WELL-BEING OF GIFTED STUDENTS FOLLOWING PARTICIPATION IN AN EARLY-COLLEGE-ENTRANCE PROGRAM

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The concepts of well-being and life satisfaction are explored in this study of the experiences and psychological traits of highly-gifted students who have been radically accelerated into an early-college-entrance program. The study was conducted after participation in the early-college-entrance program. The primary focus of the study is on personal well-being and life satisfaction including the variables of subjective well-being, efficacy, and the dispositional traits of cheerfulness, seriousness, and bad mood. These variables are gathered as the initial phase of a longitudinal study of the early-college entrants’ personal and professional experiences, their life satisfaction, and dispositions. The subjects for this study were participants in the Texas Academy of Math and Science (TAMS). TAMS is a state run early-college-entrance program at the University of North Texas in Denton.
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INTRODUCTION

Why do very gifted students choose to attend an organized early-college entrance program? The reasons are varied (Sayler, 1993), but certainly a portion of the reasoning for the students and their parents is the belief that organized early-entrance-to-college programs will develop their child’s intellectual and personal strengths and facilitate life-long, positive personal and professional choices and experiences that will lead them to “the good life.” Seligman (2003) explains that “the good life,” is a psychological state created by knowing what one’s most outstanding strengths are; and then using those strengths to shape one’s life and create a state of flow in all areas of being. The state of flow indicates that the individual is achieving the most favorable experience and attaining the most advantageous development in what it is they are doing (Csikszentmihalyi, 1996). When an individual achieves a state of flow they are fully involved in the present moment (Nakamura & Csikszentmihalyi, 2002). The idea of attaining the “the good life” reflects underlying abstract concepts such as the individual’s life goals, their desired quality of life, their hopes, and their ability to function as self-determining adults (Seligman & Csikszentmihalyi, 2000).

These same perceived quality of life issues, also known as subjective well-being or life satisfaction, are central to the theories of positive psychologists (Diener, 2000; Huebner, Suldo, Smith, & McKnight, 2004; Pollard & Rosenberg, 2003; Seligman & Csikszentmihalyi, 2000). The focus of positive psychologists and the study of subjective well-being is on developing the individual’s strengths, fostering the growth of positive responses to adversity and strengthening social and emotional foundations in the individual’s life (Diener, 2000). The field of positive psychology is about well-being, contentment, and satisfaction with the individual’s past; hope and optimism for their future; and flow and happiness in the present (Seligman &
Csikszentmihalyi, 2000). At the individual level, living in a positive psychological state is about having positive individual traits; the capacity for love and vocation, courage, interpersonal skill, aesthetic sensibility, perseverance, forgiveness, originality, future mindedness, spirituality, high talent, and wisdom. At the group level it is about the civic virtues and the institutions that move individuals toward better citizenship: responsibility, nurturance, altruism, civility, moderation, tolerance, and work ethic.

Thus in many ways positive psychology is about good life experiences. Exploration of the life experiences of the gifted and the highly-gifted individuals is not new. Terman and his associated teams of researchers (e.g., Terman, 1925; Terman & Oden, 1959; Holahan, Sears, & Cronbach, 1995) explored longitudinally the development of objective indicators of quality of life. Terman (1925), his contemporary Hollingworth (1926), and more recent researchers such as Stanley (1978), Gross (1994, 2004b), Benbow (1992), Benbow and Lubinski (1994, 1995), and Gross and van Vliet (2005), have explored the intellectual, academic, career/occupational, and creative achievements of the gifted. They have given some consideration to the emotional, aesthetic, moral, physical and social traits of the gifted and how and when these are affected both positively and negatively. Providing appropriately challenging educational interventions such as early-college-entrance programs for the highly gifted are important to the positive development of the whole individual (Stanley, 1978; Gross, 2004b; Benbow & Lubinski, 1995).

Texas Academy of Math and Science

The Texas Academy of Math and Science (TAMS) is a full-time early-college-entrance intervention for the exceptionally talented math and science students in the state of Texas (Sayler, 2005). The academy addresses the development of academic abilities by allowing high-school-
aged students to radically accelerate their education and take college courses at the University of North Texas (UNT). These courses are from the first two years of mathematics and science bachelors degrees. Students who enter the TAMS program are on a much different academic, social, and emotional developmental path when compared to teens in the general high-school population. Students who enter the TAMS program leave their familiar home and school environment during the period of personal development when adolescents are usually acquiring and strengthening their social and emotional skills, dispositions, values, and the social connections so as to become self-reliant, independent, efficacious, and happy people (Eccles, Templeton, Barber & Stone, 2003).

Previous research on early-college-entrance programs (Robinson & Robinson, 1982; Benbow & Lubinski, 1995; Gross, 2004a) reported that highly-gifted students, who are radically accelerated into an environment where they are able to find intellectual and social peers, show more positive adjustment than equally able peers who were not accelerated. The accelerated gifted were more self-reliant, independent, efficacious, and happier people (Gross, 2004a). Research by Gagné and Gagnier (2004) found that gifted accelerands are not at risk for adjustment problems. Richardson and Benbow (1990) reported that accelerated students had higher self-esteem, a stronger internal locus of control, and no decrease in social interactions compared to gifted who did not accelerate. Sayler and Brookshire (1993) found that gifted students accelerated by grade 8 were more likely to have positive self concepts, internal locus of control, and be seen by others as good students than were either gifted students who were not accelerated or regular students.
STATEMENT OF PROBLEM

While there is good evidence of stronger positive social adjustment and successful academic and career achievements associated with acceleration for gifted (Colangelo, Assouline, & Gross, 2004), there are no studies formally investigating the psychological characteristics of life satisfaction or subjective well-being of gifted or gifted accelerands. Anecdotally we hear of gifted or talented individuals who objectively are, in the general societal perspective, less successful with regard to fully utilizing their abilities (i.e., a person might have high math and science ability however, they choose a less prestigious career), while at the same time have strong subjective well-being (Sayler, 2005). Conversely, there are gifted or talented individuals who are very successful academically and professionally, but whose lives are unhappy or who damage themselves or others.

Well-being and its markers look at successes and personal dispositions beyond those of making good grades, having a good career, making a lot of money, or living a long life (Frisch, 2000). Gifted and talented students face unique opportunities for success and achievement because of their high-level ability and performance, but how that success is defined and the achievement of that success is not automatic. Gagné’s (2004) differentiated model of giftedness and talent (DMGT, Figure 1) illustrates that an individual’s natural innate abilities must be acted on by internal and external forces in order for those abilities to fully develop.
Acceleration has a positive impact on the gifted; lack of acceleration has a negative impact (Gross, 2004a). When comparing accelerated students to non-accelerated peers with similar ability, the gifted who were accelerated consistently outperformed their non-accelerated gifted counterparts (Rogers, 2004). *A Nation Deceived* (Colangelo, Assouline, & Gross, 2004), the national report on the underutilization of acceleration in the education of the gifted, points out that contrary to popular conceptions, the gifted do not always find success in school, achieve up to their potential, or live happy lives. Nor are curricular interventions neutral with regard to their impact on an individual’s personal and professional development. The report provides 18 accelerative options appropriate for the gifted. One of these, radical accelerations, occurs when students use various options singularly or in combination, and finish high school several years early. Radical acceleration into college is defined by Stanley (1978) as entrance into a college-
level program two or more years ahead of age peers. A more recent definition of radical acceleration offered by Gross (2004a) is consistent with Stanley’s definition as it also indicates that radical acceleration can be considered as being in a grade level or in a college setting two years or more ahead of age peers.

The Texas Academy of Math and Science (TAMS) is a curricular and programmatic intervention that allows very talented youth a chance to accelerate and for some to radically accelerate their learning (Sayler, 2005). Students who are accepted into the program have very high mathematic and science interests and abilities. Generally, these students leave their regular high school after their sophomore year and live in residence on the UNT campus. The students who come to TAMS represent the total spectrum of Texas cultures and regions.

The academy opened in 1987 (Sayler, 2005). Each year about 200 students enter the academy and take regular college classes on the college campus. After two years in the TAMS program students have earned at least 57 college credits and may either continue learning at UNT or transfer to other instate or out-of-state universities; entering with an advanced standing.

In the 19 years of actively educating the gifted learners and assessing each individual’s achievement while in the TAMS program, researchers have not gone beyond the participants’ graduation in exploring this highly unique population in regard to subjective well-being, perceived efficacy, life satisfaction and dispositional traits (e.g. Sayler, 1995; Stride, 1996)

This study is the first attempt to follow former TAMS participants, develop a longitudinal research relationship with them, and begin to assess their long-term success and happiness. The current study explores the subjective well-being, life satisfaction perceived efficacy and selected dispositional characteristics of former TAMS students. The data and analysis are the initial step to the deeper and clearer understanding of the influences early-college entrance has on the
psychological state of accelerated learners. With this initial study, we hope to establish a longitudinal relationship with the graduates of the TAMS program so that their psychological, emotional, and personal development as well as academic, and career development can be assessed over substantial lengths of time.
OBJECTIVES OF THE STUDY

The objectives of this study are to describe the subjective well-being, the level of general efficacy, and the dispositional traits of cheerfulness, seriousness and bad mood in students who have attended the Texas Academy of Mathematics and Science (TAMS), an early-college-entrance program. A self-reporting questionnaire was completed at a point when the participants were from 1 to 5 years post-program participation. This study used only those data related to the study objectives, but did not analyze all of the data from the instrument was used for this work.

Once the data were gathered, they were analyzed using descriptive and inferential statistics (t-tests, chi-square analysis) and the magnitude of the effects was measured using Cohen’s $d$ (Cohen, 1988; Henson, in press). Comparisons to subjects of relative age (when available) in the general population of the norm groups for the instruments form the basis for the statistical comparisons used in this study of TAMS participants.
LITERATURE REVIEW

Current Research and Models of Giftedness and Talent

Defining Giftedness and Talent

Even before Terman (1925) began his studies of eminent people there have been a number of proposed definitions of giftedness as well as attempts to come to a consensus on a definition of giftedness. Consensus has not happened and consequently there is no 1 definition that is universally agreed upon (Sternberg & Davidson, 2005). From the early 1900’s to the 1950s giftedness was generally conceptualized as being the same as having high intelligence scores (Von Karolyi & Winner, 2005). Since the 1960s the definitions of giftedness are more broadly-based with most researchers and practitioners believing that giftedness encompasses more than a measurement on an intelligence scale, but also concede that intelligence scores do tell us something important (Von Karolyi & Winner, 2005; Borland 1989).

What is generally considered the federal definition of giftedness, originated in the Marland Report (1972) was updated by the Javits Gifted and Talented Students Education Act (1988) and was modified again in1993 by the United States Department of Education. This definition is often used by schools today to frame the identification processes and service procedures they use when addressing the needs of gifted and talented individuals (Renzulli, 2002). The federal definition was created out of dissatisfaction with 1 dimensional intelligence-based definitions of giftedness. The current federal definition considers gifted and talented children and youth are those who either perform at or show the potential to perform at high levels when compared to others who are the same age, with similar experiences, and in similar environments. The gifted and talented show this current performance or potential in at least 1 of the following areas; intellectual, creative, artistic, leadership or academic (USOE, 1993).
Although the USOE definition is broader and more inclusive than defining gifted with just IQ scores, it has many problems of its own. The biggest problem with the USOE definition is that it is disjunctive in nature and is difficult to operationalize because of the designation of a large number of diverse groups as gifted (Borland, 1989). A disjunctive definition is one that says a child is gifted because of any 1 of several traits or performances. For example, 1 child enters the gifted program because he has a high IQ, another child enters because he is very creative, and another child enters because he can do math several grades above level, or another child enters because he has potential to do fine art very well even though currently he is not doing well in school. While conceptually it seems fair to consider all the kinds of various abilities and performances a child might show, the problem arises in designing programs and curriculum for them once they are identified. Should the program be accelerative, focus on divergent thinking, do advanced mathematics, or provide opportunities for advanced arts training and materials? Those trying to understand gifted programs, propose methods for teaching the gifted, and develop programs for the gifted soon realized that a more conjunctive definition that allowed for clearer operationalization were needed.

Renzulli (1978) and Tanenbaum (1983) offered definitions that were more conjunctive than the USOE definition and Sternberg (1986) offered a definition that was broad in its theoretical foundation and included a multi-trait focus on knowledge-acquisition components, performance components and metacomponents as well as allowing a clearer delineation of the processes underlying human intelligence. According to Sternberg’s (1986) triarchic theory of human intelligence, human intelligence is required for adaptation, shaping and selection when an individual interacts with the environment. Sternberg theorizes that intelligence is a force that
influences and is influenced by many nonintellectual factors such as environment and social interaction.

Models of Giftedness and Talent Development

More recently, Sternberg (2003) proposed the wisdom, intelligence, and creativity, when synthesized (WICS) model. Sternberg proposes that the WICS elements are the only characteristics of giftedness that matter. He concedes that other contributing factors in the development of giftedness are partly situational and therefore he asserts they are not as essential in contribution to giftedness. For example, motivation to achieve, while important, is situational in that anyone can be motivated to succeed given the proper circumstances and environment. Sternberg suggests that the WICS model could serve as the basis for identifying gifted individuals. In this model intelligence is the foundation for creativity and wisdom. Creativity is essential for wisdom. Wisdom builds on creativity and intelligence, but goes beyond both. Sternberg advises that without the synthesis of wisdom, intelligence and creativity a person can be a contributor to society, but he theorizes that if a person never synthesizes these 3 components he or she will never make contributions commensurate with their full ability and value to the world.

