650 students by searching through the university's search engine on the web. All students were posted an e-mail message informing them about the aim of the study, the instrument to be applied and the interview. They were also invited to participate in the study. 30 students accepted to participate in both the interviews and filling out the instrument, SAAS-R (School Attitude Assessment Survey-Revised) and other 61 students accepted just to fill out the questionnaire. Seven of the sample participated through e-mail contact, but all others, including interviewees, were contacted to schedule an appropriate time for interviews. Each interview lasted at least one and a half hour and the whole process for data collection took more than two months.

3. RESULTS

3.1. Results from the SAAS-R (School Attitude Assessment Survey-Revised)

In this study, the measures from two different groups were used in data analysis. One group of 91 students was composed of underachieving individuals and the other group (79 students) was composed of regular students.

In order to test whether there is a difference between these two groups or not, in terms of the factors that considered contributing to underachievement of the gifted students at Boğaziçi University, T-test, ANOVA and frequency analysis were used to analyze the results of the SAAS-R instrument (School Attitude Assessment Survey-Revised).

Table 3.1 shows the mean scores and standard deviations of the two groups (underachievers vs. regular group) with respect to the overall scores and Table 3.2 with respect to the five sub-scales of the SAAS-R instrument (School Attitude Assessment Survey-Revised).

Table 3.1. Results from the SAAS-R instrument regarding overall mean scores

Groups		**N**	**Mean**	**Std. Deviation**	
Underachieving		91	3,6555	,7975	
Regular		79	4,6619	,9580	
		Levene's Test for Equality of Variances		t-test for Equality of Means	
		F	**Sig.**	**t**	**df**	**Sig. (2-tailed)**
Total Means	Equal variances assumed	3,512	,063	-7,474	168	,000
	Equal variances not assumed			-7,378	152,308	,000

As shown in Table 3.1, the t-test results indicate that there is a significant difference between the mean scores of the 91 underachieving students (M = 3.66, SD = .798), t(168) = -7.47, p = .000 and those of the 79 regular students in terms of the overall test scores in the SAAS-R instrument (M = 4.66, SD = .958).

Table 3.2. Comparison of mean scores between underachieving and regular groups of students according to five sub-scales employed in SAAS-R instrument.

	Groups	N	Mean	Std. Deviation	Std. Error Mean
ACADEMIC SELF PERCEPTIONS	1 U	91	4,3101	,9214	9,66E-02
	2 R	79	4,8397	,9198	,1035
ATTITUDES TOWARD TEACHERS	1 U	91	3,8750	1,1447	,1200
	2 R	79	4,5459	1,0302	,1159
ATTITUDES TOWARD SCHOOL	1 U	91	4,5667	1,3322	,1397
	2 R	79	5,1519	1,1233	,1264
GOAL VALUATION	1 U	91	4,5495	1,3328	,1397
	2 R	79	5,3418	1,0536	,1185
MOTIVATION/SELF -REGULATION	1 U	91	3,0009	1,0057	,1054
	2 R	79	4,4842	1,2236	,1377

As shown in Table 3.2, mean scores of underachieving group in "Academic self-perceptions" sub-scale is 4.31 (out of 7.0) while that of the regular group is 4.84.

In other four sub-scales of the instrument: Attitude toward school, attitude toward teachers, goal valuation and motivation/self-regulation; the mean scores are 3.88 vs. 4.55, 4.57 vs. 5.15 and 4.55 vs. 5.34 and 3.0 vs. 4.48, respectively indicating that mean scores for the underachieving group and the regular group are different.

The researcher has utilized ANOVA statistics by using SPSS 10.0 for Windows in order to test the significance of the differences observed between the groups.

Table 3.3. ANOVA results between underachieving and regular groups of students according to five sub-scales of the SAAS-R instrument

		Sum of Squares	df	Mean Square	F	Sig.
ACADEMIC SELF PERCEPTIONS	Between Groups	11,858	1	11,858	13,989	,000
	Within Groups	142,402	168	,848		
	Total	154,259	169			
ATTITUDES TOWARD TEACHERS	Between Groups	19,033	1	19,033	15,930	,000
	Within Groups	200,724	168	1,195		
	Total	219,758	169			
ATTITUDES TOWARD SCHOOL	Between Groups	14,481	1	14,481	9,424	,002
	Within Groups	258,155	168	1,537		
	Total	272,636	169			
GOAL VALUATION	Between Groups	26,547	1	26,547	18,096	,000
	Within Groups	246,463	168	1,467		
	Total	273,010	169			
MOTIVATION/SELF-REGULATION	Between Groups	93,037	1	93,037	75,213	,000
	Within Groups	207,813	168	1,237		
	Total	300,850	169			

Results of the F-test indicated that (for academic self-perceptions sub-scale: M = 4.31 and 4.84, SD = .92 and .92, respectively, $F(168) = 13.9$, $p = .000$; for attitudes toward teachers sub-scale: M = 3.88 and 4.55, SD = 1.14 and 1.03, respectively, $F(168) = 15.9$, $p = .000$; for attitudes toward school sub-scale: M = 4.57 and 5.15, SD = 1.33 and 1.12, respectively, $F(168) = 9.42$, $p = .002$; for goal valuation sub-scale: M = 4.55 and 5.34, SD = 1.33 and 1.05, respectively, $F(168) = 18.1$, $p = .000$; for motivation/self-regulation sub-scale: M = 3.00 and 4.48, SD = 1.06 and 1.22, respectively, $F(168) = 75.2$, $p = .000$;) there is a significant difference between the underachieving and the regular groups of students regarding all of the five sub-scales of the SAAS-R questionnaire (Tables 3.2 and 3.3).

Moreover, researcher has grouped the answers of 91 underachieving students into three and coded the mean scores of their ratings. Students rated the SAAS-R (School Attitude Assessment Survey-Revised) instrument as how strongly they agree or disagree with the 43 statements. The instrument employed a 7.point Likert type agreement scale ranging from strongly disagree to strongly agree. So, the means 1 through 3.49 are coded as "1", the means 3.50 through 4.49 as "2", the means 4.50 through 7 as "3". This

categorization of the means into three were made to see the frequency distribution of the means of students' responses where a high frequency of the first category "1" indicates that sub-scales might contribute to underachievement for the 91 underachieving students, a high frequency of the second category "2" represents a moderate level and a high frequency of the third category indicates that the five sub-scales may not contribute to underachievement for the 91 underachieving students (Table 3.4). Frequency analysis of "Academic self-perceptions" sub-scale showed that 14 students (15.4 per cent) rated in the first category (disagree), 39 students (42.9 per cent) in the second category (moderate) and 38 students (41.8 per cent) in the third category (agree) (Figure 3.1).

Table 3.4. Categorization of the means into three groups

Means	Categories	**Meaning**
1.00 – 3.49	1-Disagree	Low Attitude/ Indicating underachievement
3.50 – 4.49	2-Moderate	Moderate level
4.50 – 7.00	3-Agree	High Attitude/ Not indicating underachievement

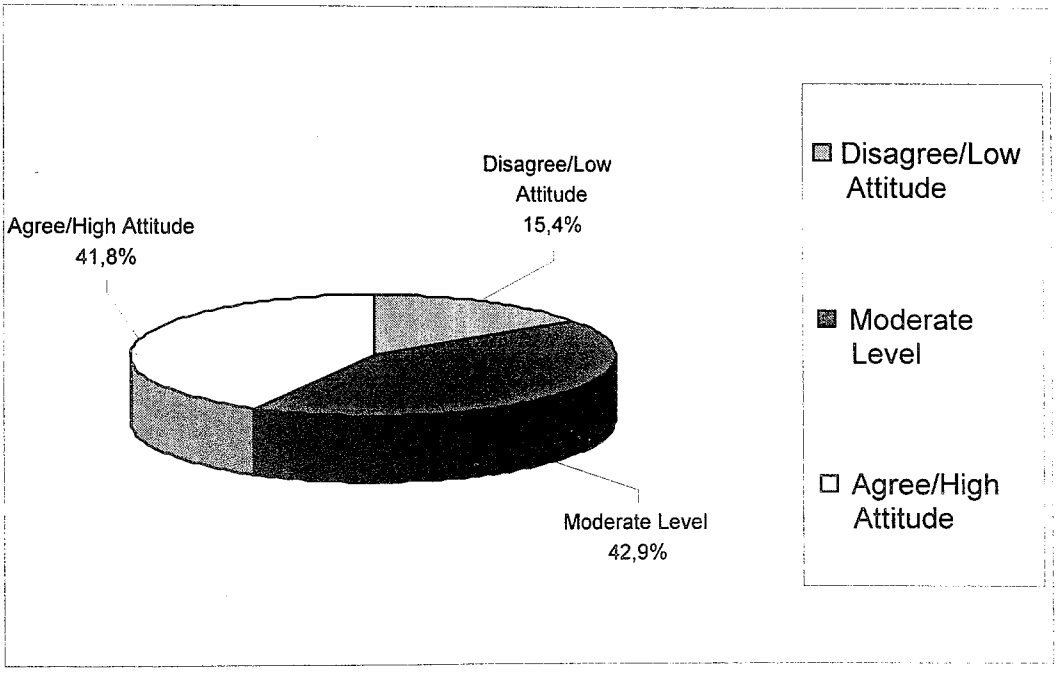

Figure 3.1. Frequency analysis of means of the 91 underachieving students into three categories according to academic self-perceptions sub-scale

Regarding "Attitudes toward teachers" sub-scale the frequencies were 31.9 per cent (29 students) for the first category (disagree), 36.3 per cent (33 students) for the second category (moderate) and 31.9 per cent (29 students) for the third category (agree) (Figure 3.2).

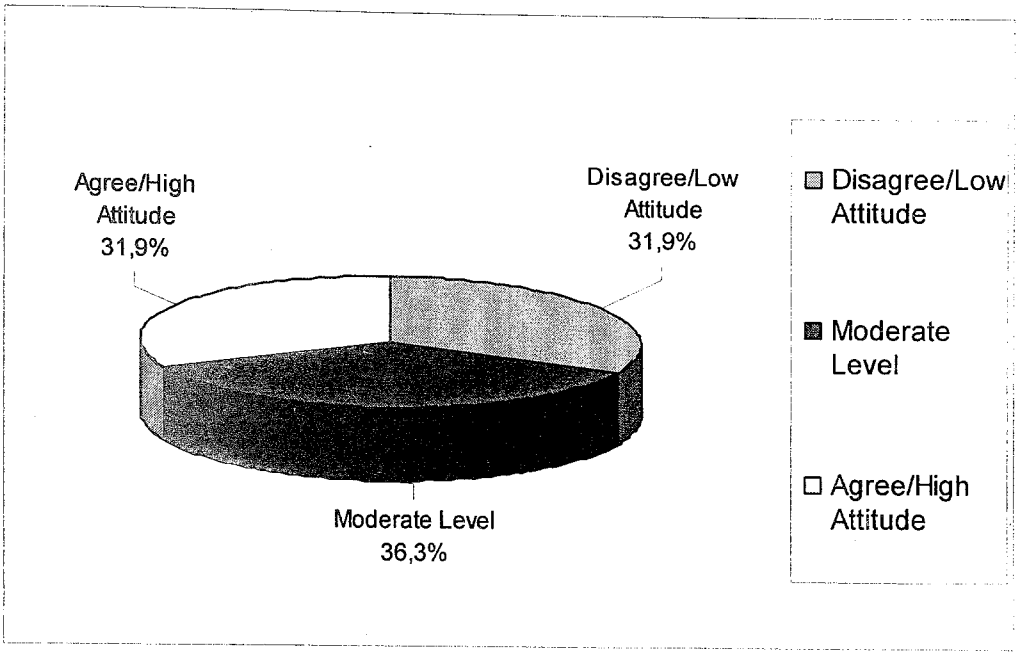

Figure 3.2. Frequency analysis of means of the 91 underachieving students into three categories according to attitudes toward teachers sub-scale.

In "Attitudes toward school" sub-scale, on the other hand,

- 17 students (18.7 per cent) rated in the first category (disagree),
- 20 students (22 per cent) rated in the second category (moderate) and
- 54 students (59.3 per cent) rated in the third category (agree)(Figure 3.3).

