

A Study of Self-Actualization of Gifted Children in Public High School Programs

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The work reported in this thesis is original and carried out by me solely, except for the acknowledged direction and assistance gratefully received from colleagues and mentors.

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ABSTRACT

Psychologist Abraham Maslow first described self-actualization more than 50 years ago. Maslow proposed that self-actualization was the epitome of mental health. The self-actualized individuals that Maslow observed were of middle age. He described self-actualization as a process but offered no blueprint or path for self-actualization. Literature suggests that gifted children tend to have characteristics that may lead to self-actualization. Using the Personal Orientation Inventory (POI), the Almost Perfect Scale-Revised (APS-R), and the Friedman Well-Being Scale (FWBS) a group of children 16-18 enrolled in public high school gifted program were compared with cohorts matched by sex and age from the general school population. The results from the POI indicated that the scores of the gifted group on 11 of the 12 scales and subscales were significantly higher than the comparison group. The gifted group was numerically higher on the remaining subscale. The probability of 11 of the 12 scales being significantly higher is <0.003 . The results of the APS-R suggested that the gifted group had a higher level of perfectionism and was more likely to be a maladaptive perfectionist than the comparison group... The findings on the FWBS found no significant difference between the mean scores of the two groups. The results of the study support the literature that the gifted have a higher level of self-actualization.

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CHAPTER 1: INTRODUCTION

Background of Problem

Psychologist Abraham Maslow introduced the concept of self actualization over fifty years ago. He began to create his concept after encountering two individuals, Ruth Benedict and Max Wertheimer who demonstrated unusual patterns of behavior. Maslow began to notice that there were other individuals with behaviors matching Benedict and Wertheimer's behaviors.¹ Maslow described self-actualization as:

“The ongoing actualization of potentials, capacities and talents, as fulfillment of a mission (or call, fate, destiny, or vocation), as a fuller knowledge of, and acceptance of, the person's own intrinsic nature as an unceasing trend toward unity, integration or synergy within the person.”²

Maslow's first study of self-actualized individuals involved approximately two dozen individuals. The individuals used in the investigation were older people who had lived out much of their lives and were visibly successful. Maslow did not investigate self-actualization with young people.³ He proposed that self-actualization represented a significant shift from an aversive, externally driven existence to an internally drawn way of being. He characterizes this development as a very small population that seems to have grown beyond the general population of their culture—often taking a lifetime to do so.⁴

Psychologist Carl Rogers paralleled Maslow's theory of self-actualization with the concept of the fully functioning person. Rogers also described self-actualization as the good life. He described the good life as a process, not a destination. The direction of the good life is selected by the whole being when there is inward (intrinsic) freedom to explore in any direction.⁵ Rogers concluded that the good life was not for the faint

hearted because it involved stretching and growing to become more and more of the individual's potentialities. However, he believed that the good life was worth the reward for a life that was enriching, exciting, rewarding, challenging, and meaningful. Like Maslow, Rogers suggested that the good life was a lifelong pursuit.⁶

Statement of the Problem

Maslow implied that his exemplars of self-actualization were over 50 years old, but left no developmental scheme to reach self-actualization.⁷ Is there a pattern or prototypical type of individual that is more likely to attain self-actualization? Are gifted children more likely to become self-actualized than their cohorts who are not gifted? Is there an age range where the roots of the self-actualization begin?

For the purpose of this investigation, gifted children are individuals who have asynchronous intellectual development in which advanced cognitive development and heightened intensity combine to create inner experiences and awareness that is qualitatively different from the norm.⁸ Common practices in public education emphasize general intellectual ability and specific academic aptitude in defining giftedness.⁹ Since this study is investigating gifted students in a public school setting, the operational definition of gifted in this study is being enrolled in a gifted program. Thus, the operational definition of giftedness will be the enrollment criteria of the gifted program of the participating school districts. There have been numerous studies on self-actualization of the gifted that have compared levels of self-actualization of the gifted by age and grade level.¹⁰ However, there have been no published studies comparing the self-actualization levels of the gifted with their non-gifted cohorts. The literature on the self-actualization characteristics of the gifted to this date has been observational. For

instance, psychologist Barbara Kerr proposes that her gifted fellow students had characteristics that would support self-actualization.¹¹ Psychologist Ellen Winner notes that the gifted are independent, self-directed, willful and dominant non-conformists. They often reject mainstream values and gender-stereotyped traits.¹² Based on her clinical experience, psychologist Linda Kreger Silverman suggests that gifted children often have passionate concerns about ethical and political issues such as injustice, violence, abortion, gun control, pollution, and animal rights.¹³ Psychologist Lawrence Kohlberg developed the cognitive developmental theory of moralization. The theory outlines six stages encompassed in three levels of moral development from childhood through adulthood. The first stage is pre-conventional. Pre-conventional is common in children and features avoidance of punishment thinking. The conventional stage is common among adolescents and adults. In this stage, social conformity and law and order morality are factors in regard to morality. Most adults spend their entire adult life in the second or conventional level.¹⁴ The highest level of moral reason is post-conventional. This stage is associated with abstract thinking using universal ethical principles. The individual using the post-conventional level of reasoning views laws as being valid only if they are grounded in justice. There are multiple studies that suggest that the gifted student operates at the highest level (post-conventional) of Kohlberg's theory.¹⁵ According to Kohlberg, less than ten percent of the adult population operates at the post-conventional level of moral reasoning.¹⁶ Operating in the post-conventional stage of moral reasoning may relate to the characteristics of resistance to enculturation and cultural beliefs that is often associated with self-actualized individuals.¹⁷

Although the common characteristics of giftedness suggest that giftedness may be a foundation for self-actualization, there has been only one published study comparing self-actualization of *highly* gifted and non-gifted students.¹⁸ In Poland, entrance into gifted programs is determined by competitive exams. The participants in this Polish study were winners of the third highest level of competition. The term highly gifted is used to differentiate between students in the upper levels of competition from other students in gifted programs.¹⁹ There are no known studies comparing the level of self-actualization of gifted children with their non-gifted cohorts.

Purpose of the Study

This purpose of this study is to determine if there is a relationship between giftedness in high school students and their level of self-actualization. Recognizing the uniqueness of each individual and the variables of educational options for children such as private and home schooling, the study will compare the data obtained from the tests to determine the significance, if any, of giftedness in the process of self-actualization. Any data generated by this investigation could be used to create greater understanding of the development of self-actualization. The quest for knowledge and understanding of the process of self-actualization is the motivation for this study.

Research Questions

Hypotheses

H₁: The students in the gifted group will demonstrate a higher level of self-actualization than the comparison group as measured by the Personal Orientation Inventory (POI).

H₂: There will be no significant difference in the scores of the Discrepancy scale of the Almost Perfect Scale-Revised (APS-R) between the Gifted and Comparison groups.

H₃: The gifted group will score higher than the non-gifted group on High Standards scale of the APS-R.

H₄: There will be no significant difference between the scores of the gifted and non-gifted group on the Friedman Well-Being Scale (FWBS).

Importance of the Study

As reported earlier, Maslow defined self actualization as being in the state of mental good health, while Psychologist Carl Rogers identified self-actualization as the good life. Rogers suggested the reward for achieving it was experiencing a life that was enriching, rewarding, challenging, and meaningful. Maslow suggested that the population of self-actualizers was a small group of individuals that had grown beyond the level of their culture as a whole.²⁰ In his last book, *The Farthest Reaches of Human Nature*, Maslow acknowledged that self-actualization was hard to define.²¹ A study on self-actualization literature made nearly three decades after Maslow died by Gilbert Leclerc, Richard Lefrancois, et. al., suggests that the concept of self actualization remains vague without a sufficiently unified theory.²² The vagueness in the theory of self-actualization and the limited amount self-actualization research with children are the prime motivations for this study. If the state of self-actualization is the epitome of mental health that is being experienced by a relative few, the Principal Investigator (PI) believes that the investigation of self-actualization in an age group where few studies have tread—

is worth the expenditure of resources. Adding information on the developmental path of a process that has the potential to bring a life that is more enriching, exciting, rewarding, challenging, and meaningful has great value to all humanity. Fully actualizing the inherent potential of all individuals including the gifted is the goal of humanistic psychology.²³ It is hoped that this study will add to this lofty goal.

Scope of the Study

It is the hope of this researcher that this work will inspire and assist others in further investigation of the process of self-actualization. In particular the interrelated issues of mental health and expressing life more fully could benefit from future studies. This study addresses the possible relationship between giftedness and self-actualization. By searching for an indication of self-actualization in an age group chronologically far removed from the age group where Maslow found self-actualization, it is the hope of the PI that this study can search for the roots of a process that Maslow described as an incremental life long process.²⁴

Definition of Terms

(Definitions are given by the PI.)

Fully Functioning Person: Psychologist Carl Rogers' term describing a self-actualized individual.

Gifted Student: For the purposes of this study, gifted students are enrolled in a gifted program as defined by the school district in which the student is enrolled. This definition acknowledges that admission criteria for inclusion into a gifted program may vary between individual school districts.

Ontologic Freedom: Psychotherapist James Bugental description of self-actualization—authenticity.

Self-Transcendence: The next level of psychological development that follows self-actualization. This stage features the transcending ego and is often associated with frequent transcendental experiences.

Taoist Scientific Approach: The scientific process used by Maslow that uses: 1) non-interference, 2) observing, and 3) then helping.

Transcendental Experiences: 1) Experiences existing outside normal human experience, 2) not existing in nature, or subject to explanation by natural laws, 3) philosophy emphasizing the intuitive or spiritual.

Transpersonal Psychology: A school of psychology that combines traditional Western psychology and theory of psychology.

CHAPTER 2: REVIEW OF LITERATURE

Introduction

The review of literature is divided into three major sections. The first section provides an overview of the process of self-actualization. The second section reviews literature on the characteristics of gifted children with the focus on aspects of giftedness that could be related to self-actualization. The final section examines literature on the psychometric instruments used in the study.

Section I: Self-Actualization

Psychologist Abraham Maslow is considered the single most responsible person for the creation of humanistic psychology. Maslow was most influenced in his thinking by Austrian psychoanalyst Alfred Adler.²⁵ Maslow's theories on self and self-actualization served as the foundation for the humanistic or third force psychology. Maslow was reported to have credited neurologist Kurt Goldstein with coining the word self-actualization.²⁶ Goldstein described self-actualization as the only basic drive of human beings.²⁷ Goldstein further described the drive to self-actualize as the tendency towards completion and perfection:

In innumerable repetitions of children, we are not dealing with manifestation of a senseless drive for repetition, but with the tendency to completion and perfection... The nearer we are to perfection, the stronger is the need to perform. This is valid for children as well as adults.²⁸

Adler's views on the relationship between striving for perfection and completion were strikingly similar to Goldstein's. Adler described this "universality of striving as:

I should like to emphasize first of all that striving for perfection is innate. This is not meant in a concrete way, as if there were a drive which would later in life be capable of bringing everything to completion and which only needs to develop itself. The striving for perfection is innate in the sense that it is a part of life, a striving, an urge, a something without which life would be unthinkable.²⁹

It was the influence of Adler, Goldstein, and other individuals that Maslow encountered in New York during the 1930's that led him to reject Freudian and Neo-Freudian approaches to psychology and move off in a new direction of humanistic psychology.³⁰

Maslow envisioned humanistic psychology as being the study of healthy, creative, and full functioning individuals. He proposed that by investigating superior examples of human beings, a better understanding of the highest potential could be facilitated. In the early 1960's Maslow and colleagues such as Anthony Sutitch were instrumental in founding a branch of humanistic psychology called transpersonal psychology.

Transpersonal psychology is focused on the study of the highest potential of human beings.³¹

In humanistic psychology, the goal of human existence is to fully actualize each individual's inherent potential. To achieve this goal, an individual taps into this inherent potential that impels the growth to being fully functioning. The so-called real self has to appear to facilitate self-actualization. When the real self appears, the individual is free to become fully functioning. The concept of an actualized or fully functioning person is the ideal, not an absolute state that one becomes. In experiencing life, individuals become fully functioning in relative terms—some more so, some less. Thus, self-actualization is a process where an individual grows toward an ideal. Since it is a process, Maslow

preferred to use the verb form to describe his theory—self-actualize. Self-actualization is also described as authenticity. When individuals are authentic, they are seen as being fully functioning and psychologically healthy.³²

The concept of self-actualization has been in existence for more than fifty years. When Abraham Maslow moved to New York City as a young intellectual, there were two teachers he admired. He sought to understand what made these two people different from the other individuals that he encountered. The two individuals were Ruth Benedict and Max Wertheimer. Despite having a Ph.D. in Psychology, he did not have a point of reference that helped him understand Benedict and Wertheimer's behavior. Maslow began to make descriptions and notes in his journal about their patterns of behavior. After contemplating and analyzing his notes, Maslow realized the patterns of behavior did not represent two non-comparable individuals, but one type of person. Expanding his search elsewhere, he found it was not unique to Benedict and Wertheimer.³³

Maslow admitted that by ordinary laboratory research standards his initial study lacked rigorous and controlled research. He reported that the two dozen individuals he selected in his first study were only people from a Western cultural background. Maslow acknowledged that the selection process was unreliable. However it was the only operational definition of a self-actualizing individual in his first book, *Motivation and Personality*. Shortly after publishing the results of his investigation, evidence that supported his findings was published. Psychologist Carl Rogers, some of Rogers' students, and Psychotherapist James Bugental had similar findings approaching self-actualization from different perspectives.³⁴

The individuals studied in the investigation were middle age and older who had lived out much of their lives and were visibly successful. Maslow did not investigate self-actualization with young people nor outside of Western culture. However, he proposed that with careful selection of the participants, the results of his study could be replicated.³⁵ Maslow described self-actualization as:

“The ongoing actualization of potentials, capacities and talents, as fulfillment of a mission (or call, fate, destiny, or vocation), as a fuller knowledge of, and acceptance of, the person’s own intrinsic nature, as an unceasing trend toward unity, integration or synergy within the person.”³⁶

Maslow biographer Edward Hoffman succinctly encapsulated Maslow’s concept of self-actualized individuals. They demonstrate:

greater self-acceptance and acceptance of others, autonomy, spontaneity, esthetic sensitivity, frequent mystic-like or transcendent experiences, and a democratic rather than authoritarian outlook, and involvement in a cause of a mission outside oneself. Self-actualized people, too, seemed to possess a good-natured rather than a cruel sense of humor and an earnest desire to improve the lot of humanity. In addition they tended to seek privacy and detach themselves from much of the petty and trivial socializing taking place around them. He also found that regardless of their station in life, self-actualizers tend to be highly creative as an outpouring of their very personality, not limited to activities like writing or composing music...although self-actualizing people are not emotionally flawless, they can serve as exemplars in the values by which they lead their lives.³⁷

Maslow proposed that science and the scientific method should be applied to subjective experience and not be limited to measuring objective phenomenon. He described this process as Taoist science where scientists observe and understand instead of influence and analyze.³⁸ During his observations Maslow found striking similarities between self-actualized individuals and traditional descriptions of enlightened persons. He found that self-actualized persons had characteristics that included: 1) reality oriented, 2) accept themselves and others, 3) enjoy solitude, 4) operate autonomously, 5) appreciate life, 6) not egocentric (detached), 7) humorous, 8) resist cultural beliefs, 9)

accepts imperfections, 10) transcend dichotomies, 11) have a desire to help, 12) are efficient, and 13) spontaneously engage in attempts to solve social problems.³⁹ He described the self-actualized as having a code of ethics that was relatively autonomous and individual rather than conventional. Their alienation from ordinary conventions, accepted hypocrisies, lies, and inconsistencies of social life have caused them to often feel like spies or aliens in a foreign land.⁴⁰ Maslow described the difference between his philosophy and Sigmund Freud as Freud providing psychology for the sick people while he provided psychology for the healthy half, and that the self-actualized individuals represented good mental health.⁴¹

Psychologist Carl Rogers paralleled Maslow's self-actualization with the concept of the fully functioning person. Rogers alternately called the fully functioning person as one living the good life. He described the good life as a process, not a destination. The direction of the good life was selected by the whole being when there is inward (intrinsic) freedom to explore in any direction. Like Maslow, Rogers found there were certain general qualities that appeared in a wide variety of unique individuals. Rogers description of the fully functioning person included: 1) an increasing openness to experience—the opposite of defensiveness, 2) an increasing tendency to live fully in each moment, 3) an increasing tendency toward trust in self rather than an outside agency, 4) fully open to the consequences of their action, 5) experience their emotion more fully, 6) creative, 7) always moving toward being more themselves, and 8) the basic nature of the human being when functioning freely is constructive and trustworthy.⁴² Rogers concluded that the good life was not for the faint hearted because it involved stretching

and growing to become more and more of an individual's potentialities. The reward was a life that was enriching, exciting, rewarding, challenging, and meaningful.⁴³

Psychotherapist James Bugental described self-actualization as Ontologic Freedom, emancipation from self, or authenticity.⁴⁴ Bugental's work consisted primarily of long-term psychotherapy with people of above average education and socio-economic circumstances. Many of his clients were not sick or emotionally disturbed in the traditional psychiatric sense, rather they came to therapy to facilitate attainment of a higher realization of their being as individuals.⁴⁵ Bugental characterizes Ontologic Freedom as opening areas of choice and actualization through which fully functioning individuals celebrate their being.⁴⁶ He described the nature of Ontologic Freedom represented by mentally healthy individuals as being those who: 1) Think rationally, 2) Keep emotions in their place, 3) Act in terms of their best judgment at all times, 4) Are not troubled by competing influences, 5) Have deep and instant self-knowledge, 6) Are free of guilt and anxiety, 7) Establish wholesome relationships with others without ever being constrained or in conflict with them.⁴⁷

Peak Experiences

Maslow also reported that self-actualized people experienced what he called peak experiences. Peak experiences are events that transcend the "normal" boundaries of self and sometimes time and space. In these experiences, he reported that the individual becomes unified for a period of time and the splits, polarities, and dissociations within them tend to be resolved. In peak experiences, a complete yet momentary loss of fear, anxiety, inhibition, defense, and control occurs within the individual. During the peak

experience, fear of disintegration and dissolution, the fear of death, the fear of insanity, the fear of giving in to unbridled pleasure or emotion, and the fear of being overwhelmed by instincts tend to disappear. He originally thought that everyone had peak experiences, but later found that there were some self-actualized people that did not have peak experiences. He noted that all self-actualized individuals are practical and competent people living extremely effectively in a secular world. Maslow added that “peakers” live in a state of being that includes poetry, aesthetics, symbols, transcendence, and a belief system that is mystical, personal, and non-institutional.⁴⁸

In an unpublished article written in October of 1960 Maslow speculated that peak experiences were in some way necessary for good health. He suggested that the prevalence of peak episodes in varying degrees of intensity within the general population was support for his speculation. He proposed that the severely disturbed did not have peak experiences and their level of mental health could be increased by inducing peak experiences. He further speculated that it was the need to have a climax, complete catharsis, and discharge that made peak experiences a requirement. Without a climax, the body continues to have tension and Maslow suggested that toxins could be created in the body. Maslow proposed that going through life without peak experiences would be analogous to mountain climbing without ever reaching the mountaintop.⁴⁹

In addition to being a signpost of advancing toward self-actualization, Maslow suspected that peak experiences had a therapeutic value for individuals. He wrote:

My feeling is that if it were never to happen again, the power of the experience could permanently affect the attitude toward life. A single glimpse of heaven is enough to confirm its existence even if it is never experienced again. It is my strong suspicion that even one such experience might be able to prevent suicide, for instance, and prevent many varieties of slow self-destruction e.g., alcoholism, drug-addiction, addiction to violence, etc. I would guess also, on theoretical

grounds, that peak-experiences might well abort “existential meaninglessness,” states of valuelessness, etc., at least occasionally.⁵⁰

Peak or intense personal experiences can be described as having three components, 1) The phenomenology or subjective, 2) The meaning or interpretation given the experience, and 3) the after effects of the experience. Although Maslow references all three of the components, he never addressed them systematically.⁵¹ Maslow also acknowledged that intense negative experiences might be as important psychologically as the peak experiences.⁵² In a graduate seminar at Brandeis University in 1961, Maslow proposed that self-actualized individuals had overcome the dichotomy between pain and pleasure and somehow had interwoven the two together.⁵³ However, he provided no empirical documentation on the subjective effects of the negative experiences.⁵⁴ In a study by Stephen R. Wilson, and Robert C. Spencer, 133 young adults, primarily college students were asked to describe in their own words their most intense positive and negative experiences. In descending order from most frequently to least frequently identified, the top ten positive experiences listed were: 1) Achieving or accomplishing, 2) Romantic love, 3) Friendship, 4) Getting away, escaping, 5) Nature, 6) Getting married, 7) Giving birth, 8) Body movement such as dance or exercise, 9) Recognition for accomplishment, and 10) Aesthetic such as music or drama. The corresponding top ten negative experiences listed were: 1) Death or illness of other, 2) Tension in a relationship, 3) Separation from other(s), 4) Confrontation from other(s), 5) Failure or loss, 6) Adjustment to changes in life, 7) Illness in self, 8) Negative emotional state, 9) Accident, and 10) Performance anxiety.⁵⁵ The study also looked at subjective effects of both the negative and positive experiences of the respondents and the language they used to describe them. The positive effects tended to be ordinary experiences

written in uninspired language. The negative experiences were extraordinary or rare life events written in language that showed greater involvement and effect.⁵⁶

Bugental observed that his clients reported peak experiences occasionally with the frequency of peak experiences increasing as the clients progressed in therapy. He characterized the experiences as being moments when the individual broke free of the self and sensed the true meaning of self-actualization.⁵⁷

Psychologist Gayle Privette relates peak experiences to peak performances. She describes peak performances as the moment that mind, muscle, and movement come together. Privette goes on to further describe a peak performance as releasing latent powers through: 1) Skill in athletics, 2) Artistic expression, 3) Feats of strength in a crisis, 4) Intellectual prowess, 5) Intense interpersonal relationships, 6) Moral Courage, or 7) Excellence in any activity. She suggests that peak performances can create peak experiences. Privette describes peak experiences as being intense joy or ecstasy that stands out both cognitively and perceptually among an individual's collective experience.⁵⁸ Privette proposes that frequent occurrences of peak performances and peak experiences are a partial operational definition of self actualization.⁵⁹ She collaborated on several studies on peak experiences including a 1996 study with Lorraine S. Lanier, Steve Vodanovich, and Charles M. Brundrick.⁶⁰ The 1996 study involving 30 realtors, 29 artists, and a comparison group of 123 college students found that although the demographic differences of the groups were significant, their descriptions of peak experiences were similar. The groups all reported a wide variety of activities triggered peak experiences and the experiences were characterized as significant or turning points in their lives.⁶¹ The study supported Maslow's contention that peak experiences can be

produced by a wide variety of triggers and although they are transitory in nature, their consequences can be enduring. The results of the study also supported the findings of numerous other studies on peak performance and suggest that peak experiences extend beyond personal and interpersonal experiences to the workplace.⁶² In summarizing her experiences through her participation of various studies, Privette characterizes peak experiences as: 1) Profound, 2) Having a special flavor of awe, 3) Transcending Usefulness, 4) Being fulfilling with feelings of joy and ecstasy that continued after the moment, 5) Significant, 6) Personally meaningful, 7) Valuable, 8) Expressive, 9) Often, but not always life-changing, 10) Transcending boundaries of self with qualities of spirituality, and 11) Often, but not always were ineffable or indescribable.⁶³

Rogers also described the phenomenon of peak experiences as the transcending experiences of unity. He proposed that in these transcendent experiences the individual is seen as dissolved into the consciousness of higher values such as beauty, harmony and love.⁶⁴ Rogers acknowledged that he had experienced the transcendent state when he was facilitating a group or as a therapist. When he was in that state, Rogers suggested that his mere presence was therapeutic to others. He proposed that the relationship between client and the therapist transcended itself and became part of the greater whole. He theorized that profound growth, healing, and energy occurred in this altered state of consciousness. Rogers admitted that he had underestimated the importance of the mystical dimension. He suggested that the transcendent, the indescribable, the mystical took place in his therapy and group sessions.⁶⁵

Maslow suggested that to achieve peak experiences an individual must move from self to other. He notes that without exception, self-actualized individuals were involved

in something outside of themselves. They have some calling or vocation that they are passionate about that allows the work-joy dichotomy to be transcended.⁶⁶ In addition, Maslow proposed that self-actualized individuals devoted their lives to a life-long pursuit of being values or B-Values. He defined B-Values as ultimate, intrinsic values which can not be reduced to anything more ultimate.⁶⁷

Maslow proposed that there were fourteen B-Values integral to self-actualization. He hypothesized that B-Values are what most people deeply yearn for and represent the ultimate satisfiers. He suggested that they produced growth in individuals.⁶⁸ Maslow's list included: 1) Truth (pure: clean and unadulterated completeness), 2) Goodness, 3) Beauty, 4) Wholeness (harmonious and integrative tendencies), 4a) Dichotomy-transcendence (transformation of oppositions into unities, transcending into collaborating or mutually enhancing partners), 5) Aliveness (self-regulating, full functioning, changing yet remaining the same), 6) Uniqueness, 7) Perfection (nothing superfluous, nothing lacking, everything in its right place), 7a) Necessity, 8) Completion (fulfillment of destiny), 9) Justice (fairness), 9a) Order (perfectly arranged), 10) Simplicity (without ornament, nothing extra or superfluous), 11) Richness, 12) Effortlessness (perfectly and beautifully functioning), 13) Playfulness (exuberance) and 14) Self-sufficiency (not-needing-any-thing-other-than-itself-in-order-to-be-itself).⁶⁹

Metamotivation: Yearning for B-Values

Maslow described self-actualized as by definition having all their basic needs being met. Although a prerequisite to metamotivation, gratification of basic needs is not a sufficient condition for metamotivation. Self-actualized individuals must be using their capabilities

in a positive manner and be persistently motivated by some values.⁷⁰ Maslow described the theory of metamotivation:

I have called the basic needs instinctoid or biological necessary for many reasons, but primarily because the person needs the basic gratifications in order to avoid illness, to avoid diminution of humanness, and positively stated, in order to move forward and upward to self actualization or full humanness. It is my strong impression that something very similar holds true for the metamotivations of self-actualizing people. They seem to me to be also biological necessities in order (a) negatively, to avoid illness and (b) positively, to achieve full humanness. Since these metamotivations are intrinsic values of being, singly or in combination, then this amounts to contending that B-Values are instinctoid in nature.⁷¹

Maslow goes on to suggest that the B-Values are intrinsic drivers by which individuals are motivated to fulfill the human potential. Similar to the basic needs, these intrinsic values are instinctoid in nature. These metamotivators are similar to basic needs but have certain characteristics that differentiate them from the basic needs. The metamotivators can be diminished by numerous pathological behaviors including 1) Alienation, 2) Lost of zest in life, 3) Life ceasing to be intrinsically worthwhile and self-validating, 4) Apathy, 5) Joylessness, and 6) Desacralization of life. However, B-Values are in the same continuum as the basic needs and part of our biological nature.⁷²

Self-Actualization is a Process Not a Destination

Maslow further described the process of self-actualization as a process of choices, one after another. He suggested that there might be a choice toward safety, being defensive, and fear, or toward growth. Maslow proposed that making the choice for growth versus fear a dozen times a day is to move a dozen times a day toward self-actualization.⁷³ Maslow summarized his concept of self-actualization being a process of choices by saying that self-actualization was not a single great moment of awakening;

rather it was a succession of little accessions accumulated one by one.⁷⁴ He alternatively described self-actualized individuals as expressing instead of coping—being spontaneous and natural.⁷⁵

Vagueness in the Concept of Self-Actualization

Although the concept of self-actualization has been in existence for more than fifty years, some vagueness persists in the theory. Part of the vagueness issue is that self-actualization is a developmental process rather than a state of being. The concept of self-actualization lacks: 1) a unified theory, 2) an operationalized definition, and 3) a consensus among the experts on characteristics included in self-actualization. The lack of a strong definition has led to a wide variety of opinions on what is the model for self-actualization.⁷⁶ In a study of essential attributes through content validation of various authors writing on self-actualization, authors Gilbert Leclerc, Richard Lefrancois, et al. accumulated 141 indicators of self-actualization from books referring to self-actualization and additional entries from thirty authors in the psychology field. After collecting the 141 entries, the authors were polled again to vote on the top 36 self-actualization indicators. A total of six items exceeded 96 percent of the voters. They included: 1) give meaning to their own life, 2) have a positive self-esteem, 3) consider themselves responsible for their own life, 4) give a meaning to life itself, 5) are capable of establishing a meaningful relationship, and 6) take responsibility for their actions. The next thirty items closely followed the top six with the 36th indicator attracted 82.3% of the vote. The other 105 indicators trailed down from that point. With this wide variance of opinion, it is small wonder that the concept of self-actualization has some vagueness still attached to its definition.⁷⁷

Maslow's "Taoist" approach to science—non-interfering-observing-then-helping and his belief that he did not hold all the truth about self-actualization may have contributed to the concept of self-actualization being nebulous.⁷⁸ In an unpublished paper written in 1966 titled "Critique of Self-Actualization Theory," Maslow grappled with several aspects of humanistic psychology in general and self-actualization in particular. He proposed that: 1) The entire model of humanistic psychology rested on the assumption that an individual wants to live. When life is judged to be not worth living—whether from an accumulation of pain and illness or the absence of positive joys—then humanistic psychology is worthless. 2) Human nature is not infinitely malleable and has definite parameters. 3) Self-actualization requires an acceptance of individual differences—hereditary, constitutional, and temperamental. 4) The model of self-actualization is not limited to Judeo-Christian values. The model of self-actualization is both cross-cultural and cross-historical. 5) Neurosis is a defense mechanism that is not part of human nature. Neurosis blocks the authentic human nature and self-actualization. 6) Self-actualization requires the choice of B-Values over neurotic values. 7) The inability to distinguish peak experiences from manic-attacks is one of the weak spots in humanistic psychology. 8) The theory of self-actualization was not the sole province of Maslow and he welcomed others to validate or disprove his theory. 9) Self-actualized individuals resemble the canaries of old coal mines who are more sensitive than the majority of the population on what is right or wrong, good or bad. 10) The self-actualized individual should have a degree of responsibility for scaffolding others to higher consciousness. 11) Just like the balance of nature was simultaneously good for all species, good or bad conditions affect all individuals. 12) Self-actualization is not

enough—the self-actualized individual must transcend self for the common good.