Gagné (1985) presented a model of giftedness and talent development called the differentiated model of giftedness and talent (DMGT, Figure 1). Gagné’s slightly revised model (2004) is anchored by definitions of the two terms, giftedness and talent, as was his original model. In his revised model he adds a chance factor. Gagné (2005) defines the terms of giftedness and talent. Giftedness is the possession and use of untrained and instinctively expressed natural abilities, in at least 1 ability area, to a level that places an individual at least
among the top 10% of age peers. Talent is the outstanding mastery of systematically developed abilities or skills and knowledge in at least 1 field of activity at a level that places an individual at least among the top 10 per cent of age peers who are or have been active in that field or fields.

Between the two definitive anchors of giftedness and talent in the DMGT, Gagné includes 4 components which have the potential to either help or hinder giftedness in its transformation into talent (Figure 1). Intrapersonal catalysts, environmental catalysts, developmental process, and chance all play a role in the transformation of giftedness into talent.

The developmental process component of Gagné’s model represents the systematic learning and practicing in developing the natural abilities. It is through the systematic learning and practicing that talent development occurs. The higher the level of talent the individual is seeking, the more intense and longer the process of learning becomes. Along with the increased level of the learning process, the level of practice and the act of seeking a higher level of talent also intensifies to lead the individual to talent development (Gagné, 2004).

Physical and psychological factors along with process characteristics subdivide the Intrapersonal Catalysts component of the DMGT. Physical characteristics such as height, agility, and muscle strength, to name a few examples, compose the corporeal aspects of the intrapersonal catalysts. Depending on the talent field, these physical characteristics play a larger or smaller catalytic role. The mental characteristics of the DMGT center on constructs such as temperament, personality and well-being. Adaptability, self-esteem, attitudes, values, competitiveness, and independence are constructs which are present in differing degrees in the make-up of an individual’s basic temperament and personality tendencies (McCrea et al., 2000).

The second dimension of the intrapersonal catalysts component of the DMGT consists of the motivation and volition elements of self-management. These two constructs give a distinction
between goal-setting behaviors and goal-attainment behaviors; here motivation is used in terms
of goal-setting processes while volition is used in reference to goal-attainment activities (Gagné,
2004). It is the processes of motivation and volition that allow the individual to persevere
through periods of boredom and occasional failure to reach talent development.

Gagné’s second catalytic component, environmental catalysts, explains how the
environment effects the development, negatively or positively, of ones giftedness into talent.
Surroundings, the people involved in ones life, and the events encountered all come together to
influence how the individual’s giftedness is or is not transformed to talent.

The development of each individual is also influenced by chance. Chance works on ones
psychological wellness, physical characteristics, and process characteristics. Tannenbaum (1983)
was 1 of the first to offer in-depth reasoning and assessment of how chance contributes to talent
development. Chance affects the person but the person has no control over the chance factor; for
example, the socioeconomic status of their family, the school in which they are placed, the place
or time they live, or the genetic make-up they receive at conception. Therefore, it is anticipated
that at 1 level or another there is a direct degree of chance in all components of the DMGT
model.

The present study of TAMS graduates is built on the conceptual framework of Gagné’s
model of talent development. Students entering the TAMS program have demonstrated high
levels of talent for high-school students in the areas of mathematics and science. They are clearly
within the top 10 % of their age peers in ability and performance. Each individual went through a
formal and informal learning and development as they progressed at TAMS. The educational
intervention of the TAMS program is an environmental catalyst which serves to help develop the
student’s natural abilities, intrapersonal characteristics, and talents into a systematically
developed, elevated skill set.

Sternberg’s WICS model complements and extends the insights provided by the DMGT
model. Intelligence in the WICS model (an innate ability in Gagné’s model) and creativity in the
WICS model (an innate ability in Gagné’s model) serve the development of wisdom, an outcome
that moves beyond talent as the final marker of life happiness and success (Sayler, 2005;
Sternberg, 2005). Wisdom and talent are developed from innate abilities such as intelligence and
creativity through the developmental processes described in the DMGT model. The individual’s
development of talent and wisdom are an important component of accelerative programs.

Usefulness of Radical Acceleration

Schools commonly only offer enrichment or limited degrees of acceleration as a way of
addressing the needs of the highly gifted. These low-level interventions tend not to produce the
high levels of achievement or satisfaction in the gifted (Gross and van Vliet, 2005). The common
approaches are less likely to reverse underachievement and they tend not to support full personal
development and emotional well-being of the precocious student. Enrichment without
acceleration will harm the general well-being of highly gifted students (Hollingworth, 1942:

Radical acceleration of two or more years is an effective way to differentiate instruction
for the highly-gifted and talented learner. This two-or-more-year advancement in education may
happen all at once or it might accumulate over several years of smaller accelerative steps. There
is a modest and growing acceptance of the idea of radical acceleration today, yet the process is
not commonly used to meet the cognitive and emotional needs of students who are highly gifted
(Colangelo, Assouline, & Gross, 2004). A common misconception among academic administrators and parent populations is that radical acceleration will leave students unhappy and socially crippled as they move through adolescence and into adult life; and if they are just left where they are they will be okay (Richardson & Benbow, 1990). Actually, radically accelerated students are higher achievers academically and in their careers, better able to socialize successfully, have reduced boredom, increased motivation and show less of an incidence of social or emotional maladjustment than do equally able but not accelerated peers (Gross, 2004a).

Longitudinal studies of the highly gifted (Gross, 2004b) highlight the value of close, supportive peer relationships to the healthy psychological development in all people including the highly gifted. How do the highly gifted find close, supportive friends? Warm and supportive peer relationships are more likely to develop between the profoundly gifted and their intellectual peers than their age peers (Gross, 2004b).

Where do the highly gifted find intellectual peers? Seldom do they find them in mixed ability classrooms, in common low-level gifted interventions, or in schools where the incidence of their level of giftedness is 1 in 10,000 or higher (Lubinski, Webb, Morelock, & Benbow, 2001). Gross (1993) found that children who were accelerated and placed in an environment that more appropriately addressed their interests and high intellectual ability scored at least 1 standard deviation above the mean on the social self-peers subscale of the Coopersmith Self-Esteem Inventory. Studies of programs where early-college entrance is offered to these highly-gifted individuals indicate that radical acceleration has a positive academic impact, a positive or at least neutral socio-affective effect, and facilitates the healthy development of highly-gifted individuals.
Early College Entrance Programs

There are many state and private universities which offer high-ability students the opportunity to enter college early (Sayler, 2005). The University of North Texas; California State University; the University of Southern California; Mary Baldwin College; Boston University; and the University of Iowa are a small sample of institutions of higher learning which offer accelerated programs for the gifted student. The Johns Hopkins University Study of Mathematically Precocious Youth (SMPY), and the University of Washington’s Early Entrance Program (EEP), are two well researched projects promoting accelerative options and both have yielded a substantial amount of data regarding the effect of early entrance to college.

Stanley initiated a 50 year longitudinal Study of Mathematically Precocious Youth in 1971 at Johns Hopkins University. Since its establishment at Johns Hopkins University, the SMPY project has also been housed at Iowa State University and then at Vanderbuilt University where it is directed by Camilla Benbow and David Lubinski. The goals of the SMPY are multidimensional (Lubinski & Benbow, 1994). One goal of the SMPY is aiding gifted individuals’ development and academic achievement through early identification and intervention. It also strives to discern the best method of meeting the needs of the highly gifted so as to promote the intellectual and social well-being of these individuals. Researchers involved with the SMPY collect data on the development of mathematic talent in highly-gifted adolescents in an effort to better understand the processes that lead an individual to develop natural abilities into adult achievement and creativity.

The Early Entrance Program (EEP) from the Robinson Center for Young Scholars at the University of Washington admits to college highly-gifted children as young as 12. This project, which began in the 1980s, has yielded a substantial amount of data regarding the academic and
social and emotional effects of early entrance to college (Noble et al., 2005; Robinson & Robinson, 1982). EEP offers young gifted students the opportunity to by-pass secondary educational institutions and enter a university setting at a very early age (Robinson, 1996). Every year this program chooses 16 high-ability students, who are younger than 15 years old, to enter the 1-year transitional school at The University of Washington (UW). After successful completion of work in the transitional school, students enter UW as full-time college students. Research on these early entrants shows strong performance, healthy social development, and excellent academic success (Janos, Sanfilippo & Robinson, 1986).

Adolescents and Emerging Adulthood

Adolescence is a relatively modern conception that came into being as many young people no longer began working at a very young age and the responsibilities of adulthood were postponed until the twenties (Hine, 1999). A growing of awareness of the special needs of this period of adolescence has developed as a result of increased research about this population and this development period. The age at which adolescence ends is variously placed between the ages of 18 and 25. The World Health Organization (2006) defined adolescence as the ages between 10 and 19.

The onset of biological changes that take place in an individual as they move toward mature adulthood is 1 way to mark the beginning of adolescence (Berk 2004). Arnett (2000) breaks the time between childhood and adulthood into two divisions; adolescence at ages 10 to 18 and emergent adulthood at the ages of 18 to 25 (Arnett, 2000).

The developmental changes that occur in early and mid-teens are vastly different than the development that occurs in the late-teens and twenties. Therefore it is necessary to consider the
development and the needs of these two groups differently. For girls, the age range for the onset of adolescent development is 8 to 13 with the average age being 10. Boys are about a year to a-year-and-six-months slower in the start of adolescent development; the average age of onset being 11 years, 6 months for boys. It is widely accepted that the beginning of adolescence is at 10 to 12 years of age.

Friends, parents, teachers, coaches, and even strangers often anticipate specific roles or behaviors the adolescent or emerging young adult should have at this stage (Eccles, Templeton, Barber, & Stone, 2003). These imposed and anticipated roles have both a potentially positive or negative effect on personal well-being, life satisfaction and happiness during late adolescence and emerging adulthood life (Eccles & Barber, 1999).

When the imposed role is a good fit for an individual, there is the potential for a positive outcome. However, if the role that is expected from an individual does not match his or her psychological needs, there is a heightened potential for a negative psychological outcomes which then can lead to diminished well-being. Research indicates that many individuals do not experience psychological difficulties in the adolescent period of development (Eccles et al., 2003). However, there are a substantial number of people who experience psychological difficulties that extend into adulthood because of the imposed and anticipated roles the general public places on individuals in the adolescent stage of development (Eccles, Midgley, Buchanan, Wigfield, Reuman, & MacIver, 1993).

Students usually enter college in the late-adolescent period. Gifted students entering college early in a program such as TAMS are still in the early-adolescent period chronologically and sometimes physically, but are often in the later stages of adolescence intellectually, academically, and socially. By the time they exit the early-college-entrance programs they are
clearly in late adolescence stage or in an emerging adult stage which puts them at a
developmental stage where they are making independent decisions that have the potential to
effect their overall subjective well-being.

Well-being

There are many foundational elements that contribute to the overall well-being of people
(Pollard & Rosenberg, 2003). Elements such as intelligence, physical structure and personality
are generally considered products of genetic make-up; Gagné refers to this as natural abilities
(Gagné, 2004). Although they are thought of as the natural component of one’s development
these elements are also impacted by the environment in the normal process of the development
of performance, or in the case of the gifted, the development of talent (Gagné, 2004). If an
individual has a profound physical ability, but does not have the positive catalysts from their
environment to develop their ability into talent, it is very possibly that their sense of well-being
will be lowered. Likewise if an individual has the genetic predisposition to develop into a strong,
healthy person but they live in a nutritionally impoverished environment they are less likely to
physically and mentally develop their full potential. If a person with a vivacious personality is
placed in an environment that does not allow effervescence of character the individual’s
psychological and social well-being have the potential to be compromised through the repression
of emotion (Lerner & Steinberg, 2004). Therefore, the individual’s well-being is potentially
impacted by the delayed or incomplete development (Leavitt, Tonniges, & Rogers, 2003).

Well-being is defined as a state of successful performance throughout the life course
which includes strength in physical, cognitive, and social-emotional functioning as well as the
successful integration of these 3 domain functions (Bornstein, Davidson, Keyes and Moore,
A person’s success in accomplishing and integrating these 3 areas results in more productive and enjoyable activities; ones that are often seen as important and significant by the person and by the broader community (Zaff et al., 2003). The integration of physical, cognitive, and social-emotional functioning assists social relationships and helps the individual to overcome psychosocial and environmental problems (Berk, 2004). Well-being also includes subjective dimensions in the sense of satisfaction associated with fulfilling one’s potential (Bornstein, Davidson, Keyes & More, 2003).

Well-being of Gifted Individuals

It has been established by Terman (1925) and Hollingworth (1926) that the physical characteristics of gifted individuals is similar to or exceeded the physical characteristics of those who are not as highly able. Among his many findings about the gifted individuals he researched, Terman found that the gifted in his study were taller, healthier and better developed physically than similar non-gifted populations.