(The first category "1" indicates that sub-scales might contribute to underachievement for the 91 underachieving students, a high frequency of the second category "2" represents a moderate level and a high frequency of the third category indicates that the five sub-scales may not contribute to underachievement for the 91 underachieving students).

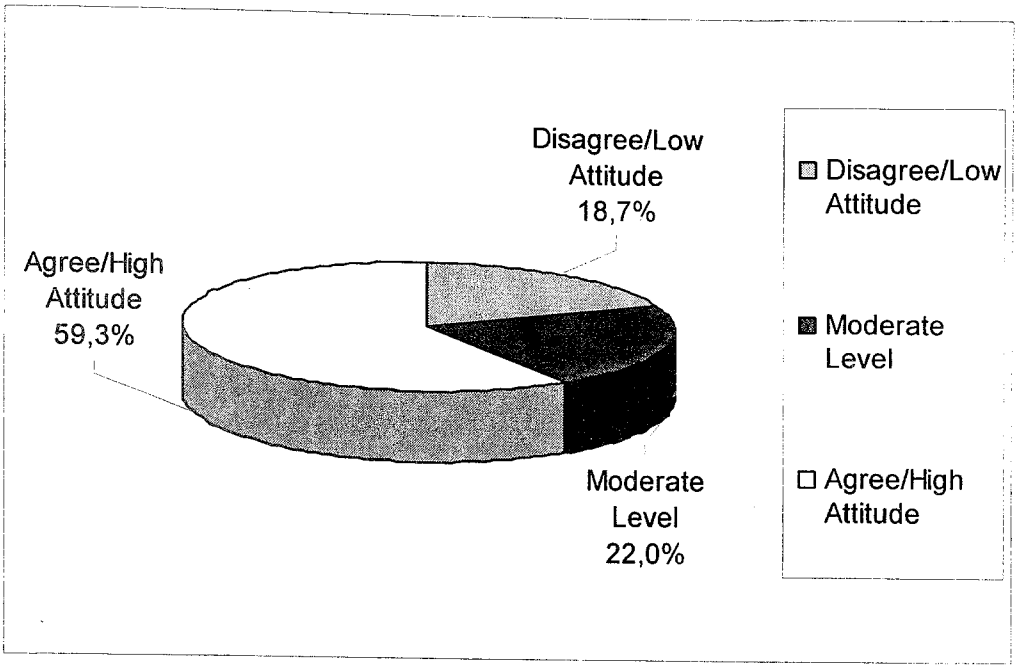

Figure 3.3. Frequency analysis of means of the 91 underachieving students into three categories according to attitudes towards school sub-scale.

Regarding "Goal valuation" sub-scale, 24 students (26.4 per cent) were in category 1 (disagree), 16 (17.6 per cent) in category 2 (moderate) and 51 (56 per cent) in category 3 (agree), (Figure 3.4).

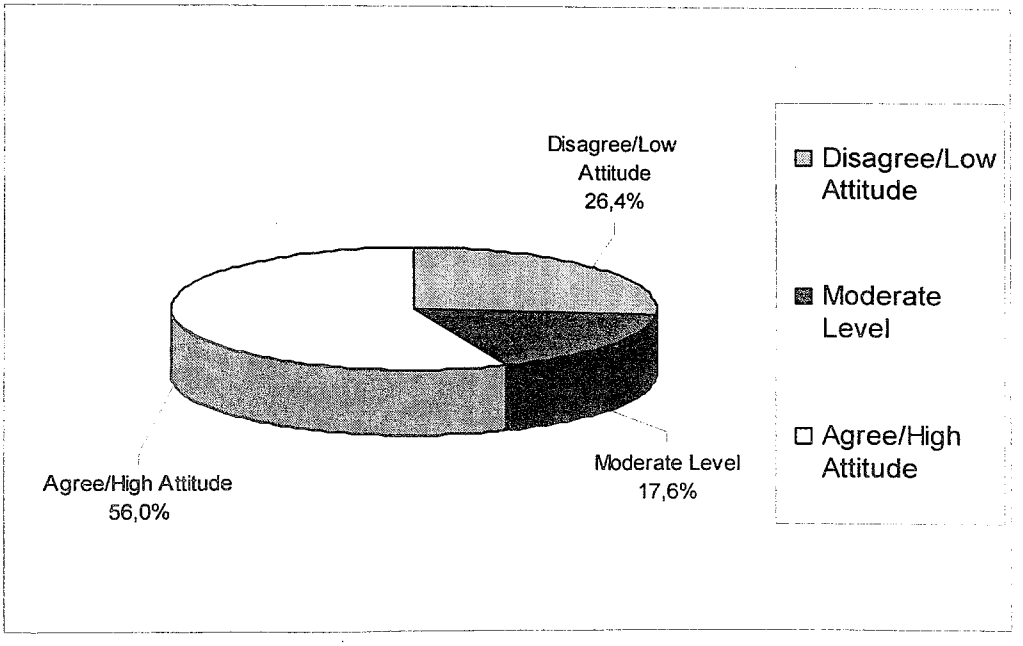

Figure 3.4. Frequency analysis of means of the 91 underachieving students into three categories according to goal valuation sub-scale.

Finally, in the last sub-scale: Motivation/self regulation 72.5 per cent of the students (66 students) rated in the first category (disagree), 17.6 per cent (16 students) in the second (moderate) and 9.9 per cent (9 students) in the third category (agree)(Figure 3.5).

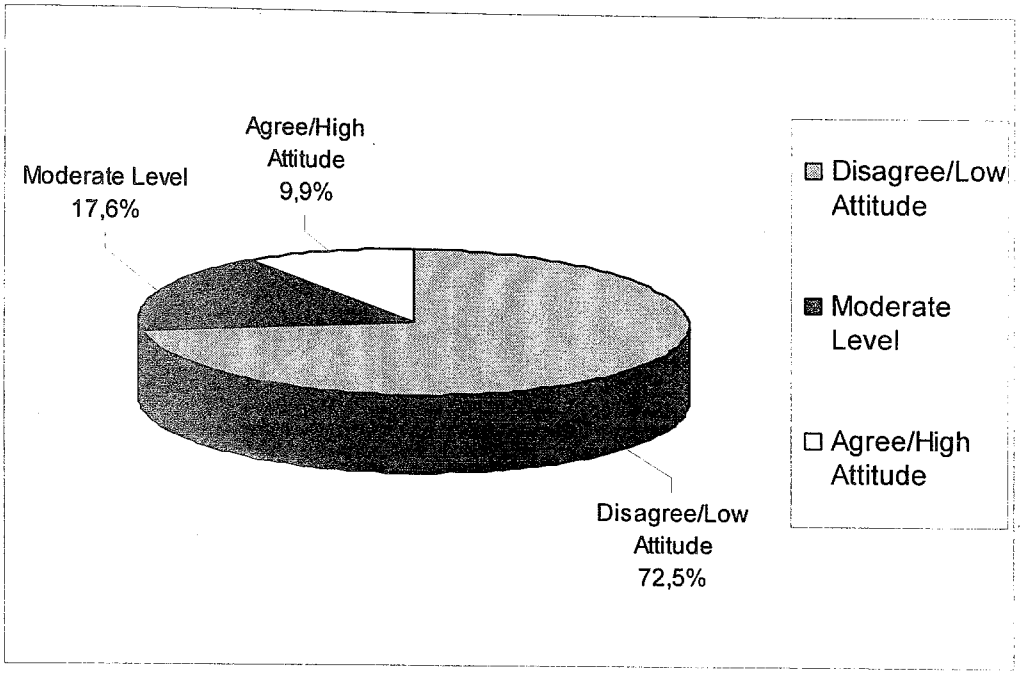

Figure 3.5. Frequency analysis of means of the 91 underachieving students into three categories according to motivation/self-regulation sub-scale

Pearson correlation analysis indicated that, as shown in Table 3.5. "academic self-perceptions" sub-scale is not significantly correlated with "attitudes toward schools" sub-scale and "goal valuation" subscale. However, "academic self-perceptions" is significantly correlated with "attitudes toward teachers" sub-scale and "motivation/self-regulation" sub-scale. "attitudes toward teachers" and "motivation/self-regulation" sub-scales on the other hand are significantly correlated with all other sub-scales. There is also a significant correlation between "attitudes toward schools", "attitudes toward teachers", "motivation/self-regulation" and "goal valuation" sub-scales.

Table 3.5. Correlation of the results among the five sub-scales of the SAAS-R instrument

		Academic Self Perception	Attitudes Toward Teachers	Attitudes Toward Schools	Goal Valuation	Motivation Self-Regulation
Academic Self Perceptions	Pearson Correlation	1,000	,352**	,200	,046	,369**
	Sig. (2-tailed)	.	,001	,057	,663	,000
	N	91	91	91	91	91
Attitudes Toward Teachers	Pearson Correlation	,352**	1,000	,549**	,552**	,532**
	Sig. (2-tailed)	,001	.	,000	,000	,000
	N	91	91	91	91	91
Attitudes Toward Schools	Pearson Correlation	,200	,549**	1,000	,495**	,298**
	Sig. (2-tailed)	,057	,000	.	,000	,004
	N	91	91	91	91	91
Goal Valuation	Pearson Correlation	,046	,552**	,495**	1,000	,471**
	Sig. (2-tailed)	,663	,000	,000	.	,000
	N	91	91	91	91	91
Motivation/Self-Regulation	Pearson Correlation	,369**	,532**	,298**	,471**	1,000
	Sig. (2-tailed)	,000	,000	,004	,000	.
	N	91	91	91	91	91

**. Correlation is significant at the 0.01 level (2-tailed)

3.2. Results from the Interview

Interview has been carried out with 30 underachievers. It should be noted that total number of answers may exceed or fall below 30 due to students' multiple responses, or not responding to an item.

Students' responses to 89 items in the interview were analyzed using frequency analysis. The interview questions and analysis of students' responses to these items are as follows:

Question 1. *What feelings do you have for yourself during classes/at school? (Alienated, withdrawn, distrustful, feeling alone, etc.)*

Of the 20 underachievers responded, 9 students (45 per cent) feel themselves alone; 3 students (15 per cent) feel withdrawn and invaluable; 7 students (35 per cent)

feel bored in the lessons and described lessons as not being interesting enough to collect their attention. One student (5 per cent) said he feels unhappy.

Question 2. *Are you dependent on your friends' help in order to understand your lessons, assignments, etc. or can you manage to learn and do the required tasks on your own?*

21 students (70 per cent) stated that they can you manage to learn and do the required tasks on their own, 7 students (23.3 per cent) stated that they are dependent on their friends. Only 2 students (6.67 per cent) stated that their dependency depends on the situation.

Question 3. *Do you have fear of failure?*

Of the 28 respondents to this item, 17 students (60.7 per cent) stated that they have fear of failure. 11 students (39.3 per cent) stated that they do not have fear of failure.

Question 4. *Do you ever say: "I want everything to be perfect so I can withdraw a course if I feel that I will fail" or you take the course anyway?*

This item was asked for collecting further evidence for students' perfectionist and non-perfectionist attitudes toward selecting a course. However, analysis of their responses showed that their answers vary. Namely, 4 students (14.8 per cent) stated that learning a particular course is important to them. 5 students (18 per cent) are perfectionist in selecting a course, but two of these perfectionist students stated they were perfectionist at the very beginning but they do not care so much at the moment. They responded that they withdrew some courses before since they did not learn new things, but they now think that it was a mistake because rather than learning it is the grades that count as important at this university. 14 students (50 per cent) stated that they take their courses no matter what grade they expect to get from that course. 5 students (18 per cent), on the other hand, stated conditional responses. Some of the responses are as follows:

"If my GPA were good, I could act as perfectionist in selecting a course, but now a grade of CC is enough for me. This is what I can do for the time being".
"Instead of becoming a repeating student I prefer to get a passing grade. It is enough for me".
"If I think that I will certainly fail I withdraw".
"For physics courses my aim is just to get a passing grade".

Question 5. *Do you think that your friends/teachers/social environment appreciates you?*

Of the 29 students responded to this item, 13 students (44.8 per cent) stated that their friends, teachers and social environment appreciate them. 2 students (7 per cent) stated that nobody appreciates them. 13 students (44.8 per cent) stated that teachers do not appreciate them. One student (34 per cent) stated that only his friends appreciate him.