Maslow acknowledged that much of what he described was purely his intuition or opinion and needed to be further amplified in a more definitive way.⁷⁹

Maslow's declining health and premature death caused further ambiguity in the theory of self-actualization. Carl Rogers wrote that in the years immediately before his death, Maslow felt intense internal pressure to write. Maslow felt that he had much more to say.⁸⁰ This intense internal drive accelerated after Maslow suffered a major heart attack in 1967. The heart attack stripped Maslow of the stamina to take on major projects but he found it unconscionable to stop working. He remained busy and productive until his death from a massive heart attack in June of 1970. He left behind a large amount of unfinished material and notes.⁸¹ However, he left no developmental scheme to reach self-actualization.⁸² Without the roadmap of a developmental scheme, a widely accepted operationalized definition or unified theory, it is a challenge to determine if an individual is on the path to self-actualization. However, as reported earlier in this chapter, the possibility of life that is enriching, exciting, rewarding, challenging, and meaningful is a strong motivator for the Principal Investigator (PI) to investigate self-actualization and the gifted.

Cross-Culturalism and Self-Actualization

As reported earlier in this chapter, Maslow felt that the theory of self-actualization applied over cross-cultural boundaries. However, he acknowledged that his studies were limited to a small portion of Western culture and were not carried out with rigorous scientific research standards. There is an indication in some studies that the European-American model of a free, autonomous individual may not fully apply to other cultures.

For example, Eastern Asians use a different set of criteria to guide individual actions. While the Western model suggests that the individual should strive first and foremost to feel good about self, in China, Japan, and Korea, self-centered, autonomous individuals are considered immature and uncultivated. Individuals are expected to adjust to meet the expectations of others. Social values supersede the individual's valuation of self. The cultural focus of Eastern Asia tends to be on relationship with others, reciprocity, belongingness, hierarchy and social obligations.⁸³ In a study conducted by sociologists Herman W. Smith and Linda E. Francis, the essential means of framing self-actions in terms of actions and behaviors of Japanese men and women seemed to be universal. However, the study suggests that the underlying principles of Japanese self-directed events are more related to the situations than their American counterparts. The study supported the results of previous studies that European-American models focus on internal attributes and the East Asian are more subjective and complex in their appraisal of events.⁸⁴ The studies seem to indicate that the culture an individual operates in may impact the level of self-actualization.

Another study involving 537 university students in South Korea and the United States by Social Psychologists Youngmee Kim, Tim Kasser, and Hoonkoo Lee investigated the role of self-concept and well-being. The study looked at the relationship of independent, intrinsically oriented Western culture of the United States with interdependent, extrinsic culture of South Korea as they related to well-being. Previous studies had shown that the autonomous individual of the Western culture tended to be more focused on self-acceptance and their own rights and feelings while an individual with an interdependent self-concept was more focused on the stability and harmonious

functioning of the whole group.⁸⁵ The results of the study supported previous studies about the relationship between individualistic and interdependent cultures. The South Korean students were more oriented toward social values such as a feeling of community and social recognition and less oriented to personally oriented values. The students from the United States demonstrated higher levels of self-actualization and more orientation toward individual values. In addition the study found that the autonomous individual (United States) who is striving for intrinsic goals associated with psychological needs had a higher level of well-being. Conversely, the students from South Korea who conceived themselves as being embedded in social roles and status and pursuing goals designed to obtain praise were found to have a lower sense of well-being. This study suggests support for Maslow's concept of the intrinsically oriented individual being healthier than an individual being influenced by extrinsic sources such as culture and community.⁸⁶

While this investigation of self-actualization will be within the confines of the Western culture, the ethnicity of the participants in the study may give insights into the role of sociocultural factors in self-actualization.

Beyond Self-Actualization

There is considerable literature that suggests that self-actualization is not the ultimate step in human development. This section deals with the process beyond self-actualization that usually involves transcending the ego. The purpose of this section is to give the reader insight into aspects of the next level of human development beyond self-actualization. The following paragraphs are a sampling of descriptions given by Maslow and other authors on the transcendence of ego.

Maslow considered Humanistic, Third Force Psychology to be transitional. He proposed that a higher, fourth psychology centered in the cosmos that transcended humanness, identity and self-actualization would arise. He described the new psychology as facilitating development of: 1) Life-Philosophies, 2) Religion-Surrogate, 3) Value systems, and 4) Life paths for individuals yearning for more out of life.⁸⁷ Maslow theorized that without the transcendent or transpersonal psychology, individuals would get sick, violent, nihilistic, or become hopeless. He proposed that humanity needed to commit to a larger vision of itself that was naturalistic, empirical, or spiritual in nature such as Thoreau, Whitman, William James and John Dewey expressed.⁸⁸ Maslow suggested that the transcendent experience was very intrinsic in nature. He described the process as being private, lonely, illuminating, revelatory, and mystical in nature.⁸⁹ Maslow suggests that in the history of organized religion, they soon divide into a left wing of peakers, mystics and transcendents and a right wing of individuals who concretize the religious symbols and metaphors losing the meaning, wisdom, and essence of the ideas upon which the religion was founded. Maslow suggests that individuals of the right wing of religious organization tend to rise to the top of bureaucracy and make the organization paramount to all else including its ideals.⁹⁰ Describing individuals from the right wing as the legalists, Maslow suggests that the legalists created an organization that caused organized religions to be an impediment to peak experiences and moving beyond self-actualization.⁹¹

Maslow proposed that even though self-actualization was the epitome of mental health, it was not the ultimate stage of psychological development. He theorized that self-transcendence was the next step with frequent transcendental experiences being the

gateway to this higher level of consciousness.⁹² He described transcendence as the highest and most holistic levels of human consciousness with the loss self-consciousness and self awareness that allowed the self-transcendent individual to relate to self, to significant others, to humanity in general, other species, to nature, and the cosmos as ends rather than means.⁹³ Maslow admits to being vague about the self-transcendent individuals but listed 24 differences (primarily in degrees) between transcendents and self-actualizers. The characteristics of self-transcendent individuals include: 1) Peak experiences become *the* most important things in their lives, 2) Speak easily, normally, unconsciously in the language the poets, mystics, seers, and of individuals of the Platonic-ideal level, 3) See the sacredness in all things while at the same time seeing them at the everyday practical level, 4) B-values are seen as both fact and value, 5) Recognition of other self-transcendent individuals with almost instant intimacy and mutual understanding, even in their first meeting, 6) More responsive to beauty—seeing beauty in something that is not officially or conventionally beautiful, 7) More holistic approach about the world, 8) Transcending of competitiveness, of zero-sum—win-lose gamesmanship, 9) Transcending of the ego, 10) More awe-inspiring, more “unearthly,” and more easily revered, 11) More apt to be an innovator or the discoverer of the new—self-actualizers are more likely to do a very good job of what has to be done in the world, 12) Prone to cosmic-sadness—seeing so easily and vividly the principle of the ideal world yet seeing the ignorance of humanity, their self-defeat, their blindness, their cruelty to each other, and their short-sightedness, 13) Living more easily in both the world of being value (B-values) and the everyday world, 14) Finding mystery attractive and challenging instead of frightening.⁹⁴ Maslow’s final ten differences are couched with

words such as a hunch, I think, I have no data, or my strong impression.⁹⁵ The final ten characteristics of transcendents included: 15) Value creativeness more and therefore selected it more efficiently, 16) More reconciled with evil in the sense of understanding its occasional inevitability and necessity in the larger holistic sense, 17) Regard themselves as instruments of transpersonal, temporary custodians of greater intelligence—with an objectivity or detachment that might make them sound arrogant, grandiose, or even paranoid, 18) More apt to profoundly be “religious or spiritual” in either a theist or non-theistic sense, 19) Find it easier to transcend the ego, the self, the identity and go beyond self-actualization, 20) Have more end experiences because of their easier perception of the higher experiential realm of B-Values, 21) More Taoistic—less inclined to *do* something, 22) Possess the ability to express unconditional love, acceptance, and expressiveness, 23) Have a decreasing importance of the material and increasing importance of B-values, and 24) More apt to have a lean and slightly muscular physique of ectomorphs.⁹⁶ Although his concepts on self-transcendence were not complete at the time of his death, Maslow’s ideas were finished enough to give the reader an inkling of his vision of what was beyond self-actualization.

In reviewing Maslow’s work, Authors Lloyd Greene and George Burke termed development beyond self-actualization as being selfless-actualization. They suggest that social justice, generativity, and transformative thinking and actions are all concepts oriented to selfless-actualization.⁹⁷

In a study of the literature on transcendent actualization, researchers Suzanne Hamel, Gilbert Leclerc and Richard Lefrancois found four components that were commonly associated with transcendent literature. They include: 1) In-depth

perception—the ability to discern and explore various aspects of an individual’s life and life in general, going beyond appearances, 2) Holistic perception—the ability to perceive one’s life and life in general from a detached viewpoint, 3) Presence of Being—the ability to live in harmony with Self stripped of fears and desires, 4) Beyond ego-orientation—the ability to leave personal preoccupations and focus on others, a mission, or an altruistic goal. When these components converge to become all of an individual’s efforts, attitudes, and intentions, transcendent actualization is realized.⁹⁸

Author Michael Washburn suggests that the path beyond self-actualization as a period of severe difficulty. This period has been variously described as the dark night of the soul (Christianity), the state of self-accusing (Islamic), or the great doubt (Zen). Washburn proposes that the process of this period radically undermines the strength of the (mental) ego and prepares it for integration with spirit.⁹⁹ He describes this process as regression, not returning to a more primitive way of being, but as “regression in the service of transcendence.”¹⁰⁰ Much like Maslow’s proposal that increased levels of peak experiences are the gateway to transcendence, Washburn suggests that the regression in the service of transcendence is the first step in a thorough psychic reorganization that transforms all dimensions of life. He warns that psychic reconstruction to a single psychic whole can be a painful and protracted process.¹⁰¹ Washburn’s description is a sharp contrast with the joy that Maslow associates with peak experiences.

Psychiatrist Roberto Assagioli proposed that the next level after self-actualization was self-realization. Assagioli suggested that the difference between the processes of self-actualization and self-realization was twofold: 1) The awakening and manifestation of latent potentialities of individuals including ethical, esthetic, and spiritual experiences

and activities, 2) Realization of the spiritual self.¹⁰² Assagioli went on to define spiritual as more than religious, including all states of awareness, all activities having a common denominator of possessing values higher than average such as ethical, the esthetic, the heroic, humanitarian, and altruistic.¹⁰³

As reported in this chapter, Maslow suggested that a relatively small group of individuals attained self-actualization. When naming individuals of his era that moved past self-actualization on to self-realization, Maslow could only name one individual with surety, Aldous Huxley, who had moved into self-realization.¹⁰⁴ Author Ken Wilber estimates that only one percent of the adult population is at the level of self-actualization and 0.1% of adult population is at the next highest level of development.¹⁰⁵ Thus, if Maslow and Wilber are correct, this study is searching for a tiny population that is functioning at an optimum level of mental health and the size for the next level beyond self-actualization is even smaller.

Section 2: Giftedness

This section focuses on various aspects of giftedness and the possible relationship of self-actualization and giftedness. Because giftedness is a large and complex subject, this section will acknowledge numerous aspects that are not being investigated in this study. For clarity, Section 2 will delimit the scope of this investigation.

Definition of Giftedness

Psychologist Ellen Winner defines gifted children as: 1) precocious, 2) intrinsically driven and creative, 3) having an intense and obsessive interest with an ability to focus

sharply, and experience states of flow—optimal states in which they focus intently and lose sense of the outside world.¹⁰⁶ Winner expands her definition of the gifted suggesting that the gifted master subjects earlier and learn more quickly than children of average intelligence, make discoveries on their own and often find a solution to a problem without going through a logical, linear solution process, and she describes their intense and obsessive interest as a rage to master.¹⁰⁷ Winner suggests that the gifted are a synchronistic combination of obsessive perseverance and high ability that lead to their remarkable achievements.¹⁰⁸

A legal definition was created in 1972 by a federal task force on gifted education directed by U.S. commissioner of Education, Sydney Marland. This was updated in 1981 by the Education Consolidation and Improvement Act of 1981. It defines gifted children as displaying high performance capability in areas such as intellectual, creative, artistic, leadership capacity, or specific academic fields; and who require services and activities not ordinarily provided by the school in order to fully develop such capabilities. In the original Marland task force report the population of gifted was expected to exceed 3-5 percent. However, scarce funding tended to create a de facto maximum of 5 percent for gifted programs. The guidelines for the percentage of gifted students were dropped in the 1981 law. Thus, no guidelines for the percentage of students to be included in gifted programs exist as a part of Federal Policy.¹⁰⁹ Gifted programs in public schools often use an IQ score of 130 to define a gifted child.¹¹⁰

Multiple Intelligences and the Gifted

Psychologist Howard Gardner created the theory of multiple intelligences (MI) in the early 1970's and published it in his 1983 book, *Frames of Mind: The Theory of*

Multiple Intelligences. In three subsequent books over next 25 years, Gardner updated his theory of MI.¹¹¹ Gardner suggests that the classic psychometric view of intelligences is defined operationally as the ability to answer items on intelligence tests. This ability is called the general faculty of intelligence and is an inborn attribute that does not change much with age, training or experience.¹¹² In the development of the theory of MI, Gardner required a large number of criteria for inclusion as an intelligence in the theory including: 1) Knowledge about normal development and development of the gifted, 2) Information about the breakdown of cognitive skills under conditions of brain damage, 3) Studies of exceptional populations including prodigies, savants, and autistic children, 4) Data about the evolution of cognition over time, 5) Cross-Cultural accounts of cognition, 6) Psychometric studies, including examination of correlation among tests, and 7) Psychological studies, particularly measures of transfer and generalization across tasks.¹¹³ Gardner proposes that each core intelligence must have an identifiable set of operations. Each intelligence system is activated or triggered by certain kinds of internal or external information. For example, one core of musical intelligence is sensitivity to pitch. Gardner proposes that the intelligence must be also susceptible to encoding in a symbol system that is culturally contrived that creates and produces important information. Examples of worldwide symbol systems which are necessary for human existence and productivity are language, picturing, and mathematics.¹¹⁴ Gardner's original group of intelligences include: 1) Musical, 2) Bodily-Kinesthetic, 3) Logical-Mathematical, 4) Linguistic, 5) Spatial, 6) Interpersonal—being sensitive to another's moods, temperaments, motivations, and intentions, and 7) Intrapersonal—knowledge of the internal aspects of self—Individuals with intrapersonal intelligence have a viable and

effective model of themselves.¹¹⁵ Since the original list, Gardner has added Naturalist Intelligence. He suggests that Charles Darwin, John James Audubon, and Roger Tory Peterson displayed the intelligence described as the ability to distinguish the plants, animals, mountains, or cloud configurations in their ecological niche. This intelligence is not limited to the visual, for example recognizing bird calls.¹¹⁶

Gardner describes a gifted individual as being a sign of precocious biopsychological potential. That individual is “at promise” in an available domain earning the label of gifted. Individuals can be gifted in any area that is recognized as involving intelligence.¹¹⁷ Gardner defines prodigiousness as an extreme form of gifted that is generally specific to a domain. For instance Mozart is considered to be prodigious because of his extraordinary musical gifts which he displayed at an early age. Gardner suggests that a universal or omnibus prodigy is rare. He gives one possible example—Leonardo da Vinci as being universally prodigious.¹¹⁸ Expert or expertise, creativity, and genius were the additional terms that Gardner used to complete what he called the Giftedness Matrix. Gardner describes an expert as an individual who has mastered the required skills and lore of a domain. The process to master usually takes ten years or more and the expert is performing at the highest level within the domain. However, there is no necessary implication of creativity, passion, or dedication in the performance of an expert. Expertise can be seen as a technical excellence. Gardner described creativity in individuals based on the domain they operated within. He suggested that their products are initially perceived as being novel within the domain but are ultimately accepted by the appropriate community. Gardner defined genius as individuals that are not only expert and creative but whose products assume universal status. He suggests that Charles

Darwin and Isaac Newton in science and Goethe, Rembrandt, and Mozart in the arts as examples of genius.¹¹⁹

In the Giftedness Matrix, Gardner implies that the term giftedness is the potential for developing and/or combining with other components to fully express talent in a domain or universally. Gardner expands his explanation of the matrix by dividing the development of giftedness into four stages based on chronological age.¹²⁰

Gardner describes the first stage of the Giftedness Matrix as being indifferent to both field and domain. The field is the collective group within the domain that judges the products being produced. Gardner assigns age five as the milepost for this level of development. He suggests that although there are rare exceptions, gifted children are only vaguely aware of the rules that exist in their culture concerning domains and the fields of those domains. Gardner proposes that this stage is primarily driven by its own spontaneous interaction with their environment and does not require explicit tutelage.¹²¹

Gardner titles the next developmental stage as *mastering the rules of the domain* with the milepost as age ten. The gifted child is seen as seeking to learn the rules of the domain and conventions of the culture as soon as possible. Gardner characterizes this stage as an apprenticeship en route to expertise in the domain and culture. The free-ranging explorations of the young child have ceased and the informed exploration of the borders of the domain has now begun. The speed of the mastering the rules of both society and the domain may cause the individual to be seen as gifted or prodigious. Creative work is not yet forthcoming, although the roots of creativity and expertise are present. Gardner proposes that creativity is heavily dependent on dispositional and personality traits as well as accidents of demography. He suggests that if gifted

individuals feel like they are marginal within society, ambitious, stubborn, and able to ignore criticism, they will have potential to be creative. Conversely, those individuals that are comfortable as part of the group and advance through the domain with little pressure or asynchrony will most likely be headed for being merely an expert.¹²²

Gardner describes the next level as being at the crossroads. The age is no longer given. Instead, he substitutes the term adolescent and gives an age range of 15 to 25. This age range is the developmental moment of truth for the gifted. Individuals who dedicate themselves to a domain for a decade are likely to attain the level of expert with the option to make modest or greater contributions to the domain for the foreseeable future. However, some individuals do not simply remain at the level of expert. They choose to: 1) Move toward greater risk taking, 2) Increased testing of orthodoxy, 3) Be a determined iconoclast, 4) No longer follow in the footsteps of their mentor, 5) Seek to go beyond what has been done before. If the gifted individual is successful in moving through this period, the opportunity for sustained creative achievement remains intact.¹²³

Gardner described the mature practitioner, the final stage in the Giftedness Matrix, as occurring between 30 and 35 years of age. He characterizes the gifted as being ensconced somewhere in the matrix. He suggests that on an actuarial basis that most of the gifted that committed to a domain are either contented experts, have become discontented, or pursued transcendence of expertise but failed. However, some individuals transcend the norms of intelligence, giftedness, or expertise to seek a creative life. Gardner's own studies suggest that highly creative individuals, regardless of domain, have consistent personalities. He found them to be typically demanding, self-centered, and people difficult with whom to remain on good terms. Gardner's studies

suggest that there are certain patterns to the enterprise of creativity in these individuals. After the first decade of expertise, the highly creative individual makes a bold radical statement—one that shakes up the domain within which the individual is operating. Depending on the domain, a more synthetic statement may appear a decade or so later. In some domains such as mathematics, physical sciences, or lyrical poetry, the opportunities for continued breakthrough are less. In other areas, some scientists such as Sigmund Freud and Charles Darwin were able to find an area to stimulate their creativity for the rest of their active life.¹²⁴

Gardner describes the genius as being a highly creative individual who is able to discover an insight that is new and strike a chord that transcends culture. With genius, the developmental pattern of giftedness has come full circle. Similar to the young child, the genius creates without regard to domain or field. It is the nature of a genius to challenge the domain, producing a product that transcends both domain and culture creating an insight of importance to humanity.¹²⁵ The prospect of a great discovery precipitated by the work of a genius is a strong argument for nurturing the seeds of gifted people in society.

The Case for Self Actualization of the Gifted

Many educators assert that all children are gifted. According to Winner, this often leads to an egalitarian attitude in educating the gifted. Winner asserts that not giving the gifted special educational services makes no more sense than not giving learning disabled special services.¹²⁶ According to psychologist Barbara Kerr, there are no known studies that support the concept that all children are gifted. All known testing supports the concept that talents are distributed along the normal curve just like all other

human traits.¹²⁷ Kerr suggests that giftedness is generally not nurtured in school and the relationship between giftedness and self-actualization is not addressed by education at all.¹²⁸ She proposes that intellectually gifted individuals would seem to be prime candidates for self-actualization. However, Kerr observed that none of her gifted classmates have the autonomy, intensity, or creativity of a self-actualization person. Kerr reports this is especially true of her female classmates that adjusted their goals to “reality.” Yet she fully believes that all of her classmates had the potential to fully express their talents. A faculty colleague captured the indifference toward the needs of the gifted when they suggested that Kerr stop trying to pursue why two percent of girls don’t become nuclear physicists when it would be better that she spend her efforts on the ten percent of boys that can’t read.¹²⁹ It is Kerr’s belief that the rarer the talent, the greater is responsibility—both at the individual and society levels to nurture those talents.¹³⁰

Psychologist Mary-Elaine Jacobsen proposes a path of the gifted to self-actualization should contain the five facets of freedom. Jacobsen describes the five facets as: 1) Identify thyself—recognize the swan of giftedness is not the ugly duckling misfit, 2) Understand thyself—normalize the experience so they no longer feel like the minority of one, 3) Reveal and heal thyself—redefine their uniqueness as not a liability but as a true asset and the foundation of creativeness, 4) Manage thyself—regulate the creative flow, especially intensity, complexity and drive, and 5) Liberate thyself—recognition of where their giftedness originates—cooperating with the soul’s destiny in support of the collective evolution.¹³¹

Just before his death in 1970, Maslow wrote an essay that summarized his axioms of the human psyche. Maslow implied that self-actualization could be nurtured by what he described as good conditions. Maslow lamented that good conditions in the history of humanity had been brief and fleeting.¹³² Maslow defined the good conditions that nurtured self-actualization

We could generalize this entire perspective by saying that the fully evolved person—the one whose higher nature manifests because of good environment tend to be better at everything. This simply means that by any operational definition, such individuals tend to be better human beings.

We can define “good environmental conditions” primarily as comprising all those natural, social, and physiological aspects that foster self-actualization. In turn, such aspects also help toward *basic-need* gratification, because such gratification composed the primary path for higher evolvment and humanness and greater self-actualization.¹³³

It could be argued that Maslow was making a strong case for the nurturing of self-actualization to advance humankind and Kerr has been doing the same for the gifted.

Is There a Qualitative Difference in How the Gifted Think?