Ability has a positive impact on the psychological well-being of the gifted (Neihart, 1999). The psychological health of gifted individuals in schools is dependant on the interaction of at least 3 dynamics: the level of giftedness, the educational fit of the intervention and the individual’s personal characteristics (Neihart, 1999). When assessing the impact of giftedness on well-being, global measures of adjustment such as the Washburne Social Adjustment inventory, the Ego Identity Scale (EIS), the Halter Self-Perception Profile for Children, the Revised Children’s Manifest Anxiety Scale, the Children’s Behavior Checklist and the Behavioral Assessment System for children (BASC) have been used to measure the person’s pattern of responding to environmental demands (Neihart, 1999). Using these global measures of
adjustment Cornell (1989), Gallucci (1988), Howard-Hamilton and Franks (1995), as well as Nail and Evans (1997), established results that suggested gifted individuals are at least as well adjusted as their non-gifted peers. In general, gifted learners seem to show little evidence of psychological risk of maladjustment.

Adolescent Well-being

During adolescence and emerging adulthood, individuals change rapidly. It is in these periods that individuals go through rapid and dramatic changes in their physical development, changes in the levels of hormones produced, and changes in the structure of their brain (Lerner & Steinberg, 2004). All of these changes are instrumental in the development of individual subjective well-being. The changes that adolescents and emerging adults experience in biological development are directly linked to sexual interest, to changes in cognitive ability as well as physical ability (Eccles et al., 2003). The social and emotional changes and growth that individuals experience at this point in life are linked to increasing social and cognitive maturity. With this rapid growth and change, adolescents have a heightened potential for making decisions that can affect, in either a positive or a negative way, their development (Rutter & Garmezy, 1988; Wheaton, 1990).

During adolescence and the emerging adulthood, individuals are called on to make life-affecting decisions. These decisions often include picking a college to attend, choosing classes to take, deciding to stay in high school or going to college early, selecting extra curricular activities, picking peer groups, and making future educational and/or occupational plans. There are many examples that are shown on news reports or written in newspapers where adolescents, for a variety of reason, choose activities that are detrimental to their well-being. Problematic behaviors
such as theft, taking illegal drugs, consuming alcohol before they are of legal age to drink, and engaging in premarital sexual intercourse have detrimental psychological and physical consequences that affect the individual’s future well-being and life satisfaction (Eccles et al., 2003).

Physical Well-being

Physical well-being is a crucial function; it provides the anchor for a person’s total well-being (Zaff et al., 2003). Attention to proper nutrition, obtaining healthcare that is preventative in nature, engaging in sufficient physical activity, finding safe and secure environments to live and work, and having dispositions that avoid substance abuse are the important basics of good physical well-being. If individuals learn to maintain their physical health, they will generally develop into healthy individuals who experience good developmental outcomes (Dishman, Washburn, & Heath, 2004). When a child or adolescent does not develop good foundations in physical activity and health, then the life-long physical health and well-being of the individual is less likely to develop (Zaff, et al, 2003). Poorly understood or poorly developed physical health compromises the overall well-being of a person since the total well-being of the person is very dependant on physical well-being.

Social, Emotional Well-being

While physical well-being is considered the foundation for overall well-being, affect and emotions are the essential building blocks from which overall well-being is developed (Kahneman, Diener, & Schwartz, 1999). As was the case with defining giftedness, psychologists have not agreed on an operational definition of emotion (Kleinginna & Kleinginna, 1981).
However, researchers agree that the emotional state effects and extends into many aspects of the individual including the biological, physiological, cognitive, motivational, and behavioral areas (Halle, 2003). Research also establishes that emotions are made up of various components of personal experiences, observable behaviors, and physiological responses (Frijda, 1999).

Characteristics and predispositions related to social and emotional development are present at conception (Reiss & Neiderhiser, 2000), but there are many and significant environmental influences that refine and develop these predispositions. Social and emotional well-being matures or stagnates across the individual’s life course. Living in and interacting with one’s environment or isolating oneself from interacting with the environment directly influences a sense of affect and emotions (Fredrickson, 2001). In turn, affect and emotions influence an individual’s social interaction with the environment. Being able to successfully interact socially and establish a balanced internal emotional foundation is very important as individuals enter adolescence and emerge into their adult years (Zaff et al., 2003).

As a child grows they learn through the interaction with others how to regulate and control emotions (Halle, 2003). As the child moves through adolescence there are increasingly higher expectations for recognizing and labeling emotions in oneself as well as in others (Banerjee, 1997). This emotional understanding is important to the healthy and productive development of emotional regulation and to the social capability of the individual (Banerjee, 1997; Dunn & Brown, 1994).

These basic fundamentals of social and emotional well-being are not formed in isolation; rather each affects and influences the others throughout an individual’s life. These elements of social and emotional well-being can be thought of as outcomes as well as contributors to positive overall social and emotional development (Nakamura & Csikszentmihalyi, 2003). The growth in
any single area of social or emotional well-being is dependant upon the development of 1 or several of the other areas (Zaff & Hair, 2003).

Emotions are produced from interactions between people, they provide a source for attachments, and they form the basis of how people interact (Emde, 1987, 1998). Infants show extreme states of unregulated emotion (Halle, 2003). However, as a person grows from infancy through childhood, the ability to regulate emotion continuously develops (John & Gross, 2004).

A widely held view is that in adolescence, individuals are more emotional than both younger children and adults (Buchanan, Eccles & Becker, 1992). Current research does not support this commonly held notion about adolescence though (Halle, 2003; Larson & Lampman-Petraitis, 1989). Adolescents are not necessarily more emotional than their older or younger counterparts; rather, adolescents seem to have more incidences that bring forth extreme emotional responses (Larson & Ham, 1993).

For students who are radically accelerated into college, the major life changes that come about at this time are compounded when they leave the physical and psychological security of family and friends to live on a distant college campus. New friendships, possibilities of romantic relationships, new authority figures, and new found independence all have the potential to elicit a change in emotional, states, traits and moods in an individual and affect their sense of well-being.

Emotional States, Traits, and Moods

A person’s overall outlook on life, with its periodic aggravations and pleasures, act like intrapersonal catalysts to enhance or reduce an individual’s sense of well-being (Diener, Suh and Oishi, 1997; Seligman, 2003; Halle, 2003). Positive and negative emotions also act as catalysts, speeding up or slowing down the development of constructive outcomes in an individual’s life.
(Fredrickson & Losada, 2005). Some positive emotional catalysts include; good sibling and peer relationships; the development of empathy, adherence to social rules, attention and concentration, motivation, memory, creativity, school achievement, physical health, job satisfaction, and life satisfaction (Halle, 2003).

Emotions that are brief, but powerful and are linked to a specific incident or action are called emotional states. When emotions are less intense, more diffused, and more enduring they are called moods. Emotional behaviors that are more constant over time are considered emotional traits (Halle, 2003). Research suggests a biological component linking emotions to temperament and personality development (Chugani, 1998). This stabilizing biological component provides consistency in emotional reactions throughout a person’s life (Hetherington, Reiss, & Plomin, 1994). Stable emotional traits are linked to overall well-being (Hills & Argyle 2001).

In the work of Ruch and Kohler (1998), the traits of cheerfulness, seriousness, and bad mood are seen as the basis of temperament. The State-Trait Cheerfulness Inventory assesses the dispositional traits of cheerfulness, seriousness, and bad mood as both states and traits. In Ruch, Kohler and van Thriel’s model (1996), a high level of the trait cheerfulness indicates an existing cheerful mood and a low threshold for smiling and laughter. These individuals are thought be able to benefit from the psychological effects of the existence of good mood and laughter (Zweyer, Velker and Tuch, 2004). Individuals who are normally cheerful get into a cheerful mood more easily and laugh more effortlessly. Being cheerful, smiling and laughing increase the possibility that the individual will experience positive emotion (Zweyer et al., 2004). Individuals who have a propensity for cheerfulness also show a normally cheerful interaction style which is
associated with social intimacy which can lead the individual to higher levels of social support (Ruch and Kohler, 1998).

The dispositional characteristic of seriousness reflects an earnest perception about life. It is the idea that common events are important and should be given prudent consideration and thought. Seriousness leads to an inclination to plan ahead and to set long-range goals, to communicate in an objective style and a preference for activities that are productive (Ruch, Kohler and van Thriel, 1996). Individuals who show high levels of seriousness can be considered focused, thoughtful, and productive which are characteristics that can lead an individual to well-being and satisfaction with life.

A general sadness, despondence and distress are indicators of the dispositional trait of bad mood. Bad mood is characteristically cheerless as well as ill-humored behavior in situations that typically evoke pleasant feelings and happiness. Strong orientation to having a bad mood decreases the ability for enjoyment in life. Individuals with bad mood as a trait often have sullen, irritable, or grouchy feelings (Ruch, Kohler and van Thriel, 1996) which can present a hindrance to the achievement of well-being and satisfaction in life.

Cognitive Well-Being

Cognition is basic to life functioning, to safeguarding health, to participating in industrious activity, and to taking positive advantage of one’s environment (Reis, Sheldon, Gable, 2000). Cognition along with language, sustains personal and interpersonal social-emotional growth throughout an individual’s life (Zaff & Hair, 2003). The skills of cognition are vital to the well-being of individuals (Zaff & Hair, 2003). Cognitive development begins at conception, is developed through the fetal period, extends through adolescence, and continues into adulthood.
During the years of adolescence and the years of emerging adulthood, individuals are able to increasingly think more abstractly, reflect on events in their lives, and try to understand themselves (Wigfield, Eccles, & Pintrich, 1996). Individuals in this phase of their life are able to more efficiently process information, to consider many dimensions of problems at the same time, and to organize learning and problem solving better. Individuals form their identity at this time as unique beings separate from their parents, family, and friends (Berk, 2004). During this time their development and maturity in moral reasoning are fostered by their increasing cognitive skills including: more efficient processing of information, viewing multiple dimensions of problems, organizing learning effectively, and solving problems more efficiently (Berk, 2004). The development of a person’s identity and moral reasoning effect how an individual plans his or her life and whether or not the individual chooses to engage in positive and/or problematic behaviors (Eccles et al., 2003).

Efficacy

The construct of perceived self-efficacy is an individual’s beliefs about his or her capabilities to generate selected levels of performance which direct and shape events that influence his or her life (Bandura, 1994). The ways a person thinks, feels, motivates them self or behaves are regulated by self-efficacy beliefs. When an individual has a strong sense of efficacy their capacity for success and personal well-being is enhance and the individual’s positive view promotes deep involvement in activities, positive goal setting and task commitment. Bandura (1994) gives four main sources of influence on efficacy development; mastery experiences, vicarious experiences, social persuasion, and physical as well as emotional states.
The view in the early study of self-efficacy was that self-efficacy is primarily task-specific (Bandura, 1982, 1986, 1997) and therefore measurement of self-efficacy should be task-specific (Weigand & Stockham, 2000). In more recent studies of self-efficacy, groups of researchers (Chen, Gully & Eden, 2001; Chen, Gully, Whiteman & Kilcullen, 2000; Scholz, Dona, Sud & Schwarzer, 2002; Schwarzer, 1992; Schwarzer & Jerusalem, 1995) consider general self-efficacy predictive of performance across domains. These researchers believe that a relatively stable cross-situational generalized self-efficacy is produced by the many prior successes and failures in one’s life.

General perceived self-efficacy describes one’s level of confidence in being able to successfully manage a large variety of demands, novel situations and stressors (Schwarzer, 1997). Although the construct of domain-specific self-efficacy is more widely used, the application of general self-efficacy measures is of more value when globally assessing self-efficacy in situations, like academic acceleration, that are novel, have a variety of demands, and cross several domains (Schwarzer, 1997).
HYPOHTESES

Highly-gifted individuals seldom find close supportive relationships in a traditional mixed ability, age-similar classrooms or in schools where the incidence of their level of giftedness is low — 1 in 10,000 or less (Lubinski, Webb, Morelock & Benbow, 2001). The TAMS program provides a full-time residential intervention where students are 1 of about 400 other highly-able young people making the chances of finding friends and making strong academic progress more likely (Sayler, 2005). Early-college-entrance programs that offer high-ability individuals radical acceleration (two or more years advancement beyond age peers) have a positive academic and socio-affective impact as compared to regular students and as compared to equally able but not accelerated students (Gross, 2004a; Richardson and Benbow, 1990). This study hypothesizes that early-college entrance programs like TAMS have a positive impact on the healthy psychological well-being of participants. Specifically, it is anticipated that gifted individuals who have attended the TAMS program will 1) report a neutral or positive subjective well-being, and 2) have a neutral or positive perceived general self-efficacy when compared to scores of same age-group norms from the PWI-A and GSE scales. The current study does not allow for comparison between gifted students of equal ability not in TAMS and the TAMS students.

When highly-gifted individuals are placed in environments where they are academically challenged at a level appropriate to their abilities, they develop close friendships and make strong progress academically. In this kind of environment, it is more likely that they will find happiness with themselves, with the educational intervention, and with others. This study does not control for the effect of ability or previous experience.
Over time the state of happiness they realize, due to challenging yet successful academic achievements, as well as the improved social and emotional achievements, will develop into stable and characteristic personal traits. Therefore, it is further hypothesized that the TAMS participants will 3) have a neutral or positive levels of the dispositional trait of cheerfulness, 4) a neutral or positive levels of seriousness, and 5) will have a neutral or negative levels of the dispositional trait of bad-mood when compared to age similar peers in the norm group of the STCI-T<30>.
METHOD

Whole Group Sample

The participants for this study are former students of the Texas Academy of Math and Science from the classes of 2001 through 2005. Descriptive and demographic data were obtained from TAMS admissions records.