Question 6. *Do you escape from competitive environments? How do you interpret the university's environment in terms of competition?*

4 students (13 per cent) stated that they escape from competitive environments. However, 22 students (73 per cent) complained about the university's competitive environment. Most frequently stated responses included: "It is excessive", "it is unnecessary", "disgusting" and "destroying friendships". Only 5 students (17 per cent) have positive feelings about the school's competitive atmosphere.

Question 7. *Do you display failure on certain subjects or do experience an overall failure?*

20 students (67 per cent) stated that they fail on certain subjects and 10 students (33 per cent) stated to display an overall failure. Of the 20 students, 7 (35 per cent) mainly fail in mathematics, 6 (30 per cent) in physics, 6 (30 per cent) in social sciences and one (5 per cent) in courses where using presentation skills are important. On the other hand, 4 students (13 per cent) out of 30 rejected the idea that they are underachievers. They stated that they fail if they do not enjoy the course content.

Question 8. *Do you think that you get what you deserve based on your hard work and efforts?*

Most of the students' responses to this item varied. 25 students (83 per cent) criticized that they deserve what they get based on their work (not hard work) and efforts (not enough effort). They stated that what they get is what they put. 5 students (17 per cent), on the other hand, stated that they do not deserve what they get. Two students complained about teachers' very high expectations in grading their performance and three students criticized teachers evaluation systems. They stated that some teachers who are using the normal curve in assigning grades give an F (failure) grade for class average.

Question 9. *Do you think that you learn new academic and social skills at this university?*

Of the 28 respondents to this item, 2 students (7 per cent) responded that they do not learn anything at all at this university. 7 students (25 per cent) think that they have learned very little. 19 students (68 per cent), on the other hand, stated that they learned new things in terms of academic and social development, but 12 of these students (63 per cent) think that they have learned more in terms of social skills than academic skills.

Question 10. *How are your examination results in general? What does getting A's mean to you?*

Among the 28 students responded to this item, 15 (53.6 per cent) think that getting an "A" is very hard. Remaining 13 students (46.4 per cent) think that getting an "A" is not important; just a passing grade is enough for them. These are students who have just a few A's in their transcripts and they usually get scores like "DD", "DC" and "CC".

Question 11. *Do you describe yourself as intelligent as your friends at this university?*

25 students (83 per cent) described themselves as intelligent as their friends at the university. 5 students (17 per cent) described themselves as being not intelligent as their peers at the university. Their explanations are as follows:

"In terms of social skills, analytical reasoning I feel better than most of my friends, but especially in mathematics lessons at this university I feel stupid when compared to others".
"I thought that I am very clever, but I have doubt for the time being when I look at my grades".
"I used to consider myself very intelligent, but after attending to this university I met the ones who are better than me".
"My current situation at this university gave me the impression that I am not intelligent".
"Everyone around me say that I am very intelligent, but I do not think so when I look at others at this school".

Question 12. *How is your attitude toward your teachers and lessons?*

18 students (60 per cent) stated negative feelings about their teachers, 8 students (27 per cent) stated positive feelings and 4 students (13 per cent) stated to have negative feelings toward lessons. These students do not have any problem with their teachers. They find the course content boring and uninteresting.

Question 13. *How is your teachers' attitudes toward you?*

13 students (43 per cent) supposed that teachers' attitudes are positive toward them, but 17 students (57 per cent) think the opposite way. Among students various responses to this item most frequently stated thoughts are as follows: All of these 17 students think that they do not have a healthy communication with their teachers. 7 of them (41 per cent) supposed that their teachers do not care about their presence especially in mass courses. 4 students (24 per cent) stated that teachers just come into the class to lecture and then go out; 3 students (17.6 per cent) make a distinction between teachers as either being approachable or non- approachable. One student (6 per cent) on the other hand thinks that some of the teachers can not stand underachieving students.

Question 14. *What do you think of teachers' grading practices and course passing regulations at the University?*

During the interview researcher observed that students spend more time in answering this question when compared to other questions. Of the 27 respondents to this item, 8 students (30 per cent) evaluated teachers' grading practices and course passing regulations as a reliable and working system, yet other 19 students (70 per cent) did not agree with them. According to 11 students (58 per cent) out of these 19 students, grading practices vary among teachers. Some assign a grade of CC to the class average, but some others assign DD. These 11 students do not see this as a fair practice because, in their explanations, sometimes a total score of 60 out 100 gets a DD and this is not reasonable.

They also think that some teachers are very strict in their grading and give relatively low scores, but some others give very high scores and students think that this is not fair. They also complained about some teachers' attitudes in grading students' performance regarding teachers' preference in selecting the traditional grading system (catalogue) and curve system. They stated that some teachers prefer using curve system when students get very high scores and this is not fair. Besides, some others attempt to lower the average if class average exceeds their estimation. Therefore they prepare harder questions for the following exams.

One of the interviewees commented that although he is considered to be an intelligent student by his mathematics teachers, his failure in mathematics astonishes his teachers. He also thinks that he could have passed those courses if his teachers hadn't relied only on his examination results to assess his performance in mathematics.

Moreover, 4 students (21 per cent) out of 19 directly criticized the curve system within the university. They believe that such a system is creates a highly competitive environment and this, in turn, destroys friendships among students; making them selfish. One of these students stated that "for me to pass a course, it is not necessary for some others to get Fs (failure). Everyone should have equal chance to get an A score". One other student thinks that such a competitive atmosphere is reducing his motivation and giving him the impression that he is not capable of competing with others. Another

student stated that no matter how intelligent they are and how well they performed in the nationwide university entrance examination, the students at this university fail because of teachers' being proud of giving low scores to students.

Question 15. *Do you enjoy the way the courses are taught?*

Only one student (3.7 per cent) out of 27 respondents to this item stated that he enjoys the way courses are taught. 20 students (74 per cent) do not enjoy them and 6 students (22.3 per cent) made a distinction among teachers. The most frequently stated factors in their responses are as follows: (Out of 20 students)

- 6 students (30 per cent) stated that teachers are just copying the book on the board while they lecture.
- 5 students (40 per cent) stated that instruction is based on memorization.
- students (25 per cent) stated that teachers lack pedagogical skills.
- students (25 per cent) stated that teachers' knowledge background is not good enough.
- students (25 per cent) stated that instruction is "disgusting" in mass courses.
- 3 students (15 per cent) stated that teachers cannot attract students' attention.
- 3 students (15 per cent) stated that teachers cannot attract students' attention.
- 3 students (15 per cent) stated that instruction is based on theory, without any application or practice.
- 2 students (10 per cent) stated that teachers just come into class to lecture and then go out.

Question.16. *How do you evaluate your instructors of the courses which you fail?*

Regarding their underachievement in certain courses, 7 students (25 per cent) out of 28 respondents think that it has nothing to do with the instructors of those courses. The problem stems from their own. However, 21 students (75 per cent) criticized instructors of the courses in which they failed.

Question 17. *How are your relations with your teachers?*

Of the 28 students responded to this item, 6 (21.4 per cent) stated that they have good relationship with their teachers but other 22 students (78.6 per cent) stated that they have communication problems with their teachers. Three of these 22 students stated that they can establish good relationship with teachers if they enjoy the course content. 4 stated that especially in mass courses like introduction to mathematics and introduction to physics, it is not possible to set up a relationship with teachers and actually most of these teachers do not care about it. 3 students complained that especially mathematics instructors do not want to communicate with students.

Question 18. *What do you think about your teachers' expectations from you?*

Of the 27 respondents to this item, 15 students (55.6 per cent) think that teachers do not have any expectations with respect to their students' learning which means that the instructors do not care whether the students pass the course or not. Among the responses of other 12 students (44.4 per cent) the mainly stated answers are: "to pass the courses", "to spend more effort", "to get a high grade" and "attendance".

Question 19. *How is your interaction with your department and advisor?*

Of the 30 respondents to this item, 7 students (23.3 per cent) stated that they have good relations with their departments and advisors. However, 23 students (76.7 per cent) stated that they have no interaction especially with their advisors. All of these students underlined the fact that they meet with their advisors only during course registrations. This means two times in a year. Three students stated that their advisors even do not know university's course registration regulations and policies. One student believes that his advisor does not tolerate underachieving students.

Question.20. *What kinds of strengths or weaknesses do you think your instructors possess?*

29 students responded to this item. In this question they were asked for teachers' strengths and weaknesses, but all of the responses pinpointed weaknesses of teachers. Of these 29 students, 13 (45 per cent) stated that their teachers lack pedagogical skills. 1

student (3.4 per cent) stated that they can not go beyond content knowledge. 2 students (6.9 per cent) stated that the teachers do not renew themselves. 4 (13.8 per cent) stated that they do not know the subject matter well. 1 (3.4 per cent) stated that they cannot attract students' attention. 3 (10.3 per cent) stated that they expect everything from the students. 1 (10.3 per cent) stated that they just copy the book. 2 students (6.9 per cent) stated that teachers' English are not good enough to become instructors.

Question 21. *Do your instructors differ in terms of their expectations from you as a student?*

Of the 24 respondents to this item, 10 stated that (42 per cent) all of their instructors do not expect much from their students. The remaining 14 students (58 per cent) made a distinction between instructors, stating that some have really high expectations and are idealists, but some others do not care about students at all. So, these results indicate that all of the 24 students think that some or all of their instructors do not have any expectations from them.

Question 22. *How do you evaluate the difficulty level of the lessons that you fail?*

Among the 9 students responded to this item, 16 (55 per cent) found the lessons that they fail are very difficult. Other 13 students (45 per cent) stated that they are easy. They explained the reasons for their underachievement in these lessons as the lack of motivation (7 times), lack of their effective writing skills (3 times), psychological problems (1 times) and uninteresting content (2 times).

Question 23. *Do you believe that your instructors are aware of your capacity?*

Of the 30 respondents to this item, 4 students (13.3 per cent) believed that their teachers are aware of their potential. 7 students (23.3 per cent) stated that only a few teachers are aware of their potential. However, 19 students (63.3 per cent) believed that their teachers are not aware of their potential. Of the 19 students, one stated that teachers do not give that chance to students, one think that he has not any potential, one think that teachers do not care about students' potential.

Question 24. *How about your attitudes toward the University?*

21 students (70 per cent) expressed positive attitudes toward the university. One student (3 per cent) stated negative attitude. 2 students (7 per cent) stated negative feelings but stated that this is the best school in the country that they can attend. 7 students (23 per cent), on the other hand, stated that they could not actualize themselves at this university.

Question 25. *Do the students have an opportunity to contribute to the lessons?*

All of the 30 students responded to this item. 7 students (23.3 per cent) stated they have opportunity to contribute to the lessons, but 23 students (76.7 per cent) stated that they are teacher oriented/controlled. Two students, on the other hand, drew a highly authoritarian teacher profile for their teachers. Besides, one student expressed his idea that it is the students who determine "the quality of instruction" at this university, not teachers. According to him, if students are interested in a particular course they get high scores, but if they are not interested in a course, as in mass courses, "quality of instruction" is very low.

Question 26. *What opportunities do you think the university provides you with?*

29 students responded to this item. Of these students only 6 (21 per cent) described that opportunities are inadequate in terms of shortage of instructors, very crowded classes, old-fashioned computer labs and little opportunity to receive a scholarship. 23 students (79 per cent), on the other hand, described university's facilities as adequate. Only one of these students proposed the idea that library should be open at nights as well.

Question 27. *Is your underachievement realized by anybody at the University?*

Among 30 students' multiple responses to this item "friends" were mentioned 21 times; advisor 2 times; "some teachers" 6 times; "everybody around me" 4 times; and "nobody" 4 times.

Question 28. *Do you face with varying University-wide policies? If yes, how do they affect you?*

15 students (50 per cent) stated that they did not face with any varying University-wide policies. Other 15 students (50 per cent) talked about various factors: 2 believe that the University is unfair in its scholarship policies, 2 think that some departments make discrimination against students from other departments and 11 students complained that all instructors at this university follow their own rules and policies.

Question 29. *Do you think that this University has an established philosophical stance?*

7 students (33.3 per cent) stated that the school's main philosophy is liberalism. 3 students (14.3 per cent) stated that its aim is to encourage individualism among students. 2 students (9.5 per cent) stated that it encourages competition among students. 5 students (23.9 per cent) stated that it had a philosophy in the past, but now it does not. 4 students (19 per cent) talked about discrimination. They stated that "if you are hardworking school appreciates you, if not, then discrimination starts. Nobody cares about underachieving students".