In the late 1970's a group of educators led by Bruce Shore conducted a number of studies looking at how the gifted might think differently from other learners. The studies focused on the possible differences in metacognitive processes. Metacognitive processes are the monitoring, evaluation and control of thinking strategies. In addition, the studies focused on the flexibility in the use of the strategies.¹³⁴ A study by Shore and Arlene Dover suggested that flexibility and metacognition appear to be interrelated with each other and connected to high ability. Metacognition and flexibility are invoked more quickly by gifted elementary students than by non-gifted elementary students. The study indicated that metacognition is more than part of a specific solution strategy—it is an

active state of mind. In the study, flexible gifted students demonstrated resolution of problems with greater speed and metacognitive knowledge than either inflexible gifted students or flexible or inflexible average students.¹³⁵ Citing several studies he had co-authored, Shore suggested that children with higher IQ scores or who perform better in school more often create and use strategies similar to those used by adult experts to solve sophisticated problems. These strategies often include components such as; 1) Working with a plan, 2) Metacognition, 3) Favoring complexity, and 4) Organizing their knowledge hierarchically.¹³⁶ Shore concludes by proposing that the gifted do not use strategies that others never use but suggests there are clearly differences in the frequency in which different strategies are invoked as well as in the speed and fluency of their usage. In addition, Shore suggests that gifted perform in a manner similar to an expert's performance. In addition to the characteristics of metacognition, strategy flexibility and strategy planning, and preference for complexity, the gifted also use hypothesis (possibly related to forward chaining) and a hierarchical and interrelated web of knowledge of facts, rules, or procedures.¹³⁷

Prodigy: Giftedness to the Extreme

An extreme form of giftedness is a prodigy. A prodigy is defined as a child who has an appreciable level of adult intellectual understanding in a particular domain. Various definitions often delimit the time period for the prodigy to display their gift by age ten or before entering secondary education. Prodigies are children that are precocious specialists in a particular domain or endeavor, usually music, mathematics, visual arts or chess. Examples of prodigies include Mozart, Mendelssohn, and Chopin in music, Bobby Fischer and Sergei Karajakin in chess, Picasso in the visual arts, and Ruth

Lawrence and William James Sidis in mathematics.¹³⁸ Sidis read at 18 months, had written four books by age eight, and was the first individual to write about black holes and other cosmological subjects. Yet, he renounced his academic life because he could not cope with parental pressure or media attention. After his renunciation of academia, Sidis spent the rest of his life performing menial jobs. Similar histories of rejection of parents, status, and societal values are associated with Ruth Lawrence and Bobby Fischer. Thus, being a child prodigy does not always translate successfully into a fully expressing adult due to family or societal pressures.¹³⁹

Psychologist David Henry Feldman suggests that the appearance and development of prodigies are associated with four factors of timing. He describes the process as “co-incident” to capture the essence of the timing involved in a child becoming a prodigy. The four factors of timing are: 1) The lifespan of the prodigious individual—the era that the child lives in, the family that the child lives within, and the non-prodigious experiences of the child, 2) The lifespan of the domain in which the prodigy appears in—The potential for the prodigy to perform at a high level may not be developed if the field which itself is developing is not available in a comprehensible way for the young mind, 3) The broader historical or cultural context that both the individual and the domain operate in—child and domain must be brought together under circumstances advantageous for sustained engagement, and 4) The evolutionary context within which all of the three previously named factors operate—it is the broadest arena which includes the biological processes of variation and natural selection and the accumulated products of culture and their artifacts viewed through more macroscopic processes.¹⁴⁰ Feldman characterizes the interaction of the four aspects of timing as if the child, field (domain),

culture, and the moment in history conspire to create the extraordinary achievement of the prodigy.¹⁴¹

The PI acknowledges the phenomenon of prodigies. However, prodigiousness is well outside the scope of this investigation. For the purpose of this study, no attempt will be made to differentiate or identify the prodigy in the gifted population of the study group.

Unevenness in Giftedness

Winner suggests that a common myth about the gifted is that they are exceptional across the board in all academic areas.¹⁴² However, she suggests that although there are many gifted that are globally gifted, being globally gifted is more the exception than the rule.¹⁴³ Winner notes that there are also numerous children that are gifted in one or more domains, but learning disabled in another area. Winner concedes that gifted may be incorrectly labeled as learning disabled as it is difficult to distinguish between a bored child, a disturbed child, and a learning disabled child.¹⁴⁴

The concepts of gifted and the learning disabled represent significant populations in public schools. Where these two populations intersect can be described as the twice exceptional child. The definition of a specific learning disability (SLD) as defined by Individuals With Disabilities Education Improvement Act of 2004 (IDEA 2004) is a disorder in one or more basic psychological processes. An example would be reading.¹⁴⁵ One of the difficulties reported in diagnosing learning disabilities in the gifted is that they often compensate with one of their superior intellectual skills. This tends to mask the disability and confound diagnostic testing.¹⁴⁶ The initial masking may cause a disability of a child to be undetected until a declining achievement pattern emerges as the child

progresses through school.¹⁴⁷ Winner proposes that unevenness of abilities is quite common in the gifted. Children with extraordinary strong mathematic and spatial abilities often have average or even deficient verbal skills.¹⁴⁸ Although a learning disability may impact the performance and personality of a gifted child, identifying or excluding that individual as a participant is beyond the scope of this study.

Factors in Identifying the Artistically Gifted

Winner suggests that using IQ as an identifier of artistically gifted is often in error. Winner cites numerous studies that suggest that the visually artistically gifted do not show a tendency to be intellectually gifted.¹⁴⁹

Sociocultural factors are often important in defining creativeness and eventually what is defined as gifted in the domain of art. When the systems model of creativity is applied to art, the three components break down as follows: 1) Domain—a set of rules procedures, and instructions for action. To do anything creative, one must operate within the domain, 2) Field—includes individuals who act as gatekeepers to the domain. In the art world this includes art dealers, art critics, art historians, art collectors, the general public and artists themselves. Collectively, this group selects the art products that become recognized as art. And 3) The individual—is dependent on the nature of the domain and field in the assessment of their art. Thus, an artistically gifted person may go unnoticed in the domain.¹⁵⁰

Is Giftedness Always Related to Intelligence?

According to Winner, general intelligence is unrelated to high levels of achievement. She proposes that savants are the most striking examples of unevenness

between intelligence and extreme ability. Savants are individuals that are retarded, autistic, or both, and who also exhibit extreme ability in a particular domain. This domain or area of expertise is typically in music, visual arts or numerical calculation where they display implicit understanding of the operational rules of the domain.¹⁵¹ For the purposes of this study, giftedness will refer only to giftedness as defined by the participating school districts.

Characteristics of the Gifted That Could Support Self-Actualization

Gifted children learn faster and in a qualitatively different way. They are more self-reliant than the average child and often teach themselves. They require minimal help or scaffolding from adults. They are self-motivated and often invent novel, idiosyncratic ways of problem solving. This means that the gifted tend to be internally driven and creative in their nature.¹⁵² This internal functioning in their domain or area of high giftedness reflects in the typical way that they function in their total environment— The gifted children's self-confidence within their domain tends to lead to the child's independence and their independence allows them to reject criticism from others and not participate in activities that do not engage them. They often reject mainstream values and gender-stereotyped traits. Thus, the independent thinking allows the gifted child to go against cultural norms and work to develop their talent.¹⁵³

Psychologist Lewis Terman's groundbreaking 1925 study of 1528 gifted children is recognized as the first significant scientific investigation into giftedness. Terman is also known as the inventor of the Stanford-Binet IQ test. The study participants were selected solely by their IQ scores. The threshold score for participation was 135 or greater on the Stanford-Binet. Though his study on the gifted has been widely criticized

for its lack of religious and ethnic diversity, there have been numerous follow up studies on individuals that participated in the study giving the researcher a 25 year longitudinal view of the study's participants. In addition, Terman's database has been preserved and is available from the Inter-University Consortium for Political and Social Research.¹⁵⁴ In a study using the Terman's original study and follow up studies in 1928, 1936, 1940, and 1950, psychologists Li Zuo and Liqing Tao found that perseverance, purposiveness, desire to excel, self-confidence were important factors in the personality development of the gifted. The results of the study also suggested that the parents' self-confidence and encouragement to children's independence created a higher persistence, purposiveness, self-confidence and a lower sense of inferiority.¹⁵⁵ The higher persistence, purposiveness and self-confidence appear to compliment Maslow's description of self-actualization as an unceasing trend, fulfillment of a mission, and a strong self-image.¹⁵⁶

Gifted Underachievers

It has been estimated that between 15 and 40% of identified gifted students are at risk for school failure or significantly underachieving. A number of child specific variables have been identified as possible causes in underachievement of the gifted. The most widely studied variable is self-concept. Gifted underachievers generally have poorer levels of self-concept than either achieving gifted students or regular education students. This is especially true in the areas of academic and intellectual self-concept.¹⁵⁷ However, the correlational nature of the studies on self concept and underachievement made it difficult to determine if poor self-concept was the cause or effect of the underachievement.¹⁵⁸ Several studies suggest that the social environment of the underachieving gifted student was a factor in underachievement; this was particularly

true with their peer relations. Although being smart may be an asset for a student in elementary school, the movement toward peer conformity in middle and high school may be a factor in underachievement. When peer relations take on a higher priority, the gifted tend to underachieve.¹⁵⁹ Psychologist Robert Selman suggests that problems with underachievement begin in late elementary school and middle school. This coincides developmentally with the age where children are able to make comparisons and evaluate themselves in relation to others.¹⁶⁰

Cultural Interpretations of Giftedness: East Asia versus Western

Members of all cultures realize that intellectual differences exist among human beings. In Western society a great emphasis is placed on the intellectual ability of the individual in general and of the gifted in particular. The cultures of Taiwan, China, and Japan have a totally different view of giftedness. The Chinese and Japanese consider the teacher's skill and the student's diligence, not innate intelligence, to be the most important influences on a child.¹⁶¹ For the Japanese and Chinese, education has two major factors—acquisition of knowledge and the socialization of the child. While there is little disagreement in the importance of education in acquiring knowledge and skill, there is a strong focus on socialization in East Asia. Their educational philosophy asks, how can children learn to adapt to their culture if they are segregated from the peers? They reject nativism and emphasize the role of environmental factors in differentiating gifted individuals from their peers. The East Asia educational philosophy tends to keep intellectually gifted students in regular classes and supplement their education with in-school and after school extracurricular activities giving the students a greater balance between social interactions and intellectually stimulating experiences. Given the high

level of performance of East Asia students, it appears difficult to argue with their success.¹⁶² The following paragraph examines how academic success may have a positive impact on attitudes of the gifted.

The Role of Academic Success in the Development of Self-Actualization

A study by Polish psychologist Irena Pufal-Struzik found that success in academics by the gifted student had a positive impact on their self-actualization. In Poland entry into programs for the gifted are competitively based on academic performance. Thus, academic success is a given for all students identified as gifted in the study. The study of 140 high school students found that highly gifted students had a significantly higher level of self-actualization than average ability students. Pufal-Struzik defined highly gifted students as individuals that had reached the third level of criteria for giftedness in the Polish system. The study found that the relationship of the gifted students with their parents and school environment were keys in their level of self-actualization.¹⁶³ Pufal-Struzik reported that the gifted students had a higher sense of realization of inherent potentials than their less gifted peers. She proposes that the self-actualization in the gifted is a two-sided process—intense cognitive activity in the selected area leads to success and in turn increases the sense of self-actualization. To maximize the self-actualization potential of the gifted student, she theorizes that a nurturing environment of acceptance, independence and security by parents and school is needed.¹⁶⁴

Self-Acceptance, Locus of Control, and Creativity in the Gifted

As Maslow developed his concept of self-actualization, he became convinced that self-actualization and creativity were closely related.¹⁶⁵ Howard Gardner proposes that

the real creative process is an intrinsic process in any domain of activity where an individual gets into a flow. He describes the individual as being lost in the process, totally realized, in a peak experience. He suggests that when the individual is being judged by external criterion the creativity tends to narrow the scope of what is produced. In contrast, the absence of evaluation seems to free creativity.¹⁶⁶ Feldman suggests that creativity is a process where individuals interact upon man-made ideas and crafted environment to create novel ideas, which may be further modified by others, which become transformative at some point of time.¹⁶⁷ Gardner, Feldman, and psychologist Mihaly Csikszentmihalyi suggest that there are two types of creativity, “big” and “small.” They define big as being the tendency to bring a fresh and vibrant interpretation to any endeavor regardless of size, while small creativity can be described as creating an arrangement of flowers that brightens a room.¹⁶⁸ Their concept of “big” creativity appears to agree with Maslow’s description of creativity. He describes the creativity of self-actualized individuals as being more encompassing than the creative arts. He suggests that the creativity of self-actualization as: 1) Freedom of perception, 2) Innocent, 3) Free from stereotypes and clichés, 4) Effortless, 5) Uninhibited spontaneity, and 6) Uninhibited expressiveness. Maslow describes this childlike behavior as Second Naiveté but cautions the reader that he is describing individuals in their 50-60’s.¹⁶⁹

Pufal-Struzik suggests that individuals that do not have a strong concept of self are less aware of their strengths and weakness and tend to give control to an outside agency, especially with authoritarian personalities. A high level of self estimation allows the individual to leave behind the old and search for something new.¹⁷⁰ She proposes that the locus of control also is an important factor in creativity. Individuals with internal

locus of control tend to be more active, ambitious, efficient, and independent. They have strong belief in their creative abilities and tend to express them more freely.¹⁷¹ In a study involving 30 creatively gifted students and 30 non-creatively gifted students, the creativity gifted group was found to have a significantly higher level of self-acceptance and internal control than the non-creative group.¹⁷²

Moral Reasoning

Psychologist Linda K. Silverman cites numerous studies showing that gifted children often have passionate concerns about ethical and political issues such as injustice, violence, abortion, gun control, pollution, and animal rights. They also reason at a level far above their peers.¹⁷³ Additionally, Winner cites eleven studies using Lawrence Kohlberg's theory of moral development as a model that shows not only do the gifted reason at a level above their peers; they often function at the highest of Kohlberg's three stages—postconventional. This stage is attained by less than ten percent of the adult population.¹⁷⁴ Thus, they often function at a level of moral reasoning that exceeds ninety percent of the adult population.

Gifted students functioning at Kohlberg's postconventional level of moral reasoning may stem from their superior cognitive abilities. Rather than learning their moral reasoning through cooperative ventures such as playing games as in the Jean Piaget model of moral development, the gifted child may be more development sensitive because of how they process information.¹⁷⁵ For example, Author David A. White suggests that the gifted are more sensitive to injustice because they clearly recognize justice as a principal rather than as a practical decision based on learned guidelines where individuals act in mutually beneficial ways as suggested by Piaget.¹⁷⁶ Thus, when gifted

children perceive an injustice, they perceive it as a violation against the principal of justice rather than what benefits are conferred by justice as suggested by Piaget. White concludes that the combination of internalizing the principal of justice more than their non-gifted cohorts and reports of higher sensitivity to stimuli by gifted children contribute to the response of the gifted to moral issues.¹⁷⁷

Overexcitability (Nadpobudliwosc)

There are studies that suggest the gifted may have a high level of overexcitability. The concept of overexcitabilities theorizes that certain individuals have an enhanced level of how they experience their environment. The term was introduced by Polish psychologist Kazimierz Dabrowski in 1964. It is a translation of the Polish word nadpobudliwosc which literally means superstimulatability. The prefix “over” is used to emphasize a unique way of responding, experiencing, and acting that is enhanced and differentiated by some characteristic forms of expression.¹⁷⁸ These can be understood to be channels of information flow that allow the gifted to take in and process a larger than usual amount of stimuli from the surrounding environment. The more channels that are open, the more diverse and intense the experience. There are five different dimensions of overexcitabilities that include: 1) Psychomotor, 2) Sensual, 3) Intellectual, 4) Imaginational, and 5) Emotional. How the individual responds to a situation is determined by which dimension is dominant.¹⁷⁹ While overexcitabilities are often thought to create extremes in the emotional experience, there is some research that indicates that they are a potential for future growth.¹⁸⁰ These studies suggest that the greater the intensity of the expression, the stronger the potential is for further growth.¹⁸¹ This level of intensity is measured by the Overexcitability Questionnaire (OEQ). The

current version (OEQII) has fifty self-report items divided into five subscales. A high score on OEQII indicates a higher the level of overexcitability.¹⁸² In a study of overexcitabilities of 711 tenth grade students in Turkey, gifted students were found to score significantly higher on the OEQII than their peers of lesser intellectual abilities. High scores on OEQII were found to be predictive of students with gifted abilities.¹⁸³ A note of interest in the Turkish study was the emotional overexcitability scores. Though the scores of the gifted were higher than the non-gifted, the overall mean scores in the emotional subscale were much lower than comparable tests using the OEQII with the gifted in western cultures. The researchers, Buket Yakmaci-Guzel and Fusan Akarsu, proposed that low scores reflect Turkish culture teaching that children are to hide emotions because exhibiting them is a sign of weakness.¹⁸⁴ It could be argued that this is evidence of the impact of sociocultural factors on the gifted.

This potential for growth can be enhanced by nurturing with direction from a mentor for it to blossom into higher level development that can manifest as altruism, self-actualization and higher levels of moral reasoning. Without nurturing, the product of the overexcitabilities tends to remain as potential.¹⁸⁵ Psychologist Lev Vygotsky introduced the Sociocultural Theory of behavioral development. The Sociocultural Theory's main premise is that the social and cultural environment of the individual is the main influence in behavioral development. Vygotsky saw that through the instruction of more competent others, children came to master the physical signs and tools of their culture. He proposed the mastering of the tools and signs led to a better inner experience as development occurred. The inner experience and development increased as there was a

reciprocal interaction between the two factors. This interaction results in developmental progress taking place precociously and an accelerated rate in the gifted child.¹⁸⁶

Giftedness = Asynchronous Development

Giftedness is asynchronous development. Asynchronous literally means out-of-sync.¹⁸⁷ The clearest example of this in the gifted is between intellectual development and physical and social skills. There is evidence that indicates that the gifted child's performance in the physical domain may only be as advanced to the extent that the physical tasks are related to cognitive organization.¹⁸⁸ The result is that the cognitive and emotional experiences of the gifted would be qualitatively different than their peers because their minds had not been reshaped by the integration of cultural symbols into their patterns of thought.¹⁸⁹ As previously reported in this essay, the lack of enculturation often causes the gifted to reject mainstream values and gender-stereotyped traits. Thus, the independent thinking allows the gifted child to go against cultural norms and work to develop their talent. The accelerated development has its downside. For example the difference between the mental age and the chronological age of gifted children can increase the asynchronous development with age. For a moderately gifted child with an IQ of 135 the following pattern can occur: 1) a six year-old body with an eight-year old mind, 2) the same child has a nine year-old body with a twelve year-old mind, and 3) a 12 year-old body with the mind of a 16 year-old body. By comparison a child that is extraordinary gifted with an IQ of 170 could project the following: 1) six year-old body with the mind of ten year-old, 2) at age nine the child has the mind of a 15 year-old, and 3) at age twelve, the child has the mind of a twenty year-old.¹⁹⁰ This variance of ages is complicated because the child is an amalgam of many developmental ages. In terms of

development, chronological age may be the least relevant. For instance, a child with an IQ of 170 might have a chronological age of six and a mental age of ten. However, the child may be: 1) six when riding a bicycle, 2) thirteen when playing a piano, 3) nine when debating rules, 4) eight when choosing hobbies, and 5) three when asked to sit still. The conflicting relationships caused by the variance of development ages can cause problems for the child, parents and the school.¹⁹¹ Racing ahead of physical development, the gifted in general and highly gifted in particular are more susceptible to developmental difficulties because of Asynchrony—the combination of cognitive complexity and heightened intensity. The areas of susceptibility include: 1) uneven development, 2) perfectionism, 3) adult expectations, 4) intense sensitivity, 5) alienation, 6) inappropriate environments, and 7) role conflicts.¹⁹² The key for gifted children reaching their potential is for parents, society, and all institutions to create a nurturing environment that encourages their vast potential to be expressed.

Self-Actualization: A Dramatic Change One Step at Time

Maslow proposed that the shift from earlier stages of consciousness that featured aversive externally driven existence to an internally driven way of being was a significant jump. He characterizes this development as a very small population that seems to have grown beyond the general population of their culture—often taking a lifetime to do so.¹⁹³ Virtually of all the measurements and research on self-actualization has been with adults. A study by Joan D. Lewis, Frances A. Karnes, and Harold V. Knight found ten published research articles on self-actualization studies with children and youth. The studies primarily focused on the effects of grade level and gender on the level of self actualization in children.¹⁹⁴ There have been some studies that indicate the mean scores

of gifted high school students in self actualization are significantly higher than those of junior high school and elementary school gifted students. The studies used a test titled the Reflection of Self by Youth (ROSY).¹⁹⁵ However, other studies using another instrument, the Maslowian Scale, have shown mixed results.¹⁹⁶ In addition, several studies have reported a loss in self esteem in middle school and high school students, especially for females.¹⁹⁷ One of the studies on self-esteem was commissioned by the American Association of University Women. The study included 3,000 students between fourth and tenth grade. The report found that 60% of elementary school girls and 67% of elementary school boys were happy with the way they were. Over the next eight years, only 46% of the high school boys and 29% of the high school girls said they were happy with themselves. Thus, the gender gap between boys and girls in the study's measurement of self-esteem had increased from 7 to 17% from elementary school to high school.¹⁹⁸ The study showed that boys were twice as likely as girls to name their talents as something they liked about themselves while girls were twice as likely to select a physical characteristic about what they liked about themselves. The results were not the same over all races. Black girls did not lose as much self-esteem as white girls while Hispanic girls lost more self-esteem than either group.¹⁹⁹ Psychologist Barbara Kerr suggests that community support reduced the amount of loss of self-esteem in black girls while cultural influences may be important in the plunge of self-esteem in Hispanic girls.²⁰⁰ In a cross sectional study of 134 gifted and non-gifted students in grades 3, 5, and 8 by Ann G. Klein and Debra Zehms, found significant declines in gifted girls in total self-concept. The self-concept of non-gifted declined less dramatically and was not statistically significant between grades 5 and 8. The confidence of gifted girls fell in their

intellectual ability, status in school, and popularity.²⁰¹ Kerr suggests that there is significant data that gifted girls have high self-esteem and have big dreams about their future. If the condition of being an adolescent provokes a plunge in the self-esteem of girls in general, she theorizes that the drop in positive self-opinions of the gifted must be even more dramatic.²⁰² Although self-esteem is not the same as self-actualization, it is a precursor of self-actualization.²⁰³

Maslow proposed that the process of self-actualization was incremental, small steps forward, one by one.²⁰⁴ Given the importance of self-esteem in self-actualization, it would seem plausible that the loss of self-esteem would impact the ability to self-actualize. Thus, in childhood the process of self-actualization step by step process may be slowed or reversed by the loss as suggested by the mixed results from tests using the Maslowian Scale.

Perfectionism in the Gifted, Boom or Bane

Traditionally, perfectionism has been defined in pathological terms. An exception to conventionally thinking concerning perfectionism was expressed by Alfred Adler. Adler theorized that maximizing an individual's talents was a major aspect of human development and was viewed as healthy when it included positive interactions with others.²⁰⁵ Although there is some disagreement as to the precise definition of perfectionism the current consensus identifies the current construct as: 1) Setting of excessively high personal standards, 2) Doubt about meeting those standards, 3) Concerns about meeting social expectations (typically by parents and teachers), and 4) Excessive focus on personal control.²⁰⁶ Numerous authors have claimed that the natural association between giftedness and perfectionism can lead a number of negative

consequences such as depression, anxiety, and low self-esteem. For example Psychologist Thomas S. Greenspon described perfectionism as a wound that is never healthy that may never heal.²⁰⁷ Greenspon expands his concept of perfectionism by describing perfectionism as: 1) The concern over mistakes, rather than the pride of accomplishment, 2) Perfectionism does not determine success—Talent, energy and commitment do, 3) Perfectionists are successful despite their perfectionism, not because of it, and 4) Perfectionism and striving for excellence are not the same thing.²⁰⁸

However, a survey by psychologists Jeffrey Ashby and Kenneth LoCicero found only one empirical study that investigated the relationship between giftedness and perfectionism.²⁰⁹ The study conducted by Wayne. D. Parker and Carol. J Mills using the Multidimensional Perfectionism Scale found no difference in the overall level of perfectionism between 600 gifted middle school students and 418 peers from the general cohort.²¹⁰ Parker and Mills also found that gifted students were not more perfectionistic in maladaptive ways as had been generally hypothesized.²¹¹ Although Parker and Mills cited eleven studies that demonstrated a relationship between perfectionism and various types of maladjustment, they propose that striving for unrealistic high goals, not striving for excellence is the cause. They point out that it is often difficult to determine what goals are unrealistic with the gifted and talented. A goal that is unrealistic for a less talented peer may be attainable for the gifted.²¹² Parker and Mills report numerous anecdotal reports suggesting a higher incidence of perfectionism in the gifted. They cite the findings of a concurrent typology study by Parker of 820 gifted students. Parker's study did not support the anecdotal reports of higher incidence of perfectionism in the gifted. Parker and Mills propose that the labeling of observations of similar behaviors of

the gifted and their non-gifted cohorts may be the cause of disparity between anecdotal reports and the Parker study. They suggest that the behaviors of less able student may be labeled as conscientious or responsible, while similar actions by talented students might be labeled as perfectionist because of the expectation of finding maladaptive perfectionism in the gifted.²¹³

Using the Almost Perfect Scale-Revised (APS-R), Ashby and LoCicero supported the findings of the Parker and Mills study. The results of their study also suggest that the gifted may be more perfectionistic in an adaptive way that can lead to high standards that produce academic excellence commensurate with their abilities. Unlike the Parker and Mills study, which investigated only the pathological view of perfectionism, the APS-R used by Ashby and LoCicero looked at both the maladaptive and adaptive dimensions of perfectionism.²¹⁴ The study by Ashby and LoCicero supports psychologist Ellen Winner's claim that perfectionism can be a positive driver for high achievement for the gifted.²¹⁵ In their study, Ashby and LoCicero propose that the difference between adaptive and maladaptive perfectionism in the gifted is in how they handle the discrepancy between their standards and their performance output. The gifted who were adaptive perfectionists were able to accept their failures while the maladaptive never accepted the shortfall as good enough.²¹⁶ By viewing perfectionism from both a maladaptive and adaptive viewpoint, the APS-R can look at the role of perfectionism as aspect of the development of the gifted. For further discussion of the APS-R, see Section 3 of Chapter 2.

John A. White suggests that perfectionism in the gifted creates an intrinsic driver in the pursuit of excellence. The pursuit of excellence by the gifted creates an awareness

based on self-appraisal of their work rather than validation of others. The gifted strive for excellence just for the sake of being as good as possible.²¹⁷ White's suggestion that perfectionism could produce an intrinsic driver in the gifted was the reason for including the APS-R in this study.

This section has identified some characteristics of the gifted that have the potential to translate into self-actualization. The potentiality of the characteristics can be tempered or enhanced by the sociocultural factors that Vygotsky's theory defines. A short demographic questionnaire designed by the PI will investigate the sociocultural background of the participants. A brief discussion of the questionnaire is found in Section 3 of Chapter 2.

Section 3: Measurement Instruments

This section reviews the literature concerning the standardized psychometric instruments in this study. A discussion of the selection process, a description and history of the tests, and possible interrelation of the test results are discussed.

Personal Orientation Inventory (POI)

In 1962, psychologist Everett Shoestrom conceptualized a measure of the self-actualized person. The Personal Orientation Inventory (POI) was developed to provide a standardized personal assessment instrument to measure values and behaviors that were hypothesized to be of importance in the development of a self-actualized individual. The items in the POI were based on value judgments seen by therapists in private practice. Among the concepts incorporated in the initial development were Maslow's self-actualization, Fritz Perls' conceptualization of time orientation, David Riesman, Reuel Denny and Nathan Glazer's system of inner or other directedness and Sheldon Bach and

Arnold Goldberg's theories of acceptance of aggression. In 1964, Shoestrom successfully demonstrated the effectiveness of the POI by showing that the instrument could significantly discriminate between clinically nominated self-actualized individuals and a group of non-self-actualized individuals. The study group was nominated by a group of 18 prominent certified practicing psychologists. This performance was followed up by numerous successful trials in the next four decades.²¹⁸ The POI is an instrument that has been used in its current form since 1974. In 1996, the language of test items used in the POI was updated to reflect contemporary trends and be gender neutral.²¹⁹

Description of the POI

In his last book *The Farthest Reaches of Human*, published posthumously in 1971, Maslow wrote the following passage about the POI:

“In studying healthy people, self-actualizing people, etc., there has been a steady move from the openly normative and frankly personal, step by step, toward more and more descriptive, objective words, to the point where there is today a standardized test of self-actualization. Self-actualization can now be defined quite operationally, as intelligence used to be defined, i.e., self-actualization is what that test tests. It correlates well with external variables of various kinds, and keeps on accumulating additional correlational meanings ... Most of what I was able to see intuitively, directly, personally, is now confirmed with numbers, tables, and curves.”²²⁰

The POI continues to produce the numbers, table, and curves that Maslow referred to over 37 years after the POI was first published. In addition, Maslow acknowledged that he used the POI in his research.²²¹ The following paragraphs have a discussion of the POI and other instruments that measure self-actualization.