Participant Group

Although TAMS has admitted students to the program since 1988, only students from the past five classes were selected for inclusion in this study. There were two reasons for the decision to only use recent TAMS classes. The first was that the program was that the TAMS staff considers the first years a period of development and refinement and not representative of current TAMS operations. Secondly, the longer students are away from TAMS the harder it is to find them. By focusing on recent students the likelihood of locating participants increased. Consequently, the participant sample is a convenience sample of all participants who the researchers were able to find and who had agreed to hear more about the study by returning their contact information.

Former TAMS students from the last five years of classes (AY 2001 – AY2005) were contacted at their last known address (a school email and at their parents last home address) and asked to send current contact information so that additional details of the study could be sent to them and a study participant groups could be developed. A database of last known contact information on TAMS participants for the years 2001 through 2005 was obtained from the TAMS office. The database was then used to search for former students of the TAMS program. Initial search activities began by contacting the student by their last known email address after
leaving the TAMS program. For those participants whose last known email address was not current, a letter of inquiry was sent to their last known permanent address. After the first attempt to contact students, was a request for help in finding the students whose information was missing from our contact list was sent to the former students who had already responded and established contact information with the researchers.

The instrument (Appendix G) used to gather data from the study participants asked a series of questions about academic accomplishments since leaving TAMS, career activities, relationship-status, and included standardized measures of subjective well-being, cheerfulness, and self-efficacy. Although this study gathered data in these several domains, only information relative to subjective well-being, perceived efficacy, and certain psychological dispositions was used and analyzed for this project. The other data collected are part of a broader study of TAMS participants and will be used in future analysis.

The data gathering instrument (Appendix G) was sent in an electronic form to the 198 former TAMS students who had responded to initial attempts by researchers to establish contact; 96 of 198 completed some or all of the survey. Seventy-six participants completed all of the scales related to subjective well-being (Personal Well-being Index - Adult, General Self-efficacy Scale, and the State-Trait-Cheerfulness-Inventory).
Instrument

Although the survey instrument used in this research includes questions about academic achievement, career description, religiosity, demographic and familial information, this thesis addresses data from standardized research scales that measure well-being, cheerfulness, seriousness and bad mood as traits, and self-efficacy.

Subjective Well-being

Subjective well-being in this study was assessed with the Personal Well-being Index – Adult (PWI-A, International Well-being Group, 2005). This widely used 7-question survey has a 10-point response set. The possible responses are anchored on each end with the responses “completely dissatisfied” at the zero point and “completely satisfied” at the 10-point end of the scale (Appendix G, questions 24-30). An additional eighth survey item asks how satisfied the participant was with life as a whole. The additional eighth question uses the same ten-point scale response as the other 7 questions in the scale (Appendix G, question 23). This additional item is commonly added to the other PWI-A items as a means of checking the validity of the overall composite PWI-A score (International Well-being Group, 2005). The 7 domains of well-being assessed by the PWI-A are, standard of living; personal health; achieving in life; personal relationships; personal safety; community-connectedness; and future security.

Each question in the PWI-A corresponds to a domain. The seven domains of the PWI-A compose the minimum set of domains that represent the first level of deconstruction of ‘Life as a whole’ (International Well-being Group, 2005). Diener, Emmons, Larsen, and Griffin (1985) established the PWI-A scale verified the first level of deconstruction by using the criterion that each domain must contribute unique variance when the domains are collectively regressed
against ‘Satisfaction with life as a whole.’ A maximum variation of 3.1 percentage points in subjective well-being was produced by 12 surveys of the Australian population (Cummins, Davern, Okerstrom, Lo, & Eckersley, 2005). The internal consistency values are between .70 and .85. Inter-domain correlation values are .30 to .55, and item-total correlation values are .50 or higher (International Wellbeing Group, 2005). In this study a norm group of 2293 Australians ages 18 to 24 was used for comparison when studying the personal well-being of the former TAMS students. The Cronbach alpha value for the composite score of the current administration of the PWI-A was .84.

The English standard trait version of this inventory is a 60-item scale (STCI-T<60>). The short trait (T) form (30 questions) of the State-Trait-Cheerfulness-Inventory (STCI-T <30>) (Ruch, Kohler and van Thriel, 1996) was used in this study (Table 1). The STCI-T <30> has 30 questions and uses a 4-point scale response with responses ranging from “strongly disagree” to “strongly agree.” The 3 domains, cheerfulness, seriousness, and bad mood are assessed as temperamental traits using 10 questions in each domain. In this study the dispositional trait of cheerfulness was assessed by questions 55, 60, 62, 63, 66, 69, 72, 79, 81 and 83 (Appendix G); seriousness was assess with questions 56, 58, 61, 64, 68, 71, 74, 76, 78, and 84 (Appendix G); and bad mood was assessed with questions 57, 59, 65, 67, 70, 73, 75, 77, 80 and 82 (Appendix G).
<table>
<thead>
<tr>
<th>Trait</th>
<th>Item</th>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cheerfulness</td>
<td>55</td>
<td>Everyday life often gives me the occasion to laugh.</td>
</tr>
<tr>
<td></td>
<td>60</td>
<td>I can easily unwind and enjoy the moment.</td>
</tr>
<tr>
<td></td>
<td>62</td>
<td>Many adversities of everyday life actually do have a positive side.</td>
</tr>
<tr>
<td></td>
<td>63</td>
<td>I often smile.</td>
</tr>
<tr>
<td></td>
<td>66</td>
<td>I am often in a joyous mood.</td>
</tr>
<tr>
<td></td>
<td>69</td>
<td>I like to laugh and do it often.</td>
</tr>
<tr>
<td></td>
<td>72</td>
<td>I feel completely content being with cheerful people.</td>
</tr>
<tr>
<td></td>
<td>79</td>
<td>Laughing has a contagious effect on me.</td>
</tr>
<tr>
<td></td>
<td>81</td>
<td>I am a cheerful person.</td>
</tr>
<tr>
<td></td>
<td>83</td>
<td>It is easy for me to spread good cheer.</td>
</tr>
<tr>
<td>Seriousness</td>
<td>56</td>
<td>I prefer people who communicate with deliberation and objectivity.</td>
</tr>
<tr>
<td></td>
<td>58</td>
<td>One of my principles is: “first work, then play.”</td>
</tr>
<tr>
<td></td>
<td>61</td>
<td>I am a serious person.</td>
</tr>
<tr>
<td></td>
<td>64</td>
<td>In everything I do, I always consider every possible effect and compare all pros and cons carefully.</td>
</tr>
<tr>
<td></td>
<td>68</td>
<td>In most situations, I initially see the serious aspect.</td>
</tr>
<tr>
<td></td>
<td>71</td>
<td>When I communicate with other people, I always try to have an objective and sober exchange of ideas.</td>
</tr>
<tr>
<td></td>
<td>74</td>
<td>When I watch TV, I prefer informative reports to “shallow” programs.</td>
</tr>
<tr>
<td></td>
<td>76</td>
<td>I try to spend my free time doing things as useful as possible.</td>
</tr>
<tr>
<td></td>
<td>78</td>
<td>My everyday life is filled mainly with important things and matters.</td>
</tr>
<tr>
<td></td>
<td>84</td>
<td>When I am in contact with others, I often find that I have thought many things through more thoroughly than they.</td>
</tr>
<tr>
<td>Trait</td>
<td>Item</td>
<td>Question</td>
</tr>
<tr>
<td>---------------</td>
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<td>------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Bad Mood</td>
<td>57</td>
<td>I am a rather sad person.</td>
</tr>
<tr>
<td></td>
<td>59</td>
<td>I am often sullen.</td>
</tr>
<tr>
<td></td>
<td>65</td>
<td>When my friends try to cheer me up by joking or fooling around, I sometimes become more morose and grumpy.</td>
</tr>
<tr>
<td></td>
<td>67</td>
<td>There are many days on which I think, “I got up on the wrong side of the bed.”</td>
</tr>
<tr>
<td></td>
<td>70</td>
<td>Even if there is no reason, I often feel ill-humored.</td>
</tr>
<tr>
<td></td>
<td>73</td>
<td>I am often in a bad mood.</td>
</tr>
<tr>
<td></td>
<td>75</td>
<td>I often feel despondent.</td>
</tr>
<tr>
<td></td>
<td>77</td>
<td>I often feel so gloomy that nothing can make me laugh.</td>
</tr>
<tr>
<td></td>
<td>80</td>
<td>Some annoying circumstances are capable of spoiling my mood for quite a while.</td>
</tr>
<tr>
<td></td>
<td>82</td>
<td>Sometimes I am distressed for a very long time.</td>
</tr>
</tbody>
</table>

The psychometric characteristics (Ruch, Kohler and van Thriel, 1996) of the STCI-T<30> are assessed from scores on each of the 3 domains measured by the scale. Each domain carries a possible 40 points. The standardized mean of the trait cheerfulness domain is 32.65; the standard deviation is 4.97; the Cronbach alpha value for the scores reported by Ruch Kohler and Thriel (1996) is 0.87 and the split-half reliability value (Spearman-Brown corrected) is 0.88. The correlation between traits cheerfulness and trait seriousness is -0.28 and when trait bad mood and trait seriousness are correlated a score of -0.69 is indicated. Trait seriousness has a standardized mean of 25.14; a standard deviation of 4.69; a Cronbach alpha value of .76 and the split-half reliability value (Spearman-Brown corrected) is .80. The correlation between trait seriousness and trait cheerfulness has already been established as -0.28 and when trait seriousness is correlated with bad mood the correlation is 0.30. Trait bad mood has a standard mean of 19.04; a standard deviation of 5.83 a Cronbach alpha value of .68 and the split-half reliability (Spearman-
Brown corrected) is 0.88. Although reliabilities below .70 are considered low, scores slightly below this mark can be considered acceptable for research purposes (Johnson & Christensen, 2004). The Cronbach alpha values for the composite scores of the current administration of the STCI-T<30> were: bad mood, .43, cheerfulness, .49 and seriousness, .86.

The General Perceived Self-efficacy Scale (GSE, Jarusalem & Schwarzer, 2000; Schwarzer & Jerusalem, 1995) was used to evaluate the level of perceived general efficacy. The GSE is designed to assess optimistic self-beliefs about being able to cope with a variety of difficult demands in life. The scale was originally developed in German by Jerusalem and Schwarzer in 1981 and it has been widely used in cross culture validation studies since it formation (Schwarzer, 1997). Schwarzer currently offers raw data on over 18,000 individual participants in his studies at his Freie Universität Berlin website. This scale explicitly assesses personal agency; the belief that one's actions are responsible for successful outcomes. This is a ten question survey that uses a four-point scale response with the following choices; not at all true, hardly true, moderately true, and exactly true. The point values for these responses range from 1 to 4. In this study, general perceived self-efficacy was assessed using questions 36 through 45 on the survey instrument (Appendix G).

When developing the psychometric information for the GSE, samples from 23 nations were obtained (Jarusalem & Schwarzer, 2000). The Cronbach alphas in the 23 samples ranged from 0.76 to 0.90, with the majority in the high 0.80’s. The current study used a global sample of the norm population ages 18 – 24. However, United States data was not used because it did not include age information. The Cronbach alpha value for the composite score of the current administration of the GSE was .86.
Analysis Methods

The demographic data submitted by the TAMS participants and the data obtained in this study were analyzed descriptively. The descriptive analysis allowed us to see if our participant sample was representative of the whole group population. Chi square comparison along with t-tests comparisons of means in the demographic data were used to verify similarity between the participant group and the whole group.

The data from the 3 scales used to gather information on subjective well-being (PWI-A), general perceived self-efficacy (GSE) and dispositional traits (STCI-T<30>) was averaged to obtain a mean score. The mean score of each scale was compared with the mean score of the norm sample and a statistical significance was obtained by performing a t-test on the data. The statistical significance valued calculated showed if there was a statistically significant difference between the former TAMS participant group and the norm sample group of the scale. The effect size for each scale was determined using Cohen’s $d$, an analysis of the magnitude of effect.
RESULTS

The demographic information gathered in the survey served to give background information for the group of participants involved in this study. Since there was small percentage of respondents from the larger sample in this study the respondent sample may be a biased sample. In particular, the respondent group of participants may contain contributors who have a higher perceived well-being, stronger general efficacy beliefs and an inclination for a positive disposition, in comparison to the whole group. It must be taken into account that individuals may not have participated in this study for reasons related to decreased well-being, efficacy, and/or lack of happiness.

Whole Group

In the five classes that were studied, the number of potential study participants was 1016: the class of 2001 enrolled 199 students, the class of 2002 enrolled 203 students, the class of 2003 enrolled 213 students, the class of 2004 enrolled 187 students and the class of 2005 enrolled 214 students. The 1016 students registered in the Texas Academy of Math and Science (TAMS) program during the focus years of this study are referred to as the whole group. Males represented 56% \((n=567)\) of the whole group population and females represented 44% \((n=449)\). The mean age at entrance was 15 years, two months. Seventy-eight percent \((n=793)\) of students entering the academy in this timeframe graduated from TAMS; 12 % \((n=120)\) withdrew with the grade of A; 3 % withdrew with a grade of B; 6 % \((n=60)\) withdrew with a passing grade of P; and .2 % \((n=15)\) were deficient in credits at the time of graduation.