Question 30. *Can you easily take risk while selecting a course? What kind of courses do you choose? (by means of HSS and unrestricted elective courses) What is important for you in selecting a course?*

Of the 29 respondents to this item, 7 students (24.1 per cent) stated that most of their courses are compulsory so they do not have much of a choice. 14 students (48.3 per cent) stated that they do not take risk in selecting their HSS and unrestricted elective courses. They prefer the ones that are believed to be easy to pass and that require less effort and increase their GPAs, as well as the ones whose teachers are "easy". 8 students (18.7 per cent), on the other hand, stated that they take risks because they want to take courses which they will enjoy and learn new things.

Question 31. *What are your future plans and career direction?*

28 students responded to this item, 8 students (28.6 per cent) stated that they want to become a part of work life and earn money; 6 students (21.4 per cent) want to go abroad to study and work; 6 students (21.4 per cent) want to work on their interest areas other than their majors. 8 students, on the other hand, stated that they do not have any future plans.

Question 32. *What do you think about "being an underachiever" at this University? What does it mean to you and how it is perceived within the University?*

28 students responded to this item. And all of these students stated that (100 per cent) being an underachiever means getting low grades and obtaining a low GPA to the school community. However, with one exception, they all pointed out that this does not mean that they are underachieving. 7 (26 per cent) of these students stated that what you learn is important and 20 students (74 per cent) stated that personality development and social development are important to them.

Question 33. *Do you believe that you will increase your GPA? If yes, to what extend?*

26 students responded to this item. 3 students (11.5 per cent) stated that they do not attempt to increase their GPAs, 2 students (7.7 per cent) do not believe that they could increase their GPAs, 21 (80.8 per cent) students believe that they can increase their GPAs. 10 of these students are aiming at increasing their GPAs up to 2.5, 9 students up to 2.2 and 2 students over 2.7 out of 4.0.

Question 34. *Do you believe that you can be successful? (Academically and socially)*

29 students responded to this item. 2 students (7 per cent) expressed that all they want is to graduate from this University. The remaining 27 students (93 per cent) believe that they will be successful, yet with a difference: 17 of these students (63 per cent) believe that they will be successful both academically and socially, but the remaining 10 students (37 per cent) believe that they will be successful socially, but not academically.

Question 35. *Is your aim to get high grades or just passing grades?*

16 students (57 per cent) out of 28 stated that they are aiming at getting a passing grade. 7 students (25 per cent) stated that their aims are to get high grades. 5 students (18 per cent) stated that they want to get high grades in certain courses but in some they just expect a passing grade.

Question 36. *Are you motivated to study for your courses or examinations?*

20 students (67 per cent) stated that they have very low motivation to study for a course/exam. 4 students (13 per cent) as having no motivation problem and the remaining 4 students (13 per cent) stated that they have motivation if they enjoyed the course.

Question 37. *Do you have any problem in concentrating on your school-related tasks?*

Of the 29 students responded to this item. 20 (69 per cent) stated that they certainly have problems in concentrating on their school work. 3 (10 per cent) stated that they sometimes do and 6 (21 per cent) stated that they do not have any problems in concentrating.

Question 38. *Do you have any problems related to being planned and well organized?*

Of the 28 students responded to this item, 7 students (25 per cent) stated that they do not have any problems related to being planned and well organized. 18 students (64 per cent), on the other hand, stated that they do have problems and 3 (11 per cent) stated that they are planned but disorganized.

Question 39. *Do you attend your courses regularly?*

Of the 28 respondents to this item, 20 (71 per cent) stated that they have very little attendance to school and their courses; 5 (18 per cent) stated that they have a good attendance rate, but 3 students (11 per cent) stated that they never attend courses.

Question 40. *Do you believe that you spend the necessary effort to become successful?*

Of the 24 respondents to this item, 3 students (22.5 per cent) believed that they spend the necessary effort to become successful, but 21 students (87.5 per cent) believed that the do not spend the necessary effort.

Question 41. *How is your persistence and desire to study?*

Of the 30 respondents to this item, 18 students (60 per cent) stated that they do not display persistence and desire to study. 6 (20 per cent) stated that they do if they enjoyed the course; 4 (13.3 per cent) stated that they have good desire and persistence; 2 (6.7 per cent) stated that their mood plays an important role.

Question 42. *Do you do your written assignments to learn or just to pass the course?*

30 students responded to this item. 3 students (10 per cent) stated that they never do their assignments. 16 students (53.3 per cent) stated that they do just to submit, 4 (13.3 per cent) stated that they do in order to learn new things, 7 (23.3 per cent) stated that they do for learning if they enjoyed the course and the teacher, but just to submit if they did not enjoy.

Question 43. *Do you do your assignments by yourself or make them from your friends' assignments?*

24 students responded to this item. 9 students (37.5 per cent) stated that they do their assignments by themselves, another 9 students (37.5 per cent) stated that they do themselves if they liked the course and receive from their friends if they do not like and have little time to submit. 4 students (16.7 per cent) stated that they receive from their friends and 2 (8.3 per cent) stated that they prefer group work for their assignments.

Question 44. *Do you have regular study habits?*

27 of 30 students (90 per cent) stated that they do not have regular study habits. Only 2 of these students stated that they never had such a habit and other 25 had such study habits before coming to this university. One of the 30 students (3.3 per cent), on the other hand, stated that he has ordinary study habits and 2 (6.7 per cent) stated that they study regularly only the exam date has approached.

Question 45. *Do you feel anxious in social situations such as social relationships, courses, or exams?*

10 students (33.3 per cent) stated that they do not feel anxiety in their relationships, courses and exams. 12 students (40 per cent) stated to have "test anxiety". 4 students (13.3 per cent) stated that they are anxious in setting social relationships; and 4 students (13.3 per cent) stated to be anxious in their social relations, courses and exams.

Question 46. *Do you display aggressive and nervous behavior?*

23 students responded to this item. Of these, 5 students (22 per cent) stated that they do not display aggressive and nervous behavior, but 18 students (78 per cent) stated that sometimes they get aggressive and nervous. One of these students told he quitted those behaviors after going through a therapy.

Question 47. *Do you generally feel yourself as being depressed, alone, or isolated?*

Of the 30 students, 3 (10 per cent) students stated that they do not display any of such problems. However, the remaining 27 (90 per cent) students stated that they felt depressed or isolated. Among their various responses to this item, feeling depressed was stated 15 times, feeling nervous 8 times, feeling unhappy 13 times and feeling alone 10 times.

Question 48. *Do you find yourself socially mature?*

17 students (57 per cent) described themselves as socially mature, but 13 students (43 per cent) did not. Two of these 13 students, on the other hand, stated that they prefer to stay socially isolated. Another two students stated that feeling socially inadequate is what makes them unhappy.

Question 49. *Do the reasons for your underachievement stem from you, your family, your friends, financial problems, or your social environment?*

30 students responded to this item. Most of the students underlined more than one factor responsible for their underachievement. Among their responses "I am responsible" answer was stated 19 times, "school's system" 4 times, "financial problems" 5 times, "family related factors"(divorce, death, etc.) 5 times and "underachieving friends" 8 times.

Question 50. *Does your social environment have an impact on your underachievement?*

28 students responded to this item. 12 students (43 per cent) do not think that their social environment has an impact on their underachievement. 16 students (57 per cent) pointed out that their social environment had an impact on their underachievement. Of these 16 students, 15 specified their friends to affect them negatively, that is, they interrupt them in adapting themselves into school work.

Question 51. *Do you think that you have interests/hobbies which you spend more time than your course work?*

29 students responded to this item. 8 students (27.6 per cent) stated that they do not have interests/hobbies that they spend more time than their course work. 21 students (72.4 per cent) stated that they do have. They listed their interests as computer related interests like programming, the Internet, web design and computer games (were stated 11 times), spending a lot of time with playing a musical instrument (was stated 4 times), dealing with sportive activities (7 times), art (1 times) and club activities (2 times).

Question 52. *What do your friends at school think about you?*

3 students (13.5 per cent) do not know what their friends at the university think about them. 13 students (54 per cent) believe that their friends think that they are good friends. 5 (21 per cent) said that they are perceived as "lazy", 1 (4 per cent) said "sympathetic", 1 (4 per cent) said "too proud of themselves" and 1 (4 per cent) said "serious".

Question 53. *Do you participate in social and recreational activities in and out of the school?*

Of the 30 students, 7 (23.3 per cent) stated that they do not participate in recreational activities in and out of the university. The remaining 23 students (76.7 per cent) specified that they have intense recreational interests including sports, club activities and music.

Question 54. *Do you have financial problems?*

Among 29 students responded to this item, 14 of them (48.3 per cent) stated that they have very serious financial problems. 2 (6.9 per cent) stated that it does not bother them very much; 13 stated that (44.8 per cent) they do not have any financial problems.

Question 55. *If yes, does it have any impact on your underachievement?*

All of the 14 students (100 per cent) who stated to have problems in the previous question specified that their financial problems have a crucial impact on their underachievement.

Question 56. *Do your financial problems cause depression or helplessness on you?*

All of the 14 students (100 per cent) who stated to have problems in the 56th item specified that their financial problems cause a psychological helplessness on them.

Question 57. *Which of the following characteristics do you have: Argumentativeness, confrontation, rebellion, being introverted, being withdrawn, laziness, shyness, isolation?*

Of the 30 respondents to this item, 24 of them (80 per cent) stated that they display characteristics like argumentativeness, shyness, being introverted and laziness. In their responses, they described themselves to display shyness (14 times), laziness (14 times), being introverted (11 times), argumentativeness (3 times). 6 students (20 per cent), on the other hand, stated that they do not have such personality traits.

Question 58. *Do you smoke, use drugs and alcohol?*

Of the 30 respondents, 7 of them (23.3 per cent) smoke only. 1 (3.3 per cent) only takes alcohol. 11 (36.7 per cent) students both smoke and take alcohol. 11 (36.7 per cent) stated that they neither smoke nor take alcohol.

Question 59. *Do you think that you need financial and/or moral support?*

Of the 28 respondents to this item, 10 students (35.7 per cent) stated that they need both financial and moral support. 9 stated (32.1 per cent) that they need moral support and one (3.6 per cent) stated to need financial support. 8 students (28.6 per cent) stated that they do not need any kind of support.

Question 60. *Do you have any learning disability?*

Only one student stated that he has started to face with problems in his analytical reasoning ability after taking medicine as part of a therapy. The remaining 29 students stated not to have any learning disability.

Question 61. *Do you have any identity problems?*

23 students (76.6 per cent) stated that they do not have any identity problems, but 7 students (23.3 per cent) think that they have identity problems.

Question 62. *Do you encounter any difficulty in determining your areas of interest?*

27 students (90 per cent) stated that they do not encounter any difficulty in determining their areas of interest. However, 3 students (10 per cent) believe that they have a difficulty in determining their interests.

Question 63. *Did you ever think of committing suicide? Have you ever attempted to commit suicide?*

Of the 30 students, 17 students (56.7 per cent) stated that they have never thought or acted to commit suicide. However, 10 students (33.3 per cent) stated thinking of committing suicide due to their problems. 3 students (10 per cent) confessed attempting to commit suicide at least two times by using drugs, cutting their wrists and attempting to jump over high buildings.

Question 64. *Do you get varying test results even in the same course?*

9 students (3.2 per cent) stated that they do not obtain varying test results because their grades are usually within a certain range. In contrast, 19 students (68 per cent) stated that they obtain varying test results even in the same course. 15 of these 19 students stated that their first exams are high but their succeeding exam scores decrease. The reasons are stated as losing their motivation and spending time on extracurricular activities as reasons.

Question 65. *Do you prefer group work or individual study?*

Of the 30 students, 13 (43.3 per cent) prefer group work. In their explanations they stated that they make good use of group work and it really helps them. 17 students (56.7 per cent) prefer individual study, but 3 of these students believe that group work is more useful.

Question 66. *Can you easily communicate with your friends at the university?*

Of the 30 students, 20 (66.7 per cent) stated that they can communicate with their friends at the school, but 10 students (33.3 per cent) stated that they have some communication problems.