The POI consists of 150 comparative judgment items that reflect values and behaviors considered significant by Shostrom in the development of self-actualizing individuals. Test participants are asked to select one statement from each pair that most

applies to them. Shostrom not only incorporated Maslow's concept of self-actualization but added concepts of self actualization from Psychologists Carl Rogers, Fritz Perls, and David Riesman as well his own concept to create the instrument. The POI is broken down into two major scales—Inner Directed and Time Competence and 10 subscales.²²² There are 127 items in the Inner Directed Support Scale (I) and 23 items in the Time Competence Scale (TC). The inner directed scale measures the individual's level of independence and self-reliance. The high scorer on the Inner Directed Support scale is true to himself regardless of the responses of others. The low scorer on this scale is likely to be overly sensitive to external forces and dependent on others for approval. The Time Competence Scale measures the degree that the participant lives in the present. The time competent individual lives primarily in the present while the time incompetent individual lives primarily in past with guilt, regret, and resentments—or in the future with worry about future goals, plans, expectations, and predictions.²²³ The subscales are as follows:

- 1) *Self-Actualizing Value (SAV)*—measures composite of values of the self-actualizing individuals,
- 2) *Existentiality (Ex)*—measures the ability to situationally react without rigid adherence to principles,
- 3) *Feeling Reactivity (Fr)*—measures responsiveness to one's own needs and feelings,
- 4) *Spontaneity (S)*—measures freedom to react spontaneously,
- 5) *Self-regard (Sr)*—measures self-worth,
- 6) *Self-acceptance (Sa)*—measures the acceptance of one's self in spite of one's weaknesses, SA and SR are considered absolute requirements in the process of self-actualization,
- 7) *Nature of Man—Constructive (Nc)*—measures the degree of constructive view of the nature of man,
- 8) *Synergy (Sy)*—measures the ability to transcend dichotomies,
- 9) *Acceptance of Aggression (A)*—measures the ability to accept one's natural aggressiveness instead of

defensiveness, denial and repression of aggression, and 10) *Capacity for Intimate Contact (c)*—measures the ability to develop intimate relationship with others, unencumbered by expectations or obligations.²²⁴ The following section describes a psychometric strength of the POI—the ability to resist faking of participants to skew results.

Fakability of the POI

Since the creation of the POI in 1962, there have been numerous studies on the resistance of the POI to faking by participants selecting inaccurate answers to skew the test results. The studies included a translation of the POI into the Spanish Language. The studies support the contention that the POI has a high resistant to faking unless there is pre-knowledge of the concepts of the POI²²⁵ The initial study on fakability of the POI was conducted in 1969 by John R. Braun and Dolores La Faro. The study found that when college students in psychology classes were asked to answer to make a good impression, they actually scored lower rather higher on the POI. Only after the students were given the concepts of self-actualization were the students able to score higher on the POI.²²⁶ Numerous other studies including a 1984 study by Howard N. Anderson, Gus Sison, and Susan Wester have supported the findings of the study of Braun and La Faro. In the Anderson, Sison, and Wester study, college undergraduates were asked to fake a good score. The participants were divided into a “fake good” group and a comparison group. The comparison²²⁷ group was given standard administrative instructions. The fake group was further divided into high IQ and lower IQ groups. Neither the high IQ subgroup nor the lower IQ subgroup of the fake group scored higher than the comparison group. In fact, the comparison group had higher scores than either of the fake subgroups.²²⁸ In another study conducted with college students by James H. Ecker and

John T. Watkins, the POI was again found to be resistant to faking unless the students had an understanding of humanistic psychology. Neither students from introductory psychology classes nor students who were psychology majors from upper division classes scored higher on the POI than the students who had taken a humanistic psychology classes.²²⁹ Ecker and Watkins suggested that unless the theoretical foundation of the POI is pointed out to the individuals, they were unable to elevate their scores on POI.²³⁰ The finding of high resistance to fakability by the Ecker and Watkins' study collaborate the findings of numerous studies on the POI.

Idiographic Approach to Confirming the POI

Psychologist Eugene Hightower studied four individuals that had all scored above the mean for self-actualization on the POI. Hightower used an idiographic approach to support the findings of the POI. The individuals were all in their early fifties with diverse lifestyles. All four subjects had been known by the researcher for more than ten years. The individuals in the study included a couple that had been married for thirty years, a divorced mother of three, and a single gay man. The subjects were asked to write a short essay on the experiences and ideas that assisted them in living growth oriented lives. The analysis of the essays found seven uniting factors in the four test subjects. They included: 1) a clear value system and philosophy of life that was uniquely their own, 2) were tolerant of differences among people and accepted people as they are, 3) showed an interest in the lives of others, 4) sought to learn from life, 5) the idea of being true to oneself was a conscious belief, 6) reported being emotionally *moved* by life, in one case to the extent of transcendent experiences, and 7) have avoided the twin pitfalls of over-conformity to societal expectations on the one hand versus blind rebellion on the other.²³¹

The essays of the four subjects of Hightower's study gave credence and depth to the results of the POI. The essay confirmed the test results while the selection process was confirmed by the POI. However, all the individuals in this study and Maslow's study were middle aged with obvious behaviors of self-actualization—to the extent that the selectors were able to recognize the individuals as being self-actualized. The POI was a good method to confirm the longitudinal observations of the therapist concerning these self-actualized individual.

POI: Confirming Previous Studies

The POI has been used as an instrument in numerous applications to confirm previous studies on self-actualization.²³² For example, several studies have suggested that assertive individuals have a higher level of self-actualization than non-assertive individuals. Assertiveness is defined as standing up for personal rights and expressing thoughts, values, feelings, and beliefs appropriately in a direct and honest manner while not violating another's personal rights. Conversely, non-assertive individuals are assumed to express feelings, thoughts and feelings in an apologetic, diffident, and self-effacing manner.²³³

In a study by Nerella V. Ramanaiah, Joel R Heerboth, and Darryl L. Jinkerson of 154 introductory psychology students, the POI was used with the Personality Research Form (PRF) and the Assertion Index to determine if assertive individuals were more self-actualized than non-assertive individuals. The assertive individuals scored significantly higher than non-assertive in both major scales and nine of the ten subscales of the POI. Most of the scales and subscales had *p-values of $p < .001$* with the only subscale not significantly greater for the comparison being the Nature of Man-Constructive (NC). The

study strongly supported the hypothesis that assertive individuals have a different profile and self-actualizing values than the non-assertive individuals. The study supported previous studies concerning the self-actualization of assertive individuals.²³⁴

Alternative Tests for Self-Actualization

The field of candidates for an additional psychometric instrument to measure the level of self-actualization is limited. In addition to the POI, the following instruments relate to self-actualization: 1) the Personal Orientation Dimension (POD) developed by Shostrom in 1975, 2) the Short Index of Self-Actualization (SISA) developed by Alvin Jones and Rick Crandall, 3) Measure of Actualization of Potential (MAP) designed by R. Lefrancois, G. Leclerc, et al), 4) Maslowian Scale (Falk, Bard, Duffy, Grieco and Markus), and 5) the Brief Index of Self-actualization created by Charles Bundrick and John Sumerlin. An extensive search by the PI of this study was unable to find access to the test or contact the authors of the SISA, MAP, the Maslowian Scale and the Brief Index of Self-actualization. The POD was the only test that was found to be published and available for usage.

Reviews on the POD find it to be a longer version of the POI with no higher validity (260 items).²³⁵ The POD lacks a valid psychometric reason to supplant or supplement the POI and its length could create time constraints in the context of school classroom setting. Thus, the length of the POD eliminates it from consideration for inclusion in this investigation. A brief overview of the four unpublished tests follows.

The MAP was developed by five researchers, R. Lefrancois, G. Leclerc, M Dube, R. Hebert, and P. Gaulin at Sherbrooke Geriatric University Institute in Sherbrooke, Quebec, Canada. It was created to address the psychometric issues about the POI,

particularly with older adults and individuals with limited education. Early trials found the MAP to have better theoretical and empirical evidence than the POI with stronger psychometric properties. The psychometric properties included: 1) high content and construct validity, 2) good internal consistency of the scale, 3) suitable for a wide age range, and 4) short, unambiguous answers suitable for self-reporting.²³⁶

The SISA was developed by Jones and Crandall. It was developed using modified items from the POI. It has fifteen items. In its trials, the SISA was found to have significant correlation with the POI. It correlated as expected with measures of self-esteem, rational behavior and beliefs, neuroticism, and extraversion. It was found to be a useful tool in research contexts.²³⁷

The Brief Index of the Self-Actualization was developed by Sumerlin and Bundrick. Unlike the POI which drew from a variety of psychological perspectives, the Brief Index was wholly developed from the composite writings of Maslow. It has 40 items and was created from Sumerlin's Personal Attitude Survey of 65 items. In trials it was found to correlate well with the SISA with a high degree internal consistency. The Brief Index is suggested for use by a researcher as a distinct measure for Maslow's model of self-actualization.²³⁸

The Maslowian Scale, developed in 1988, is a limited measure of self-actualization. This 12 item test has three subscales. Only one of the subscales actually measures self-actualization. The Fundamentals Scale measures physiological and safety issues while the Psychological Scale relates to need and belongingness. The Self-Actualization scale has an inverse relationship to the Fundamentals and Psychological

Scales of the Maslowian Scale.²³⁹ As reported earlier in this chapter, results from using the Maslowian Scale have been mixed in the replicating of the initial testing results.

The POI has a long record of use over a wide variety of age groups including gifted adolescents.²⁴⁰ In addition, the POI is often used with other psychometric instruments to develop a more comprehensive assessment of an issue. For instance, the POI was used in conjunction with the Multiscore Depression Inventory (MDI) to measure the relationship between depression and self-actualization in gifted adolescents.²⁴¹ The POI correlates well with other instruments to investigate relationships of factors considered important in the process of self-actualization. As reported earlier in the chapter, Maslow considered creativity an important component, if not synonymous with self-actualization. In a study by Psychologist George D Yonge, the POI was used to investigate the convergence of self actualization, creativity and certain experiences of time.²⁴² The study used the POI to measure self-actualization, the Inventory of Temporal Experiences (ITE) was used to measure the relationship of time and creativity based on theories of Psychologist P. T. Hugenholtz, and The Adjective Check List (ACL) was used to measure creativity.²⁴³ The study consisted of eighty college students and found that both major scales and seven of the ten subscales of the POI correlated with one or more of the four scales of the ITE. Yonge suggested that the results of the study offered evidence for the construct validity of several of the POI subscales and supported for the concept of convergence of creativity, self-actualization and time based on theories of Maslow and Hugenholtz.²⁴⁴

The performance of the POI is well-known—its strengths and weaknesses. It has been successfully used with numerous other instruments.²⁴⁵ The lack of access and

limited peer review eliminated the final four alternative candidates from consideration as a test instrument.

The POI has been used for measuring the levels of self-actualization from middle school age children to adults of all ages. The POI gave the opportunity for the PI to compare the level of self-actualization of a group labeled as gifted by public school system with a comparison group of cohorts not enrolled in gifted programs using an instrument with a long successful history. The POI's long history allows the groups in this study to not only to be compared with each other, but also with past and future research study results. In investigating self-actualization in the gifted, the POI provided the PI with the ideal instrument to measure the suggestion that gifted children have numerous attributes that suggest that gifted children have a higher level of self-actualization. This line of reasoning led to the first hypothesis of the study which states: The students in the gifted group will demonstrate a higher level of self-actualization than the Comparison group as measured by the Personal Orientation Inventory (POI).

The Almost Perfect Scale Revised (APS-R)

The APS-R is a 23 item instrument developed by psychologists Robert Slaney, Kenneth Rice and Jeffrey Ashby. While early measuring instruments looked at perfectionism as being pathological, several studies in the early 1990s suggested that perfectionism could have both positive and negative effects on individuals.²⁴⁶ The instrument uses a 7 point Likert scale (1 = *strongly disagree* through 7 = *strongly agree*) and divides the 23 self-reporting items into three subscales. The High Standards scale of seven items measures adaptive perfectionism values while the twelve item Discrepancy scale measures the characteristics associated with maladaptive perfectionism. The other

four items of the APS-R are the Order subscale that measures preferences for order and organization.²⁴⁷ The APS-R has had numerous exploratory and confirmatory analyses that support its structure. Internal consistency coefficients of the APS-R ranged from .85 to .92 and it demonstrated significant pattern correlations with other measures of perfectionism.²⁴⁸ For instance, a study of 342 gifted middle school students by Beverly J. Vandiver and Frank C. Worrell using various measures of perfectionism supported the APS-R as a valid measure of perfectionism. Vandiver and Worrell report that the APS-R more clearly delineated the positive and negative aspects of perfectionism. They propose that the instrument provided a strong basis for assessment and clinical intervention.²⁴⁹ Cross-validation of the APS-R with other measures of perfectionism; as well as criterion related validity with measures on depression, life satisfaction, and school performance, suggest that APS-R is an effective measure of the impact of perfectionism on behavior.²⁵⁰ The APS-R is copyrighted but not available commercially. The PI received permission from the authors of the APS-R to use the test.

As reported earlier in this chapter, literature suggests that the gifted are internally motivated to reach high levels of expertise in their areas of giftedness. Winner described the intrinsic driver of the gifted as the “rage to master.” Other authors suggest that the rage to master may lead to perfectionism. Perfectionism is often described in literature as being pathological in nature. As reported in Chapter Two, a number of recent studies suggest that adaptive perfectionism is psychologically healthy and an integral part of the high performance of some gifted children. The APS-R was included in this study by the PI to investigate the role of perfectionism, adaptive or maladaptive, in the self-actualization of the gifted. The role of perfectionism was measured in two different

hypotheses. Hypothesis 2 proposed that: There will be no significant difference in the scores of the Discrepancy subscale of the Almost Perfect Scale-Revised (APS-R) between the study and Comparison group. The second hypothesis was based on studies reported in this chapter that suggested that gifted were no more likely to be a maladaptive perfectionist than their non-gifted cohorts. The third hypothesis of this study states: The gifted group will score higher than the non-gifted group on High Standards scale of the APS-R. The High Standards scale is designed to measure the level of perfectionism in individuals. The same studies used in Hypothesis 2, suggested that the gifted had a higher level of perfectionism than their non-gifted cohorts. The PI proposed that the perfectionism present in the gifted was an important component in the intrinsic nature of their rage to master and perhaps created higher levels of self-actualization.

Friedman Well-Being Scale (FWBS)

The proposed third instrument is the Friedman Well-Being Scale (FWBS). This instrument was created by psychologist Philip Friedman in 1992. The FWBS has twenty items and measures self-esteem, sociability, happiness, joviality and emotional stability. It has strong internal consistency and test-retest reliability. It has been reported to have over 100 correlations with clinical indexes as well as measures of personality and emotional stability.²⁵¹ The FWBS will be used to investigate the relationship of well-being to the process of self-actualization in gifted students.

The FWBS has three subscales that relate to subscales in the POI. Respondents rate themselves using a ten point semantic differential-type scale. The subscales that suggest correlation with the POI are: 1) Emotional Satiability (ES), 2) Self-Esteem/Self-

Confidence (SE), and 3) Sociability (SO).²⁵² The corresponding subscales in the POI are Self-Regard (SR), Self-Acceptance (SA) and Capacity for Intimate Contact (C).²⁵³

As reported earlier in this chapter, anecdotal reports suggest that despite their giftedness, the gifted have similar social, educational, and emotional problems as their non- gifted cohorts. The FWBS was included in this study to investigate the relationship between the feeling of well-being and giftedness. If the anecdotal reports suggesting similar levels of social, educational, and emotional issues, the level of well-being for the gifted, their scores on the FWBS should be similar to their non-gifted cohorts.

Demographic Questionnaire

A demographic and biographic questionnaire will be included in the study to give background information about sociocultural backgrounds of the participants. The questionnaire will investigate the relationship of sociocultural factors in the self-actualization of gifted students. The questionnaire will include items on: 1) The education level of the participant's parents, 2) The income and lifestyle of the participant's family, 3) The race or ethnicity of the participant, 4) religious preference of the participant, and the marital status of their parents.

Most of the demographic studies involving gifted students have focused on the struggle to identify and serve students. In a study of 705,074 elementary students in the State of Georgia, Asian and White students were much more likely than Black or Hispanic students to be referred to gifted programs. Additionally, students who received free or reduced-price lunches were much less likely to be nominated to gifted programs than students paying for their own lunch.²⁵⁴ In the state of Georgia, to be considered for the gifted programs, a student must be nominated by teacher, parent, or through test

scores above the 90th percentile. The evaluation process involves four areas. They generally are measured as: 1) Mental ability via psychometric assessment, 2) Achievement determined by standardized test scores, 3) Creativity determined by the Torrance Test of Creative Thinking—Figural, and 4) Motivation determined by grades.²⁵⁵ There have been mixed results in previous studies concerning the efficacy of teacher nomination of children for the gifted program in the past. However, the Georgia study found that 74.9% of the children nominated by teachers were accepted into gifted programs. This compared to 86.3% referred through testing and only 59.2% of the parent referred being accepted.²⁵⁶ The contrast of children being accepted into the gifted by ethnicity was quite evident. The percent of Asian and White students in gifted programs was 18.3% and 12.3% while only 3.2% of the Black and 2.3% of the Hispanic children were enrolled in gifted programs. Only 4.15% of the children receiving free or reduced cost lunches were nominated for gifted programs compared with 15.49 % of the children fully paying for their lunch. Only 70.06% of the free or reduced cost lunch group referred to evaluation was accepted into gifted programs while 83% of the fully paid lunch group was accepted into gifted programs.²⁵⁷

The massive scale of the study (n=705,074) in a state with uniform mandated policies strongly suggest that socioeconomic and ethnic issues shape the gifted population.²⁵⁸ While the scope of the study did not further investigate the cause of the wide difference between the groupings, Winner suggests that minority children statistically come from lower socioeconomic strata and often attend a lower quality of schools. She proposes that economically disadvantaged children, regardless of ethnicity, are less likely to be labeled as gifted. Combining the lower quality of schools with the

socially and economically disadvantaged circumstances tend to reduce the intellectual stimulation that a child receives.²⁵⁹

A number of studies have found that the interaction between and with family members by the gifted child can impact the development of giftedness. As an example, a study of 193 gifted adolescents in grades 6-12 enrolled in a summer program at Northwestern University, by Marilyn J Kulieke and Paula Olszewski-Kubilius investigated the role of family in student performance. The study found that values espoused by parents, especially in areas of achievement and success were important. Additionally, not only was it important that parents espouse the values, it was more important to enact the values such as model attitudes and behaviors that foster achievement, direct interest and activities to these areas, model participation and achievement and in the child's area of talent, and monitor and structure their children's time and participation.²⁶⁰ The study found that enacted values are related to a stronger self-concept while espoused values showed little relationship to student's self-perception. In addition family values enacted show several relationships with aptitude and achievement measurement.²⁶¹

For the purposes of this study, the inclusion of demographic questions on ethnicity and sociocultural background are intended for future research into the complex role of sociocultural factors in the development of the gifted and the imbalances in the participation in gifted programs due to ethnicity and sociocultural background.

Conclusion

As reported earlier in this chapter, Maslow and Rogers theorized that self-actualization is the first level of mental well-being. Both Maslow and Wilber suggest

that the percentage of self-actualized individuals in the adult population is small. Self-actualization is purported to be a process where individuals make small incremental steps throughout their adult life attaining a level of good mental health generally in their 50's and 60's.²⁶² Maslow and others were less clear as to how and when this process begins. In her book, *Changes of Mind, A Holonomic Theory of The Evolution of Consciousness*, Jenny Wade suggests that a change to a higher state of consciousness including self-actualization comes when significant cognitive dissonance arises as anomalies challenge the individual's belief system. When the inconsistencies with their belief system can not be rationalized away or otherwise resolved, the individual may transition to a new set of beliefs. However, Wade admitted that considering the vast amounts of potential anomalies that individuals may encounter, determining what constitutes a critical mass for any individual would be impossible.²⁶³

Outside of Terman's landmark study on the gifted, there have been no known studies on the gifted that stretch longitudinally from youth through adulthood. Such a study could give insights into whether giftedness can predispose an individual to become fully actualized. As reported earlier in this chapter, Kerr observed that despite characteristics that would support development of self-actualization, none of her classmates displayed behaviors that suggested that they were self-actualized. Can self-actualization of individuals be supported by school, society, and family as suggested by Pufal-Struzik, Kulieke, and Olszewski-Kubilius? As reported earlier in Chapter 2, Pufal-Struzik proposed that self-actualization in the gifted is a two-sided process—intense cognitive activity in the selected area leads to success, and in turn increases the sense of

self-actualization. Thus, this suggests that academic performance could be an indicator of the potential for self-actualization.

As reported earlier in this chapter, Maslow invited others to validate or disprove his theory. However, he did not leave a clear map to follow his work. He admitted that his studies were not based on rigorous research principles. The individuals he studied were generally age 50 or higher and from the Western culture, although his earlier work with the Blackfoot Native American tribe convinced Maslow that self-actualization occurred cross-culturally.²⁶⁴ Maslow's death in the 1970's left many of his ideas and projects uncompleted or undeveloped. Among the questions he left unanswered is at what age does the process of self-actualization begin? Are there individuals such as the gifted that are "predisposed" to be self-actualized.?

While this study does not presume to answer all of these questions, it is the intention of the PI to add to the discussion of self-actualization. By comparing the level of self-actualization of a defined group of gifted children with cohorts drawn from the general population, the PI hopes to find a group that is "at promise" in the process of self-actualization. It is the hope of the PI to capture the imagination of others in gathering knowledge about the process of self-actualization. Maslow captured the excitement of self-actualization for the PI when he wrote the following stirring note:

Every age but ours has its model, its hero. All of these have been given to us by our culture: the hero, the gentleman, the knight, the mystic. About all we have left is the well-adjusted man without problems, a very pale and doubtful substitute. Perhaps we shall soon be able to use as our guide and model the fully growing and self-fulfilling human, the one in whom his potentialities are coming to full development, the one whose inner nature expresses itself freely, rather than being warped, repressed, or denied.²⁶⁵

Though his words reflect the gender bias of his time, Maslow's words from four decades ago beckon this writer to investigate the potentiality of self-actualization in the gifted population.

This study is looking for the roots of self-actualization in an age group chronologically removed from the age group in Maslow's original study. While there have been some published studies on the level of self-actualization in gifted children, they have primarily focused on the lineal progression of self-actualization of children in elementary schools through high school. As reported earlier in this chapter, gifted children have a number of characteristics that suggest they would be viable candidates for self-actualization. However, as noted earlier in the chapter, Gardner proposed gifted children as being at promise. If Kerr's observations of her gifted classmates are correct, the self-actualizing characteristics of the gifted children are merely potential. However, as reported earlier in this chapter, Kerr noted that the role of the individual and society in actualizing this potential is imperative, not optional.

Psychologist Dean Keith Simonton succinctly described the rationale for understanding and studying gifted children and actualizing the potential of all individuals and especially the extraordinary potential of gifted individuals. He wrote:

Every success story (the transition from gifted to genius) must include a chapter on genetic constitution, another on the favorable milieu and still another on an individual's distinctive intellectual, motivational and social maturation. Furthermore, it may not be possible to keep these three narratives separate. Biology, sociology, and psychology probably interact in complex ways, rendering it impossible to consider one in isolation from the others. A valid interpretation must specify how this intricate and dynamic exchange takes place.

Whoever pulls off this vast integrative synthesis will be the Isaac Newton of our field...And if my conjectures are justified, this unknown person will emerge with a specific set of genes and grow up under a distinctive configuration of cultural conditions. Perhaps some of us have already met this Newton, only we did not

realize it at the time. That is because this talent is now but a gifted child, and thus today a mere promise of adulthood genius yet to come.²⁶⁶

Simonton's words are a clarion call to science and society to find ways to understand the gifted, to support transforming these talents of the gifted from potential to genius, for the betterment of all of humanity.

The literature reviewed in this chapter led to the four hypotheses. This literature suggests that gifted children have characteristics that are favorable for a higher level of self-actualization than their non-gifted cohorts. Hypothesis One attempts to investigate the potentiality of self-actualization in gifted children. It states: The students in the gifted group will demonstrate a higher level of self-actualization than the comparison group as measured by the Personal Orientation Inventory (POI).

Hypotheses Two and Three are based on the results of recent studies on the roll of perfectionism and the gifted. Traditionally, perfectionism has been considered to be pathological in nature. Several recent studies suggest that perfectionism may be a significant and healthy performance driver for certain individuals. In this chapter, literature was reviewed that suggests that perfectionism may be adaptive or maladaptive in nature. Several studies suggest that the gifted are more likely to be perfectionists than their non-gifted cohorts. However, the same studies suggest that the gifted are no more likely to be maladaptive perfectionists. The Almost Perfect Scale-Revised (APS-R) was created to measure an individual's level of perfectionism and whether it was adaptive or maladaptive in nature. Two scales of the APS-R were incorporated into Hypotheses Two and Three. The Discrepancy Scale is designed to ascertain whether the perfectionism of an individual is adaptive or maladaptive. The High Standards scale is designed to determine if an individual is a perfectionist or not. This led to proposing two hypotheses.

Hypothesis Two states: There will be no significant difference in the scores of the Discrepancy scale of the Almost Perfect Scale-Revised (APS-R) between the study and comparison groups. Hypothesis Three states: The gifted group will score higher than the non-gifted group on High Standards scale of the APS-R.

As previously reported in this chapter, the problems of gifted children are similar in nature to the problems of their non-gifted cohorts. The literature suggests that despite their expanded performance capacity, the gifted are reported to have similar mental, emotional, and developmental issues as the non-gifted. To investigate this aspect of giftedness, the fourth hypothesis was created: There will be no significant difference between the scores of the gifted and non-gifted group on the Friedman Well-Being Scale (FWBS). The following chapters will discuss research methods employed in this study, results of the tests used, and whether the tests supported the four hypotheses proposed in this study.

CHAPTER 3: RESEARCH METHODS

Overview

The protocol identification number for the IRB Expedited Review for this study is 459. The approval to conduct research was granted by the Institutional Review Board (IRB) on December 11, 2008. The objectives of the study are to investigate comparisons of self-actualization, perfectionism, and well-being between public high school students enrolled in gifted programs and a comparison group. The State of Kansas has a mandated gifted program for qualified public school students. The gifted programs vary in admission criteria and curriculum. The gifted students were drawn from gifted programs headquartered in Saline, Franklin, and Miami Counties in the State of Kansas. The students for the comparison group were drawn from students not enrolled in gifted programs from the same school districts.