Over half \((n=541)\) of the students entering these five graduating classes were from the north region of Texas. The second largest region represented in the demographic data is the
southeast region of Texas (n=170) and the rest of the participants (n=305) came from various other regions in the state. The ethnicity of the whole group was predominately Anglo and Asian. The five classes combined were 52% Anglo (n=525) and 38% Asian (n=381). Other ethnic groups represented in these classes were Hispanics 8% (n=79), African American 3% (n=28) and Native American (n=3). Of the 1016 students who entered the program in these years, 905 were citizens of the United States and 111 were not.

The University Interscholastic League (UIL) school-size rankings were obtained from admissions data; 596 students came to TAMS from 5A schools, 219 came from 4A schools. These two groups represent 80% of the participants in these five classes. There were 19 students who entered TAMS after being home schooled and 55 students who came to TAMS from private school environments. The mean Scholastic Aptitude Test (SAT) math score for the whole group was 679. Thirty-five students earned a perfect score of 800 on the math portion of the SAT. On the verbal portion of the SAT, 16 students scored a perfect 800 and the average SAT verbal score was 614.

Respondent Group

The demographic data for the respondents in this study were different from the whole group population of TAMS for AY2001-AY2005 (Table 2). Sixty-five percent of respondents were male while only 44% of the participants were female ($\chi^2 = 16.93, p < .001$). Both the whole group and the respondent group were more likely to come from the north and southeast regions of Texas; however, the respondents were less likely to come from these regions than the whole group ($\chi^2 = 113.62, p < .001$). The respondents to this study had more graduates from the TAMS program than the whole group ($\chi^2 = 23.38, p < .001$). Likewise, a higher number of
respondents entered TAMS from a large school (UIL 4 or UIL 5) ($\chi^2 = 12.76, p<.05$). The mean SAT verbal scores was higher among the whole group ($t = 3.35, p <.001$) but they were not unalike in mean SAT mathematics scores ($t = .18, p = .429$).

Although the respondents were slightly older at entry to the program with the mean age of entrance for the respondent group being 16-years 8 months and the mean age of 16-years 5 months for the whole group the two groups were not significantly different from one another ($t = 6.00, p = .052$). The whole group and the respondent group were also similar in the number of individuals represented by class ($\chi^2 = 6.00, p = .199$). Lastly, there was not a statistically significant difference between the whole group and the participant group regarding being a United States citizen ($\chi^2 = 3.70, p = .055$). The largest ethnic groups represented in the whole group and the respondent group were Anglo and Asian ($\chi^2 = 11.11, p < .05$).

Table 2

<table>
<thead>
<tr>
<th>Demographic Data</th>
<th>Whole Group (N=1016)</th>
<th>Respondents (n=96)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>567</td>
<td>34</td>
</tr>
<tr>
<td>Female</td>
<td>449</td>
<td>62</td>
</tr>
<tr>
<td>Mean age at entrance</td>
<td>16 years 5 months</td>
<td>16 years 8 months</td>
</tr>
<tr>
<td>U.S. Citizen</td>
<td>905</td>
<td>91</td>
</tr>
<tr>
<td>Texas region of residence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>North</td>
<td>541</td>
<td>46</td>
</tr>
<tr>
<td>Southeast</td>
<td>170</td>
<td>13</td>
</tr>
</tbody>
</table>

(table continues)
Table 2 *(continued).*

Texas region of residence

<table>
<thead>
<tr>
<th>Region</th>
<th>Total</th>
<th>Expected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central</td>
<td>118</td>
<td>18</td>
</tr>
<tr>
<td>Border</td>
<td>93</td>
<td>8</td>
</tr>
<tr>
<td>Northeast</td>
<td>45</td>
<td>8</td>
</tr>
<tr>
<td>Did not report</td>
<td>12</td>
<td>0</td>
</tr>
</tbody>
</table>

Ethnicity

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Total</th>
<th>Expected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anglo</td>
<td>528</td>
<td>65</td>
</tr>
<tr>
<td>Asian</td>
<td>381</td>
<td>23</td>
</tr>
<tr>
<td>Hispanic</td>
<td>79</td>
<td>5</td>
</tr>
<tr>
<td>African American</td>
<td>28</td>
<td>3</td>
</tr>
<tr>
<td>Native American</td>
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</tbody>
</table>

High School

<table>
<thead>
<tr>
<th>High School</th>
<th>Total</th>
<th>Expected</th>
</tr>
</thead>
<tbody>
<tr>
<td>UIL5A</td>
<td>596</td>
<td>56</td>
</tr>
<tr>
<td>UIL4A</td>
<td>219</td>
<td>23</td>
</tr>
<tr>
<td>UIL3A</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>UIL2A</td>
<td>40</td>
<td>4</td>
</tr>
<tr>
<td>UIL1A</td>
<td>11</td>
<td>0</td>
</tr>
<tr>
<td>Private school</td>
<td>55</td>
<td>4</td>
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<tr>
<td>Home school</td>
<td>19</td>
<td>1</td>
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<tr>
<td>Not reported</td>
<td>20</td>
<td>0</td>
</tr>
</tbody>
</table>
Table 2 (continued).

Mean SAT scores

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Math</td>
<td>679</td>
<td>678</td>
</tr>
<tr>
<td>Verbal</td>
<td>641</td>
<td>638</td>
</tr>
<tr>
<td>Graduated from TAMS</td>
<td>793</td>
<td>95</td>
</tr>
</tbody>
</table>

Class

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>199</td>
<td>10</td>
</tr>
<tr>
<td>2002</td>
<td>203</td>
<td>20</td>
</tr>
<tr>
<td>2003</td>
<td>213</td>
<td>23</td>
</tr>
<tr>
<td>2004</td>
<td>187</td>
<td>16</td>
</tr>
<tr>
<td>2005</td>
<td>214</td>
<td>27</td>
</tr>
</tbody>
</table>

Of the respondents who provided information about current college or university attendance (n=93), 77% of them indicated that they were currently attending a college or university as a full-time student; 3% responded that they were enrolled as students in a less than full-time capacity, and 19% indicated that they were not currently attending a college or university.

Of the 19% of the students responding that they were not currently attending a college or university, five were from the graduating class of 2001, 11 were from the class of 2002 and the remaining two were from the class of 2003. All of the respondents indicating they were not currently attending a college or university had earned at least a bachelor’s degree. Five had double majored and indicated they held two bachelor’s degrees. Three of 18 in this group held a bachelor’s and a master’s degree. One person in this group of participant who was not attending a college or university indicated he or she would begin teaching and enter a master of business
administration program in the fall; another noted he or she would be entering medical school. The rest indicated that they were currently working in a career field related to their long-term career interests.

Eighty people in the respondent group offered information regarding their current work status. Of those 80, 49% were currently working in a career field related to their long-term career interests. Although 80 individuals answered the question about their work status, only 61 participants responded to the question regarding current salary. Of these 61 former students responding to the salary portion of the survey, 54% indicated that they earn a salary below $10,000. The salary range of $50,000 - $79,000 was the highest level of wages for this group; 15% indicated that they earn a salary in this range (Table 3).

Table 3

<table>
<thead>
<tr>
<th>Salary range (annually)</th>
<th>Class</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>01</td>
</tr>
<tr>
<td>Below $10,000</td>
<td>2</td>
</tr>
<tr>
<td>$10,000 – $29,999</td>
<td>2</td>
</tr>
<tr>
<td>$30,000 – $49,999</td>
<td>1</td>
</tr>
<tr>
<td>$50,000 - $79,000</td>
<td>3</td>
</tr>
</tbody>
</table>

Of the 86 students who responded to the question that asks about receipt of academic scholarship, grants or awards, 76%, responded that they had received some type of monetary award for educational purposes. Excluding student loan amounts as well as government grant support referenced, the sum of the awards for these 86 individuals totals over $1,500,000 in scholarship or academic support or, on average, approximately $17,500 each.
When asked if the respondent would go back in time and attend TAMS all over, 94% of the 78 respondents indicated they would do so. Only 6% of respondents would choose not to participate in TAMS again. An analysis of their responses found these reasons for their opinion: their lack of maturity to handle being away from home, \((n=5)\) the breaking of community ties and leaving their home high school to come to college, \((n=4)\) high levels of stress while in the TAMS program, \((n=4)\) the lack of personal social skills that made them ready for independence, \((n=3)\) lower TAMS GPA’s that were not understood by colleges when applying to programs after TAMS, \((n=3)\) and witnessing substance abuse and dysfunctional behavior in peers while attending TAMS \((n=2)\).

It was hypothesized in this research that early-college-entrance programs like TAMS have a positive impact on the healthy psychological well-being of participants. In particular, it is expected that graduates from the TAMS program will report a more positive subjective well-being, and perceived self-efficacy than the same age populations of the norm group for the PWI-A and the GSE. Seventy-eight participants completed both the single-item question and the 7-item PWI-A scale. The single item assessing global life satisfaction not a part of the PWI-A composite score; it is used to verify validity on the composite score. The scores from the PWI-A items were mathematically converted into units of 0 to 100 points (International Well-being Group, 2005). Each PWI-A domain mean was calculated for the respondents’ data and the mean scores for the seven domains aggregated and averaged to produce the composite index score for the group. The single global item score for these TAMS respondents was 79.7. The respondents’ average composite score for the 7 question PWI-A scale was 76.9. The average score for each domain ranged from 68.1 to 82.7 (Table 4).
Table 4

*PWI-A Means for Former TAMS Students*

<table>
<thead>
<tr>
<th>Class</th>
<th>n</th>
<th>Standard</th>
<th>Health</th>
<th>Achieving</th>
<th>Relationships</th>
<th>Safety</th>
<th>Community</th>
<th>Security</th>
<th>PWI-A</th>
<th>Global</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>9</td>
<td>84.7</td>
<td>85.3</td>
<td>77.7</td>
<td>75.0</td>
<td>87.1</td>
<td>74.7</td>
<td>79.4</td>
<td>80.5</td>
<td>82.4</td>
</tr>
<tr>
<td>2002</td>
<td>17</td>
<td>82.8</td>
<td>81.1</td>
<td>77.8</td>
<td>66.1</td>
<td>80.0</td>
<td>60.0</td>
<td>76.1</td>
<td>74.8</td>
<td>78.3</td>
</tr>
<tr>
<td>2003</td>
<td>18</td>
<td>80.0</td>
<td>77.33</td>
<td>78.0</td>
<td>76.7</td>
<td>82.7</td>
<td>62.7</td>
<td>78.7</td>
<td>76.6</td>
<td>78.0</td>
</tr>
<tr>
<td>2004</td>
<td>15</td>
<td>85.8</td>
<td>71.6</td>
<td>76.8</td>
<td>70</td>
<td>86.3</td>
<td>76.3</td>
<td>79.0</td>
<td>78.0</td>
<td>81.1</td>
</tr>
<tr>
<td>2005</td>
<td>19</td>
<td>82.4</td>
<td>77.9</td>
<td>76.7</td>
<td>72.1</td>
<td>82.7</td>
<td>68.1</td>
<td>78.2</td>
<td>76.9</td>
<td>79.7</td>
</tr>
<tr>
<td>All</td>
<td>78</td>
<td>82.4</td>
<td>77.9</td>
<td>76.7</td>
<td>72.1</td>
<td>82.7</td>
<td>68.1</td>
<td>78.2</td>
<td>76.9</td>
<td>79.7</td>
</tr>
<tr>
<td>NS</td>
<td>2293</td>
<td>76.8</td>
<td>76.8</td>
<td>72.3</td>
<td>74.7</td>
<td>77.7</td>
<td>65.7</td>
<td>70.4</td>
<td>73.5</td>
<td>74.5</td>
</tr>
</tbody>
</table>

*Note.* Standard = standard of living; Achieving = achieving in life; Relationships = personal relationships; Community = community connectedness; Security = future security; PWI-A = personal well-being composite; Global = Global satisfaction with life as a whole; All = all respondents; NS = Norm Sample.
To investigate if differences existed between the respondent scores and the age similar peer group ages 18 to 24 of the Australian population used as a norm group, a series of independent samples t-test were conducted for each domain. Statistically significant ($p<.05$) differences were discovered for standard of living ($p=.001$), safety ($p=.010$), and future security ($p=.0006$). Both the single global life satisfaction question ($p=.004$) and the composite PWI-A scale score ($p=.023$) showed significant statistical difference as well (Table 5).