Question 67. *Do you have enough number of friends?*

23 students (76.7 per cent) stated that they have enough number of friends in and out of the university, but 7 students (13.3 per cent) do not believe that they have enough number of friends around them.

Question 68. *Are you by any means interested in the courses you failed?*

Of the 27 respondents to this item, 19 (70 per cent) stated that they have lost their interest even to the courses they once liked most. However, 8 students (30 per cent) stated that they are still interested in the courses they failed.

Question 69. *What kind of tests/exams did you fail?*

Of the 26 students responded to this item, 2 (7.7 per cent) stated that they fail in multiple-choice type of exams. 8 (30.8 per cent) stated that they fail in essay type exams. 1 (3.8 per cent) stated that he fails in time tests. 6 (23.1 per cent) stated that they fail in exams that require the statement of proof in mathematics, etc. 6 (23.1 per cent) stated that they fail exams based on memorization and 3 (11.5 per cent) stated that they fail all kinds of tests.

Question 70. *How do you spend your time when you do not attend the University?*

Each of the 30 respondents specified more than one factor: 3 students (10 per cent) stated that they generally attend school, 6 (20 per cent) stated that they spend their time with their friends, 18 (60 per cent) stated that they spend their time at home/dormitory (11 with computers, 2 with reading and 5 with sleeping), 4 (13.3 per cent) stated that

they spend their time doing sports, 1 (3.3 per cent) with club activities and 2 (6.6 per cent) part-time jobs.

Question 71. *Is there any divorce, re-marriage, or separation in your family?*

Parents of 2 students (6.7 per cent) live separately, 3 students (10 per cent) encountered re-marriage in their families and 25 students (83.3 per cent) do not have any problems in their family lives like divorce, separation, or remarriage.

Question 72. *Do you have any problems in your family?*

Of the 29 students responded to this item, 22 students (76 per cent) stated that they do not have any problems with their families. However, 7 (24 per cent) stated that they do have communication problems with their parents.

Question 73. *Do you think that your family encourages you adequately?*

Of the 26 respondents, 18 students (69 per cent) stated that their families encourage them adequately. 6 (23 per cent) stated that they do but inadequately and 2 (8 per cent) stated that their families cannot encourage them adequately.

Question 74. *Is your family interested in your underachievement? Do they notice it?*

Of the 29 students responded to this item, 17 (58.6 per cent) stated that their families are aware of their underachievement and are interested in their performance. However, 12 students (41.4 per cent) stated that their families even do not know their underachievement status and do not show enough interest. These 12 students also stated that they prefer to keep their underachievement secret.

Question 75. *How is your family's attitude to your field of study? Do they like it?*

Of the 27 students responded to this item, 13 (48 per cent) stated that their families do not have any negative attitudes toward their field of study, but 14 (52 per cent) stated

that their families do. 10 of these students (71 per cent) stated that their families do not appreciate their field of study and specified that this exerts a kind of pressure on them. 4 of these students (19 per cent) stated that they are just proud of the name of the university.

Question 76. *Do you live with your family? If not, where?*

Of the 30 students, 5 (16.7 per cent) stay with their families; and 25 (83.3 per cent) do not: 10 live in dormitories and 15 live in rented houses.

Question 77. *If you live alone, how do you think it affects you?*

Of the 25 students who live alone, 14 (56 per cent) stated that they got used to living on their own and do not have any problem. 4 (16 per cent) stated that it affected them positively. 7 (28 per cent) stated that they would prefer to live together with their families because they need their support and affection.

Question 78. *Is your family overprotective?*

24 students (80 per cent) stated that their parents are not overprotective. 6 students (20 per cent), on the other hand, stated that their parents (especially mothers) are overprotective.

Question 79. *Do you have any conflict with your parents?*

21 students (70 per cent) stated that they do not have any conflict with their parents, but 9 (30 per cent) stated that they do have conflict with their parents and brothers.

Question 80. *Did you ever encounter family violence?*

24 students (80 per cent) stated that they have never experienced family violence, but 6 (20 per cent) stated that they have experienced family violence during their childhood.

Question 81. *Do your parents exert any pressure on you?*

24 students (80 per cent) stated that their parents do not exert any pressure on them, but 6 students (20 per cent) stated that their parents exert about their future goals and their social lives.

Question 82. *What are the expectations of your parents from you?*

Of the 30 students, 1 (3.3 per cent) stated that their parents do not have any expectations; 3 students (10 per cent) stated that their families do not believe that they will be successful. 26 students (86.7 per cent), on the other hand, stated that their families expect them to graduate, make money and earn their own livings.

Question 83. *Which one is more important to you: your priorities or parental expectations?*

21 students (70 per cent) stated that their own priorities are more important to them. 4 students (13.3 per cent) stated that expectations of their parents are more important. 4 students (13.3 per cent) stated that both are equally important and 1 (3.4 per cent) stated that he has a dilemma in this issue.

Question.84. *Did you lose any of your family members since you started studying at this university? If yes, how did it affect you?*

One student stated that when he lost his mother five years ago his psychological problems started, but he never got a therapy. Another student who also lost his mother stated that he got under depression and became alcoholic. Other two students, on the other hand, stated having faced with the same problems when they lost their father and brother.

Question 85. *How do you describe your interaction with your family?*

21 students (70 per cent) stated that they have good interaction with their families. 5 students (16.7 per cent) stated that their interaction is suffering. 4 (13.3 per cent) stated that their interaction is superficial.

Question 86. *Do you think that your family dynamics have an impact on your underachievement?*

21 students (70 per cent) stated that their family dynamics do not have an impact on their underachievement, but 9 students (30 per cent) stated that it does affect their performance due to lack of support, exerting pressure and family conflict.

Question 87. *Do you think that having an instruction in English (as a foreign language) have a negative affect on your underachievement?*

18 students (60 per cent) stated that having an instruction in English (as a foreign language) contribute to their underachievement. They stated that they are having difficulties in understanding and reasoning in English, asking questions during instruction, answering to their teachers and composing in English especially during exams. 12 students (40 per cent), on the other hand, stated that they have no problems with the instruction in English.

Question 88. *Do you receive any scholarship? If yes, from where? Is it enough?*

17 students (56.7 per cent) stated that they do not receive any scholarship even though they need. They complained that when they got Fs (failures) and obtained a low GPA their scholarships were cut. 3 students (10 per cent) stated that they receive but it is not enough for their schooling needs. 10 (33.3 per cent), on the other hand, stated that they receive scholarship and it is enough for them.

Question 89. *Is the financial support from your family enough?*

13 students (43.4 per cent) stated that the financial support from their families are enough for them. 7 (23.3 per cent) stated that it is not enough and 10 (33.3 per cent) stated that they do not get any financial support from their families.

Interestingly, in addition to the results from the questions in the interview, even though they are not asked for, all of the students stated that they were very successful in their primary, secondary and high school years. They stated that they started to encounter underachievement problems after attending the University. Three of these students noted that they had participated National Science and Mathematics Olympiads in their high school years.

It is also important to note that four of the 30 students involved in the interview stated that they sought for help from the University's counseling center, BÜREM, but they stated that this did not help them much in overcoming their problems.

Generally speaking, according to the frequency analysis of the students' responses to 89 interview questions, which are developed by the researcher, it can be concluded from the interview part of the present study that 30 underachievers participated in the interview:

- have characteristics like feeling alone, withdrawn, bored in the lessons, depressed, isolated, unhappy, shy, argumentative and lazy
- have fear of failure
- have serious problems with the highly competitive environment within the university
- fail in certain subjects
- describe themselves as intelligent as their friends at the university
- have negative feelings about their teachers
- criticizing teachers' grading practices and course passing regulations at the university
- do not enjoy the way the courses are taught
- have communication problems with their teachers
- think that their teachers have no expectations from them

- have no interaction with their departments, especially with their advisors
- think that their teachers have weaknesses in certain skills
- find the lessons they fail very difficult
- believe that their teachers are not aware of their capacities
- have positive attitudes toward the university
- think that lessons are teacher-oriented
- think that opportunities provided by the university are adequate
- do not accept that they are really underachieving (by criticizing the importance attributed to earning a high GPA within the university)
- believe that they can increase their GPAs to a certain extent
- believe that they will be successful both academically and socially
- aiming at getting a passing grade in their courses
- have very low motivation to study
- have problems related to being planned and well organized
- have very little attendance to their courses
- believe that they do not spend the required effort to become successful
- do not display persistence and desire to study
- do their written assignments just to pass the course
- do not have regular study habits
- feel anxious in social situations such as social relationships and examinations
- sometimes are aggressive and nervous
- think that their social environments have an impact on their underachievement
- have interests/hobbies which they spend more time than their course work
- have financial problems
- need support (some moral, some financial and some both)
- have no identity problems
- have no difficulty in determining their areas of interest
- obtain varying test results even in the same course
- can easily communicate with their friends at the university
- have enough number of friends
- lost their interests even to courses they once liked most

- spend their time at home/dormitory (with computers, reading and sleeping) when they did not attend their courses
- do not have any problem in their family lives like divorce, separation and remarriage
- do not have any problems in their families
- think that their parents encourage them adequately
- do not live with their families
- never experienced family violence
- have good interaction with their families
- think that their family dynamics do not have any impact on their underachievement

think that having an instruction in English (as a foreign language) have a negative affect on their underachievement

4. DISCUSSION

The study aims to clarify the relationship between the characteristics of gifted underachievers at the university level and reasons for their underachievement. For this purpose, in order to explore the perceptions of underachieving gifted students at Boğaziçi University on the possible reasons of underachievement, the SAAS-R (School Attitude Assessment Survey-Revised) instrument was used. The instrument focuses on five factors as the major reasons of underachievement: (1) Academic self-perceptions, (2) attitudes toward teachers, (3) attitudes toward school, (4) goal valuation and (5) motivation/self-regulation. The researcher also carried out an in-depth interview to further examine students' perceptions about the reasons of their underachievement by focusing on their responses. The instrument was applied to two different groups: one was composed of underachieving students and the other was composed of a regular group of students.

The results indicated that the findings from the five sub-scales and the overall mean scores make a difference for underachievers at the university level. The means of underachievers' ratings show significant difference when compared to a regular group of students. However, among the five sub-scales low "motivation and self-regulation" appear to be the most explanatory factor of underachievement among the five sub-scales implemented in SAAS-R questionnaire. "Goal valuation", "attitudes toward teachers" and "academic self-perceptions" seem to underline the problem at nearly the same level in terms of their variation from the regular group.

Overall, these results from the SAAS-R instrument can be considered in line with the study carried out by McCoach and Siegle (2001a) who developed the SAAS-R (School Attitude Assessment Survey-Revised) instrument which is used in the present study. McCoach and Siegle (2001a), based on the results they obtained from the SAAS-R instrument, suggested nearly the same findings with those of the present study in their attempts to differentiate between gifted achievers and gifted underachievers. They found that all of the factors except academic self-perceptions sub-scale were significantly different for gifted achievers and gifted underachievers. According to their findings from

the same instrument both gifted achievers and gifted underachievers exhibit very high academic self-perception scores. The largest differences between the two groups were on the motivation/self regulation factor and the goal valuation factor. In the present study, all of the five sub-scales of the SAAS-R instrument (academic self-perceptions, attitudes toward teachers, attitudes toward school, goal valuation and motivation/self-regulation) were significantly different between the underachievers and the regular group of students.

Another important aim of the study was to develop an interview to further support the findings from the SAAS-R instrument in a detailed manner and to learn more about underachieving students' profiles at Boğaziçi University. Before discussing, it is important to note that during the interview sessions with 30 underachievers, each lasted for nearly one and a half hour, the researcher observed that each underachiever displayed varied and unique characteristics and might have different set of reasons for their underachievement. This observation is parallel to the statements of Butler-Por (1990) who stated that one cannot expect all underachievers to have the same characteristics. Reis and McCoach (2000) noted that synthesizing the hypothesized characteristics of gifted underachievers becomes a nearly impossible task. However, in spite of these observations, the researcher observed that some characteristics might be common among gifted underachievers at Boğaziçi University, yet their combinations for each underachiever may vary.