The study consisted of three standardized tests and a short demographic and biographic questionnaire. The three tests included the Personal Orientation Inventory (POI), the Friedman Well-Being Scale (FWBS), and the Almost Perfect Scale-Revised (APS-R). The demographic and biographic questionnaire was mailed to the student's home by the gifted coordinator to facilitate a more efficient use of time for the three standardized tests during the school day.

The participation of public high school students of less than eighteen years of age posed logistical and legal hurdles. Each school district contacted had an application process to conduct studies that included meeting the criteria or requirements of the school administration and obtaining permission at the building or staff level. The interaction

with school administrations was often complicated by the required use of an intermediary, generally an administrator in the gifted program, to present the principal investigator's (PI's) application to the administration. The use of an intermediary caused delays and occasional communication problems in the pursuit of approval for the study.

As a result of the administrative process, the PI's application was rejected by several school districts that included: 1) Manhattan USD (Holos University is not accredited by a recognized organization such as North Central), 2) Washburn Rural (school policy prohibited studies by outside parties), and 3) Emporia (no reason given). In addition three school districts, Kansas City, Blue Valley, and Wamego were unable to participate because of issues at the building or staff level.

The participation of children of less than 18 years of age required parental permission as well as the assent of the student. Depending on the preference of the school district and/or staff, the permission forms were mailed to the student's home or hand carried home by the student. Because of the possibility of a delay or failure in returning forms, up to two weeks of time was allowed between the distribution of the forms and the actual testing.

Research Locations

The students for the study were drawn from three educational cooperatives. They are the Central Kansas Cooperative in Education (CKCIE) in Salina, Kansas, the East Central Kansas Cooperative in Education (ECKCE) at Baldwin City, Kansas, and the East Central Kansas Special Education Cooperative (ECKSEC) in Paola Kansas. The CKCIE administers the gifted programs for twelve school districts in Ottawa, Dickinson, Ellsworth and Saline counties. The ECKSEC administers gifted programs at eight school

districts in Miami, Franklin, Anderson and Linn Counties. The ECKCE administers gifted programs in the Baldwin City, Eudora, and Wellsville school districts.

Inclusion Criteria

Inclusion criteria for this study were as follows:

- Individuals age 16-18 years-old, both male and female.
- Individuals attending a public high school.

Exclusion Criteria

Exclusion Criteria for this study were as follows:

- Individuals who have not reached their 16th birthday.
- Individuals who have reached their 19th birthday.
- Individuals that do not attend a public high school.

Qualitative Methods

The study was conducted in an environment of a school classroom setting during the regular school hours. This environment limited observation and interaction with the participants to a few minutes at the conclusion of the testing. Even within the small window of information collection opportunities, the amount of informal observation and unstructured interviewing varied widely between school locations. The observation and interviewing samples were sporadic and informally collected by the PI. Since the collection methods were not scientific, the perceptions of the PI are not included in this document. However, the information collected informally has intuitively directed the PI to direct his future studies toward comparing methods used in various programs for the

gifted student. The PI envisions this research using both participant observations and informal interviewing in this research.

The Researcher's Role

Recruitment of participating school districts was initiated by the PI through contacts with the administrators of gifted programs throughout eastern Kansas. Generally the individuals contacted for participation in the study administered the gifted program under the umbrella of special education. The initial contact of the administrators was by telephone with a follow-up e-mail. The e-mails had the following attachments: 1) Overview of the Dissertation, 2) Copies of the Institution Review Board (IRB) application and approval, 3) Parental permission and individual assent forms, 4) Sample copies of the POI, APS-R, and FWBS, and 5) Demographic and Socioeconomic Questionnaire. After three to four business days, the PI contacted the administrator to confirm receipt of the email. During the follow-up phone call the PI requested a face to face meeting with the administrator. With one exception, a meeting with the administrator and the PI occurred. During the face to face meeting, a more detailed presentation of the study and the school district's application process were discussed. All meetings with the administrators resulted in placing the application into motion. The completion of the application varied from three to 14 days.

Although many larger school districts in Kansas administer their own gifted programs, a significant number of the smaller school districts combine their resources into special education cooperatives to provide services for the gifted and other special needs students. Each cooperative has a sponsoring school district. The common practice is for the largest school district in the cooperative to be the sponsor. The sponsoring

school district provides space for the administration as well as other financial resources such as supplies and computer support. For the cooperatives involved in this study, the sponsoring school districts are Salina for CKCIE, Baldwin City for the ECKCE, and Paola for the ECKSEC.

Once permission had been granted to conduct the study, details for facilitating the study were arranged for by the staff at the building level. In all cases, the actual testing was conducted by the PI with the assistance of the building gifted coordinator. The building gifted coordinator made the initial presentations to the students and administered the distribution and collection of the parental permission forms. Participation was voluntary but the classroom setting created a high percentage of student participation.

The comparison groups were gathered through the school districts after the testing for the gifted was completed through contacts developed with the gifted programs. The comparison group was recruited through contacts fostered by the gifted coordinator of each school. The PI made informal presentations to teachers, counselors, and other staff members of the participating schools. With one exception, the recruitment occurred during the testing day for the gifted group at that school. The testing of the comparison group took place at a later date at the convenience of the participating teacher. The participating teachers for the comparison group used both non-academic and academic class time to facilitate the recruiting of students. The PI did not directly recruit any students for either the gifted or comparison groups. Several teachers made the testing into a class assignment. The sex and age of the comparison group closely approximated the gifted group with sixteen year-olds being the most common age. In general, the gifted group was more difficult to recruit because of their smaller population size.

Because of the small population size, the gifted group was a sample of convenience rather than a random sample.

The testing was conducted during non-academic time within normal school hours of operation and in a few instances after school hours at the participating schools. There was no testing off-campus nor was any testing done without supervision by school personnel. For students in gifted programs, the testing was completed in so-called seminar classes or sessions. The seminar sessions are curriculum enrichment presentations that occur on a weekly basis. All testing for the gifted student was completed before the comparison group was recruited. A total of 104 students participated in the gifted group and 102 students participated in the comparison group. Although the substance of how the testing was conducted was the same, the variables in the testing environment included: 1) Location and size of the testing room, 2) Number of participants in group that were tested, 3) Amount of encouragement of students to participate by school personnel, and 4) The level of interaction between school personnel and students prior to the testing. Because the PI was an outside agency operating within the participating cooperatives and school districts, these environmental elements were beyond the control of the PI.

Data Sources

Measurement

Each participant was given a six item demographic and socioeconomic questionnaire. The questionnaire was given to the participants with the parental permission form by the building gifted coordinator or school staff personnel to complete prior to the actual administration of the three psychometric instruments. As previously

described in Chapters One and Two of this study, the three instruments given in the following order to the participants of the study were: 1) the Personal Orientation Inventory (POI), the 2) APS-Revised (APSR), and 3) the Friedman Well Being Scale (FWBS).

Demographic and Socioeconomic Questionnaire

As described in previous chapters of this study, a six item Demographic and Socioeconomic Questionnaire provided background information about the participant's ethnicity, sex, age, and religion. The questionnaire also provided the education levels and marital status of the participant's parents. The questionnaire is only being used as background information for the study and is not involved in any of the four hypotheses of the study.

Personal Orientation Inventory (POI)

As reported in Chapter Two the POI is a psychometric instrument created in 1962 by Everett Shostrom. Shostrom designed the POI to assess the level of self-actualization of individuals as described in concepts by psychologists Abraham Maslow, Fritz Perls, Carl Rogers and others. The POI incorporates the Humanistic, Existential and Gestalt schools of psychology. As reported in Chapter Two, Maslow stated that the POI was a fair representation of his concept of self-actualization. The POI uses 150 paired forced choice items that Shostrom considered important in the development of self-actualization of individuals. The POI is divided into two major scales. The major scales are Time Competence and Inner Directed. Time Competence measures the ability to live in the present as opposed to the past or the future. Inner Directed is designed to assess the extent that an individual is driven by internalized principles instead of external factors

such as peer group and societal pressures. The subscales are aspects of self actualization the include: 1) Self-actualized Value (SAV) A high score indicates that the individual lives by values of self-actualization, 2) Existentiality (Ex) A high score indicates the ability to react with flexibility in application of values in situations, 3) Feeling Reactivity (Fr) A high score indicates sensitivity or responsiveness to one's needs, 4) Spontaneity (S) A high scores indicates the ability to spontaneously express feelings, 5) Self-regard (Sr) A high score indicates the ability to hold oneself in high regard, 6) Self-acceptance (Sa) A high score indicates an individual's ability to accept oneself including weaknesses, 7) Nature of Man—Constructive (Nc) A high score indicates the ability of an individual to see humankind as being basically good and the person can resolve the dichotomies of human nature, 8) Synergy (Sy) A high score indicates the ability to see opposites as meaningfully related, 9) Acceptance of Aggression (A) A high score indicates the ability to accept anger and aggression as natural within oneself, and 10) Capacity for Intimate Contact (C) A high score indicates the ability to develop meaningful relationships not encumbered with obligations or expectations. The POI has a long history of studies in peer reviewed journals over the course of its 47 year history.²⁶⁷

Almost Perfect Scale Revised (APS-R)

As previously reported in Chapter Two, the APS-R was developed by psychologists Robert Slaney, Kenneth Rice, Jeffrey Ashby and others in 1999. The instrument has 23 items and the participants are asked to describe their level of agreement with each item using a semantic differential scale. The participants are given the option of seven responses ranging from strongly disagree (1) to strongly agree (7). The

instrument is designed to assess the level of perfectionism in individuals. The authors that created APS-R used the premise that perfectionism can be a positive motivator (adaptive) or pathological (maladaptive) in the mental health of an individual. The APS-R is divided into three subscales: 1) The High Standards subscale contains seven items and measures adaptive perfectionism values, 2) the Discrepancy subscale has twelve items that measure the characteristics associated with maladaptive perfectionism, and 3) the Order subscale includes four items that measure preferences for order and organization.

Friedman Well-Being Scale (FWBS)

The FWBS was developed by psychologist Phillip H. Friedman in 1992. As previously reported in Chapter Two, the instrument contains twenty items divided into five subscales. The five subscales are: 1) Self-esteem/Self-confidence, 2) Sociability, 3) Happiness, 4) Joviality, and 5) Emotional Stability. According to Maslow, self-esteem and self-acceptance are precursors to self-actualization. The Self-esteem/Self-Confidence subscale of the FWBS offers an additional perspective to the POI on self-esteem. The participants completed the entire FWBS. Because the subject of study is self-actualization, the focus in the Research Findings of Chapter Four and the Discussion of Chapter 5 will be on the Self-esteem/Self-confidence subscale.

Procedures for Testing the Gifted and Comparison Groups

At the beginning of each session, the following procedures were implemented:

- Each participant signed an attendance sheet.

- The participants handed in their completed parental permission form, the informed consent form, and the Demographic and Socioeconomic Questionnaire.
- The participant was given a packet containing the three tests and a pencil. There were additional pencils available at the front of the classroom
- The PI was introduced to the group by the gifted coordinator. In all testing, the PI was not known by any of the participants prior to the day of testing.
- The participants were greeted and given instructions by the PI and told to begin the test.
- While the participants were giving the tests, the PI verified consent forms and assigning code numbers to each entry on the attendance sheet.
- At the completion of test, the participants handed in the completed answer sheets and the tests.
- During the testing, the PI did not interact with the participants.

Data Collection, Verification and Analysis

After the testing was completed, the POI answer sheets were sent to the publisher, EdITS, in San Diego, CA for scoring. While the POI was being scored in San Diego, the PI scored and tabulated the results of APS-R, and FWBS. The data from APS-R, the FWBS, and the Demographic and Socioeconomic Questionnaire were entered into an Excel spreadsheet. When the POI results were returned by EdITS, the results were added to the spreadsheet. The data entered into the spreadsheet were checked twice by the PI with data on the actual answer sheets and EdITS summary sheet. An additional

verification of the data was conducted by an office assistant. When verification was complete, the data were sent via E-mail to Bryan Statistical Consulting for analysis. Bryan Statistical Consulting specializes in analyzing data in the health care industry including psychometric assessment instruments.

Conclusion

Chapter Three included: 1) An overview of the recruitment process of the participating schools and cooperatives, 2) Inclusion and exclusion criteria, 3) The role of the PI and other individuals in the testing process, 4) Overview of testing instruments used in the study, 5) Methodology used by the PI in conducting the testing, and 6) Data Collection and analysis. The chapter created an overview of the varied processes in obtaining participation of the cooperatives, school districts and ultimately, the students in the study. The data gathered from processes and actions of the PI outlined in Chapter Three are reported in Chapter Four.

CHAPTER 4: RESEARCH FINDINGS

Overview

As stated in Chapter One, the research question revolved around the possible relationship between giftedness in high school students and higher levels of self-actualization. Specifically, do public high school students enrolled in gifted programs have higher levels of self-actualization than public high school students not enrolled in a gifted program? Focus on the research question and possible casual factors led to four research hypotheses. They are: 1) The students in the gifted group will demonstrate a higher level of self-actualization than the Comparison group as measured by the Personal Orientation Inventory (POI), 2) There will be no significant difference in the scores of the Discrepancy subscale of the Almost Perfect Scale-Revised (APS-R) between the study and Comparison groups, 3) The gifted group will score higher than the non-gifted group on High Standards subscale of the APS-R, and 4) There will be no significant difference between the scores of the gifted and non-gifted group on the Friedman Well-Being Scale (FWBS).

Within this chapter, detail results are reported by two groups: 1) A study group of children age 16-18 enrolled in public high school gifted programs (N=104) and 2) a Comparison group of students age 16-18 not enrolled in gifted programs from the same group of school districts (N=102).

Detailed Results

For the purposes of this study, the POI, the APS-R, and FWBS were given to each participant in the study.

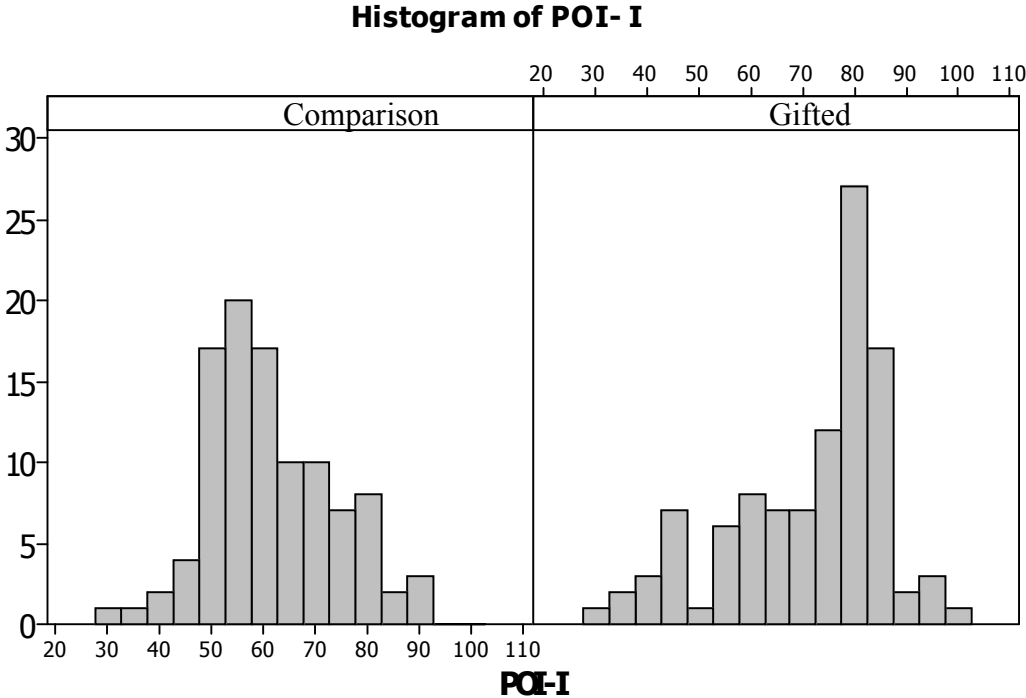
Comparisons between Groups as Measured by the POI

The first hypothesis compared the level of self-actualization of the gifted students (study group) and students not enrolled in gifted programs (comparison group) as measured by the POI. The scores of the two groups on the POI are statistically compared. The POI contains 150 forced choice questions that are divided into two major scales and 10 subscales. The higher the score, the more self-actualized the individual is in that particular scale. The scores of the study group were statistically higher in both major scales and in nine of ten subscales of the POI. For statistical convenience, the raw scores of the POI instead of the calculated scales of each scale and subscale were used in comparison between the groups in the graphs that follow below. The comparison group is listed in graph 1 of each histogram and the gifted group is shown in graph 2.

Inner Directed (I)

The Inner Directed or Support ratio (I) is one of the two major scales. An individual with a high score in the Inner Directed is more directed by internalized principles. A lower score indicates an individual that is more influenced by peer groups and other external forces. The histogram for the Inner Directed scale clearly shows the gifted group shifted to the right.

Figure 1. Histogram of POI-I.



The exact mean and standard deviation for the Inner Directed are shown below:

Table 1. Mean and Standard Deviation for POI-I.

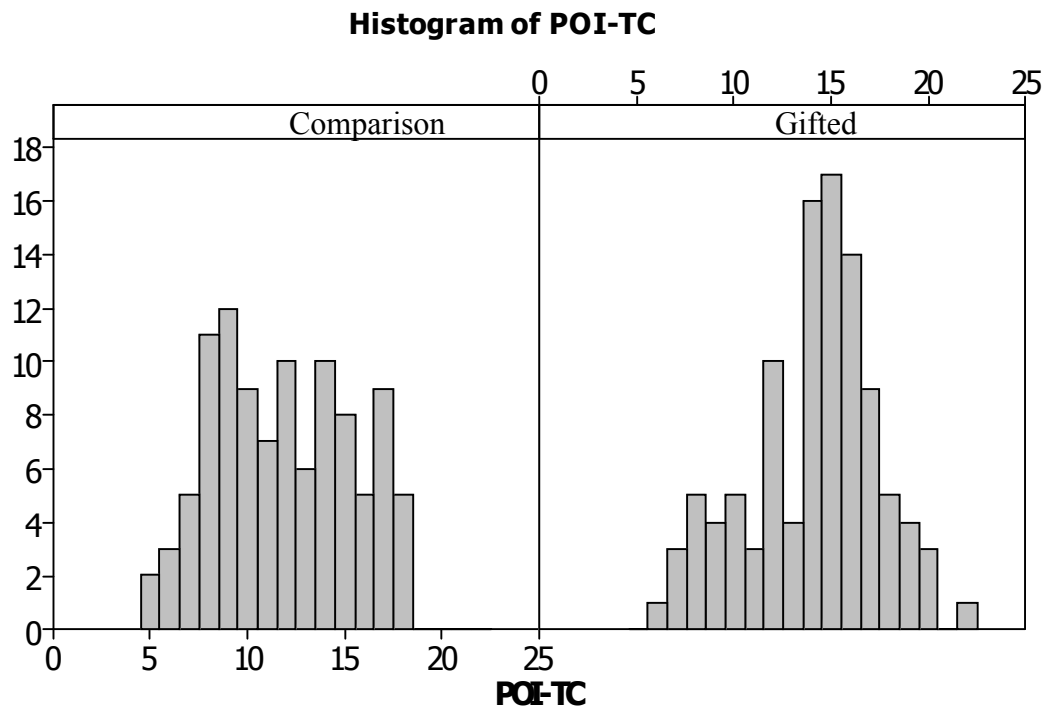
	Comparison	Gifted
Mean	61.4	71.1
Standard Deviation	12.2	15.4

The independent t-test confirmed that the gifted group is statistically significantly higher than the comparison group for the Inner Directed scale. The p-value (probability of making the wrong decision) is <0.01.

Time Competence (TC)

The Time Competence (TC) is the other major scale in the POI. As reported in Chapter Two, TC indicates the level at which an individual lives in the present. Knapp reports that a low score suggests that an individual lives with anxiety and fears about the future or in the past with guilt, regrets, and resentments. Though less obvious than in the Inner Directed scale, the mass of the gifted group in histogram below is shifted further to the right.

Figure 2. Histogram of POI-TC.



The Table below contains the means and standard deviation for the TC scale:

Table 2. Mean and Standard Deviation for POI-TC.

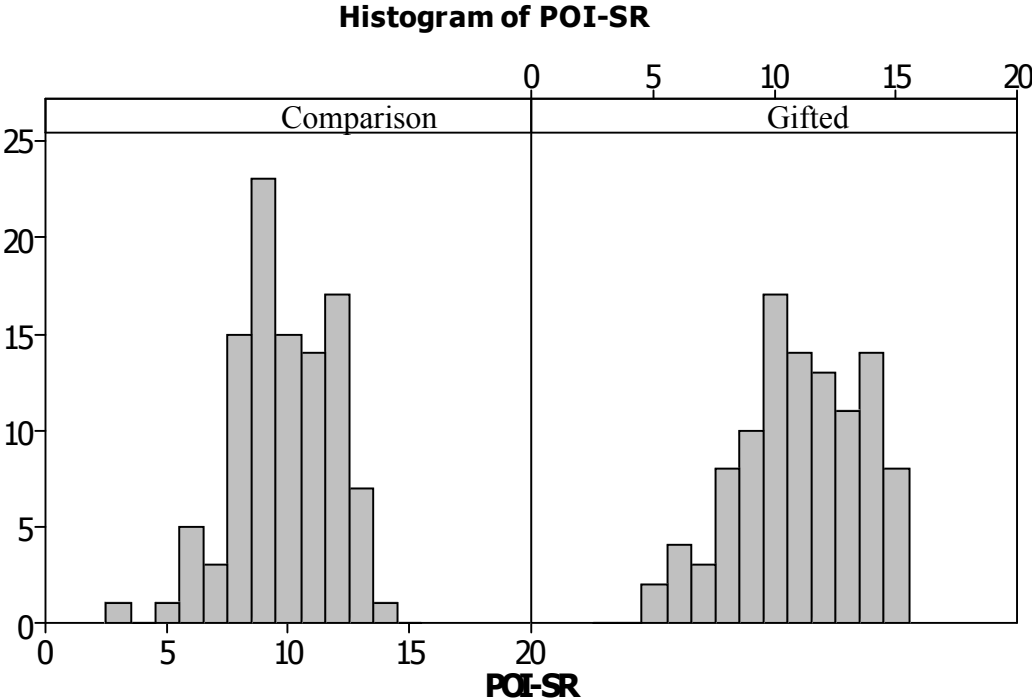
	Comparison	Gifted
Mean	11.83	14.06
Standard Deviation	3.53	3.34

The mean of the gifted group is again statistically larger than the Comparison group. The p-value of the t-test is <0.01 .

Self-Regard (SR)

As reported in Chapter Two, SR indicates the level of an individual's sense of self-worth. A high score suggests the individual has high self-regard. A low score indicates low self-esteem. SR along with Self-Acceptance (SA) is considered absolute requirements in the self-actualization process. The histogram below depicts the gifted group as being shifted slightly to the right when compared to the Comparison group

Figure 3. Histogram of POI-SR.



The exact mean and standard deviation for the SR subscale are listed below:

Table 3. Mean and Standard Deviation for POI-SR.

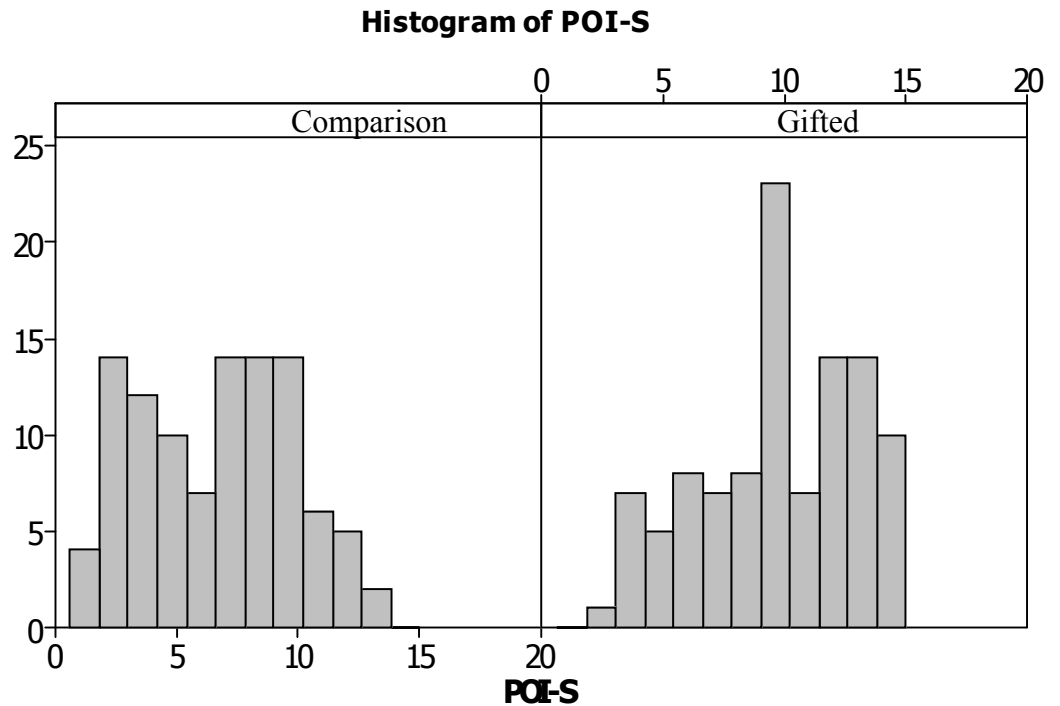
	Comparison	Gifted
Mean	9.79	11.04
Standard Deviation	2.04	2.53

The t-test indicates the scores of the gifted are significantly higher than the Comparison group for the SR subscale. The p-value for this test is <0.01.

Spontaneity (S)

As reported in Chapter Two, the Spontaneity subscale indicates the ability of an individual to react in a spontaneous way. A low score suggests that an individual is fearful of expressing feelings with spontaneity. In the histogram below, the gifted group is decidedly shifted to the right when compared to the Comparison group.

Figure 4. Histogram of POI-S.



The exact mean and standard deviation for the Spontaneity subscale are listed below:

Table 4. Mean and Standard Deviation for POI-S.