Table 5

<table>
<thead>
<tr>
<th>Life Satisfaction (PWI-A)</th>
<th>$t$</th>
<th>$p$</th>
<th>$d$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard of living</td>
<td>3.133</td>
<td>.001</td>
<td>.32</td>
</tr>
<tr>
<td>Health</td>
<td>.485</td>
<td>.315</td>
<td>.054</td>
</tr>
<tr>
<td>Achieving</td>
<td>1.870</td>
<td>.033</td>
<td>.178</td>
</tr>
<tr>
<td>Personal Relationships</td>
<td>-.969</td>
<td>.168</td>
<td>.12</td>
</tr>
<tr>
<td>Safety</td>
<td>2.366</td>
<td>.010</td>
<td>.27</td>
</tr>
<tr>
<td>Community Connectedness</td>
<td>.880</td>
<td>.191</td>
<td>.107</td>
</tr>
<tr>
<td>Future Security</td>
<td>3.332</td>
<td>.001</td>
<td>.39</td>
</tr>
<tr>
<td>PWI-A Composite Score</td>
<td>2.031</td>
<td>.023</td>
<td>.24</td>
</tr>
<tr>
<td>Single Item – Global Satisfaction</td>
<td>2.753</td>
<td>.004</td>
<td>.29</td>
</tr>
</tbody>
</table>

*Note. $\alpha = .05$*

Effect size between the means of all variables was measured with Cohen’s $d$. Each variable showing significance also showed a small to small-to-medium effect size; standard of living (.32), safety (.27), future security (.39), PWI-A composite (.24), and global satisfaction (.29). A Cronbach alpha value of .837 was established for the participant PWI-A scale scores; indicating moderately-high reliability.
Seventy-six former TAMS students completed the ten-question General Perceived Self-Efficacy Scale. The individual averages were calculated. The respondents’ group mean on the general perceived self-efficacy scale was 33.96 on the forty-point scale. To investigate if differences existed between the respondent scores and the age similar peer group ages 18 to 24 of the global population used as a norm group, a series of independent samples t-test were conducted for each domain and a Cohen’s $d$ was used to measure the magnitude of significance between the two groups (Table 6). Significant statistical difference was shown ($p< .001$) between these two groups. The magnitude of effect was very large and indicates a powerful difference between the TAMS respondents and the general population. A Cronbach alpha value of .855 was established for the TAMS participant GSE scale scores; indicating moderately-high reliability.

**Table 6**

<table>
<thead>
<tr>
<th>Variable</th>
<th>M-Norm</th>
<th>M-TAMS</th>
<th>SD</th>
<th>$t$</th>
<th>$p$</th>
<th>$d$</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Perceived Self-efficacy</td>
<td>29.51</td>
<td>33.96</td>
<td>3.80</td>
<td>10.19</td>
<td>.001</td>
<td>1.163</td>
</tr>
</tbody>
</table>

*Note. $\alpha = .05$; M-Norm = mean-norm ages 18 – 24; M-TAMS = mean TAMS ages 18 - 24*

Based on the incidences of statistical difference in both the global life satisfaction question and the PWI-A composite score on the well-being index, along with the large statistical significance and the substantial effect size realized in the results of the GSE, there is evidence to suggest that after participation in early-college-entrance programs, individuals have maintained or have gained a healthy psychological well-being and at least a neutral if not positive development of perceived efficacy. Further analysis of the effect of TAMS on these gifted individuals is not possible because of the lack of pre-program data on the respondents.
It was further hypothesized in this project that individuals who accelerate their learning in an early-college-entrance program, like TAMS, would achieve higher levels of the traits of cheerfulness as well as seriousness and lower levels of the trait of bad mood. The State-Trait-Cheerfulness-Inventory (STCI) is an instrument which measures 3 dispositional concepts; cheerfulness, seriousness, and bad mood. The assessment of the dispositional traits of cheerfulness, seriousness, and bad mood was carried out using the trait portion of the State Trait Cheerfulness Inventory (STCI-T) (Ruch, Kohler and van Thriel, 1996). The respondents had a cheerfulness trait mean of 32.23, a serious trait mean of 29.64 and a bad mood trait mean of 18.22, each based on a 40-point scale. To investigate if differences existed between the respondent scores and the sample of the German population used as a norm group, a series of independent samples t-test were conducted for each domain and a Cohen’s $d$ was used to measure the magnitude of significance between the two groups (Table 5).

Seriousness as a trait shows a strong statistically significant difference ($p< .001$) but the other two variables, trait cheerfulness and trait bad mood, did not show statistical significance. The effect size on trait cheerfulness and trait bad mood does not indicate important difference. However, there is a large effect size shown in the trait of seriousness (.81) (Table 7).

In an effort to see if these characteristics were stable across time the data was analyzed by class (Table 8). We see that data is similar over time but one must consider the effect of previous giftedness and experience as a mediating factor in the analysis of the data.

As a result of the statistical analysis of the data collected from participants who completed the STCI-T<30>, the hypothesis that TAMS participants would show an elevated level of the dispositional trait seriousness is supported. It is unclear whether TAMS
participation caused this elevation or if the students came to TAMS with elevated levels to TAMS originally.

Table 7

<table>
<thead>
<tr>
<th>Variable</th>
<th>M-Norm</th>
<th>M-TAMS</th>
<th>SD</th>
<th>t</th>
<th>p</th>
<th>d</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cheerfulness</td>
<td>32.65</td>
<td>32.23</td>
<td>4.42</td>
<td>-.807</td>
<td>.211</td>
<td>.10</td>
</tr>
<tr>
<td>Seriousness</td>
<td>25.14</td>
<td>29.64</td>
<td>4.15</td>
<td>9.40</td>
<td>.001</td>
<td>.81</td>
</tr>
<tr>
<td>Bad Mood</td>
<td>19.04</td>
<td>18.22</td>
<td>5.56</td>
<td>-1.28</td>
<td>.102</td>
<td>.15</td>
</tr>
</tbody>
</table>

Note. α = .05 M-Norm = mean-norm; M-TAMS = mean TAMS ages
Table 8

*STCI-T<30*> Class Comparison

<table>
<thead>
<tr>
<th>Class</th>
<th>Cheerfulness M-Norm</th>
<th>Cheerfulness M-TAMS</th>
<th>t</th>
<th>p</th>
<th>d</th>
<th>Seriousness M-Norm</th>
<th>Seriousness M-TAMS</th>
<th>t</th>
<th>p</th>
<th>d</th>
<th>Bad Mood M-Norm</th>
<th>Bad Mood M-TAMS</th>
<th>t</th>
<th>p</th>
<th>d</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>32.65</td>
<td>25.14</td>
<td>19.04</td>
<td></td>
<td></td>
<td>30.75</td>
<td>3.82</td>
<td>.009</td>
<td>1.09</td>
<td></td>
<td>19.13</td>
<td>4.54</td>
<td>.332</td>
<td>.009</td>
<td>1.09</td>
</tr>
<tr>
<td>2002</td>
<td>32.41</td>
<td>-.28</td>
<td>.39</td>
<td>.68</td>
<td></td>
<td>27.65</td>
<td>2.65</td>
<td>.009</td>
<td>.64</td>
<td></td>
<td>18</td>
<td>-.88</td>
<td>1.66</td>
<td>.213</td>
<td></td>
</tr>
<tr>
<td>2003</td>
<td>30.82</td>
<td>-1.3</td>
<td>.39</td>
<td>.31</td>
<td></td>
<td>31.35</td>
<td>6.36</td>
<td>.001</td>
<td>1.54</td>
<td></td>
<td>18.76</td>
<td>-.204</td>
<td>.421</td>
<td>.049</td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td>31.73</td>
<td>-.88</td>
<td>.15</td>
<td>.23</td>
<td></td>
<td>29.60</td>
<td>5.96</td>
<td>.001</td>
<td>1.54</td>
<td></td>
<td>17.8</td>
<td>-.737</td>
<td>.237</td>
<td>.19</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>33.53</td>
<td>.89</td>
<td>.19</td>
<td>.20</td>
<td></td>
<td>28.89</td>
<td>3.70</td>
<td>.001</td>
<td>.85</td>
<td></td>
<td>17.89</td>
<td>-.862</td>
<td>.2</td>
<td>.198</td>
<td></td>
</tr>
</tbody>
</table>

*Note.* $\alpha = .05$; M-Norm = mean-norm; M-TAMS = mean TAMS
Conversely, establishment of statistical difference was not realized in dispositional traits, cheerfulness or bad mood, therefore it cannot be concluded that the trait of cheerfulness is elevated nor can it be concluded that the trait of bad mood is reduced due to interventive programs such as TAMS.

Cronbach alpha values were established for each trait. The reliability values obtained are as follows: trait cheerfulness, .489; trait seriousness, .301; trait bad mood, .429. Lower reliability values in comparison to the two other scales used in this study were realized for the STCI-T<30>. Therefore, the low reliability in our sample makes a definitive conclusion about the 3 traits tested hard to ascertain.
DISCUSSION

In this study of highly gifted individuals who attended the Texas Academy of Math and Science, we examined the subjective well-being, levels of efficacy and the dispositional traits of cheerfulness, seriousness and bad mood in students from 1 to 5 years after exiting the program. The objectives of this research were to discern levels of subjective well-being and efficacy along with investigating the dispositional traits of cheerfulness, seriousness and bad mood in students who are radically accelerated in an early-college-entrance program.

The research study presented here has served as a successful initial step in the longitudinal study of highly-gifted students who have participated in the accelerative program offered by the Texas Academy of Math and Science at the University of North Texas. Previous studies of highly-gifted students who are accelerated and enter a college program earlier than age peers, indicate that early-college-entrance is a positive step toward a successful academic outcome for an individual (Robinson & Robinson, 1982; Benbow & Lubinski, 1995: Gross, 2004a). The results of the work presented here provide an extension to previous work done on acceleration. This current research helps to expand our knowledge of gifted individuals into the areas of subjective well-being, the related general perceived self-efficacy of accelerands, and the dispositional traits of highly-gifted individuals after they enter college ahead of their age-peers.

To measure the feeling of well-being that individuals who have exited the TAMS program possess, the PWI-A information was analyzed for significance and magnitude of effect. No differences were found between 18-25 year olds in the general population and the TAMS respondents in health, achievement in life, personal relationships, and community connectedness. Although the TAMS respondents had higher mean scores in all domains with the exception of personal relationships, they did not show statistical significant difference from the general
population in these 4 domains. This shows that the TAMS respondents are rather normal in terms of: well-being, when compared to age similar populations, health, achievements in their lives, personal relationships and being connected to the community in which they live; they are not personally or emotionally isolated or dissatisfied.

Significant statistical differences favoring the TAMS respondents were found in 3 of the seven PWI-A domains; standard of living, safety, and future security. The former TAMS participants in this study have a stronger perceived standard of living, perceived level of safety and perception of future security than the general population of the same age. The interpretation of these results indicates that these accelerated individuals are more able to rely on their developed abilities to ensure safety, a secure future and the ability to live comfortably.

Both areas of the PWI-A that assess overall perceived well-being, the global question of satisfaction with life as a whole and the composite score, show statistical significant difference and moderate effect size when compared to the age similar general population. This result indicates that the respondents from the TAMS participants, after leaving the program, feel as though they experienced meaning and purpose in life which has led or has the potential to lead them to a feeling of fulfillment in life as well as the sense that what they achieve is worthwhile. These former students expressed satisfaction in a variety of areas commonly assessed in determining well-being or life satisfaction. They viewed themselves as being able to integrate their abilities to achieve success in social-emotional, cognitive and physical development. Individuals with a strong sense of well-being are more able to overcome problems they encounter and make decisions that positively impact their life. These results are consistent with previous findings that high-ability students who are accelerated academically are not negatively
affected by the acceleration and the acceleration may actually improve their social and emotional adjustment.

General efficacy, the global beliefs one has about their capabilities to produce effects, augments personal well-being. Early research indicated self-efficacy is primarily task-specific (Bandura, 1982, 1986, 1997). More recently groups of researchers (Chen, Gully & Eden, 2001; Chen, Gully, Whiteman & Kilcullen, 2000; Scholz, Dona, Sud & Schwarzer, 2002; Schwarzer, 1992; Schwarzer & Jerusalem, 1995) consider self-efficacy a measurable quality that predicts performance across domains. People who trust their capabilities view difficult tasks as challenges to be mastered rather than as threats to be avoided (Bandura, 1994). In this study, efficacy was assessed with the General Perceived Self-Efficacy Scale (GSE). The former TAMS students who responded show a statistically higher sense of general efficacy in comparison to same-age cohorts from a general population of young adults world wide 18-25 years old, as reported in the norm tables of the GSE. Specifically, the TAMS students in this study had general efficacy scores over 1 standard deviation higher than their global age peers. The difference in scores carries an effect size of 1.163. This magnitude of effect (Cohen, 1988) indicates the scores of the average person in the TAMS group exceeded the scores of almost 90% of same age peers world wide.

Bandura (1994) posited that a heightened sense of efficacy increased the likelihood that individuals would accomplish the goals they set and experience a high level of personal well-being. Both characteristics, elevated well-being and an elevated sense of efficacy, are seen in the TAMS participant group. It is likely that the high level of efficacy has a positive impact on the level of perceived well-being that these early-college-entrants hold.
Characteristics of personality which are enduring and consistent across different contexts are considered dispositional traits. In this study the dispositional traits of cheerfulness, seriousness, and bad mood in former TAMS students were investigated. Conceptually, a cheerful individual smiles and laughs easily. It takes less effort for individuals with a cheerful disposition to get into a cheerful mood. If a person has an earnest perception of life, one that allows for prudent consideration of every-day events, long-range planning, objective communication, and a preference for productive activities they are considered to have a serious disposition. When an individual has a general sadness, distress or despondency about them, it is said that they have a disposition for being in a bad mood.