Seemingly, the results for academic self-perceptions did not yield a significant difference in the original study by McCoach and Siegle. It is found to be high even for underachieving gifted students. In the same respect, although 91 underachieving students differ from the regular group in terms of academic self-perceptions sub-scale in the present study, the frequency analysis of the results of the present study also indicated that nearly 84 percent of the 91 underachievers' responses demonstrate their high academic self-perceptions when "agree" and "moderate levels" are considered together in the Figure 3.1.

This result of the study concerning the SAAS-R instrument seem to be supported by the outcomes from the interview. Students' responses indicated that most of the 30

underachieving students described themselves as intelligent as their friends at the University and they did not accept that they are really underachieving (by criticizing the importance attributed to earning a high GPA within the University). They also believed that they will be able to increase their GPAs to a certain extent and they will be successful both academically and socially. They also stated that they have no difficulty in determining their areas of interest.

Contrary to McCoach and Siegle's study, goal valuation sub-scale seems to be high for the underachievers in the present study. This might be due to the fact that most of the items in the SAAS-R instrument attempt to measure goal valuation like the sub-scale related to school-related factors. Examples are "school is important to me", "doing well in school is important for my future career goals", "I want to do my best in school" and "I want to get good grades in school". Since these students seem to develop positive attitudes toward the University, according to the results from the instrument, this might explain the reason behind having no problem with goal valuation.

Moreover, the results of the present study regarding the motivation/self-regulation sub-scale displayed similar results with those of the original study carried out by McCoach and Siegle (2001a). That is, 72.5 percent of the 91 underachieving students stated that they have very low motivation/self-regulation (Figure 3.5, p.47). This result addresses the related findings on motivational factors in the literature (Davis, 1998; McCoach and Siegle, 2001a; Peterson, 2000; Reis and McCoach, 2000; Rimm, 1997) that underline low motivation as one of the reasons of underachievement among the gifted underachievers.

The results from the interview also seem to support these explanations on the impact of low motivation to the underachievement of gifted students at Boğaziçi University. Namely, students' responses to the interview questions indicated that most of the 30 underachievers perceive themselves having characteristics such as feeling alone, being withdrawn, being bored in the lessons. They said they felt being depressed, isolated, unhappy, shy, argumentative and lazy. These factors are also stated by Reis and McCoach (2000), Peterson (2000) and Clark (1997) as the possible reasons of underachievement. These students also perceive themselves to have a fear of failure.

This factor is also considered important in underachievement by an extensive literature (Butler-Por, 1993; Addlerholt-Elliot, 1998; Reis and McCoach, 2000). On the other hand, these students believe that they have serious problems with the highly competitive environment within the University. This is another reason that can contribute to underachievement as stated by Davis and Rimm (1998), and Clark (1997).

Majority of the 30 underachievers explained that their aim was to get a passing grade in their courses. On the other hand when asked for their perceptions about some motivation related factors, they stated that they have very low motivation to study which has been suggested as an important contributing factor of underachievement in the literature (Rimm, 1997; Reis and McCoach, 2000; Peterson, 2000). They also stated that they have problems in being planned and well-organized (a conclusion that is in line with Reis and McCoach, 2000) and have low attendance to their courses. They also believe that they do not spend the required effort to become successful, do not display persistence and desire to study. They do their written assignments just to pass the course. Moreover, they perceive themselves to have no regular study habits, which is another source of underachievement stated in the literature by Rimm (1997), and Davis (1998). As also noted by Reis and McCoach (2000), one of the reasons of underachievement is that underachievers perceived themselves to feel anxious in social situations such as social relationships and examinations. Underachievers' responses indicated that they are sometimes aggressive and nervous, which is another characteristic of underachievers as also addressed in the literature by Reis and McCoach (2000).

It was observed that, underachieving students think that their social environments (mainly their friends) have an impact on their underachievement. The effect of social environment on underachievement is also mentioned in the literature as a contributing factor (Clasen and Clasen, 1995). Besides, students' responses indicated that they have interests/hobbies on which they spend more time than their course work. This result is also in line with the literature as suggested by Clark (1997) and Reis and McCoach (2000). The underachievers also stated that they have financial problems, which Peterson (2000) noted to be a contributing factor for underachievement.

In addition, students' responses showed that some of them need moral support, some need financial support and some need both. As an additional aspect to students' responses they described themselves as obtaining varying test results even in the same course, losing their interests even in courses they once liked most and spending their time at home/dormitory (with computers, reading and sleeping) when they do not attend their courses. Moreover, according to their perceptions, having an instruction in English (as a foreign language) have a negative effect on their underachievement.

Taken as a whole, the findings from the interview described so far concerning the motivation/self-regulation sub-scale might be indicators of and/or related factors with low motivation among the gifted underachievers at Boğaziçi University and in turn, this low motivation seem to emerge as one of the major reasons that contribute to their underachievement.

Interestingly, the attitudes toward the school component, among the underachievers at Boğaziçi University, do not appear to be as low as they are suggested in the literature (Butler-Por, 1993; Reis and McCoach, 2000). This is due perhaps to the reason that Boğaziçi University is one of the best-ranking universities in Turkey and accepting students from the top 4-5 percent. While entering national university entrance examination this University was probably the best choice for these academically talented students that they can attend.

On the other hand, the controversy between students' low motivation and positive attitudes toward the University might indicate that even though they are proud of the University, competitive environment may be a source of underachievement phenomena at this University, but this must be studied more extensively. In addition, majority of the interviewed students think that opportunities provided by the University are adequate.

Although the underachievers expressed positive attitudes toward the University, their attitudes toward instructors at Boğaziçi University is relatively low when we look at the results from the SAAS-R instrument. This tendency can be seen more closely in their responses to interview questions. Majority of the students expressed negative feelings about their instructors and criticized their teaching. Findings from the interview,

based on underachievers' perceptions about their instructors, indicated that they criticize teachers' grading practices and course passing regulations at the University. On the other hand they stated that they do not enjoy the way courses are taught. This is also noted as a contributing factor to underachievement in the literature by Butler-Por (1993) and Boyce (1998). The underachievers also stated that they have communication problems with their teachers and have no interaction with their departments, especially with their advisors. They also think that their instructors have no expectations from them and their instructors are not aware of their capacities. As also pointed out by Butler-Por (1993), one of the reasons of underachievement is the teachers' being unaware of underachievers' capacities. In addition, the underachievers think that lessons are teacher-oriented and they find lessons that they fail very difficult. They also believe that their teachers have weaknesses in certain teaching skills, which Butler-Por (1993) suggested as an important source of underachievement. All of these perceptions might indicate that the interviewed underachievers at Boğaziçi University have negative attitudes toward their instructors and this might be one of the factors that contribute to their low motivation.

Finally, there are family-related factors which are also addressed in the literature as one of the possible reasons of underachievement among gifted individuals (Peterson, 2000; Ransdell, 2000; Clark, 1997; and Butler-Por, 1993). However in the present study, contrary to the literature, family-related factors did not emerge as a contributing factor to underachievement of gifted underachievers at Boğaziçi University based on underachievers' perceptions. Their responses indicated that the majority of the 30 underachievers at Boğaziçi University do not have any general problems in their family lives and do not have any problems such as divorce, separation and remarriage. They think that their parents encourage them adequately. They stated that they have never experienced family violence and have good interaction with their families. They also think that their family dynamics do not have any impact on their underachievement. These results might contribute to the fact that the reasons of their underachievement are based mainly on motivational and teacher-related factors.

In this respect, in order to support the SAAS-R instrument it can be concluded that the findings from the interview developed by the researcher address similar sets of

reasons for underachievement of the gifted students studied in this study. Since the researcher developed the interview questions (with some additional factors such as family related factors and some personality traits) in line with the five sub-scales employed within the SAAS-R instrument by taking the literature into account, this can be considered a support to the validity of the instrument and the instrument triangulates the results of the interview.

In conclusion, the results of the present study can help university instructors, practitioners, university advisors, counselors, researchers and families understand and evaluate the reasons of underachievement among students at university level. As for the method of measurement employed in the study, the results from SAAS-R questionnaire and the interview have shown the students' own ratings and perceptions and may not be highly accurate in making generalizations. Therefore, various methods and empirical studies are needed for further explanations. This study has also shown that the SAAS-R instrument is an appropriate instrument to address the reasons of underachievement among underachievers at Boğaziçi University. Although it seems difficult to develop measuring instruments especially for underachievement phenomena, producing some other standard tests are required to focus on other aspects of underachievement, as well.

4.1. Limitations

There were certain limitations of this study. First of all, generalizations of the findings of this study should be made cautiously because the participants of the study were not randomly selected. It is important to note that the intent of this study was to explore the reasons of underachievement among the underachievers of Boğaziçi University in Istanbul. So, the findings from the instrument can be explained for students at university level. Second and the most important limitation of the study stems from the literature. As the literature indicates, the identification of giftedness (Cline, 1993) and underachievement (Reis and McCoach, 2000), defining the characteristics of the gifted individuals and gifted underachievers are all problematic issues and researchers could not arrive at a common solution for those issues (Butler-Por, 1993; Reis and McCoach, 2000). Thus, this makes selection criteria for the gifted underachievers at Boğaziçi University harder. Therefore, the sample of the study may not purely involve gifted

underachievers. During the study the researcher was aware of the fact that generalizing underachievement for all of the underachieving students at Boğaziçi University was a problematic issue and certainly would not work for all, because of the fact that each individual might differ in certain aspects and every student might exhibit different kinds of and reasons for underachievement.

Another limitation was the small sample size. For the administration of the SAAS-R instrument 91 students were reached and for the interview a total of 30 students were contacted. These numbers (especially for the interview) may not be adequate to make generalizations for the entire underachieving population of the university. A bigger sample size would provide researchers with a better opportunity to see the whole picture. Some of the factors were addressed as a possible contributing factor to underachievement based on the responses of just a few students. Thus, even though they are not enough to make generalizations, they might be considered a factor for further research to study in depth.

Besides, in order to analyze the results of the SAAS-R instrument, underachievers were compared with a regular group of students. Although the researcher has obtained a significant difference between two similar groups, a comparison with a sample composed of high achievers might have produced better results. Since the two groups were not diverse, it prevented the researcher to carry out regression analysis to get more detailed results because regression analysis enables one to predict the possible contributions of some sub-factors on a certain construct and due to small variation in the dependent variable obtained from a heterogeneous group regression may not work well.

Another limitation is that, the SAAS-R instrument and the items employed within the interview may not include all the possible reasons of underachievement among the gifted underachievers.

4.2. Recommendations for Further Research and Implications

As literature indicates, the study of underachievement among the gifted students at the university level is not often studied (Peterson, 2000) and this study aimed at

contributing to these few studies by following both quantitative and qualitative approaches. Therefore, more research on this important issue should be carried out by researchers, educators and clinicians. New instruments should be developed with many more factors such as family-related factors and personality traits like low self-esteem, self-regulation strategies, procrastination, perfectionism and critical thinking ability, etc.

Gifted underachievers are forming a diverse group and each might have different needs and might demonstrate different personality traits. Especially within a university system, this diversification increases and thus each underachiever should be treated individually since all underachievers may not exhibit the same characteristics (Butler-Por, 1993). This study indicates that some underachievers might have psychological problems, some might have family related or financial problems, some might have adaptation problems and some might have problems only with their teachers and suffer from school related factors. Therefore, in our attempts to help gifted underachievers in a highly dynamic university environment, these individual differences should be taken into consideration.

As this study indicates, there are many students at Boğaziçi University (nearly the half of the university's undergraduates) who are underachieving and having GPAs below 2.0, (data obtained from the University's Registrar Office) which means underachievement according to University's regulations. That means, there are many responsibilities of the University to pay attention to this problematic issue. These students once were very successful (assumption made according to students' responses in the interview), but after having entered to this University they have started to encounter various problems as outlined in the present study.

First of all, It might be helpful to take a closer look at the activities of BÜREM (Boğaziçi University Counseling Center) because some students who have participated in the interview noted that they tried to get help from this service, but it was not helpful enough in producing solutions to their problems. This might indicate that the service may use alternative ways for some students. Coordination with the departments and advisors may yield better results because sometimes faculty and staff may know individual students better.