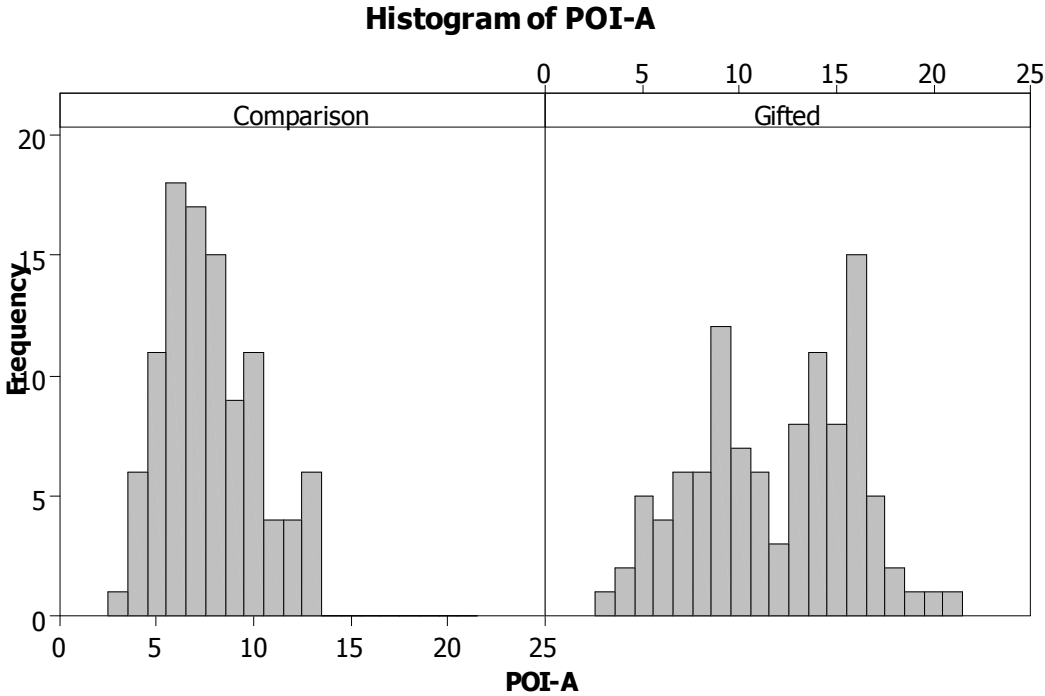
	Comparison	Gifted
Mean	6.47	9.61
Standard Deviation	3.20	3.23

The t-test of the means indicate that the gifted group is significantly larger than the Comparison group. The p-value of the test is <0.01.

Acceptance of Aggression (A)

As reported in Chapter Two, the Acceptance of Aggression subscale measures the ability of the individual to accept one's natural aggressiveness. A low score by an individual indicates denial, defensiveness, and repression of aggression. The histogram below shows the gifted group shifted further to the right than the Comparison group. The histogram shows the Comparison group clustered in a narrow range at 13 or less while the Gifted group is spread across a broader scale with the majority to the right of 13. The PI believes that the intrinsic nature of the gifted that show strongly in subscale SR allowed the gifted to be more open than their non-gifted cohorts. The independent, non-conformist nature of the gifted reported earlier in this chapter may permit the gifted to be more honest with their anger.

Figure 5. Histogram of POI-A.



The exact mean and standard deviation for the Acceptance of Aggression subscale is shown below:

Table 5. Mean and Standard Deviation for POI-A.

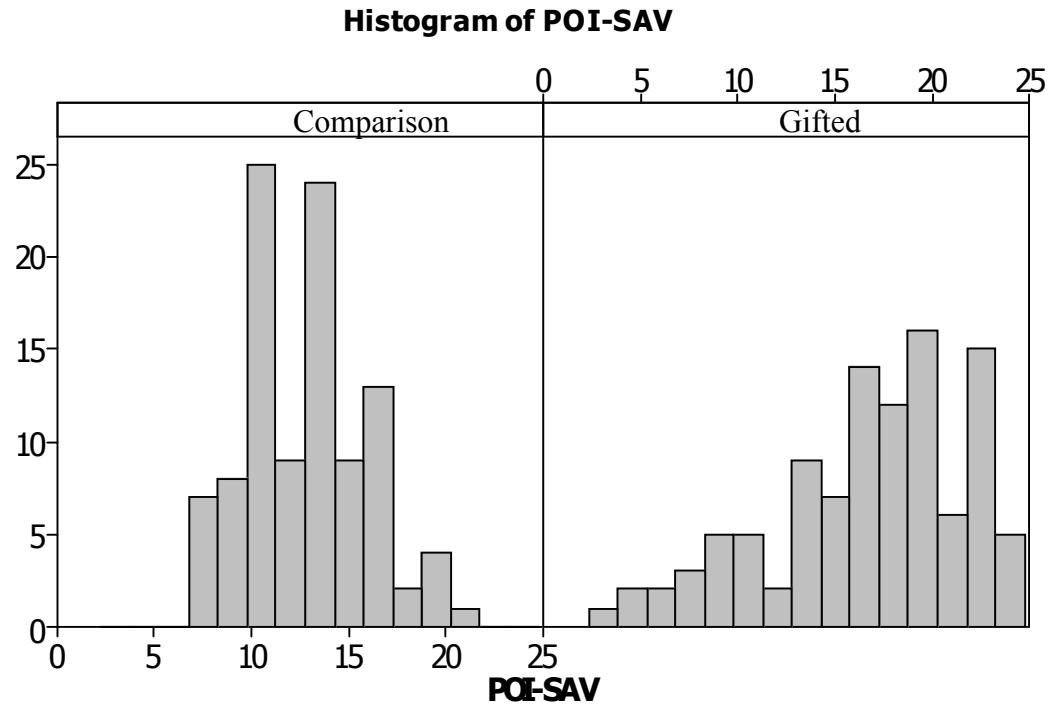
	Comparison	Gifted
Mean	7.75	11.82
Standard Deviation	2.45	4.11

The t-test comparing the means indicates that the gifted group is significantly larger than the Comparison group. The p-value of the test is <0.01 .

Self-Actualizing Value (SAV)

As reported in Chapter Two, SAV represents a composite of values important in the development of self-actualization. Maslow summarized behaviors that lead to self-actualization as: 1) Living life fully, 2) Accepting responsibilities for one's actions, 3) Being guided by intrinsic principles rather than living the expectations of others, 4) Constantly pursuing personal growth, 5) Daring to be a non-conformist, 6) Desiring to be best at whatever activity is undertaken, and 7) Finding out one's defenses and having the courage to let them go.²⁶⁸ The histogram of the SAV subscale depicts the gifted group shifted further to the right when compared to the Comparison group. The

Figure 6. Histogram of POI-SAV.



The exact mean and standard deviation for the SAV subscale is shown below:

Table 6. Mean and Standard Deviation for POI-SAV.

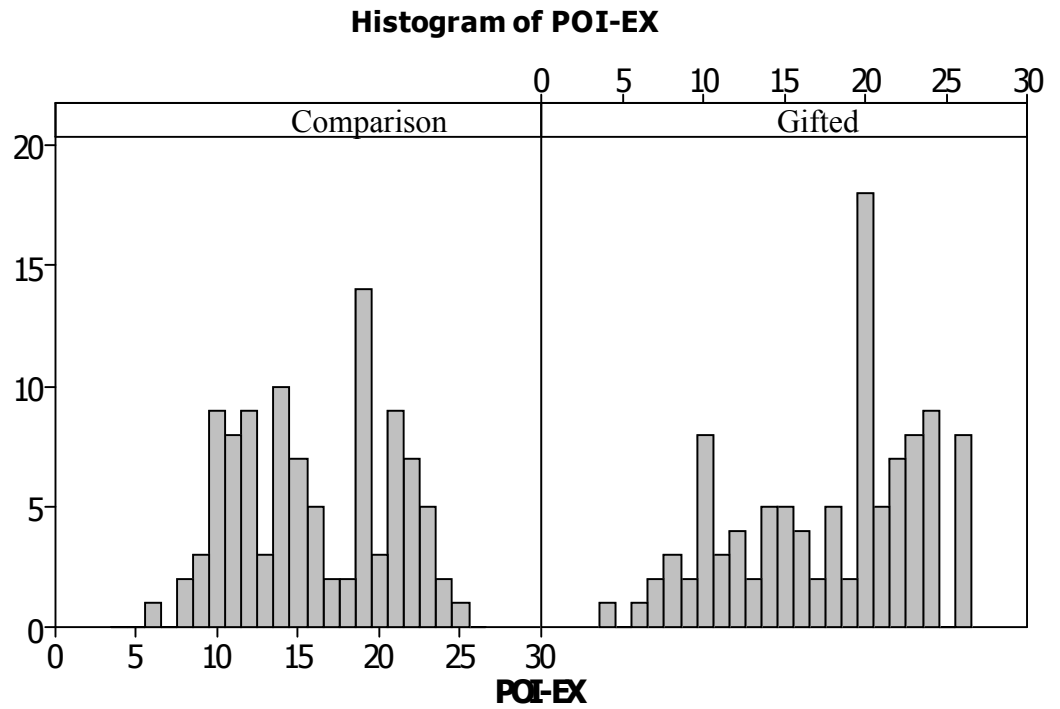
	Comparison	Gifted
Mean	12.80	16.71
Standard Deviation	3.04	5.09

As found in previous scales in this study, the mean of the gifted group is significantly larger than the Comparison group. The p-value of this test is <0.01 .

Existentiality (EX)

As reported in Chapter Two, the Existentiality subscale measures the ability of an individual to be flexible in applying principles and values to the experiences of one's life. The histogram below shows the gifted group as being shifted slightly to the right when compared to the Comparison group.

Figure 7. Histogram of POI-EX.



The exact mean and standard deviation for the EX subscale is shown below:

Table 7. Mean and Standard Deviation for POI-EX.

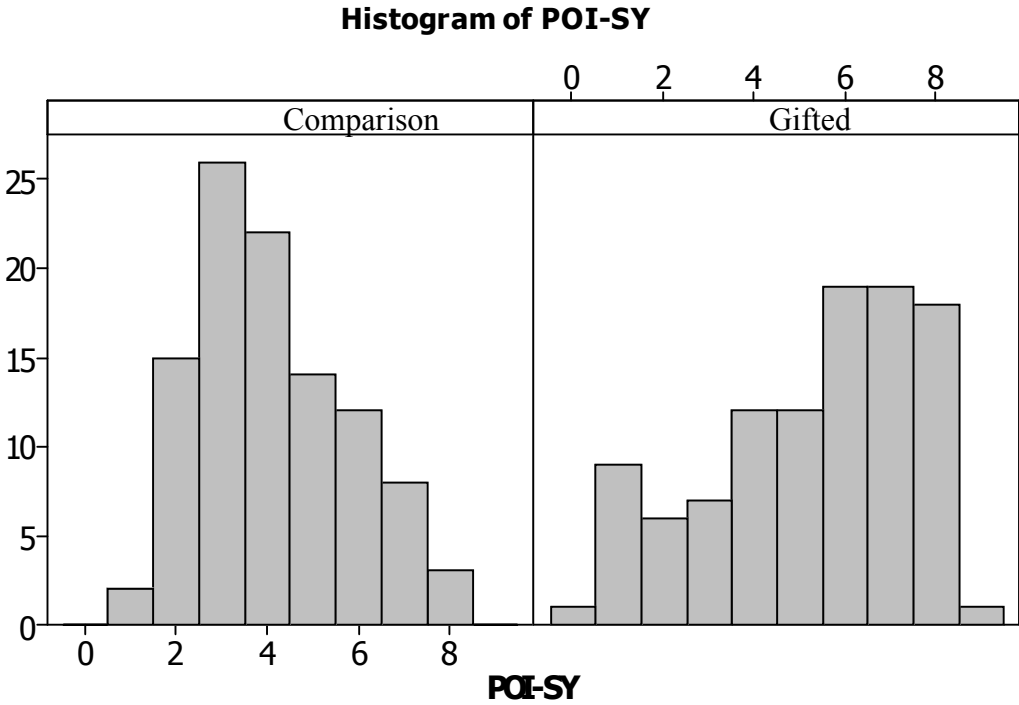
	Comparison	Gifted
Mean	15.94	17.80
Standard Deviation	4.70	5.66

The table confirms the appearance of the histogram. The mean of the gifted is statistically significantly larger than the mean of the Comparison. The p-value for the t-test on the EX subscale is <0.02 . The results in this subscale represent the first time that the difference between the groups in the mean had p-value of less than <0.01 . The histogram of the two groups appears similar in pattern.

Synergy (SY)

As reported in Chapter Two, the Synergy subscale measures an individual's ability to transcend dichotomies. A high score suggests the ability to see opposites as meaningfully related. A low score on SY subscale indicates a tendency to view opposites as antagonistic. The histogram for SY shown below depicts the gifted group as being shifted further to the right in comparison to the Comparison group.

Figure 8. Histogram of POI-SY.



The exact mean and standard deviation for the SY are shown in the table below:

Table 8. Mean and Standard Deviation for POI-EX.

	Comparison	Gifted
Mean	4.12	5.29

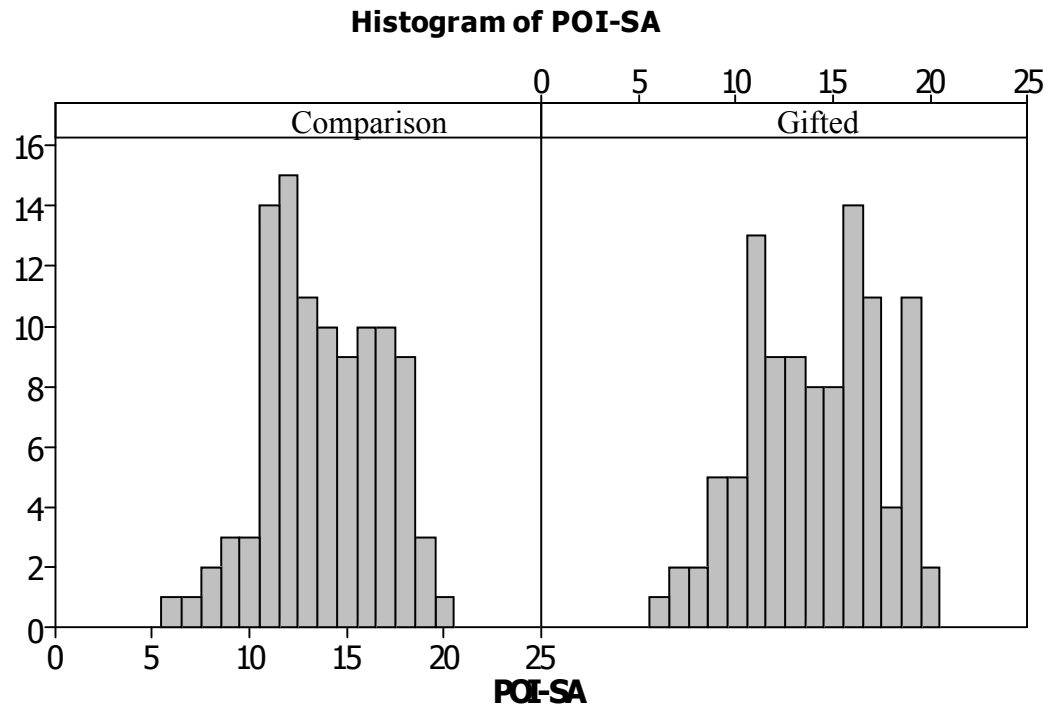
Standard Deviation	1.68	2.26
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The t-test indicates that the mean of the gifted group is significantly larger than that of the Comparison group. The p-value is <0.01 .

Self-Acceptance (SA)

As reported in Chapter Two, the self-acceptance subscale measures the ability to accept one's own weaknesses or deficiencies. Unlike the SR subscale, the histogram of the gifted group is not substantially different from than the Comparison group. This is the only scale or subscale that did not produce a significantly higher score for the Gifted group.

Figure 9. Histogram of POI-SA.



The exact mean and standard deviation for the SA subscale is shown below:

Table 9. Mean and Standard Deviation for POI-SA.

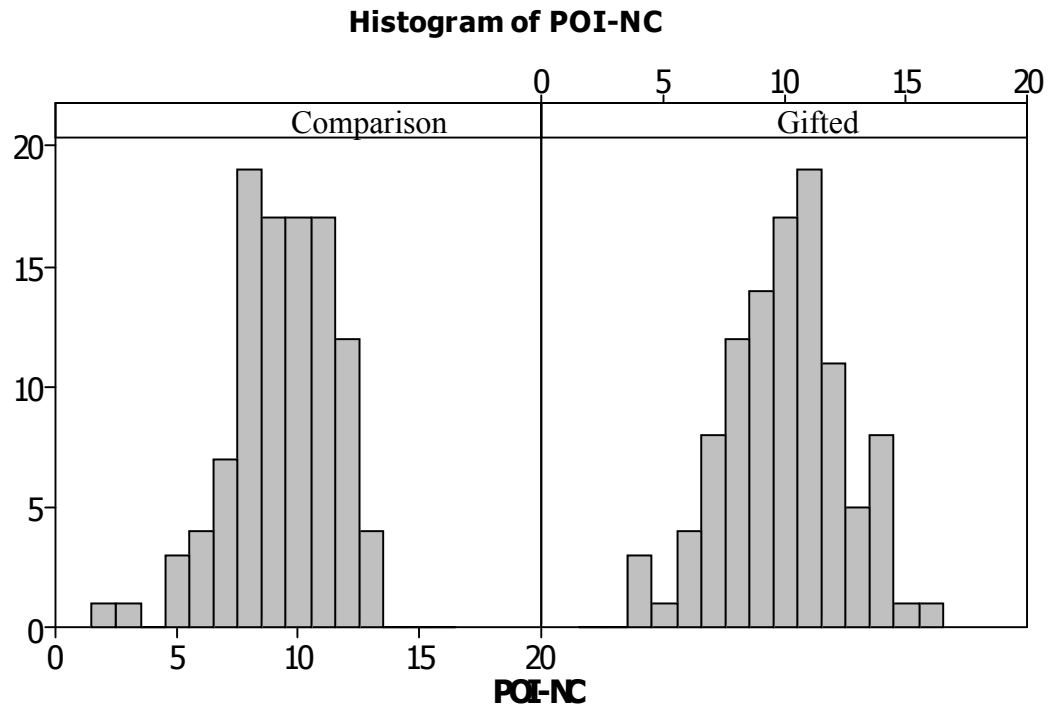
	Comparison	Gifted
Mean	13.79	14.07
Standard Deviation	2.98	3.38

The t-test for independent samples indicates that there is no significant difference between the two groups for self-acceptance. The p-value for the test is <0.5 . This is the only scale or subscale of the POI in this study that did not indicate a significant difference between the two groups. A further discussion in Chapter Five will address a possible cause for the lower scores by the gifted group in this subscale of the POI.

Nature of Man-Constructive (NC)

As reported in Chapter Two, a high score on the Nature of Man-Constructive indicates that the individual views the nature of humans as being essentially good. The histogram below for NC seems to show similar patterns for the two groups:

Figure 10. Histogram of POI-NC.



The exact mean and standard deviation for the subscale NC is shown in the table below:

Table 10. Mean and Standard Deviation for POI-NC.

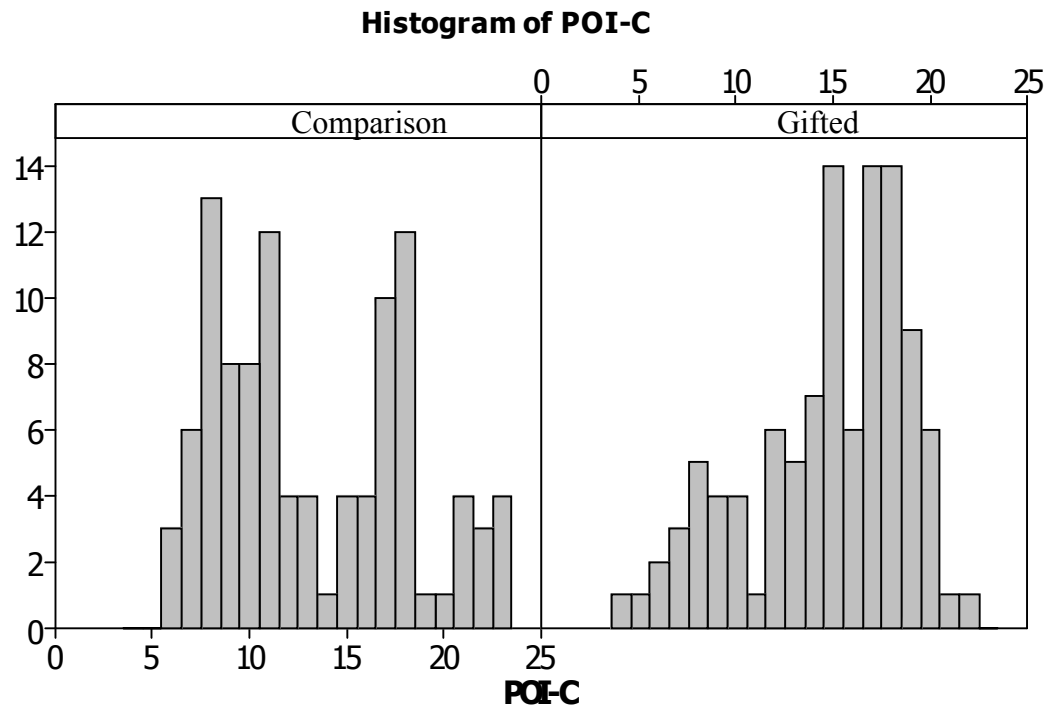
	Comparison	Gifted
Mean	9.32	9.98
Standard Deviation	2.14	2.47

Although it is not apparent from the graphs, the mean for the gifted group is significantly greater than for the Comparison. The p-value of the test is <0.05 .

Capacity for Intimate Contact (C)

As reported in Chapter Two, the Capacity for Intimate Contact measures the ability of an individual to develop intimate relationships with other human beings that are unencumbered by obligations and expectations. The Histogram below shows the gifted group shifted further to right than the Comparison group.

Figure 11. Histogram of POI-C.



The exact mean and standard deviation for the Capacity for Intimate Contact subscale is shown in the table below.

Table 11. Mean and Standard Deviation for POI-C.

	Comparison	Gifted
Mean	13.26	14.75
Standard Deviation	4.90	4.09

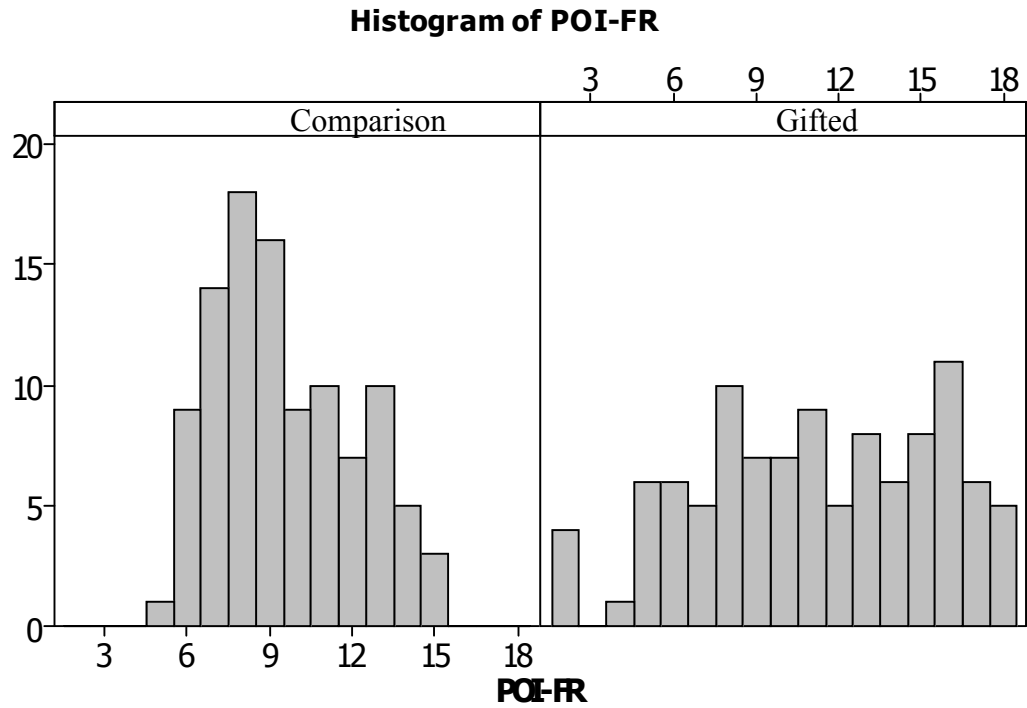
The t-test of the means indicates that the mean is significantly larger than the Comparison group. The p-value is <0.02 .

Feeling Reactivity (FR)

As reported in Chapter Two, subscale FR measures the responsiveness of an individual to one's own feelings and needs. A higher score in FR suggests that the individual is more aware of their feelings and needs. The histogram for subscale FR shown below does not give a clear indication of which group is further shifted to the right. The Gifted group appears to be spread across the histogram which is reflected in a higher standard deviation for the Gifted group. The <0.01 p-value in the t-test of the means appears to be more reflective of the large number of the Comparison group clustered on the left side of the histogram than the Gifted group being significantly higher than the Comparison group. In the case of FR, this also suggests that the Comparison group tend to suppress or downplay their feelings. In examining the Comparison group

results throughout the study, there is a significant number of the group that are persistently on the far left of the histograms.

Figure 12. Histogram of POI-FR.



The exact mean and standard deviation for the subscale FR is shown in the table below.

Table 12. Mean and Standard Deviation for POI-FR.

	Comparison	Gifted
Mean	9.55	11.16
Standard Deviation	2.53	4.29

The mean of the Gifted group is significantly greater than the Comparison group. The p-value is <0.01 . The standard deviation was again considerably higher for the Gifted group. A large number of the Comparison group is clustered on the left side of the histogram while the Gifted group is distributed across the histogram. This difference in the pattern between the two groups caused the difference in the standard deviations.

Comparisons between Groups as Measured by the APS-R

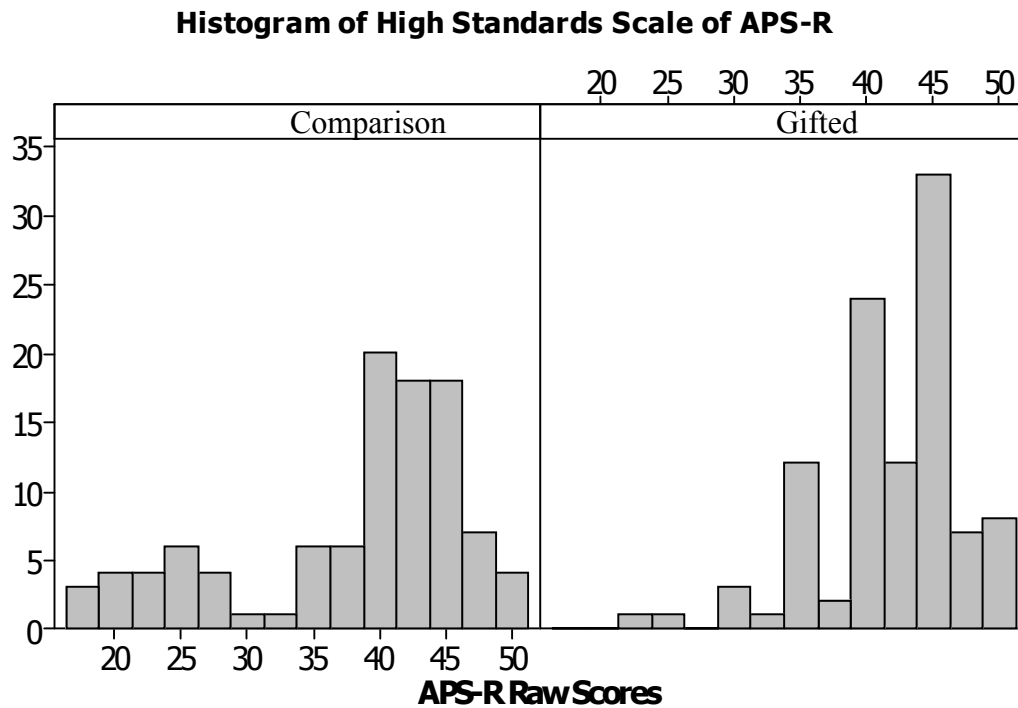
APS-R measures two aspects of perfectionism plus a measurement of the participant's orderliness. As reported in Chapter Two, there is literature that suggests that the traditional view of perfectionism being only pathological in nature may not always be true. The APS-R was created to delineate between adaptive and maladaptive perfectionism. The 23-item instrument's three scales are named Order, High Standards, and Discrepancy. For the purposes of this study, the four questions of the Order scale were not scored. The four questions of the scale do not impact the scoring of either the High Standards or Discrepancy Scales. It is the opinion of the PI that the Order scale did not relate well to the role of perfectionism as it is incorporated in this study. The High Standards scale measures an individual's level of perfectionism. If the individual's score is 42 or higher on the High Standards items of the APS-R, they are described as being a perfectionist. If the Individual's score is less than 42, the individual is described as a non-perfectionist. If the individual has a score of 42 or higher on the High Standards scale, the Discrepancy scale is scored. If the participant has a score of 41 or less on the Discrepancy Scale, they are considered as an adaptive perfectionist. A score of 42 or

above on the Discrepancy scale indicates that the individual perfectionism is maladaptive.²⁶⁹

High Standards scale

The gifted group had a mean score of 41.86—nearly the threshold score for being classed as a perfectionist in the APS-R. The histogram for High Standards test shown below depicts the gifted group shifted much more to the right.