It was hypothesized that TAMS participants would be more cheerful, more serious, but less moody than the age-similar norm group. Analysis of the data indicated that the means for cheerfulness and moodiness were lower than age-similar individuals in the general population but not significantly so. This result indicates that the former TAMS respondents were rather normal in their levels of cheerfulness and tendency to be in a bad mood; they were no more cheerful or ill humored than their cohort group in the general population. The TAMS respondents indicated a propensity to smile and laugh which should allow them to more easily be in a state of cheerfulness and less often in a state of ill humor or bad mood.

The respondents were more seriousness as a group than the general population and the effect size of the difference was large. Seriousness as a trait indicates attention to deliberate and objective communication, work before play, weighing pros and cons before taking action, initially seeing the seriousness before frivolity in daily life, preference for informative programming when viewing television, and making free-time useful.
Talent development is a very important end result of acceleration for highly-gifted individuals who enter college early. Possessing the dispositional character trait of seriousness is a life-long constructive quality that leads to talent development. For highly-gifted students this characteristic allows them to focus their energy on the processes of learning, skill development and successful task completion. These successful accomplishments realized by the accelerated learner support the development of efficacy and positive well-being. Seriousness is a powerful character trait that leads these profoundly able individuals to succeed in early-college-entrance programs; which in turn, allows them to make positive impacts and to be leaders in professional fields where their talents are applied.

Limitations

The conclusions from this study are limited by the small number of TAMS participants from the whole group who could be located (198 of 1016) and the number of respondents (96 of 198). The respondents were not similar to the whole group in terms of known demographic variables. Another confounding variable is the giftedness of the respondents prior to attending TAMS; it is not clear from the study data if the differences between the respondents and the norm groups are accounted for by the respondent’s giftedness or as a result of participation in TAMS. Future work should find a larger number of the participants and assess their subjective well-being, general perceived efficacy, and dispositional traits of participants prior to attending TAMS. This will help control for giftedness and psychological traits prior to TAMS participation.

Affluence is a possible confounding variable for results on the PWI-A and the GSE. The majority of students who participate in the TAMS program are from the Dallas, Ft. Worth and Denton metropolitan and suburban areas as well as the Austin and Houston metropolitan and
suburban area. Included in these regional areas are Dallas, Denton, Tarrent, Collin, Bexar, Travis and Harris counties. These 7 counties are among the most affluent counties in the state of Texas (Bureau of Economic Analysis, 2006). The possible affluence felt along with modeled behavior within the family and community of these individuals may have an influence on how they perceive their standard of living, levels of safety, future security as well as their development of efficacy.

Caution is recommended in generalizing the present findings given the lack of norms for gifted populations and the small number of TAMS respondents located. Specifically, the participant group in this study was disproportionately Anglo and Asian females from large high schools in 1 state in the Southwest region of the United States. The groups of youth, 18 to 24 who TAMS students were compared to were not from the United States. The PWI-A sample group were from Australia; the STCI-T<30> were from Germany; and the GES sample group was a global sample, however, the United States data was not used as part of the scales comparison group in this study because it did not include participant age information.

The TAMS sample was small in this study and was comprise of only 10% of total TAMS population for AY2001 - AY2005. Taking into consideration the small sample size in this study the possibility for Type I error exists in regard to hypothesis conclusions. A larger sample in future studies of TAMS participants will help control for Type I error.

Future research would benefit from a comparison of well-being of students who have exited the TAMS program and similar ability students who did not participate in an accelerative intervention while in high school. Also, further investigation of the effects that the development of efficacy and trait seriousness have on general perceived well-being would give further insight into these high ability subjects.
APPENDIX A

EMAIL INFORMING PARTICIPANT OF THEIR IDENTIFICATION NUMBER
Dear former TAMS participant:

We had contacted you earlier to let you know about a study we are beginning that hopes to track TAMS students for the next 10-20 years. We also asked you for current contact information.

The survey is ready. It will take about an hour to complete. You can log on and work on it, go away, and come back later. Alternately, you can complete it in one setting. You will first be asked to read more about the project and electronically verify your interest in participating. Then you will be directed to the actual survey.

To access the survey you will need to know you identification number. We have assigned you one so as to keep your anonymity in the work we are doing. Any time we ask for data we will use the identification number to link your responses to previous data.

According to our records your name is: John Doe
And your ID number is: 77002

Use the ID number as your username and your password to enter the survey (for example, if your ID were 88013 your username is 88013 and your password is 88013.)

Please let us know if you have any questions or concerns. You may opt out of the study at any point, but we hope you agree to be part of our work and to continue that relationship. We will send you periodic updates on our findings and we are always available to you or your family for ideas or guidance.

Respectfully,

Michael Sayler
Director

Dr. Michael Sayler (Director) sayler@unt.edu
Janette Boazman (Graduate Research Assistant) jboazman@coe.unt.edu

University of North Texas
Office of Gifted Studies
PO 311335
Denton, TX 76203-1335

Office: 940.369.8434
Fax: 940.565.2964
Matthews Hall Room 240K
APPENDIX B

EMAIL WITH LINK TO SURVEY
Dear former TAMS students,

In a previous email, you were sent your identification number for the TAMS research project. Below you will find the link to a special research study designed especially for former TAMS students. You will need your identification number available to participate.

Once you click the link below you will be directed to an information page which will link you to consent information and then to the study.

The link to the study information page is: http://www.coe.unt.edu/gifted/surveys/TAMS/

We are grateful for your participation.

Sincerely,

Janette Boazman (Graduate Research Assistant) jboazman@coe.unt.edu
Dr. Michael Sayler (Director) sayler@unt.edu
APPENDIX C

WEB PAGE WITH INFORMATION FOR PARTICIPANT ON THE STUDY AND LINKS TO CONSENT FORMS
Thank you for agreeing to hear more about the study we are beginning here at UNT.

We hope to follow, every few years over a 10-20 year period, various groups of individuals who have experienced different kinds of gifted or other educational interventions. All participants will receive regular updates on the findings and have access to the faculty and staff in our Office for advice and guidance on any issues related to our expertise.

This study is part of that plan and seeks the involvement of individuals who attended the Texas Academy of Mathematics and Science at the University of North Texas. Earlier we sent you a letter explaining this. You replied saying you would like information on the project.

To read more about the project and to participate, you need to select one of the next two choices and then read the information and consent to being in the study.

1. If today you are 18 years or older click here 18 years old or older

2. If today you are still 17 years old or younger, have your parent or guardian click here Under 17 years old. If they approve of your participation, you will then have the opportunity to decide to participate or not.

Thank you for your consideration,

Michael Sayler
Director

If you have additional questions about the study please contact us:

Dr. Michael Sayler (Director) sayler@unt.edu
Janette Boazman (Graduate Research Assistant) jboazman@coe.unt.edu

Office of Gifted Studies
Matthews Hall Room 240K
Office: 940.369.8434
Fax: 940.565.2964

last updated: 5.19.06 16:30 sayler@unt.edu
APPENDIX D

INFORMED CONSENT – ADULT
Please read the form below and click your agreement to participate. Some of you have had problems being redirected back to this page after agreeing to participate. If you were redirected to this page after agreeing to participate click here to link to the survey.

TAMS Participants 18 or Over: Informed Consent

Before agreeing to participate in this research study, it is important that you read and understand the following explanation of the purpose and benefits of the study and how it will be conducted.

Title of Study: Well-being of Participants in an Early College Entrance Program

Principal Investigators: Janette Boazman, a graduate student in the University Of North Texas College Of Education and Dr. Michael Sayler, Educational Psychology, her faculty advisor.

Purpose of the Study:

You are being asked to participate in a research study which involves collecting information about what has happened to you since leaving TAMS (even if you did not complete the entire program) in terms of your academic and professional careers, your relationships, and your personal beliefs and satisfaction.

Study Procedures:

You will be asked to complete set of survey questions about what you have done since leaving TAMS, in terms of academics, career, relationships, and personal beliefs and satisfaction. Completion of the survey will take about 20 to 40 minutes of your time.

Foreseeable Risks:
There are no foreseeable risks involved with this study.

Benefits to the Subjects or Others:
This study is not expected to be of direct benefit to you. However we will send you a report on our findings that you may find interesting. The study will mainly benefit other gifted students, their parents, school officials, and researchers as they consider or advise others about early college entrance.

Procedures for Maintaining Confidentiality of Research Records:
The researchers will maintain confidentiality regarding information given in your survey. Each student is assigned a random identification code. The survey received is coded by this identification number. Study results are organized by the identification number. All personal identification information is kept in a separate location from the study results. The confidentiality
of your individual information will be maintained in any publications or presentations regarding this study.

Questions about the Study

If you have any questions about the study, you may contact Janette Boazman at telephone number 940-565-4699 or Dr. Michael Sayler, UNT College of Education, at telephone number 940-565-4325 (Sayler@unt.edu).

Review for the Protection of Participants:

This research study has been reviewed and approved by the UNT Institutional Review Board (IRB). The UNT IRB can be contacted at (940) 565-3940 with any questions regarding the rights of research subjects.

Research Participants’ Rights:

Your signature below indicates that you have read or have had read to you all of the above and that you confirm all of the following:

- The study being conducted by Janette Boazman and Dr. Michael Sayler has been explained to you and all of your questions have been answered. You have been told the possible benefits and the potential risks and/or discomforts of the study.
- You understand that you do not have to take part in this study, and your refusal to participate or your decision to withdraw will involve no penalty or loss of rights or benefits. The study personnel may choose to stop your participation at any time.
- You understand why the study is being conducted and how it will be performed.
- You understand your rights as a research participant and you voluntarily consent to participate in this study.
- You have been told you will receive a copy of this form.

Enter your name here: ______________________

Clicking the "I would like to participate" button below indicates your agreement to participate. Once you click the "I would like to participate" button you will be taken to a page with directions on how to start.

I would like to participate

Click here to exit

updated: May 24, 2006 15:54
sayler@unt.edu
APPENDIX E

INFORMED CONSENT – PARENTAL CONSENT FOR MINOR PARTICIPANTS
Informed Consent Form for Survey Participants Who are Under 18 Years of Age

Before agreeing to your son or daughter’s participation in this research study, it is important that you read and understand the following explanation of the purpose and benefits of the study and how it will be conducted.

Title of Study: Well-being of Former Participants in an Early College Entrance Program

Principal Investigator: Janette Boazman, a graduate student in the University Of North Texas College Of Education

Co-investigator: Dr. Michael Sayler, Educational Psychology faculty advisor to the principal investigator.

Purpose of the Study:

Your son or daughter is being asked to participate in a research study which involves collecting information about what has happened to him or her since leaving TAMS (even if he or she did not complete the entire program) in terms of their academic and professional careers, their relationships, and their personal beliefs and satisfaction.

Study Procedures:

Your son or daughter will be asked to complete set of survey questions about what they have done since leaving TAMS in terms of academics, career, relationships, and personal beliefs and satisfaction. Completion of the survey will take about 30 to 60 minutes of their time.

Foreseeable Risks:

There are no foreseeable risks involved with this study for students completing the TAMS program. However, a member of the TAMS program who exited the program early, for whatever reasons, could encounter unpleasant feelings or thoughts when completing this survey.
Benefits to the Subjects or Others:

This study is not expected to be of any direct benefit to you or your son or daughter. However we will send all participants a report on our findings that they may find interesting. The study will mainly benefit other gifted students, their parents, school officials, and researchers as they consider or advise others about early college entrance.

Procedures for Maintaining Confidentiality of Research Records:

The researchers will maintain confidentiality regarding information given in your son or daughter’s survey. Each student is assigned a random identification code. The survey received is coded by this identification number. Study results are organized by the identification number. All personal identification information is kept in a separate location from the study results. The confidentiality of your son or daughter’s individual information will be maintained in any publications or presentations regarding this study.

Questions about the Study

If you or your son or daughter has any questions about the study, you may contact Janette Boazman at telephone number 940-565-4699 or Dr. Michael Sayler, UNT College of Education, at telephone number 940-565-4325 (sayler@unt.edu).

Review for the Protection of Participants:

This research study has been reviewed and approved by the UNT Institutional Review Board (IRB). The UNT IRB can be contacted at (940) 565-3940 with any questions regarding the rights of research subjects.

Research Participants’ Rights:

Your signature below indicates that you have read or have had read to you all of the above and that you confirm all of the following:

The study being conducted by Janette Boazman and Dr. Michael Sayler has been explained to you and all of your questions have been answered. You have been told the possible benefits and the potential risks and/or discomforts of the study.

You understand that you do not have to allow your child to take part in this study, and your refusal to allow your child to participate or your decision to withdraw him/her from the study will involve no penalty or loss of rights or benefits. The study personnel may choose to stop your child’s participation at any time.

You understand why the study is being conducted and how it will be performed.

You understand your rights as the parent/guardian of a research participant and you voluntarily consent to your child’s participation in this study.
You have been told you will receive a copy of this form.

Enter your first and last name here: 

First and last name of the student 

I give my permission for my son/daughter to be part of this study

Clicking the "I give my permission" button below indicates your agreement for your son or daughter to make a decision to participate. Once you click the "I give my permission" button you will be taken to a consent form for your child to read.

Click here to exit

updated: May 28, 2006 13:10
sayler@unt.edu
APPENDIX F

MINOR CONSENT FORM
TAMS Participant Under 18 Years of Age Assent Form

You are being asked to be part of a research project being done by the University of North Texas, College of Education.