Concerning underachievers who have serious financial problems, the university can establish a contact with advisors, teachers and University's Counseling Service to provide these students with a kind of financial aid if these students are not receiving any and are in need of financial support. Because 48.3 percent of the 30 students stated that they have very serious financial problems. This point might count as important.

As most of the interviewee students criticized, advisory system may not be functioning effectively in terms of the needs of gifted underachievers. This system may need improvement throughout the University and instructors might feel that there are underachieving gifted students at the University and they need to be supported both academically and psychologically. A more important issue is that instructors (whether they act as an advisor or not) should be informed about these underachieving students. It is possible that most of the instructors at the university may not be aware of the fact that there are underachieving gifted students in their classes. They might expect all students to attend their courses, study more, solve problems and get a passing grade without knowing about the needs and existence of underachieving gifted students. The development of such an understanding may contribute to the facilitation of problems observed in these target population.

According to underachievers' perceptions, some of the instructors at the University do not have sufficient pedagogical skills and it is a fact that these gifted students can easily be distracted in such classes that are boring, that do not collect their attention and do not motivate the students. In addition, problems in instructors' grading practices and in their ways of assessing students' performance seem to be other issues to be concerned about within the university. All instructors should be encouraged and supported to improve themselves in teaching techniques, to revise their curricula and to find out alternative ways of evaluating students' performance. The university, on the other hand, might bring a balance to course passing regulations employed within the university, because there is a highly competitive environment at the University and once underachieving students get in such a dynamic atmosphere, they may not easily get out of the maze.

In summary, teachers' attitudes toward students, their pedagogical skills and the highly competitive environment of the university may be considered to be the most triggering school related factors of underachievement at the University as perceived by the students. These factors may bring about low motivation of the students, which is another highly contributing factor of underachievement at the University.

APPENDIX A: INTERVIEW QUESTIONS

The questions listed below are developed by the researcher to further examine the reasons of underachievement among gifted individuals at the university level.

Q.1. What feelings do you have for yourself during classes/at school? (Alienated, withdrawn, distrustful, feeling alone, etc.)

Q.2. Are you dependent on your friends' help in order to understand your lessons, assignments, etc. or can you manage to learn and do the required tasks on your own?

Q.3. Do you have fear of failure?

Q.4. Do you ever say: "I want everything to be perfect so I can withdraw a course if I feel that I will fail" or you take the course anyway?

Q.5. Do you think that your friends/teachers/social environment appreciates you?

Q.6. Do you escape from competitive environments? How do you interpret the University environment in terms of competition?

Q.7. Do you display failure on certain subjects or do experience an overall failure?

Q.8. Do you think that you get what you deserve based on your hard work and efforts?

Q.9. Do you think that you learn new academic and social skills at this university?

Q.10. How are your examination results in general? What does getting A's mean to you?

Q.11. Do you describe yourself as intelligent as your friends at this university?

Q.12. How is your attitude toward your teachers and lessons?

Q.13. How is your teachers' attitudes toward you?

Q.14. What do you think of teachers' grading practices and course passing regulations at the University?

Q.15. Do you enjoy the way the courses are taught?

Q.16. How do you evaluate your teachers in which you fail?

Q.17. How are your relations with your teachers?

Q.18. What do you think about your teachers' expectations from you?

Q.19. How is your interaction with your department and advisor?

Q.20. What kinds of strengths or weaknesses do you think your instructors possess?

Q.21. Do your teachers differ in terms of their expectations from you as a student?

Q.22. How do you evaluate the difficulty level of the lessons that you fail?

Q.23. Do you believe that your teachers are aware of your capacity?

Q.24. How about your attitudes toward school?

Q.25 Do the students has an equal opportunity to contribute to the lessons?

Q.26. What opportunities do you think the University provides you with?

Q.27. Is your underachievement realized by anybody in the school?

Q.28. Do you face with different school-wide policies? If yes, how does it affect you?

Q.29. Do you think that this school has an established philosophical stance?

Q.30. Can you easily take risk while selecting a course? What kind of courses do you choose? (by means of HSS and unrestricted elective courses), what is important for you in selecting a course?

Q.31. What are your future plans and career direction?

Q.32. What do you think about "being an underachiever" at this University? What does it mean to you and how it is perceived within the University?

Q.33. Do you believe that you will increase your GPA? If yes, to what extend?

Q.34. Do you believe that you can be successful? (Academically and socially)

Q.35. Is your aim to get high grades or just passing grades?

Q.36. Are you motivated to study for your courses or examinations?

Q.37. Do you have any problem in concentrating on your school-related tasks?

Q.38. Do you have any problems related to being planned and well organized?

Q.39. Do you attend your courses regularly?

Q.40. Do you believe that you spend the necessary effort to become successful?

Q.41. How is your persistence and desire to study?

Q.42. Do you do your written assignments to learn or just to pass the course?

Q.43. Do you do your assignments by yourself or make them from your friends' assignments?

Q.44. Do you have regular study habits?

Q.45. Do you feel anxious in your social situations such as social relationships, courses, or exams?

Q.46. Do you display aggressive and nervous behavior?

Q.47. Do you generally feel yourself as being depressed, alone, or isolated?

Q.48. Do you find yourself socially mature?

Q.49. Do the reasons for your underachievement stem from you, your family, your friends, financial problems, or your social environment?

Q.50. Does your social environment have an impact on your underachievement?

Q.51. Do you think that you have interests/hobbies which you spend more time than your course work?

Q.52. What do your friends at school think about you?

Q.53. Do you participate in social and recreational activities in and out of the school?

Q.54. Do you have financial problems?

Q.55. If yes, does it have any impact on your underachievement?

Q.56. Do your financial problems cause depression or helplessness on you?

Q.57. Which of the following characteristics do you have: Argumentativeness, confrontation, rebellion, being introverted, being withdrawn, laziness, shyness, isolation?

Q.58. Do you smoke, use drugs, and alcohol?

Q.59. Do you think that you need financial and/or moral support?

Q.60. Do you have any learning disability?

Q.61. Do you have any identity problems?

Q.62. Do you encounter any difficulty in determining your areas of interest?

Q.63. Did you ever think of committing suicide? Have you ever attempted to commit suicide?

Q.64. Do you get varying test results even in the same course?

Q.65. Do you prefer group work or individual study?

Q.66. Can you easily communicate with your friends at the University?

Q.67. Do you have enough number of friends?

Q.68. Are you by any means interested in the courses you failed?

Q.69. What kind of tests/exams did you fail?

Q.70. How do you spend your time when you did not attend the University?

Q.71. Is there any divorce, re-marriage, or separation in your family?

Q.72. Do you have any problems in your family?

Q.73. Do you think that your family encourages you adequately?

Q.74. Is your family interested in your underachievement? Do they notice it?

Q.75. How is your family's attitude to your field of study? Do they like it?

Q.76. Do you live with your family? If not, where?

Q.77. If you live alone, how do you think it affects you?

Q.78. Is your family overprotective?

Q.79. Do you have any conflict with your parents?

Q.80. Did you ever encounter family violence?

Q.81. Do your parents exert any pressure on you?

Q.82. What are the expectations of your parents from you?

Q.83. Which one is more important to you: your priorities or parental expectations?

Q.84. Did you lose any of your family members since you have started studying at this university? If yes, how did it affect you?

Q.85. How do you describe your interaction with your family?

Q.86. Do you think that your family dynamics have an impact on your underachievement?

Q.87. Do you think that having an instruction in English (as a foreign language) have a negative affect on your underachievement?

Q.88. Do you receive any scholarship? If yes, from where? Is it enough?

Q.89. Is the financial support from your family enough?

APPENDIX B: INTERVIEW QUESTIONS-TURKISH VERSION

The questions listed below are the Turkish version of the interview questions administered to gifted underachievers. They are developed by the researcher to further examine the reasons of underachievement among gifted individuals at the university level.

1. Okul içerisinde ve/veya derslerde kendinizi nasıl hissediyorsunuz? (yalnız, dışlanmış, değersiz vb.)
2. Derslerde, sınavlarda vs. arkadaşlarınıza bağımlı mı hareket ediyorsunuz yoksa kendi başınıza her sorunun altından kalkabiliyor musunuz?
3. Başaramama korkusu taşıyor musunuz?
4. Her şeyin en iyisi olsun isterim o nedenle başarısız olacağım bir dersten çekilirim mi diyorsunuz yoksa ne olursa olsun alırım demeyi mi tercih ediyorsunuz?
5. Arkadaşlarınız, öğretmenleriniz veya sosyal çevreniz tarafından size değer verildiğini düşünüyor musunuz?
6. Rekabet gerektiren ortamlardan kaçınır mısınız? Bu bağlamda okul Üniversite'nin ortamını nasıl değerlendiriyorsunuz?
7. Sadece belirli alanlarda mı başarısızsınız yoksa hepsinde mi?
8. Çalışma ve gayretlerinizin karşılığını aldığınızı düşünüyor musunuz?
9. Okulda akademik ve sosyal anlamda yeni şeyler öğrenebildiğinizi düşünüyor musunuz?
10. Aldığınız sınav sonuçları genelde nasıl? AA almak sizin için ne anlama geliyor?
11. Okul içindeki arkadaşlarınız ile kıyasladığınızda kendinizi zeki buluyor musunuz?
12. Öğretmenlerinize ve derslerinize karşı tutumunuz nasıl?
13. Öğretmenlerinizin size karşı tutumları nasıl?
14. Öğretmenlerin not verme sistemi ve okul ders geçme sistemi hakkında ne düşünüyorsunuz?
15. Derslerin öğretiliş biçiminden memnun musunuz?
16. Başarısız olduğunuz derslerin öğretmenlerini nasıl değerlendiriyor sunuz?
17. Derslerini aldığınız öğretmenlerle olan iletişiminizi nasıl değerlendiriyor sunuz?
18. Sizce öğretmenlerinizin sizlerden beklentileri neler?

19. Danışmanınızla ve bölümünüzle iletişiminiz nasıl?
20. Öğretmenlerinizi yeterli ve yetersiz bulduğunuz durumlar var mı?
21. Her öğretmenin sizden beklentileri aynı mı?
22. Başarısız olduğunuz derslerin zorluk derecelerini nasıl değerlendiriyorsunuz?
23. Öğretmenlerinizin sizin potansiyelinizin farkında olduklarını düşünüyor musunuz?
24. Okula karşı tutumunuz nasıl?
25. Derslerin kontrolü öğretmenlerde mi yoksa karşılıklı olarak mı belirleniyor?
26. Okulun size sunduğu imkanları nasıl buluyor sunuz?
27. Okul içinde başarısızlığınızı farkeden var mı?
28. Okul içinde değişik uygulamalar ile karşılaşıyor musunuz? Varsa bu durum sizi nasıl etkiliyor?
29. Sizce okulun bir felsefesi var mı? Varsa nedir ?
30. Ders seçerken risk alabiliyor musunuz? Ne tür dersleri seçiyorsunuz? (Seçmeli derslerinizi dikkate alarak) Ders seçerken nelere dikkat ediyor sunuz?
31. Geleceğe dönük beklentileriniz, hedefleriniz nelerdir?
32. Okul içinde başarılı olup olamama konusunda ne düşünüyor sunuz?
33. Ortalamanızı yükseltebileceğinize inanıyor musunuz? Evet ise ne kadar?
34. Akademik ve sosyal anlamda başarılı olabileceğinize inanıyor musunuz?
35. Amacınız geçer not almak mı, yoksa yüksek not almak mı?
36. Derslere ve sınavlara çalışma konusunda motivasyonunuz nasıl?
37. Derslere/sınavlara/çalışmaya konsantre olamama sorununuz var mı?
38. Ders çalışma konusunda plansız ve disiplinsiz misinizdir?
39. Derslerinize devam ediyor musunuz veya ne sıklıkla devam ediyor sunuz?
40. Başarılı olma konusunda yeterli kişisel çaba harcadığınıza inanıyor musunuz?
41. Ders çalışma azminiz ve çalışma isteğiniz nasıldır?
42. Ödevleri öğrenmek için mi yoksa dersi geçmek için mi yapıyor sunuz?
43. Ödevleri kendi başınıza mı yaparsınız yoksa arkadaşlarınızdan mı temin edersiniz?
44. Düzenli ders çalışma alışkanlıklarınız var mı?
45. İlişkilerinizde/derslerde/sınavlarda heyecanlı mısınız?
46. Saldırgan ve/veya sinirli misiniz?
47. Genel olarak kendinizi mutsuz, depresif, yalnız, dışlanmış hissediyor musunuz?
48. Kendinizi sosyal olarak yeterli buluyor musunuz?