Figure 13. Histogram of High Standards Scale of APS-R.



The mean and standard deviation are shown for the High Standards scale in the table below:

Table 13. Mean and Standard Deviation for High Standards Scale.

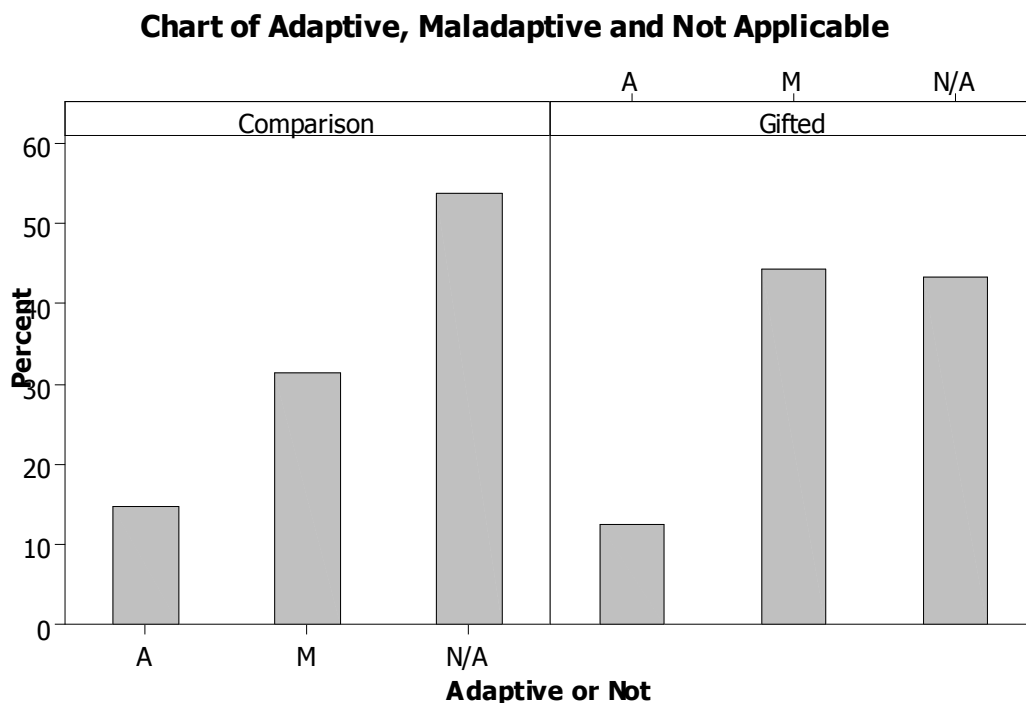
	Comparison	Gifted
Mean	38.05	41.86
Standard Deviation	8.68	5.27

The independent t-test for the High Standards scale shows the mean of the gifted group to be significantly larger than the mean of the Comparison group. The p-value for the High Standards subscale is <0.01 . There was a large numeric difference between the two standard deviations. In this case, the Comparison group had a standard deviation that was 3.41 higher than the Gifted group. Although not as obvious as in other histogram contained in this study, the Comparison group tended to have participants that were clustered on the far left side of the graph. In Table 13, the cluster of lower scores caused the wide disparity between the standard deviations of the two groups.

Discrepancy Scale

A score of 42 in the Discrepancy scale of the APS-R indicates that the individual is a maladaptive perfectionist. The chart below clearly shows that an individual in the gifted group is more likely to be a maladaptive perfectionist than an individual in the Comparison group. In addition, a majority of the Comparison group were not perfectionists.

Figure 14. Chart of Adaptive, Maladaptive and Not Applicable.



The results of APS-R in this study found 31.4% of the Comparison group and 44.2% of gifted group were maladaptive perfectionists. An independent t-test found a significant difference between the two groups. The p-value of this test is <0.03.

Comparisons between Groups as Measured by the Friedman Well-Being Scale

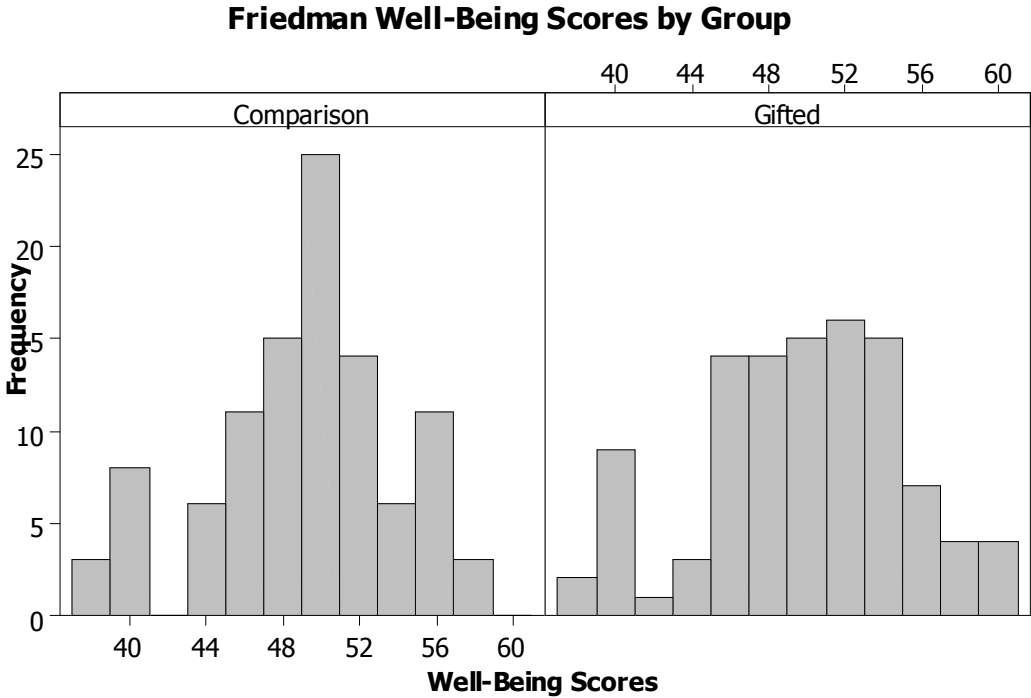
As reported in Chapter Two, the Friedman Well-Being Scales (FWBS) has five subscales. The FWBS is used to determine the relationship of psychological well-being and various social, psychological, economic, cultural and demographic factors.²⁷⁰ For the purposes of this study, a composite score of all five subscales will be used. The

composite score fit more precisely with the wording of Hypothesis Four which states: There will be no significant difference between the scores of the gifted and non-gifted group on the Friedman Well-Being Scale (FWBS).

It is opinion of the PI that the composite score gave a better comparison between the two group in a test where there were only twenty questions spread over five subscales. For instance, the Happiness subscale had only one item. For it to be weighted the same as the 127 items of the Inner Directed scale of the POI seems ludicrous. The composite score will more reflect the language of the fourth hypothesis of this study stated in Chapter One. The range of scores on the FWBS composite is from 21 to 70. The mean average score is 50. The scores of the FWBS are divided in levels of well-being as follows: 1) Very Low 21-35, 2) Low 36-45, 3) Average 46-55, 4) High 56-65, and 5) Very High, 66-70.²⁷¹

The histogram for Friedman's Well-Being Scale shown depicts similar appearing graphs centered near the score of 50.

Figure 15. Histogram of Friedman Well-Being Score by Group.



The exact means and standard deviation are shown in the table below.

Table 14. Mean and Standard Deviation for FWBS.

	Comparison	Gifted
Mean	48.75	49.26
Standard Deviation	4.78	5.25

The t-test for the difference in means between the Comparison and Gifted group is not significantly different. The p-value for the test is <0.50 .

Summary

As reported earlier in this chapter, there is a statistically significant difference between the gifted group and the Comparison group on both of the major scales and nine of the ten subscales in the POI. On the remaining subscale, Self-Acceptance (SA), the mean of the two groups were equal. The probability of the results being random when 11 of the 12 scales and subscales are statistically significantly are <0.003 . This finding supports the first hypothesis of this study.

The Almost Perfect Scale-Revised results found that the gifted group had a statistically higher mean than the Comparison group on the High Standards scale. The p-value of the difference between the means is <0.01 . This finding supports the third hypothesis of this study which states: The gifted group will score higher than the non-gifted group on High Standards scale of the APS-R... However, in the Discrepancy scale the gifted group was found to have significantly higher level of maladaptive of perfectionism than the Comparison group as well. Thus the second hypothesis in this study was not supported.

In the FWBS test, the Gifted and Comparison groups were not significantly different in their scores on the FWBS. Both groups had mean scores near the average

mean (50) of the test. The results of the FWBS support the fourth hypothesis of this study which states: There will be no significant difference between the scores of the gifted and non-gifted group on the Friedman Well-Being Scale (FWBS).

The next chapter gives a discussion of the findings and how they relate to the literature review in Chapter Two. Recommendations for study improvements and further research are also discussed.

CHAPTER 5: CONCLUSIONS, DISCUSSION, AND SUGGESTIONS

Summary

The final chapter contains a review of the research question, methodology, and a review of the research hypotheses. Three of the four research hypotheses were supported by the results of this study.

The major sections of Chapter Five include a review of the research results and a discussion of the results structured around the research hypotheses outlined in Chapter One. The chapter concludes with suggestions for study improvements as well as future research.

Conclusions

Restatement of the Research Question, Research Hypotheses and Methodology

As reported in Chapter One, the research question in this study compares the level of self-actualization of children enrolled in a public high school gifted program with their cohorts not enrolled in a gifted program. Specifically, the research investigated the reported characteristics of gifted children of self-actualization and perfectionism. The

research also included the Friedman Well-Being Scale which investigated the level of psychological well-being of gifted children. The age range for the study was 16-18. The study included a group of 104 children enrolled in public high school gifted programs. The results were compared with a comparison group of 102 students from the same schools. The comparison group was recruited from general school population with the assistance of the gifted coordinator and other staff members.

The focus on the research question led to four research hypotheses: 1) The students in the gifted (study) group will demonstrate a higher level of self-actualization than the comparison group as measured by the Personal Orientation Inventory (POI), 2) There will be no significant difference in the scores of the Discrepancy subscale of the Almost Perfect Scale-Revised (APS-R) between the study and comparison groups, 3) The study group will score higher than the comparison group on High Standards subscale of the APS-R, and 4) There will no significant difference between the scores of the study and comparison group on the Friedman Well-Being Scale (FWBS).

As reported in Chapter Three, the study investigated self-actualization, perfectionism, and psychological well-being of students enrolled in gifted programs in public high schools. participants ranged in age from 16 to 18 years-old. The gifted group (study) was compared with a comparison group that was matched by sex and age. There was no attempt to exclude gifted individuals not enrolled in gifted programs. All participants were drawn from school districts that participate in special educational cooperatives in Kansas. No attempt was made by the PI to determine whether the participating cooperatives were a representative sample of special educational districts statewide in Kansas. Participants for the study group within each school district were

recruited first. The comparison group was recruited with the aid of the gifted coordinator and other school staff members. The students were assigned a code number. The Comparison group numbers began with “0” and gifted group began with “1.” Thus, the numbering sequence for the Comparison ranged from 0101 to 0202 and gifted group ranged from 1101 to 1204. Tabulation of the results occurred after the completion of all testing. The publishers of the POI, EdITS of San Diego scored the POI. All other scoring was done by the PI.

Review of Results

The following sections are a more detailed discussion of the data and graphs presented in Chapter Four. The tables and graphs of Chapter Four are not repeated in Chapter Five. The graphs, data, and tables of Chapter Four are discussed in the same order in Chapter Five.

Personal Orientation Inventory (POI)

The results depicted in Chapter Four indicated that the gifted group had significantly higher scores than the comparison on eleven of the twelve scales and subscales of the POI. The t-tests indicated that the gifted group in both major scales and six of the ten subscales had p-values of <0.01 . The other statistically significant subscales has p-values of <0.02 for subscales *Existentiality (Ex)*—measures the ability to situationally react without rigid adherence to principles and *Capacity for Intimate Contact (c)*—measures the ability to develop intimate relationship with others, unencumbered by expectations or obligations while *Nature of Man—Constructive (Nc)*—

measures the degree of constructive view of the nature of man was <0.05 . The mean score for the gifted group was equal to the mean score of the comparison group for the subscale *Self-acceptance (Sa)*—measures the acceptance of one’s self in spite of one’s weaknesses. The statistical probability of eleven of twelve “events” happening randomly with the population size of the sample is <0.003 . The POI results for this study are a strong argument in support of Hypothesis One.

A possible explanation for the gifted group scoring in subscale SA can found in the results of Hypothesis Two. As reported in Chapter Two, perfectionism has long been considered as pathological in nature. It has been asserted in literature that the self-criticism, never being satisfied with one’s performance, and unreasonable expectations of perfectionists create unhealthy psychological behavior. It has been claimed by Winner, Ashby, Rice and others that a moderate amount of perfectionism may be a healthy (adaptive) psychological driver for individual excellence. Although the Discrepancy scale of APS-R reflected a minority (less than 15%) as being adaptive perfectionists, 44.2% of the gifted were found to be maladaptive perfectionists. It could be argued that characteristics of maladaptive perfectionists would be counter to the self-acceptance of weaknesses principle that is the foundation of the subscale SA.

As noted in Chapter Four, there was a high standard deviation for the Gifted group in the SAV subscale. The histogram showed the Comparison group again clustered in a small range when compared to the Gifted group. The visual effect of the histogram is captured in a higher standard deviation for the Gifted group. It is the opinion of the PI that the higher standard deviation of the Gifted group may be the product of a higher level of non-conformity associated with the gifted in literature.

Almost Perfect Scale Revised (APS-R) Discrepancy Scale

The APS-R views perfectionism based on the adaptive nature of the individual. The thresholds for both the Discrepancy Scale and the High Standards scale have been recently modified. Based on cluster analysis and descriptive discriminate function analysis, the threshold for the Discrepancy Scale was lowered from 45 to 42 (84 possible points). Concurrently, the threshold of being labeled a perfectionist in High Standards Scale was raised from 37 to 42.²⁷² The PI conducted a survey of the participants' scores to determine the effect of changes on this study's scores. With twelve items, each valued at up seven points, the revised threshold of the Discrepancy Scale created the mathematic possibility that several additional individuals in the study could exceed the new threshold of Discrepancy scale to be labeled maladaptive perfectionist. However, the raising of minimum threshold of the High Standards scale to 42 caused a net reduction of two individuals labeled as a perfectionist (A score of 42 on High Standards scale is needed to activate the scoring of the Discrepancy scale). In a study by the PI of the two factors, the net result using the old scoring system would have increased the percentage differential of the Gifted group in relation to the Comparison group. Even using the new thresholds, the Gifted group contained a significantly larger group of maladaptive perfectionists than the Comparison group. The results of the Discrepancy scale do not support Hypothesis Two which states: There will be no significant difference in the scores of the Discrepancy scale of the Almost Perfect Scale-Revised (APS-R) between the Gifted and Comparison groups. The Discrepancy scale of the APS-R results found that 44.2% of the Gifted group and 31.4% were maladaptive perfectionists. Although the non-perfectionists reduced the

total population measured by the t-test, the remaining perfectionists of both the Gifted and Comparison groups exceed the minimum number of 30 required to use the independent t-test. Since the overall population of perfectionists was reduced, the p-value of the comparison between the two groups was reduced. The p-value of the test was <0.03 .

APS-R High Standards Scale

Hypothesis Three used the High Standards Scale of the APS-R to determine the level of perfectionism in the gifted group. As reported in Chapter Two, there is significant literature that suggests that perfectionism is common among the gifted. The mean for the gifted group in this study was significantly higher than the mean of the Comparison group. The mean of the gifted group is 41.86, nearly equal to the threshold number of 42 of the High Standards scale for being classed as a perfectionist in the APS-R. The Comparison group mean for this scale was 38.05. The p-value of independent comparing the means of the two groups for the High Standards scale results is <0.01 .

Friedman Well-Being Scale (FWBS)

As reported in Chapter Four, the composite of the five subscales of the FWBS were used in determining the outcome of Hypothesis Four. As previously discussed, the FWBS has only 23 items total and one of the subscales has only two items. Giving the same weight to a subscale of two items as the 127 items in the Inner Directed scale of the POI seemed irrelevant. The composite score of FWBS also was better match for the

language of the Hypothesis Four which states: There will be no significant difference between the scores of the gifted and non-gifted group on the Friedman Well-Being Scale (FWBS). The scores for the gifted group and Comparison group in this study were similar. The scores for both groups virtually matched the mean average score for the FWBS of 50. The t-test of the mean scores for the gifted and Comparison groups produce a p-value of <0.5 . The scores in this study on the FWBS support the contention of Hypothesis Four.

Discussion

Research Hypothesis # 1

The students in the gifted (study) group will demonstrate a higher level of self-actualization than the Comparison group as measured by the Personal Orientation Inventory (POI).

It was hypothesized that the gifted children that constituted the study group would have higher scores in the POI than the comparison group. As reported in Chapter Four, the study group had higher mean scores in both the major scales as well as all ten subscales. In both of the major scales and nine of the ten subscales, the study group had significantly higher means than the comparison group. When comparing the means of the two groups, independent t-tests produced p-values of <0.01 in both of the major scales and six of the ten subscales. Two other subscales had p-values of <0.02 —subscales *Existentiality (Ex)*—measures the ability to situationally react without rigid adherence to principles and *Capacity for Intimate Contact (c)*—measures the ability to develop intimate relationship with others, unencumbered by expectations or obligations

and the final subscale *Nature of Man—Constructive (Nc)*—measures the degree of constructive view of the nature of man had a p-value of <0.05 . The means and p-values of the POI in this study give strong support to Hypothesis One.

The results of the POI in this study support literature that suggests that gifted children have characteristics that could lead to self-actualization. The statistically significant difference between the two groups in eleven of the twelve scales and subscales sharply contrasts with the slight numerically higher results of the Self-Acceptance (SA) subscale. Strong internal drivers such as the “rage to master” that create unreasonable expectations and dissatisfaction with an individual’s performance common with perfectionism in the gifted discussed in Chapter Two could be an explanation for the SA subscale not producing a statistically significant difference in favor of the gifted group. The gifted group’s higher level of perfectionism in the High Standards scale as well as their higher level of maladaptive perfectionism in the Discrepancy scale of the APS-R could be seen as contributing to producing scores with no significant difference with the Comparison group in the SA subscale of POI. The SA subscale’s definition of accepting of one’s weaknesses appears to be contrary to the tendency of maladaptive perfectionist’s attitude to never being satisfied with self or performance.

Research Hypothesis # 2

There will be no significant difference in the scores of the Discrepancy subscale of the Almost Perfect Scale-Revised (APS-R) between the study and Comparison groups.

As discussed in Chapter Two, there has been recent literature and studies that suggests that the gifted are no more likely than the non-gifted to be a maladaptive

perfectionist. The results of Discrepancy scale of the APS-R in this study do not support the findings of the previous studies and literature. The gifted group had a significantly larger percentage reporting maladaptive perfectionism.

As reported in Chapter Two, the APS-R was designed to explore the theory that some levels of perfectionism are psychologically healthy. The idea of adaptive perfectionism rejects the conventional belief in literature that perfectionism is only pathological in nature. As reported earlier in this chapter, the methodology of scoring of the APS-R has changed. The change in the scoring methodology of APS-R is based on a correlation of APS-R scores with other instruments that measure aspects of perfectionism. They included the Multidimensional Perfectionism Scale (MPS), the Center for Epidemiologic Studies-Depression scale (CES-D), and the Satisfaction with Life Scale (SWLS).²⁷³ The resultant raising of the threshold for the High Standards scale and the lowering of the threshold for the Discrepancy scale makes direct comparisons with findings of past studies using the APS-R more difficult.

The chart for the Discrepancy scale in Chapter Four shows that a participant from the gifted group labeled as perfectionist is nearly four times more likely to be maladapted rather than adaptive. The comparison for the Comparison group showed that more than twice as many of the Comparison were maladaptive versus adaptive. The overall percentage of adaptive perfectionists for both groups was slightly more than 10 percent of the total population of perfectionists and non-perfectionist. It could be argued that the study is closer to supporting the conventional pathological view of perfectionism rather than the concept of adaptive perfectionism.

According to APS-R High Standards scale, a majority of study participants in the Comparison group and large minority of the gifted group were non-perfectionists. The term not applicable (N/A) was used to describe the non-perfectionists in the test. As previously described in this study, the Discrepancy scale is only calculated when the participant's score is 42 or greater in the High Standards scale of the APS-R.

Overall the results of the Discrepancy scale of the APS-R seem to contradict some of the literature cited in Chapter Two on the role and nature of perfectionism in the gifted. The recent changes in the thresholds call both past studies and this study into question. Additional studies should be undertaken to give a better base of comparison and information to validate the new thresholds.

Research Hypothesis # 3

The study group will score higher than the Comparison group on High Standards scale of the APS-R.

As reported in Chapter Four, the gifted group's mean average on the High Standards scale was 41.86, virtually identical to the threshold score for perfectionism in the High Standards scale. The mean for the Comparison group was 38.05. The histogram and the mean for the High Standards clearly support Hypothesis Three. The p-value for the independent t-test is <0.01 .

As reported in Chapter Two, the literature suggests that the intrinsic driver of the gifted can reveal itself as perfectionism. In this study, 56.7% of the gifted group reached or exceeded the perfectionist's threshold of 42. If the former threshold of 37 is used, the percent of gifted rises to over 80%. These numbers suggest that the role of perfectionism as a driver in the gifted of this study is significant.

Research Hypothesis # 4

There will no significant difference between the scores of the study and comparison group on the Friedman Well-Being Scale (FWBS).

The literature in Chapter Two suggests that the gifted children have similar psychological and social issues as their non-gifted cohorts. Winner maintains that despite the ability of the gifted to scaffold without significant adult help to high levels of competence in their area of giftedness, the gifted are affected by similar issues as other children. The Friedman Well-Being Scale was included to investigate the participants' own view of their level of well being. The scores of the two groups on the FWBS were virtually the same. The results of the FWBS support Hypothesis Four.

The histogram for the FWBS shows the largest number of both the gifted and comparison group clustered around the mean average adult score of 50. The mean score also reflect a near average adult mean of 49.26 for the gifted group and 48.75 for the Comparison group. This suggests that despite their brilliance in one or more fields, the gifted appear to view themselves as being average when it comes to their state of psychological well-being.

Conclusion

The results of the tests used in this study support three of the four hypotheses outlined in Chapter One. The three hypotheses that were supported by the study had strong statistical support. Most of the t-tests for Hypotheses One and Two were <0.01 . Hypothesis Three failed with the ratio of maladaptive to adaptive gifted perfectionists being approximately four to one. The p-value of the independent t-test for Hypothesis

Three was <0.03 . The FWBS results were virtually same for both groups for Hypothesis Four. This supported the contention in Hypothesis Four that there would be no significant difference between the groups.

As a cautionary note, the results of this study should take into account that even though there is a state mandated gifted program, the entrance requirements and the comprehensiveness of the individual district programs vary. Circumstances that may qualify a child as gifted in one district, may not apply in another. In addition, the selection of special education cooperatives was a sample of convenience rather than a representative sample.

Study Improvements

The participants in the study came from small sized school districts in the State of Kansas. The study became a sample of opportunity. Even though attempts were made to recruit large sized school districts in both urban and larger towns of Kansas, the opportunities in larger school districts failed to materialize because of their more structured and complex approval processes. The economic conditions and the budget crisis of many schools were cited by several school administrators as being a factor in not participating. Finding school districts that were open to an outside agent conducting a study rather than obtaining a cross section of the student population became the paramount issue in selecting students. A number of administrators suggested that limited resources including staff entered into their decision not to participate. A larger numeric sample from various sized schools and socioeconomic environments could have given more statistical validity to the study.

The nature of the educational cooperatives is generally small school populations from consolidated rural and small town school districts that take advantage of the combined resources to provide services beyond the financial reach of a small individual school district. As example, the Southeast Saline County School District had 16 children enrolled in their high school gifted program. In contrast, the Blue Valley School District in suburban Johnson County had over 400 students in the age range of 16-18 years-old enrolled in their gifted program. The 400 students in the Blue Valley School District more than doubled the 170 high school students enrolled in the 12 school districts of the Central Kansas Cooperative. The PI was especially disappointed to have lost the opportunity to test in the urban Kansas City, Kansas school district. The building (Sumner Academy) had over 100 high school students enrolled in the gifted program. The school population of Sumner was dominated by students of Hispanic and African-American ethnicity. The PI believes that the urban and ethnic background would have introduced more variables to the study.

The second suggested area of improvement is incorporating a more robust demographic and socioeconomic questionnaire and the inclusion of the questionnaire as a more integral part of the study. The six items and seven questions of the instrument had no purpose other than capturing basic information of the participants such as race, sex, age, and religious preference of the student as well as the education and marital status of their parents. No attempt was made to correlate with any of the other instruments in the study or analyze the data gathered from the questionnaire.

The final area of improvement involved the taking or mailing home of the questionnaire produced mixed results in returning the document. An estimated one third

of the questionnaires were not returned and had to be filled out prior to the beginning of testing. This defeated the idea of saving time on the testing day by completing the questionnaire at home and disrupted the organization of the testing. The students that had filled out the questionnaire prior to test time had to wait for the others that did not have the questionnaire completed. In addition the concern for having enough time for the test that precipitated the sending home of the questionnaire proved to be groundless as all students completed the test in allotted time of 55 minutes or less.