This study involves the assessment of subjective well-being in students who have graduated from an early college entrance program.

You will be asked to complete survey questions that will provide background and demographic information as well as questions that pertain to life satisfaction. Completion of the survey will take about 30 to 60 minutes of your time.

Please understand that you do not have to take part in this study, and if you decide to not participate or if you decide to stop before you are finished you will not incur any penalty or lose any rights or benefits. You may choose to stop your participation at any time.

If you would like to help with this study, please click the “I Would Like to Participate” button below.

Clicking the "I Would like to Participate" button below indicates your agreement to participate in the study. Once you click the “I Would like to Participate” button you will be linked to the survey.

Enter your name here:  

Clicking the "I would like to participate" button below indicates your agreement to participate. Once you click the "I would like to participate" button you will be taken to a page with directions on how to start.

I would like to participate

Click here to exit

updated: May 28, 2006 13:10
sayler@unt.edu
APPENDIX G

INSTRUMENT TO GATHER STUDY DATA
Thank you for taking the time to complete this survey. With your help and feedback that we can better understand the individuals who have attended, at least for a while, an early-college-entrance program such as TAMS. To make completing the study easier, this survey is also available online at:

www.coe.unt.edu/gifted/surveys/TakeSurvey.asp?SurveyI42K663K156I1G

We have assigned a random identification to you so we can link the information you provide here with future surveys and with data from your time at the TAMS program. All of the information you provide is kept strictly confidential; we will not identify any participant by name nor report in our findings any individual information that identifies you. Your personal demographic data is kept in a separate location from the research data. We will report only group information. You will receive from us summary results of this study. Please contact Dr. Michael Sayler, sayler@unt.edu 940.565.4699 now or in the future if you have questions about the study or any other questions you might have.

Please write your code number for this study. It will be a 5-digit number that you received from us. 

1. Please complete all of the following statements about your academic or career track since leaving TAMS. Complete all that apply to you since you left TAMS.

<table>
<thead>
<tr>
<th>ACADEMIC DEGREES COMPLETED</th>
</tr>
</thead>
<tbody>
<tr>
<td>High School / College / University</td>
</tr>
<tr>
<td>Attended</td>
</tr>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>Yes</td>
</tr>
</tbody>
</table>
2. My current enrollment status (as defined by the university I attend) is ___ full-time ___ less than full-time

I am not currently enrolled at a college/university and the following best describes my current academic /career activity (check all that apply):

☐ 4. Working in a career field related to my career interests (describe) ____________________________

☐ 5. Working in a job but not one that is part of my career track (describe) _____________________

☐ 6. Working at home as a full-time parent (describe) ________________________________________

☐ 7. Not working or going to school right now (describe) ______________________________________

☐ 8. Other (describe) __________________________________________________________________

9. Have you received any academic scholarships, grants, awards since leaving TAMS? ___Yes ___ No
If yes, describe each of the scholarships, grants, or awards:

<table>
<thead>
<tr>
<th>Scholarship Grant, Award Description</th>
<th>Amount (Total Award From This Source)</th>
<th>Used At Which Institution</th>
<th>Length Of Award</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>From</td>
</tr>
</tbody>
</table>

10. During your academic studies have you switched majors, graduate degree programs, or program focus? If so describe the changes below:

<table>
<thead>
<tr>
<th>Changed From</th>
<th>Changed To</th>
<th>Semester/ Year</th>
<th>At (Name Of Institution)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
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<td></td>
</tr>
</tbody>
</table>
11. Please list any academic honors and awards you received after leaving the TAMS program.
___________________________________________________________________________________________
___________________________________________________________________________________________
___________________________________________________________________________________________
___________________________________________________________________________________________

12. Do you have plans to further your education in the future?
   _____ No
   _____ Yes – Please explain
___________________________________________________________________________________________
___________________________________________________________________________________________
___________________________________________________________________________________________

In addition to academic degrees, have you completed other kinds of training/certification?

13. I finished training in ________________________________ from ______________________________
    (Describe training)                      (Name of educational institution)
    in ________________________________
    (Month/Year)
Comments: ____________________________________________________________________________

14. I finished professional certification in _________________________ from __________________________
    (Describe the certification)                (Where training was obtained)
    in _______________________________________
    (Areas of certifications)
Comments: ____________________________________________________________________________

15. I finished professional certification in _________________________ from __________________________
    (Describe the certification)                (Where training was obtained)
    in _______________________________________
    (Areas of certifications)
Comments: ____________________________________________________________________________

16. I am currently enrolled as a student in a program of ________________________________leading to a
    degree of ________________________________ from ________________________________
    (Describe the program)                      (Name of degree)     (Name of academic institution)
Comments: ____________________________________________________________________________

17. Are you currently employed in the state of Texas or by a company that has a Texas connection?
   □ Yes, I currently am employed by ________________________________
   □ No, I am currently employed by ________________________________.
   In the state of ________________________________
   □ No, I am not currently employed

18. My current job title is ________________________________.
19. The top 3 responsibilities I have in my current job position are:
__________________________________
__________________________________
__________________________________

20. My current salary is
☐ Below $10,000  ☐ $10,000 – $29,999  ☐ $30,000 - $49,999  ☐ $50,000 - $79,999  ☐ $80,000 – $99,999  ☐ $100,000 +

21. Describe your career goals in both the near-term and long-term: ______________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

22. Describe your personal goals in both the near-term and long-term: ____________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

23. Describe your life-style goals in both the near-term and long-term: ____________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

The following questions ask how satisfied you feel now at this point in your life, on a scale from 0 to 10. 0 means you feel completely dissatisfied. 5 is the middle of the scale which means you feel neutral, neither satisfied nor dissatisfied. 10 means you feel completely satisfied.

24. Thinking about your own life and personal circumstances, how satisfied are you with your life as a whole?

25. How satisfied are you with your standard of living?
26. How satisfied are you **with your health?**

27. How satisfied are you **with what you are achieving in life?**

28. How satisfied are you **with your personal relationships?**

29. How satisfied are you **with how safe you feel?**

30. How satisfied are you **with feeling part of your community?**

31. How satisfied are you **with your future security?**
32. If you had the chance to go back in time, would you enter the TAMS program again?
   _____ I would come to TAMS again
   _____ I would not come to TAMS but stay in high school
   _____ I would not come to TAMS or stay in high school, but do something different

   Comments: ______________________________________________________________
   _______________________________________________________________________
   _______________________________________________________________________

33. How would you describe your current situation (select the one that best applies)?
   _____ Single, never married/not dating
   _____ Single, never married/dating
   _____ Single, never married/involved in a serious relationship
   _____ Single, never married/engaged
   _____ Married in ____ (give the year, e.g., 2004)
   _____ Married/separated after how many years of marriage? ________
   _____ Married/divorced after how many years of marriage? ________
   _____ Other: _____________________________________________________________

34. Is there any connection between your participation in TAMS and your current relationships?
   _______________________________________________________________________
   _______________________________________________________________________
   _______________________________________________________________________

35. Do you have children?  _____ Yes   _____ No

36. If yes, list their current ages:  ______________________________________________________
   ___________________________________________________________________________
   ___________________________________________________________________________

For the next set of questions select the choice that best describes you.

37. I can always manage to solve difficult problems if I try hard enough.
   [ ] Not at all true    [ ] Hardly true    [ ] Moderately true    [ ] Exactly true

38. If someone opposes me, I can find the means and ways to get what I want.
   [ ] Not at all true    [ ] Hardly true    [ ] Moderately true    [ ] Exactly true

39. It is easy for me to stick to my aims and accomplish my goals
   [ ] Not at all true    [ ] Hardly true    [ ] Moderately true    [ ] Exactly true
40. I am confident that I could deal efficiently with unexpected events.
   Not at all true □ Hardly true □ Moderately true □ Exactly true
41. Thanks to my resourcefulness, I know how to handle unforeseen situations.
   Not at all true □ Hardly true □ Moderately true □ Exactly true
42. I can solve most problems if I invest the necessary effort.
   Not at all true □ Hardly true □ Moderately true □ Exactly true
43. I can remain calm when facing difficulties because I can rely on my coping abilities.
   Not at all true □ Hardly true □ Moderately true □ Exactly true
44. When I am confronted with a problem, I can usually find several solutions.
   Not at all true □ Hardly true □ Moderately true □ Exactly true
45. If I am in trouble, I can usually think of a solution.
   Not at all true □ Hardly true □ Moderately true □ Exactly true
46. I can usually handle whatever comes my way.
   Not at all true □ Hardly true □ Moderately true □ Exactly true
47. Comments for questions 37 - 47:
   _____________________________________________________________
   _____________________________________________________________
   _____________________________________________________________

Choose the response between 1-7 to in each of the following that best describes you.

48. How spiritual would you have considered yourself while you were at TAMS?
   Not at all spiritual very spiritual
   1 2 3 4 5 6 7
49. How religious would you have considered yourself while you were at TAMS?
   Not at all religious very religious
   1 2 3 4 5 6 7
50. In general, how spiritual do you consider yourself today?
   Not at all spiritual very spiritual
   1 2 3 4 5 6 7
51. In general, how religious do you consider yourself today?
   Not at all religious very religious
   1 2 3 4 5 6 7
52. How often do you currently attend religious services?

☐ at least once a week  ☐ 1–3 times a month  ☐ 7–11 times a year  1–2 times a year
☐ 2–6 times a year  ☐ seldom or never

53. How often do you currently pray outside of religious services?

☐ several times daily  ☐ about once a day  ☐ about once a week  ☐ about once a month
☐ 1–11 times a year  ☐ seldom or never

54. Comments: ________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

The following statements refer to your moods and mentality in general. Please try as much as possible to describe your habitual behavior patterns and attitudes by marking an X through one of the 4 alternatives. Please use the following scale:

(1) strongly disagree
(2) moderately disagree
(3) moderately agree
(4) strongly agree

55. Everyday life often gives me the occasion to laugh. ............................................ (1) (2) (3) (4)
56. I prefer people who communicate with deliberation and objectivity. .................. (1) (2) (3) (4)
57. I am a rather sad person. ....................................................................................... (1) (2) (3) (4)
58. One of my principles is: "first work, then play." ................................................ (1) (2) (3) (4)
59. I am often sullen. ................................................................................................. (1) (2) (3) (4)
60. I can easily unwind and enjoy the moment. ......................................................... (1) (2) (3) (4)
61. I am a serious person. ......................................................................................... (1) (2) (3) (4)
62. Many adversities of everyday life actually do have a positive side. .................... (1) (2) (3) (4)
63. I often smile. ........................................................................................................ (1) (2) (3) (4)
64. In everything I do, I always consider every possible effect and compare all pros and cons carefully. ................................................................. (1) (2) (3) (4)
65. When friends try to cheer me up by joking or fooling around, I sometimes become more morose and grumpy. ................................................ (1) (2) (3) (4)
66. I am often in a joyous mood. ................................................................................ (1) (2) (3) (4)
67. There are many days on which I think, "I got up on the wrong side of the bed."  (1) (2) (3) (4)
68. In most situations, I initially see the serious aspect. ......................................... (1) (2) (3) (4)
(1) strongly disagree  (2) moderately disagree  (3) moderately agree  (4) strongly agree

69  I like to laugh and do it often. ................................................................. (1)  (2)  (3)  (4)
70  Even if there is no reason, I often feel ill-humored. ................................. (1)  (2)  (3)  (4)
71  When I communicate with other people, I always try to have an objective and sober exchange of ideas. ........................... (1)  (2)  (3)  (4)
72  I feel completely contented being with cheerful people. .......................... (1)  (2)  (3)  (4)
73  I am often in a bad mood. ................................................................. (1)  (2)  (3)  (4)
74  When I watch TV, I prefer informative reports to "shallow" programs. ....... (1)  (2)  (3)  (4)
75  I often feel despondent. ................................................................. (1)  (2)  (3)  (4)
76  I try to spend my free time doing things as useful as possible. ............... (1)  (2)  (3)  (4)
77  I often feel so gloomy that nothing can make me laugh. ....................... (1)  (2)  (3)  (4)
78  My everyday life is filled mainly with important things and matters. ........ (1)  (2)  (3)  (4)
79  Laughing has a contagious effect on me. .................................................. (1)  (2)  (3)  (4)
80  Some annoying circumstances are capable of spoiling my mood for quite a while. (1)  (2)  (3)  (4)
81  I am a cheerful person. ................................................................. (1)  (2)  (3)  (4)
82  Sometimes I am distressed for a very long time. .................................... (1)  (2)  (3)  (4)
83  It is easy for me to spread good cheer. .................................................. (1)  (2)  (3)  (4)
84  When I am in contact with others, I often find that I have thought many things through more thoroughly than they. .......................................... (1)  (2)  (3)  (4)

85. Do you have any areas or topics we should investigate in future studies of TAMS participants (or other related populations)?

________________________________________________________________________________
________________________________________________________________________________
________________________________________________________________________________
________________________________________________________________________________

Thank you for your time and your willingness to be involved in the study of students who have participated in the TAMS program. If you are sending your completed survey electronically please press the submit button when you have finished the survey.

If you are sending the survey through the US mail, please send it to:
University of North Texas
College of Education
TAMS Survey
P.O. Box 311335
Denton, TX 76203
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