49. Başarısızlığınızın nedenleri sizden mi yoksa aile, arkadaş, mali sorunlar ve sosyal çevre gibi etkenlerden mi kaynaklanıyor?
50. Başarısızlığınıza neden olan sosyal bir çevreniz var mı?
51. Derslerinizden daha çok zaman ayırdığınız ilgi alanlarınız, hobileriniz olduğunu düşünüyor musunuz?
52. Okul içerisinde arkadaşlarınız sizin hakkınızda neler düşünüyorlar?
53. Sosyal ve kültürel faaliyetlere katılıyor musunuz? (okul içi veya dışı)
54. Maddi sorunlarınız var mı?
55. Varsa bu surumun okul başarınızı etkilediğini düşünüyor musunuz?
56. Maddi sorunlar sizde ruhsal bir bezginlik oluşturuyor mu?
57. Genel olarak sürekli tartışma, tembellik, çekingenlik,dışlanmışlık, yalnızlık, içe kapanıklık, bağımlı kişilik özelliklerden bir veya birkaçını taşıdığınızı düşünüyor musunuz? Varsa hangileri?
58. İçki, sigara, uyuşturucu vs. kullanıyor musunuz? Hangisi yada hangileri?
59. Maddi veya manevi desteğe ihtiyacım var diye düşünüyor musunuz?
60. Herhangi bir öğrenme zorluğunuz var mı?
61. Kimlik bunalımı taşıdığınızı düşünüyor musunuz?
62. İlgi alanlarınızı belirlemede bir sıkıntınız var mı?
63. İntihar etmeyi düşündüğünüz oldumu? Yada hiç teşebbüs ettiniz mi?
64. Özellikle aynı dersin sınavlarından çok farklı neticeler elde ettiğiniz oluyor mu?
65. Gup çalışmasını mı yoksa kişisel çalışmayı mı tercih ediyor sunuz?
66. Üniversitedeki arkadaşlarınızla rahatlıkla iletişim kurabiliyor musunuz?
67. Yeterince arkadaşınız var mı?
68. Başarısız olduğunuz alanlara ilginiz ne durumda?
69. Ne tür sınavlarda başarısız oluyor sunuz?
70. Okula gelmediğiniz zamanlar nerede ve nasıl vakit geçiriyor sunuz?
71. Ailenizde boşanma, ayrı yaşama, ikinci evlilik vb. durumlar var mı?
72. Ailevi sorunlarınız var mı?
73. Ailenizin sizi yeterince desteklediğini düşünüyor musunuz?
74. Aileniz sizin başarısızlığınız ile ilgileniyor mu veya haberi var mı?
75. Aileniz okuduğunuz bölümü beğeniyor mu? / nasıl bakıyor?
76. Ailenizden ayrı mı yaşıyor sunuz? Evet ise nerede?
77. Ailenizden ayrı yaşıyor iseniz bu durum sizi nasıl etkiliyor?

78. Ailenizde aşırı korumacılık var mı?
79. Aile bireyleri ile çatışma yaşıyor musnuz?
80. Aile içi şiddet gördünüz mü? Veya görüyor musnuz?
81. Aileni size herhangi bir konuda baskı yapıyor mu?
82. Ailenizin sizden beklentileri neler?
83. Sizin için kendinizin önceliklerimi yoksa ailenizin beklentilerimi daha önemli?
84. Bu okulda okumaya başladığınızdan beri aile bireylerinizden hayatını yitiren oldu mu? Bu sizi nasıl etkiledi?
85. Ailenizle olan ilişkilerinizi nasıl değerlendiriyor sunuz?
86. Ailevi etkenlerin derslerdeki başarısızlığınızla ilgisi olduğunu düşünüyor musunuz? Nasıl?
87. Öğretim dilinin İngilizce olmasının başarısız olmanızda bir etkisi var mı? Nasıl?
88. Burs alıyor musnuz? Nereden veya nerelerden? Bu yeterli oluyor mu?
89. Ailenizden gelen katkı yeterli mi?

APPENDIX C: SCHOOL ATTITUDE ASSESSMENT SURVEY-R

Instructions: This survey should take approximately 10 minutes to complete.

Part I: Please rate how strongly you agree or disagree with the following statements. In answering each question, use a range from **(1)** to **(7)** where **(1)** stands for **strongly disagree** and **(7)** stands for **strongly agree**. Please circle only one response choice per question.

	Statement	Strongly Disagree	Disagree	Slightly Disagree	Neither agree nor disagree	Slightly Agree	Agree	Strongly Agree
1	My classes are interesting.	1	2	3	4	5	6	7
2	I am intelligent.	1	2	3	4	5	6	7
3	I can learn new ideas quickly in school.	1	2	3	4	5	6	7
4	I am capable of doing well on tests.	1	2	3	4	5	6	7
5	I am confident in my scholastic abilities.	1	2	3	4	5	6	7
6	I am glad that I go to this school.	1	2	3	4	5	6	7
7	This is a good school.	1	2	3	4	5	6	7
8	I work hard at school.	1	2	3	4	5	6	7
9	I relate well to my teachers.	1	2	3	4	5	6	7
10	I am self-motivated to do my schoolwork.	1	2	3	4	5	6	7
11	This school brings out the best in me.	1	2	3	4	5	6	7
12	This school is a good match for me.	1	2	3	4	5	6	7
13	School is easy for me.	1	2	3	4	5	6	7
14	I like my teachers.	1	2	3	4	5	6	7
15	School is important to me.	1	2	3	4	5	6	7
16	My teachers make learning interesting.	1	2	3	4	5	6	7
17	My teachers care about me.	1	2	3	4	5	6	7
18	Doing well in school is important for my future career goals	1	2	3	4	5	6	7
19	I like this school.	1	2	3	4	5	6	7
20	I can grasp complex concepts in school.	1	2	3	4	5	6	7
21	Doing well in school is one of my goals.	1	2	3	4	5	6	7
22	I am self-disciplined about completing my schoolwork.	1	2	3	4	5	6	7
23	I set academic goals for myself.	1	2	3	4	5	6	7
24	I complete my schoolwork regularly.	1	2	3	4	5	6	7
25	It's important to get good grades in school.	1	2	3	4	5	6	7
26	I am organized about my schoolwork.	1	2	3	4	5	6	7
27	I use a variety of strategies to learn new material.	1	2	3	4	5	6	7

28	I want to do my best in school.	1	2	3	4	5	6	7
29	It is important for me to do well in school.	1	2	3	4	5	6	7
30	I spent a lot of time on my schoolwork.	1	2	3	4	5	6	7
31	Most of the teachers at this school are good teachers.	1	2	3	4	5	6	7
32	I am a responsible student.	1	2	3	4	5	6	7
33	I put a lot of effort into my schoolwork.	1	2	3	4	5	6	7
34	I like my classes.	1	2	3	4	5	6	7
35	I concentrate on my schoolwork.	1	2	3	4	5	6	7
36	I check my assignments before I turn them in.	1	2	3	4	5	6	7
37	I am capable of getting straight A's.	1	2	3	4	5	6	7
38	I want to get good grades in school.	1	2	3	4	5	6	7
39	My teachers seem to like me.	1	2	3	4	5	6	7
40	I am good at learning new things in school.	1	2	3	4	5	6	7
41	I am smart in school.	1	2	3	4	5	6	7
42	I am proud of this school.	1	2	3	4	5	6	7
43	This is a good school for me.	1	2	3	4	5	6	7

APPENDIX D: SCHOOL ATTITUDE ASSESSMENT SURVEY-R-TURKISH VERSION

Adaptasyon: Uğur Başlantı, 2001

Bu anket yaklaşık olarak 10 dakikanızı alacaktır.
Lütfen aşağıdaki sorulara ne derece katılıp katılmadığınızı belirtiniz.Her bir sorunun yanında bulunan ve 1 den 7 ye kadar derecelendirilmiş olan seçenekleri daire içine almak suretiyle işaretleyiniz.

	SORULAR	Hiç katılmıyorum	Katılmıyorum	Tam katılmıyorum	Ne katılıyorum ne de katılmıyorum	Biraz katılıyorum	Katılıyorum	Tamamen katılıyorum
1	Derslerim ilgi çekicidir.	1	2	3	4	5	6	7
2	Ben zekiyim.	1	2	3	4	5	6	7
3	Okulda yeni bilgileri çabuk öğrenebilirim.	1	2	3	4	5	6	7
4	Sınavlarda başarılı olabiliyorum.	1	2	3	4	5	6	7
5	Akademik yeteneklerime güveniyorum.	1	2	3	4	5	6	7
6	Bu okula geldiğime memnunum.	1	2	3	4	5	6	7
7	Burası iyi bir okul.	1	2	3	4	5	6	7
8	Okulda çok çalışırım.	1	2	3	4	5	6	7
9	Öğretmenlerimle iyi geçinirim.	1	2	3	4	5	6	7
10	Okul çalışmalarımı yapma konusunda motivasyonum iyidir.	1	2	3	4	5	6	7
11	Bu okul benim en iyi taraflarımı ortaya çıkarıyor.	1	2	3	4	5	6	7
12	Bu okul tam bana göre bir okul.	1	2	3	4	5	6	7
13	Okul bana kolay geliyor.	1	2	3	4	5	6	7
14	Öğretmenlerimi seviyorum.	1	2	3	4	5	6	7
15	Bu okul benim için önemlidir.	1	2	3	4	5	6	7
16	Öğretmenlerim öğrenmeyi ilginç hale getirir.	1	2	3	4	5	6	7
17	Öğretmenlerim bana değer verir.	1	2	3	4	5	6	7
18	Okulda başarılı olmak mesleki kariyerim için önemlidir.	1	2	3	4	5	6	7
19	Bu okulu seviyorum.	1	2	3	4	5	6	7
20	Okulda karmaşık konuları öğrenebiliyorum.	1	2	3	4	5	6	7
21	Okulda başarılı olmak amaçlarımdan biridir.	1	2	3	4	5	6	7
22	Derslerimi tamamlama konusunda disiplinliyimdir.	1	2	3	4	5	6	7

23	Kendime akademik hedefler belirlerim.	1	2	3	4	5	6	7
24	Derslerimi düzenli olarak yaparım.	1	2	3	4	5	6	7
25	Okulda iyi notlar almak önemlidir.	1	2	3	4	5	6	7
26	Okul çalışmalarımı planlı bir şekilde yaparım.	1	2	3	4	5	6	7
27	Yeni bir konuyu öğrenirken farklı metodlar kullanırım.	1	2	3	4	5	6	7
28	Okulda elimden gelenin en iyisini yapmak istiyorum.	1	2	3	4	5	6	7
29	Okulda başarılı olmak benim için önemlidir.	1	2	3	4	5	6	7
30	Okul çalışmalarım için çok zaman ayırırım.	1	2	3	4	5	6	7
31	Bu okuldaki öğretmenlerin çoğu iyi öğretmendir.	1	2	3	4	5	6	7
32	Ben sorumluluk sahibi bir öğrenciyim.	1	2	3	4	5	6	7
33	Derslerime çok çalışırım.	1	2	3	4	5	6	7
34	Derslerimi seviyorum.	1	2	3	4	5	6	7
35	Derslerime yoğunlaşabiliyorum.	1	2	3	4	5	6	7
36	Ödevlerimi teslim etmeden önce iyice kontrol ederim.	1	2	3	4	5	6	7
37	Kolaylıkla "A" notu alabilirim.	1	2	3	4	5	6	7
38	Okulda iyi notlar almak istiyorum.	1	2	3	4	5	6	7
39	Öğretmenlerimin beni sevdiğini düşünüyorum.	1	2	3	4	5	6	7
40	Okulda yeni şeyler öğrenme konusunda başarılıyım.	1	2	3	4	5	6	7
41	Okuldaki zeki öğrencilerden biriyim.	1	2	3	4	5	6	7
42	Bu okul ile gurur duyuyorum.	1	2	3	4	5	6	7
43	Burası benim için iyi bir okul.	1	2	3	4	5	6	7

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