Suggestions for Future Research

Research into the process of self-actualization has been limited. This study represented a snapshot of the level of self-actualization of a small group of individuals from a single state in the center of the United States and was limited to public school students from small towns or rural school districts. A geographic and socioeconomic broadening of the scope of the study to include students from all areas of the United States and types of schools would give a more diverse body of data to study. Further studies of individuals at various stage of adult life would give snapshots of the development of self-actualization.

As reported in Chapter Two, Maslow theorized that self-actualization represented good mental health. While he described the aspects of what constituted self actualization, Maslow never revealed what caused an individual to become self-actualized. Maslow's death left many questions about the path to self-actualization. Thus, a longitudinal study of a group of participants over a long period of time from children through older adults could be useful in defining the path of self-actualization and what factors contributed to Maslow's first models of self-actualization, Ruth Benedict and Max Wertheimer

becoming self-actualized. As a supplement to longitudinal studies, more in depth studies of individuals identified as self-actualized would also give an understanding of the process. The study by Eugene Hightower reported in Chapter Two is a good example of the style of study that would provide insight into what makes these individuals who and what they are.²⁷⁴ In Hightower's study, the POI was used to identify self-actualized individuals. The individuals were then asked to write an essay on their values, lifestyle, and philosophy. The PI believes that the information from such a process would give insights into self-actualization that standardized testing does not provide. If self-actualization is the epitome of mental health that Maslow suggested, obtaining an understanding of the process and common factors that are a part of the process should be of paramount importance to society in general and the psychological community in particular.

Final Word

The literature reviewed in Chapter Two suggests that only a small percentage of adults reach the state of self-actualization. Free of defensive and reactive responses, the self actualized individuals are psychologically healthier than the general population. It would seem that it would be in humankind's best interest to encourage development of these fully functioning individuals. Finding the blueprint to improve the quality life through self-actualization should be given the same importance as finding a cure to the next devastating virus. What if we double, triple, or quadruple the amount of individuals that function at the level of self-actualization? What impact would this have on humankind?

Endnotes:

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APPENDIX A
Personal Orientation Inventory (POI) Data

Comparison Group = 0; Gifted Group = 1

Code	Number	Score
0	101	51
0	102	47
0	103	55
0	104	54
0	105	50
0	106	55
0	107	53
0	108	52
0	109	48
0	110	51
0	111	52
0	112	49
0	113	50
0	114	54
0	115	50
0	116	51
0	117	51
0	118	50
0	119	48
0	120	52
0	121	39
0	122	55
0	123	53
0	124	50
0	125	50
0	126	52
0	127	51
0	128	58
0	129	46
0	130	50
0	131	38
0	132	47
0	133	44
0	134	56
0	135	44
0	136	52
0	137	40
0	138	57
0	139	46
0	140	50
0	141	47
0	142	49

0	143	54
0	144	40
0	145	56
0	146	45
0	147	50
0	148	49
0	149	44
0	150	56
0	151	49
0	152	49
0	153	38
0	154	46
0	155	46
0	156	47
0	157	49
0	158	40
0	159	56
0	160	43
0	161	44
0	162	49
0	163	39
0	164	50
0	165	45
0	166	44
0	167	51
0	168	50
0	169	48
0	170	46
0	171	55
0	172	56
0	173	39
0	174	48
0	175	50
0	176	48
0	177	52
0	178	50
0	179	47
0	180	45
0	181	47
0	182	56
0	183	50
0	184	47
0	185	48
0	186	39
0	187	57
0	188	45
0	189	48
0	190	49
0	191	49
0	192	55

0	193	46
0	194	51
0	195	38
0	196	48
0	197	53
0	198	40
0	199	51
0	200	49
0	201	46
0	202	50
1	101	51
1	102	55
1	103	46
1	104	49
1	105	39
1	106	59
1	107	45
1	108	51
1	109	55
1	110	46
1	111	49
1	112	48
1	113	53
1	114	39
1	115	44
1	116	58
1	117	53
1	118	54
1	119	51
1	120	46
1	121	49
1	122	46
1	123	51
1	124	37
1	125	52
1	126	48
1	127	55
1	128	48
1	129	50
1	130	39
1	131	45
1	132	52
1	133	49
1	134	52
1	135	51
1	136	51
1	137	54
1	138	39
1	139	45
1	140	56

1	141	51
1	142	47
1	143	45
1	144	53
1	145	50
1	146	49
1	147	57
1	148	52
1	149	40
1	150	51
1	151	49
1	152	61
1	153	54
1	154	52
1	155	46
1	156	46
1	157	40
1	158	54
1	159	50
1	160	44
1	161	47
1	162	58
1	163	50
1	164	53
1	165	40
1	166	53
1	167	47
1	168	53
1	169	48
1	170	45
1	171	59
1	172	46
1	173	54
1	174	53
1	175	48
1	176	49
1	177	38
1	178	59
1	179	54
1	180	51
1	181	47
1	182	48
1	183	41
1	184	53
1	185	52
1	186	49
1	187	53
1	188	55
1	189	47
1	190	51

1	191	44
1	192	55
1	193	40
1	194	48
1	195	50
1	196	45
1	197	57
1	198	45
1	199	47
1	200	49
1	201	56
1	202	39
1	203	47
1	204	49

APPENDIX B
Almost Perfect Scale Revised (APSR) Data

Comparison Group = 0; Gifted Group = 1

Code	Number	Score 1	Letter 1	Score 2	Letter 2
0	101	40	N	N/A	N/A
0	102	45	P	63	M
0	103	42	P	71	M
0	104	37	N	N/A	N/A
0	105	17	N	N/A	N/A
0	106	49	P	38	A
0	107	27	N	N/A	N/A
0	108	44	P	55	M
0	109	45	P	53	M
0	110	38	N	N/A	N/A
0	111	44	P	51	M
0	112	41	N	N/A	N/A
0	113	48	P	37	A
0	114	48	P	44	M
0	115	18	N	N/A	N/A
0	116	39	N	N/A	N/A
0	117	47	P	42	M
0	118	40	N	N/A	N/A
0	119	43	P	49	M
0	120	40	N	N/A	N/A
0	121	26	N	N/A	N/A
0	122	27	N	N/A	N/A
0	123	40	N	N/A	N/A
0	124	45	P	39	A
0	125	37	N	N/A	N/A
0	126	49	P	37	A
0	127	42	P	47	M
0	128	39	N	N/A	N/A
0	129	43	P	41	A
0	130	26	N	N/A	N/A
0	131	39	N	N/A	N/A
0	132	34	N	N/A	N/A
0	133	43	P	47	M
0	134	17	N	N/A	N/A
0	135	48	P	35	A
0	136	30	N	N/A	N/A
0	137	45	P	55	M
0	138	40	N	N/A	N/A
0	139	43	P	52	M
0	140	35	N	N/A	N/A
0	141	20	N	N/A	N/A

0	142	40	N	N/A	N/A
0	143	44	P	43	M
0	144	36	N	N/A	N/A
0	145	24	N	N/A	N/A
0	146	48	P	45	M
0	147	46	P	51	M
0	148	46	P	44	M
0	149	38	N	N/A	N/A
0	150	38	N	N/A	N/A
0	151	22	N	N/A	N/A
0	152	40	N	N/A	N/A
0	153	45	P	42	M
0	154	42	P	47	M
0	155	24	N	N/A	N/A
0	156	36	N	N/A	N/A
0	157	48	P	34	A
0	158	42	P	55	M
0	159	42	P	58	M
0	160	35	N	N/A	N/A
0	161	23	N	N/A	N/A
0	162	44	P	45	M
0	163	38	N	N/A	N/A
0	164	23	N	N/A	N/A
0	165	49	P	36	A
0	166	42	P	33	A
0	167	44	P	43	M
0	168	42	P	46	M
0	169	42	P	41	A
0	170	20	N	N/A	N/A
0	171	39	N	N/A	N/A
0	172	43	P	47	M
0	173	45	P	46	M
0	174	44	P	47	M
0	175	23	N	N/A	N/A
0	176	42	P	33	A
0	177	44	P	46	M
0	178	49	P	40	A
0	179	20	N	N/A	N/A
0	180	41	N	N/A	N/A
0	181	40	N	N/A	N/A
0	182	41	N	N/A	N/A
0	183	45	P	45	M
0	184	19	N	N/A	N/A
0	185	41	N	N/A	N/A
0	186	24	N	N/A	N/A
0	187	44	P	46	M
0	188	43	P	42	M
0	189	39	N	N/A	N/A
0	190	43	P	35	A
0	191	28	N	N/A	N/A

0	192	43	P	37	A
0	193	43	P	45	M
0	194	26	N	N/A	N/A
0	195	41	N	N/A	N/A
0	196	41	N	N/A	N/A
0	197	27	N	N/A	N/A
0	198	34	N	N/A	N/A
0	199	48	P	35	A
0	200	40	N	N/A	N/A
0	201	33	N	N/A	N/A
0	202	45	P	44	M
1	101	41	N	N/A	N/A
1	102	45	P	47	M
1	103	44	P	50	M
1	104	42	P	53	M
1	105	22	N	N/A	N/A
1	106	49	P	41	A
1	107	24	N	N/A	N/A
1	108	41	N	N/A	N/A
1	109	44	P	46	M
1	110	42	P	59	M
1	111	45	P	49	M
1	112	49	P	41	A
1	113	46	P	49	M
1	114	49	P	40	A
1	115	39	N	N/A	N/A
1	116	43	P	60	M
1	117	43	P	49	M
1	118	41	N	N/A	N/A
1	119	49	P	39	A
1	120	40	N	N/A	N/A
1	121	34	N	N/A	N/A
1	122	41	N	N/A	N/A
1	123	31	N	N/A	N/A
1	124	44	P	49	M
1	125	43	P	46	M
1	126	46	P	50	M
1	127	29	N	N/A	N/A
1	128	40	N	N/A	N/A
1	129	49	P	41	A
1	130	45	P	59	M
1	131	35	N	N/A	N/A
1	132	34	N	N/A	N/A
1	133	35	N	N/A	N/A
1	134	43	P	49	M
1	135	33	N	N/A	N/A
1	136	35	N	N/A	N/A
1	137	36	N	N/A	N/A
1	138	44	P	55	M
1	139	48	P	35	A

1	140	44	P	62	M
1	141	48	P	46	M
1	142	46	P	38	A
1	143	35	N	N/A	N/A
1	144	44	P	51	M
1	145	35	N	N/A	N/A
1	146	47	P	39	A
1	147	44	P	47	M
1	148	45	P	44	M
1	149	41	N	N/A	N/A
1	150	39	N	N/A	N/A
1	151	46	P	41	A
1	152	40	N	N/A	N/A
1	153	46	P	52	M
1	154	45	P	58	M
1	155	36	N	N/A	N/A
1	156	46	P	50	M
1	157	40	N	N/A	N/A
1	158	46	P	48	M
1	159	41	N	N/A	N/A
1	160	39	N	N/A	N/A
1	161	46	P	45	M
1	162	41	N	N/A	N/A
1	163	42	P	56	M
1	164	34	N	N/A	N/A
1	165	41	N	N/A	N/A
1	166	39	N	N/A	N/A
1	167	42	P	58	M
1	168	45	P	47	M
1	169	47	P	40	A
1	170	45	P	45	M
1	171	45	P	55	M
1	172	41	N	N/A	N/A
1	173	36	N	N/A	N/A
1	174	48	P	38	A
1	175	37	N	N/A	N/A
1	176	44	P	49	M
1	177	31	N	N/A	N/A
1	178	47	P	35	A
1	179	38	N	N/A	N/A
1	180	43	P	49	M
1	181	41	N	N/A	N/A
1	182	45	P	53	M
1	183	45	P	56	M
1	184	49	P	40	M
1	185	42	P	55	M
1	186	39	N	N/A	N/A
1	187	43	P	65	M
1	188	40	N	N/A	N/A
1	189	49	P	35	A

1	190	45	P	53	M
1	191	47	P	49	M
1	192	45	N	N/A	N/A
1	193	40	N	N/A	N/A
1	194	41	N	N/A	N/A
1	195	36	N	N/A	N/A
1	196	42	P	63	M
1	197	45	P	56	M
1	198	46	P	54	M
1	199	49	P	52	M
1	200	45	P	51	M
1	201	39	N	N/A	N/A
1	202	41	N	N/A	N/A
1	203	45	P	55	M
1	204	46	P	55	M

APPENDIX C
Friedman Well-Being Scale (FWBS) Data

Comparison Group = 0; Gifted Group = 1

Code	Number	Score
0	101	51
0	102	47
0	103	55
0	104	54
0	105	50
0	106	55
0	107	53
0	108	52
0	109	48
0	110	51
0	111	52
0	112	49
0	113	50
0	114	54
0	115	50
0	116	51
0	117	51
0	118	50
0	119	48
0	120	52
0	121	39
0	122	55
0	123	53
0	124	50
0	125	50
0	126	52
0	127	51
0	128	58
0	129	46
0	130	50
0	131	38
0	132	47
0	133	44
0	134	56
0	135	44
0	136	52
0	137	40
0	138	57
0	139	46
0	140	50
0	141	47
0	142	49

0	143	54
0	144	40
0	145	56
0	146	45
0	147	50
0	148	49
0	149	44
0	150	56
0	151	49
0	152	49
0	153	38
0	154	46
0	155	46
0	156	47
0	157	49
0	158	40
0	159	56
0	160	43
0	161	44
0	162	49
0	163	39
0	164	50
0	165	45
0	166	44
0	167	51
0	168	50
0	169	48
0	170	46
0	171	55
0	172	56
0	173	39
0	174	48
0	175	50
0	176	48
0	177	52
0	178	50
0	179	47
0	180	45
0	181	47
0	182	56
0	183	50
0	184	47
0	185	48
0	186	39
0	187	57
0	188	45
0	189	48
0	190	49
0	191	49
0	192	55

0	193	46
0	194	51
0	195	38
0	196	48
0	197	53
0	198	40
0	199	51
0	200	49
0	201	46
0	202	50
1	101	51
1	102	55
1	103	46
1	104	49
1	105	39
1	106	59
1	107	45
1	108	51
1	109	55
1	110	46
1	111	49
1	112	48
1	113	53
1	114	39
1	115	44
1	116	58
1	117	53
1	118	54
1	119	51
1	120	46
1	121	49
1	122	46
1	123	51
1	124	37
1	125	52
1	126	48
1	127	55
1	128	48
1	129	50
1	130	39
1	131	45
1	132	52
1	133	49
1	134	52
1	135	51
1	136	51
1	137	54
1	138	39
1	139	45
1	140	56

1	141	51
1	142	47
1	143	45
1	144	53
1	145	50
1	146	49
1	147	57
1	148	52
1	149	40
1	150	51
1	151	49
1	152	61
1	153	54
1	154	52
1	155	46
1	156	46
1	157	40
1	158	54
1	159	50
1	160	44
1	161	47
1	162	58
1	163	50
1	164	53
1	165	40
1	166	53
1	167	47
1	168	53
1	169	48
1	170	45
1	171	59
1	172	46
1	173	54
1	174	53
1	175	48
1	176	49
1	177	38
1	178	59
1	179	54
1	180	51
1	181	47
1	182	48
1	183	41
1	184	53
1	185	52
1	186	49
1	187	53
1	188	55
1	189	47
1	190	51

1	191	44
1	192	55
1	193	40
1	194	48
1	195	50
1	196	45
1	197	57
1	198	45
1	199	47
1	200	49
1	201	56
1	202	39
1	203	47
1	204	49

APPENDIX D
Protocol for Expedited Review of Research

PROTOCOL FOR EXPEDITED REVIEW OF RESEARCH

Title of Research: A Study of Self-Actualization of Gifted Children in Public High School Programs.

Background and Theoretical Framework:

The concept of self-actualization has been in existence for more than fifty years. Psychologist Abraham Maslow developed the concept and described self-actualized individuals as: 1) reality oriented, 2) accepting themselves and others, 3) enjoying solitude, 4) operating autonomously, 5) appreciating life, 6) not egocentric (detached), 7) humorous, 8) resistant to cultural beliefs, 9) accepting of imperfections, 10) able to transcend dichotomies, 11) having a desire to help, 12) being efficient, and 13) spontaneously engaged in attempts to solve social problems. Maslow and others that researched the concept generally studied individuals that had reached middle age. There have been only a few published studies that have investigated the level of self-actualization in children. The number of published studies specifically involving the self-actualization of gifted children has been even fewer. Maslow proposed that self-actualization was a process and individuals moved incrementally through time to self-actualization. The few studies of self-actualization of gifted children have either investigated the level of actualization by grade level or the variable of development by the sex of the child. There have been no known studies of gifted children in the United States that have compared the level of self-actualization of the gifted children with general student population.

Gifted children have been reported to have characteristics that could be supportive of the development of self-actualization. The gifted tend to be more: 1) intrinsically driven, 2) independent, 3) nonconformist, 4) socially conscious, 5) willful, 6) sensitive to a wider range of stimuli, and 7) have more intense experiences of stimuli (overexcitabilities). Although the attributes of the gifted suggest that they have the potential to be more self-actualized, there have been no published scientific studies to support any

relationship between giftedness and higher levels of self actualization in children. Maslow's concept of self-actualization suggests that self-actualization is an incremental process that culminates with a few individuals reaching the epitome of mental health (self actualization), generally by middle age or later. There are no known longitudinal studies on whether or not the attainment of self actualization has permanency. It is the intent of this study to investigate if giftedness impacts the level of self-actualization.

Study Design:

The outcome measures of the study will consist of four parts. They are: 1) the Personal Orientation Inventory (POI), 2) the Almost Perfect Scale-Revised (APS-R), 3) the Friedman Well-Being Scale (FWBS), and 4) a demographic and biographic questionnaire designed by the principal investigator (PI). The gifted group and a group of students not enrolled in a gifted match by sex and age between 16 and 18 years of age will be compared in the study.

Population: Students, male and female, age 16 - 18

This study is designed to sample a cross-section of the student population, male and female born between 1990 and 1992, from one or more public high schools. Participants will be recruited from schools with a gifted program and the general student population.

Inclusion Criteria:

- Enrolled in a public high school
- Between 16-18 years of age at the time of testing

Exclusion Criteria:

- Born before 1990
- Born in 1993 or after
- Not enrolled in a public school

List Potential Risks/Safety:

The POI has been used in personality assessments for five decades. The bibliography of references in the POI handbook lists over 600 entries from peer reviewed journals and doctoral dissertations written between 1974 and 1990. The APS-R and FWBS have been extensively used and reviewed by peer journals for over 10 years. There are no potential risks known.

Discontinuation Criteria for Subjects:

- 1) A participant may withdraw from the study at any time at his or her request.
- 2) If a participant fails to return the consent form or questionnaire within seven days, the Principal Investigator (PI) will withdraw the participant from the study.
- 3) If the participant withdraws or is discontinued from the study before its completion, the date of withdrawal and reason will be recorded and reported to the IRB.

Tests to be Used:

1. The Personal Orientation Inventory (POI)

The POI is a psychometric instrument created by Everett Shostrom to assess the level of personal self-fulfillment as described in the concept of self-actualization. Shostrom combined his own understanding of self-actualization with the concepts of Abraham Maslow, Carl Rogers, Fritz Perls and others in designing the POI. Maslow described self actualization as the epitome of mental health where the inner self expresses itself freely and fear and compulsiveness are reduced to minimal levels. Maslow wrote that the POI was a fair representation of his concept of self-actualization.

The POI was created in 1962 and uses 150 paired items with a forced choice design that reflects characteristics and principals that Shostrom considered important in the development of self-actualization in individuals. The test incorporates Humanistic, Existential, and Gestalt schools of psychology. The test is divided into two major scales, Time Competence and Inner-Directed. The Time Competence scale reflects the degree that an individual lives in the now rather than the past or future. The Inner-Directed scale measures the extent that an individual is guided by internalized principles and motivations rather than by peer or other external influences. The test is further divided into 10 subscales that are as follows: 1) Self-

Regard, 2) Self-Acceptance, 3) Spontaneity, 4) Nature of Man—Constructive, 5) Acceptance of Aggression, 6) Capacity for Intimate Contact, 7) Synergy, 8) Feeling Reactivity, 9) Existentiality, and 10) Self-Actualizing Value. These subscales represent aspects of being that Shostrom described as components of self actualization. The POI is available through EdITS, San Diego, CA which will provide computerized scoring for this study (phone 619-222-1666).

2. The Almost Perfect Scale-Revised (APS-R) is a 23 item instrument developed by psychologists Robert Slaney, Kenneth Rice and Jeffrey Ashby. The instrument has three subscales: 1) the High Standards subscale of seven items that measure adaptive perfectionism values, 2) the Discrepancy subscale has twelve items that measure the characteristics associated with maladaptive perfectionism, and 3) the Order subscale has four items that measure preferences for order and organization. The APS-R is being used to investigate the role of perfectionism in the behavior development of the gifted and their cohorts in the control group. The PI has been given permission to use the APS-R by the authors of the test.

3. The Friedman Well Being Scale (FWBS) has twenty items and measures self-esteem, sociability, happiness, joviality and emotional stability. According to Maslow, self-esteem and self acceptance are precursors to self-actualization. The Self-Esteem/Self Confidence subscale of the FWBS offers additional perspective to the POI on self-esteem. The FWBS is available commercially through several sources including Mind Garden in Menlo Park, CA (Phone 650-322-6300).

4. A short questionnaire has been developed by the Principal Investigator requesting demographic and biographic information as well as relevant data. The biographic data questions contain impersonal facts such as educational, marital, and economic background of the parents, as well as the ethnicity and religious affiliation of the participant.

Consent Form for Participants:

The Informed Consent form is included at the end of this form as Appendix A. Participants who are age 16 or 17 will require a signed parental consent to participate in the study.

Protocol Monitoring:

Pre-Inclusion Screening

Participants will be contacted through the school administration and staff. The PI will inquire about the inclusion and exclusion criteria of age (birth date). If the potential participant does not meet the age criteria, they will be thanked for their interest and told that they were not eligible for the study. If the participant is eligible, they will be given a confirmation and consent form.

Testing:

All assessment instruments will be administered to the research subjects in one session encompassing approximately one hour. The participants will be recruited from classes designated by the participating school administrators and staff. The projected number of participants for each group will be more than 100 to provide for at least 100 participants for statistical analysis. The demographic questionnaire will be given first, followed by the APS-R, the FWBS and the POI. Each participant will be assigned a code number to assure anonymity of the individual in the analysis and reporting segments of the study. The students from the gifted will have a code number that begins with the number 1, while the control group's code number will begin with the number 2. The identification of a participant's code number will be known only by the Primary Investigator.

Research Intervention:

Not Applicable

Post- tests:

Not Applicable

Monitoring Personnel for Research:

Chair of Dissertation:

Berney Williams, Ph.D.

List Primary Researcher and any assistants:

Primary researcher—Brad Masters, B.A., Th.D. Candidate

Assistants—Office assistants may be used to help with administrative duties, but the PI will have responsibility for all correspondence sent and received whether in e-mail or via the postal service.

Research Results:

Analysis

Mean scores and variables will be analyzed independently by Bryant Statistical Consulting.

Confidentiality Statement

The following statement of confidentiality is included as part of the informed consent form.

“Your participation in this study and any forms or reports generated will be held in strict confidence. We assure you that your name will not be associated in any way with the research findings. The information will be identified only by a code number. Results of the study may be reported in scientific presentations and publications, but you will not be identified. Any data from this study will only be represented as group averages, as opposed to data from any given individual, which further will safeguard the confidentiality of participants.”

Method of sharing results with research participants

Participants will be asked if they would like a summary of the study results upon completion of the dissertation. Those interested will be sent a printed report of the major points of interest generated by the questionnaire such as results, averages, background information, and a discussion of inferences that may be drawn for the results. All participants will be informed that the entire dissertation will be available on line at <http://holosuniversity.org/> if they wish to read the entire contents.

You are required to submit reports quarterly to the Institutional Review Board (IRB) plus a final report, documenting your results. Fee for submission of your Protocol to the IRB for an Expedited Review is \$200.00 U. S. currency. Please make check to Holos Institutes of Health.

November 2, 2008

APPENDIX E
Almost Perfect Scale – Revised (APSR) Test

The following items are designed to measure attitudes people have towards themselves, their performance, and towards others. There no right or wrong answers. Please respond to all answers. Use your first impression and do not spend too much time on individual items in responding. Circle the number on each question that best describes your degree of agreement on each question. The number representing your degree of agreement is listed is listed below:

Strongly Disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

1. I have high standards for my performance at work or school. 1 2 3 4 5 6 7
2. I am an orderly person. 1 2 3 4 5 6 7
3. I often feel frustrated because I can't meet my goals. 1 2 3 4 5 6 7
4. Neatness is important to me. 1 2 3 4 5 6 7
5. If you don't expect much out of yourself you will never succeed. 1 2 3 4 5 6 7
6. My best never seems to be good enough for me. 1 2 3 4 5 6 7
7. I think things should be put away in their place. 1 2 3 4 5 6 7
8. I have high expectations for myself. 1 2 3 4 5 6 7
9. I rarely live up to my high standards. 1 2 3 4 5 6 7
10. I like to always be organized and disciplined. 1 2 3 4 5 6 7
11. Doing my best never seems to be good enough. 1 2 3 4 5 6 7
12. I set very high standards for myself. 1 2 3 4 5 6 7
13. I am never satisfied with my accomplishments. 1 2 3 4 5 6 7
14. I expect the best from myself. 1 2 3 4 5 6 7
15. I often worry about not measuring up to my own expectations. 1 2 3 4 5 6 7
16. My performance rarely measures up to my standards. 1 2 3 4 5 6 7
17. I am not satisfied even when I know I have done my best. 1 2 3 4 5 6 7
18. I am seldom able to selfdom able to meet my own standards of performance. 1 2 3 4 5 6 7
19. I try to do my best at everything I do. 1 2 3 4 5 6 7

20. I am hardly ever satisfied with my performance. 1 2 3 4 5 6 7
21. I hardly ever feel that what I have done is good enough. 1 2 3 4 5 6 7
22. I have a strong need to strive for excellence. 1 2 3 4 5 6 7
23. I often feel disappointed after completing a task because I know I could have done better. 1 2 3 4 5 6 7

APPENDIX F
Demographic and Socioeconomic Questionnaire

1) Are you Male or Female?

- Male
- Female

1a) What is your age?

- 16
- 17
- 18

2) What is the highest level of education your mother completed?

- Less than High School
- High School or GED
- Some College
- 2-year College Degree (Associates)
- 4-year College Degree (BA, BS)
- Masters
- Doctoral
- Professional (MD, JD)

3) What is the highest level of education you father completed?

- Less than High School
- High School of GED
- Some College
- 2-year College Degree (Associates)
- 4-year College Degree (BA, BS)
- Masters
- Doctoral
- Professional (MD, JD)

4) What is your Race?

- White
- White, non-Hispanic
- Hispanic
- African-American
- Asia-Pacific-Islander
- Native American

5) What is your religious affiliation?

- Protestant Christian
- Roman Catholic
- Evangelical Christian
- Jewish
- Muslim
- Hindu
- Buddhist
- Other
- None

6) What is the marital status of your parents?

- Single, Never Married
- Married
- Separated
- Divorced
- Divorced, one or both parents remarried
- Widowed